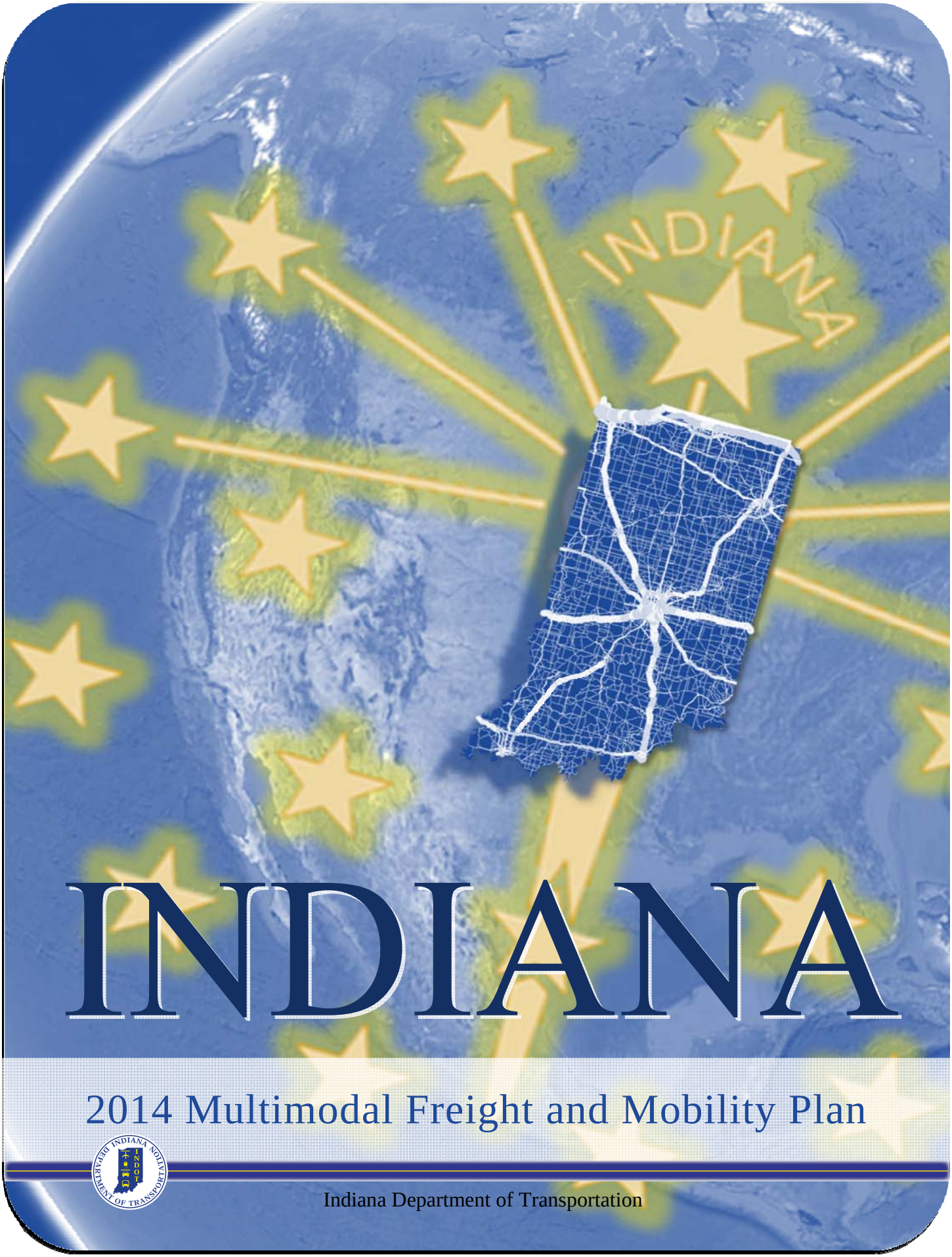

INDIANA

2014 Multimodal Freight and Mobility Plan

Indiana Department of Transportation

INDIANA
Multimodal Freight and Mobility Plan

"People in logistics know we're in the middle of everywhere, the heart of the heartland, If you're going to be the 'Crossroads of America,' you have to have the infrastructure to back it up."

- Indiana Governor Mike Pence

Indiana Multimodal Freight and Mobility Plan

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INDOT Mission

INDOT will plan, build, maintain and operate a superior transportation system enhancing safety, mobility and economic growth.

INDOT Goals

- *Deliver Capital Program projects in accordance with key performance indicators and INDOT performance measures.*
- *Publish and implement a plan, consistent with the funds available, that maintains steady improvement in pavement and bridge quality. Proactively communicate and market the plan to internal and external stakeholders defining the value of preservation.*
- *Ensure a commitment to safety throughout the agency. Meet departmental safety goals for both internal employees and external customers.*
- *Implement a talent management system that links strategy and operations to results.*
- *Establish a culture of continuous improvement that is consistent with performance of a 21st century organization. Reduce operational and construction expenses that will ultimately save the taxpayers money and channel more dollars to capital investments.*
- *Improve internal and external customer satisfaction by providing timely responses with quality products and services. Take an outside in view by identifying customers, understanding their expectations and creating internal alignment to ensure the highest level of customer (stakeholder) service.*

1

Multimodal Freight and Mobility Plan

Section 1: Introduction & Overview

In This Section:

It has been said that "Freight Movement is the Economy in Motion." Transportation is critical in supporting economic vitality and quality of life for all Hoosiers. Transportation is also essential for the thousands of manufacturing, retail, wholesale and agricultural businesses within the state. Transportation acts as a lifeline for moving raw materials to and from manufacturing facilities, farm produce to processing facilities and markets, and finished products to distributors or customers. Freight transportation infrastructure, which is reliable, efficient and safe, is critical to Indiana's economy and way of life. All modes of freight transportation - roadway, rail, water, air and pipeline - are necessary and play vital functions in moving a myriad of goods and commodities and supporting the service industries.

Crossroads of America

Indiana is known as the "Crossroads of America". This signifies the importance of railroads, highways, waterways and other transportation facilities in the state, viewed by many as some of the finest in the nation. With its central location and significant assets to facilitate the transportation of goods across the country and around the world, Indiana has solid infrastructure and geographic advantages to move freight across the state, the nation and around the world.

Conexus Indiana

This Multimodal Freight and Mobility Plan will address questions that are critical to planning for the future of the Indiana freight system:

1) **What is the current state of the Indiana transportation system?** What are the components of the system? How are they classified? What are the current demands? How does INDOT measure performance?
2) **What are the Stakeholders in the Freight/Logistics industries telling us?** Who are the stakeholders? How does INDOT engage them? What has INDOT learned from this process?
3) **What are the economic drivers for freight?** What's happening in terms of economic growth? What are the national economic trends driving freight demand? How do infrastructure investments affect freight/logistics operations and how does this affect the Indiana economy? How does INDOT measure and consider these impacts when making decisions?
4) **What actions will INDOT take?** Projects being evaluated or developed. Changes to INDOT policies. What are the financing mechanisms?

This report will cover each of these questions. This Multimodal Freight and Mobility Plan will continue to evolve and be amended and updated, and incorporate the requirements of MAP-21. Freight mobility needs will be re-evaluated based on available data, quantitative analysis, public input, and stakeholder involvement.

Goals & Objectives

The Plan's goals are:

- Reduce bottlenecks to improve the reliability and efficiency of freight movement, leading to less congestion, fewer infrastructure repairs, and lower emissions;
- Ensure global access by connecting Indiana cities based on impact and potential to Interstate-like access;
- Create better connectivity to Indiana's water ports via road and rail modes, and improve the reliability and efficiency of water freight movement;
- Develop a fast and efficient process for delivering projects to support unplanned economic development opportunities;
- Develop and implement transportation networks that support direct truck and rail access, and air cargo expansion, leading to the improvement and establishment of multimodal and intermodal service and air cargo facilities.

Indiana's transportation network can be improved to: eliminate transportation "bottlenecks" - notably highway and rail; provide more direct rail service; take advantage of air facilities with excess capacity; improve intermodal connectivity (e.g. road - rail; road - water; road - air; rail - water); upgrade lock and dam infrastructure; and, dredge shipping channels to maximize the efficiency of barges and ships. This Plan provides the opportunity to reduce costs, improve freight movement efficiency, address safety issues, minimize environmental impacts, and support fully the productivity of Indiana business.

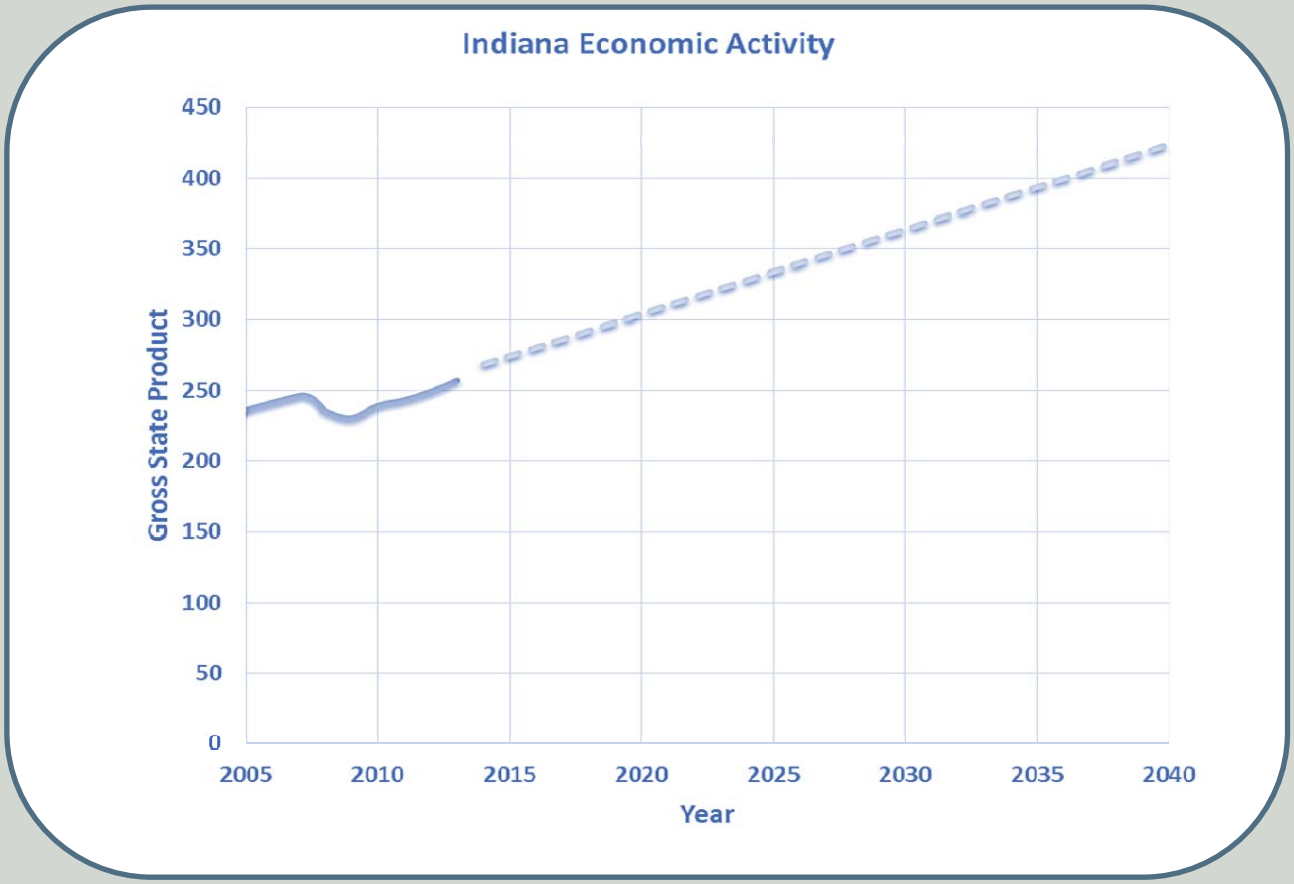
The Indiana Context

Indiana's freight transportation system underpins the State's $250 billion economy and its three million jobs. Prior to the recession, Indiana historically lagged behind the nation's economic growth rate. Since mid-2009, Indiana's growth has either been on par or stronger than the national rate. Since 2009 Indiana's labor market has mostly outperformed the nation as a whole, especially during the early part of the recovery period. In 2012, Indiana benefited from strong growth in manufacturing payroll employment, pushing Indiana's growth rate above 2%, compared to the nation's 1.6%. Indiana's gross state product (GSP), the most common measure of economic size and activity, grew by 55 percent between 1990 and 2008 (adjusted for inflation), essentially the same as the percent increase in U.S. gross domestic product (GDP) posted over the same period. Between 2009 and

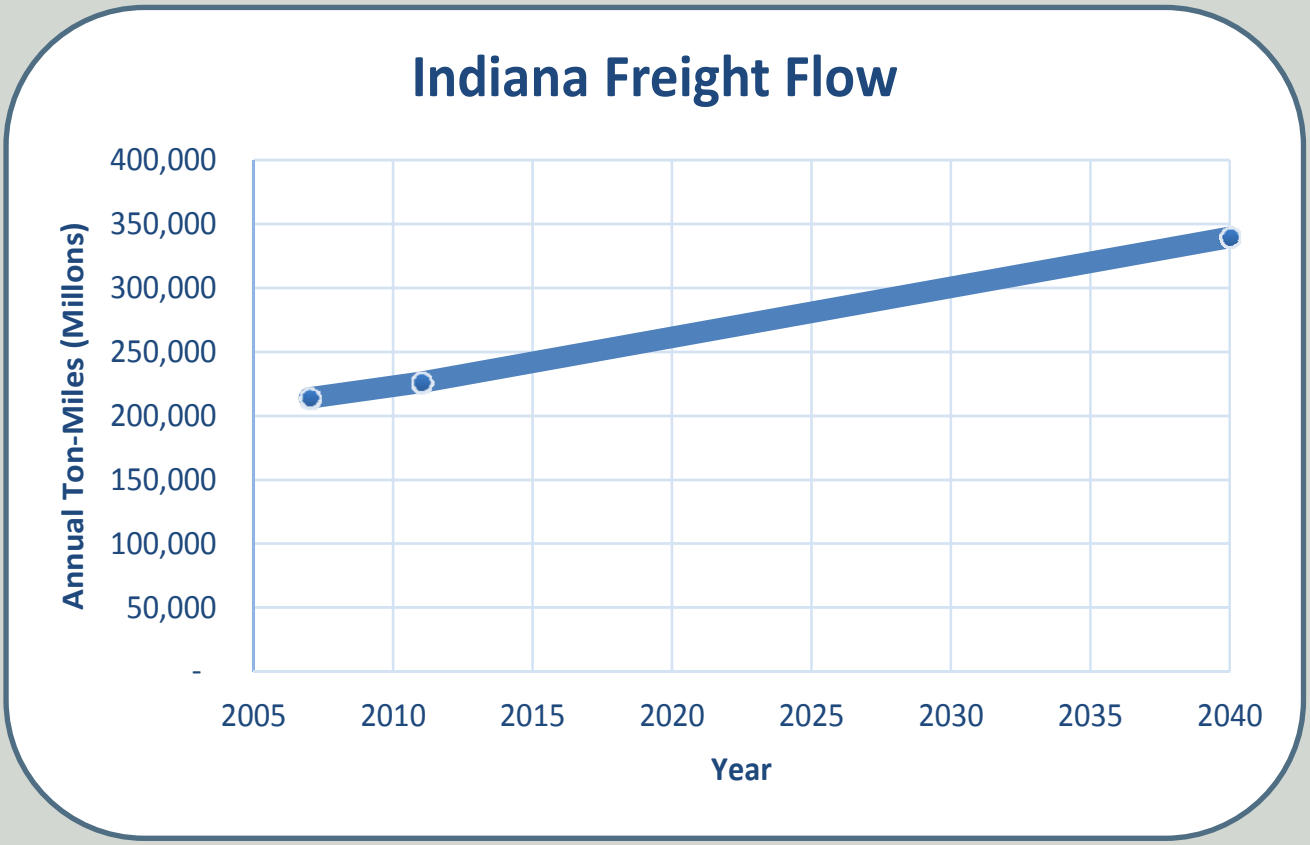
Did you know?

1) 75 percent of the United States and Canadian populations live within one day's truck drive of Indiana.
2) Indiana is 1st in the nation for interstate highway access with 14 interstates.
3) Indiana is 1st in the nation in pass-through interstates.
4) Indiana has the 6th largest cargo airport in the nation at Indianapolis International Airport.
5) Indiana ranks 3rd in total freight railroads with 42.
6) Indiana ranks 9th among all states for railroad mileage with 4,273 miles.
7) Each year, 724 million tons of freight travel through Indiana, making it the 5th busiest state for commercial freight traffic.
8) Indiana is 9th in the nation in rail tons originated with 56.2 million tons.
9) Indiana maintains a network of more than 680 commercial and general aviation airports.
10) Indiana ranks 15th in the nation in total foreign and domestic waterborne shipping with 67.5 million tons.

Source: Conexus Indiana



Source: Indiana REMI forecast



Source: Freight Analysis Framework (FAF) 3.4.

2013, the GSP for Indiana has grown nearly 10%, as the economy has recovered from the "Great Recession". Indiana's freight flow is projected to continue to grow substantially over the coming decades (close to 60% by 2040).

The growth of freight volumes in Indiana will be influenced by the interplay of a variety of factors that have a bearing on transportation demand, including:

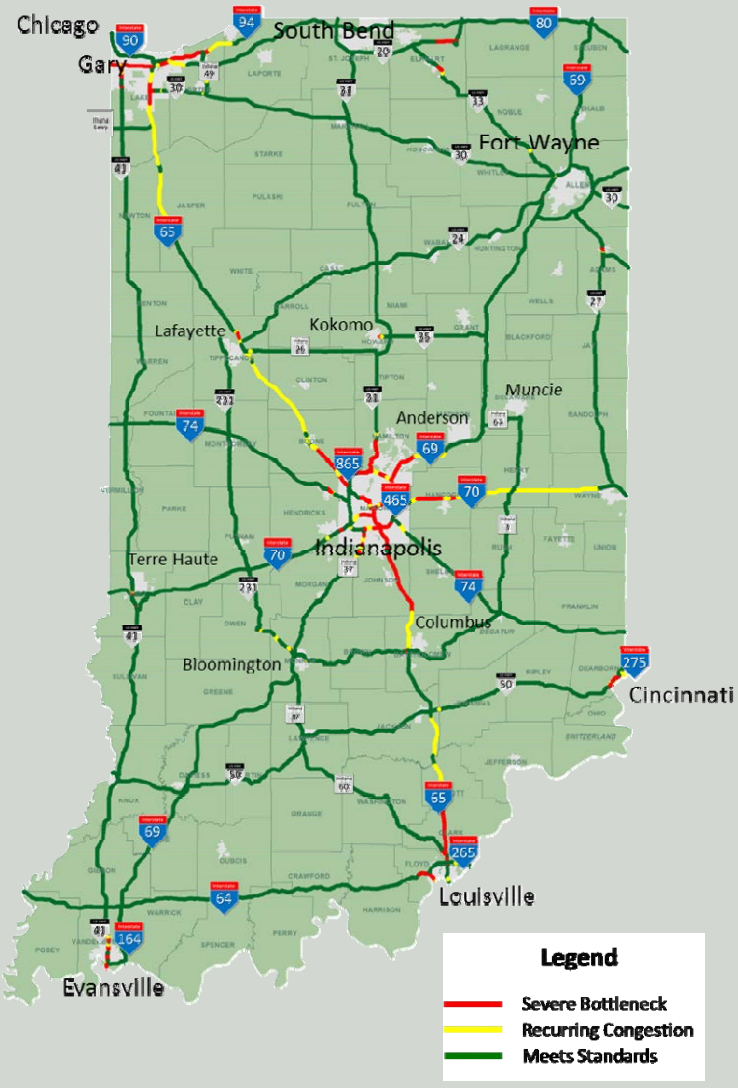
- Overall population and employment growth;
- Changes in national and global logistics patterns; and,
- The evolution of the State's industrial base

With Indiana leading the nation in interstate highways that run through the State, third in total freight railroads, and ports on Lake Michigan and the Ohio River, Indiana will remain in the middle of U.S. logistics patterns. There are indications the State's industrial base will continue to evolve.

On the supply side (i.e., the provision for freight transportation infrastructure and quality freight services), the strength of Indiana's transportation system, and its ability to carry freight efficiently, affects the overall competitiveness of the State's industries and its economy.

The relationship between freight activity and the Indiana economy is strong and multifaceted. For example, industries rely heavily on the efficient movement of goods, both for the outbound shipments of their products to reach worldwide markets, and for inbound shipments of intermediate goods required for production. In addition to freight's im-

National Freight Network Bottlenecks, 2035



portance to Indiana's industries, efficient multimodal freight transportation systems will help minimize the cost of consumer goods to Indiana's residents.

Transportation infrastructure improvements are necessary to:

- Maintain/reduce travel times;
- Increase the reliability of on-time shipments;
- Increase the efficiency of the supply chain;
- Reduce air quality/greenhouse gas emissions; and,
- Allow efficient clustering of logistics infrastructure.

As a "connector" state, Indiana must continue to collaborate with other adjacent states to establish multi-jurisdictional highway and rail freight corridors. Overall, Indiana, with its well-developed transportation infrastructure, is positioned well for the future. However, improvements are an on-going necessity to stay competitive and support our state's commerce, trade and economic development. Indiana is the Crossroads of America and freight transportation infrastructure is literally the "road to a bright future."

Federal Freight Planning Policy

On July 6, 2012 the Moving Ahead for Progress in the 21st Century Act (MAP-21) became law. MAP-21 is the first highway authorization enacted since 2005. MAP-21 represents a milestone for the U.S. economy – it transforms the policy and programmatic framework for investments to guide the growth and development of the country's vital transportation infrastructure.

MAP-21 includes a number of provisions designed to enhance freight movement in support of national goals. One of these encourages states to develop individual freight plans (Section 1118) and establish freight advisory committees. This Indiana Multimodal Freight and Mobility Plan aligns with the requirements set for freight plans by MAP-21.

It is important to ensure an up-to-date picture of the issues and trends affecting freight movements and to identify new or emerging bottlenecks in the transportation system. Therefore, this Plan accounts the effects of the recession of 2005-2009, which had significant impacts on economic activity, commodity flows, and the supply chain/distribution strategies.

Understanding freight policies and projects from a strategic perspective that incorporates technology and operational innovations is important. That perspective must be based on goals, and performance must be recorded by those items called out in MAP-21 requirements. Strategies included here incorporate the "Indiana 2013 – 2035 Future Transportation Needs Report" and "Indiana State Rail Plan," and summarize the "2012 Indiana State Aviation System Plan (ISASP)".

The State Freight and Mobility Plan will help Indiana successfully compete for federal freight funds by

Major Topics Covered in This Plan:

- ⇒ Federal Policy
- ⇒ Goals and objectives to guide the plan process
- ⇒ Emerging freight factors and trends
- ⇒ Freight infrastructure data and planning background
- ⇒ Freight mobility issues
- ⇒ System performance
- ⇒ The outlook for key industries
- ⇒ Commodity flows
- ⇒ Freight system needs
- ⇒ Freight system strategies
- ⇒ Economic impacts of recommendations
- ⇒ INDOT action items
- ⇒ Potential funding and revenue sources by mode

providing a data-driven analysis supporting truck highway and intermodal freight projects that meet federal freight criteria and goals, and by integrating existing state modal plans into one state freight plan. The Plan will help Indiana compete in the marketplace by identifying infrastructure needs.

To support access to the revised structure of transportation funding, this Multimodal Freight and Mobility Plan must address prioritized freight system improvement strategies and performance measures to track progress towards objectives. These will be monitored by a broad group of technical experts and reviewed by stakeholders and a Freight Advisory Committee.

MAP-21, enacted in 2012, includes a number of changes to improve the condition and performance of the national freight network and support investment in freight-related surface transportation projects. Specifically, it requires the Secretary of Transportation to encourage each state to develop a comprehensive State Freight Plan and establish a State Freight Advisory Committee. The U.S. DOT has provided Interim Guidance on both topics (Federal Register Volume 77 No. 199, October 15, 2012). This opportunity provides for a higher percentage of Federal matching funds. Therefore, it is important to understand what MAP-21 requires of State Freight Plans and what is recommended by U.S. DOT.

National Freight Strategic Plan

MAP-21 calls for a national freight strategic plan within three years (in consultation with states and other stakeholders), with updates every five years. The plan must:

1) Assess the condition and performance of the national freight network; (see section 2 starting on page 11)
2) Identify highway bottlenecks; (see section 2)
3) Forecast freight volumes; (see section 2)
4) Identify major trade gateways and corridors; (see section 2)
5) Assess barriers to improved performance; (see section 2)
6) Identify routes providing access to energy areas; (see sec-

tion 2)

7) Identify best practices for improving network performance and mitigating community impacts; (see section 5)
8) Provide a process for multistate projects; (see section 5)
9) Freight Data, Planning, and Reporting. (see section 2)

MAP-21 further directs U.S. DOT to:

- Develop or improve data and tools to support a performance-based approach to evaluating projects; (see section 2)
- Generate a freight conditions and performance report biennially;
- Authorize a maximum Federal share of 95% for an Interstate System project (or of 90% for a non-Interstate System project), if a project makes a demonstrable improvement in the efficiency of freight movement and is identified in a state freight plan;
- Encourage establishment of state freight advisory committees; (see section 3 starting on page 39)
- Encourage each state to develop a comprehensive plan for its freight-related planning and investment;
- Change the eligibility of freight projects under federal grant and loan programs:

Truck Size and Weight Limits

A number of MAP-21 sections address truck size and weight:

- Report to Congress a comprehensive study of truck size and weight limits, and state limitations on the size and weight of trucks that may travel on the National Highway System;
- Raise the truck weight exemption for idle reduction equipment from 400 to 550 lbs.;
- Provide for special permits during periods of national emergency.

Metropolitan and Statewide Planning

MAP-21 encourages participation by freight shippers and providers in planning. INDOT has a long history of engagement with the industry dating back to the mid-1990's. (See section 3)

Performance

MAP-21 requires U.S. DOT to establish measures for states to use to assess freight move-

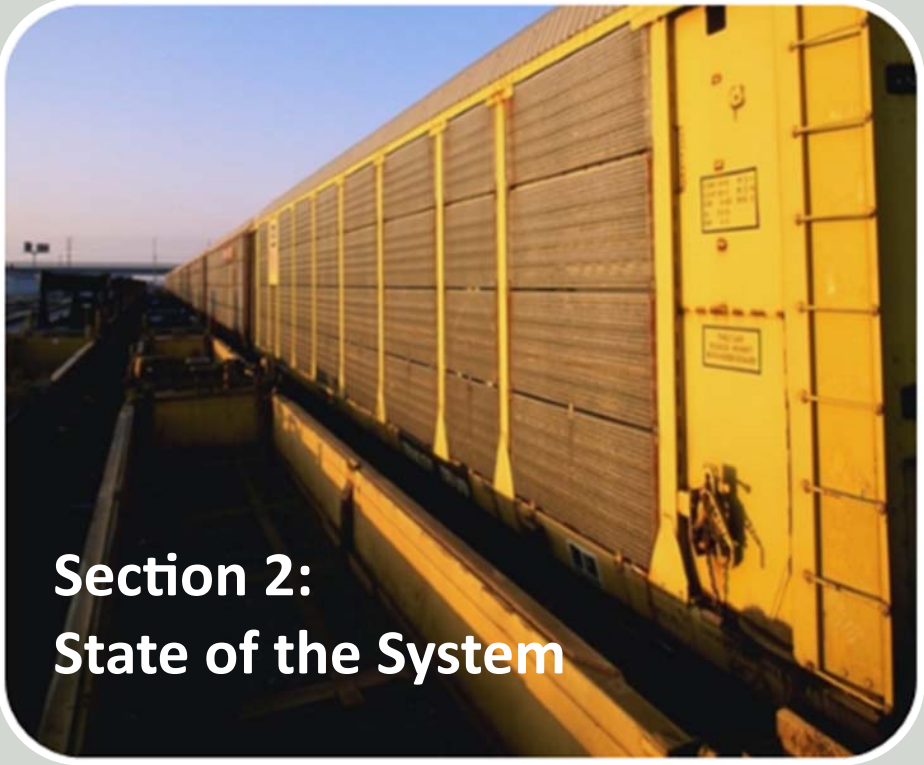
ment on interstates, and states and MPOs must set performance targets and integrate the targets within their planning processes. States must also report periodically on their progress and how they are addressing bottlenecks.

State Freight Advisory Committee

MAP-21 encourages states to establish Freight Advisory Committees. INDOT and the Indiana Logistics Council (Conexus Indiana will constitute the State Freight Advisory Committee as an ongoing standing committee. The Advisory Committee will confirm and validate State Freight Plan deliverables developed by INDOT. (see section 3)

2

Multimodal Freight and Mobility Plan



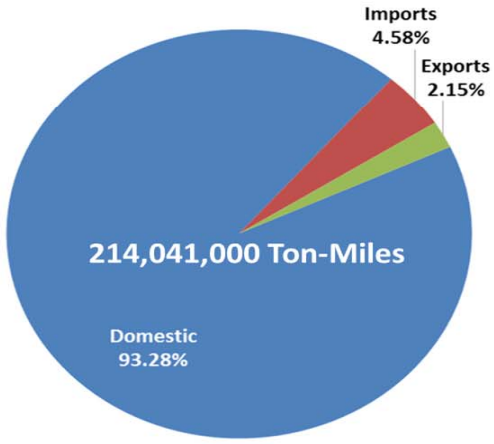
Section 2: State of the System

In This Section:

The demand for freight services has greatly expanded due to shifts in the economy and rapid growth in international trade. On the positive side, Indiana has a trade surplus and is a basic producer of commodities. However, Indiana faces a major challenge in that demand is increasing faster than capacity, impacting all modes. The railroads are operating near capacity and have begun shedding less profitable traffic. Consequently, trucking is picking up most of the unmet demand for freight rail, creating greater burdens on the highway networks. Trucking firms are facing challenges in meeting the growing demand because of driver workforce shortages. Higher levels of truck traffic have implications on traffic congestion and on the durability of highways and bridges. Shifting more freight to other travel modes will have a positive impact on traffic congestion and required highway maintenance.

Due to a number of factors, including its strategic location in close proximity to large consumer markets and an excellent multimodal transportation network, Indiana is feeling more than its share of the increased burden of increasing freight mobility demands. Forecasts from the USDOT's Freight Analysis Framework (FAF) expect Indiana freight movements to increase by 60% by 2040.

Indiana Freight Forecast by Type of Trade



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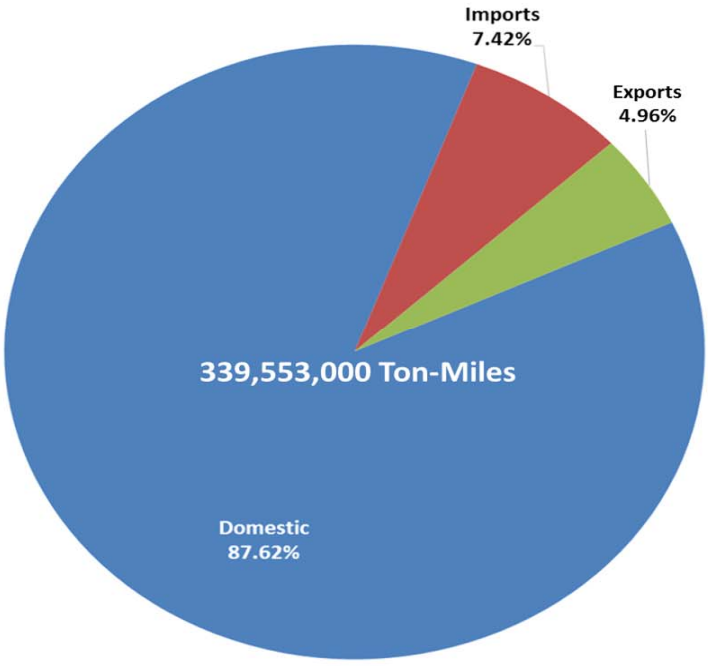
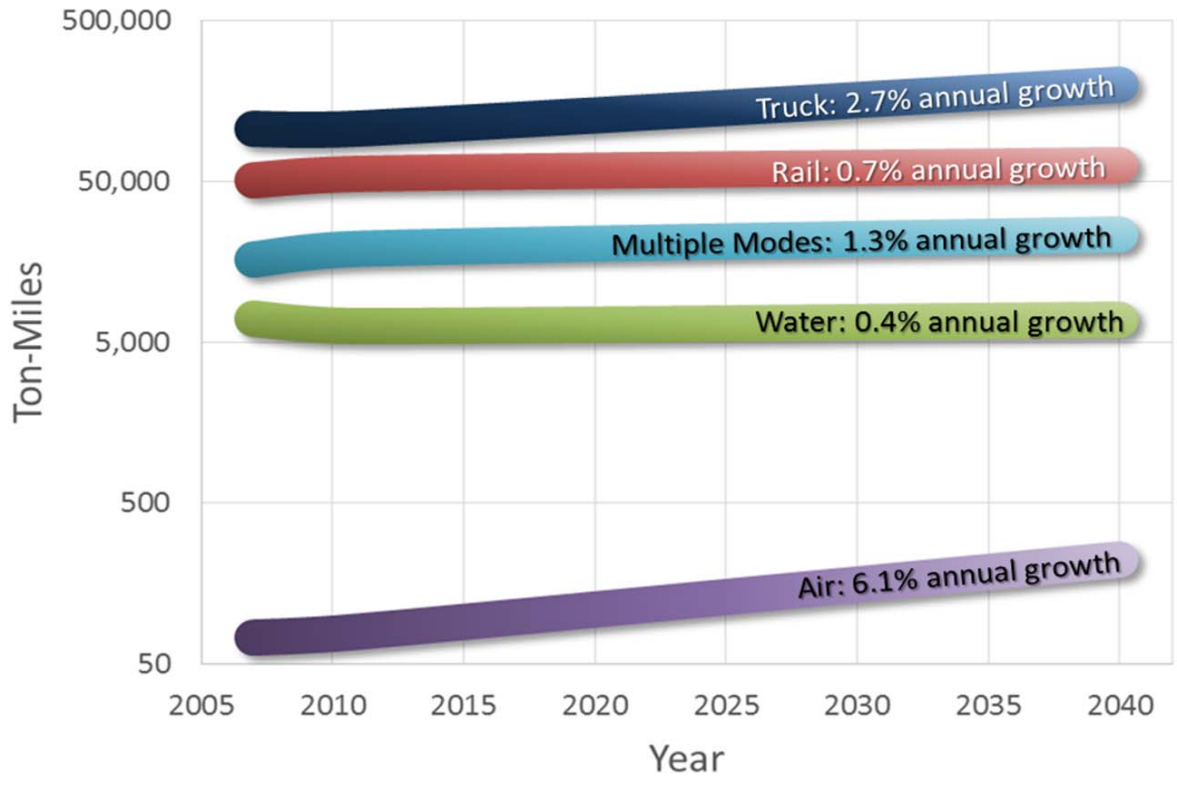


2040

Indiana Freight Forecast by Mode



Source: U.S. Department of Transportation, FHWA, Freight Analysis Framework, 2011

Indiana is connected to the two best inland waterway systems in the world, the Great Lakes / St. Lawrence Seaway and the Mississippi River-Ohio River System. Both are critical to the movement of heavy bulk commodities, such as grain, coal and steel, but the U.S. Inland Waterway System is characterized by aging and deteriorating infrastructure such as locks and dams, and a lack of dredging. Finally, Indiana relies significantly on rail for the movement of heavy bulk commodities. The fastest growing segment of the rail industry, intermodal (container on flat car [COFC] and trailer on flatcar [TOFC]), is provided by the Class I railroads in the Chicago metro rail hub. This situation adds cost and transit time for Indiana's industries. Road-rail intermodal facilities and services are needed to allow Indiana's manufacturing, assembly and distribution industries to remain competitive in the national and global supply chains.

Commodity Flows and Freight Demand

This section begins with a summary of the Freight Analysis Framework Version 3.4 (FAF3.4) data for the State of Indiana and a discussion of freight volumes into, out of, and through Indiana by mode. Following that initial background is a discussion of five modes of freight transportation (highway, rail, air, water, and pipeline), addressing both the infrastructure and freight activity for each mode.

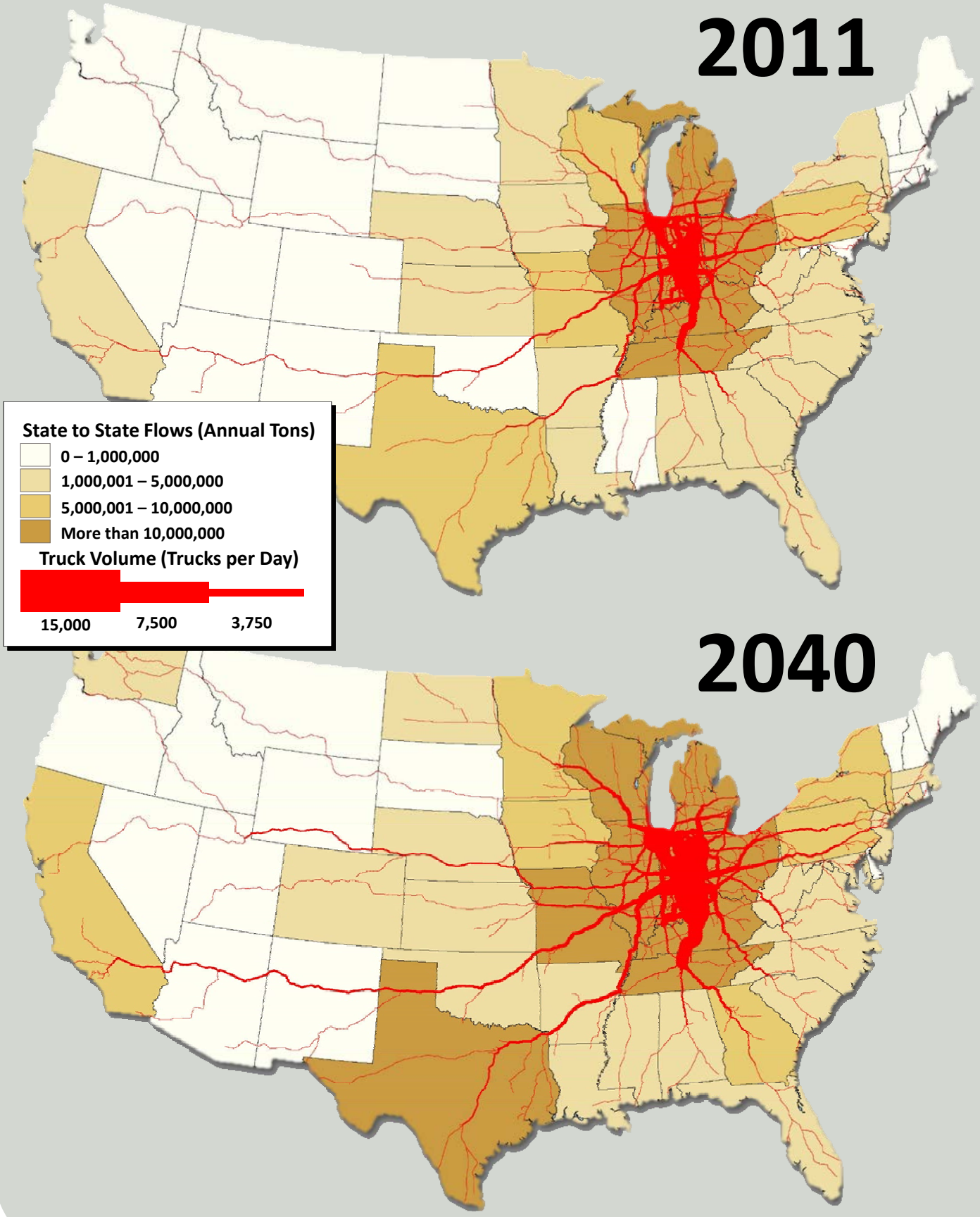
Economic Activity Drives Demand

The relationship between freight activity and the Indiana economy is strong and multifaceted. For example, industries rely heavily on the efficient movement of goods, both for the outbound shipments of their products to reach worldwide markets, and for inbound shipments of intermediate goods required for production. In addition to freight's importance to Indiana's industries, efficient multimodal freight transportation systems can help minimize the cost of consumer goods to Indiana's residents. There are indications the State's industrial base will continue to adapt and evolve as the economy becomes increasingly dependent on global trade.

Currently, the international import/export aspect to Indiana's freight movement represents less than 7% of all goods movement, with imports dominating by more than a two to one ratio over exports. However, forecasts for Indiana show that international trade from/to Indiana is growing at a faster pace than the overall growth in freight, representing up to 12% of total shipments by 2040. International exports from Indiana are the fastest growing component. Imports will still be larger than exports, but by a smaller margin than in 2011.

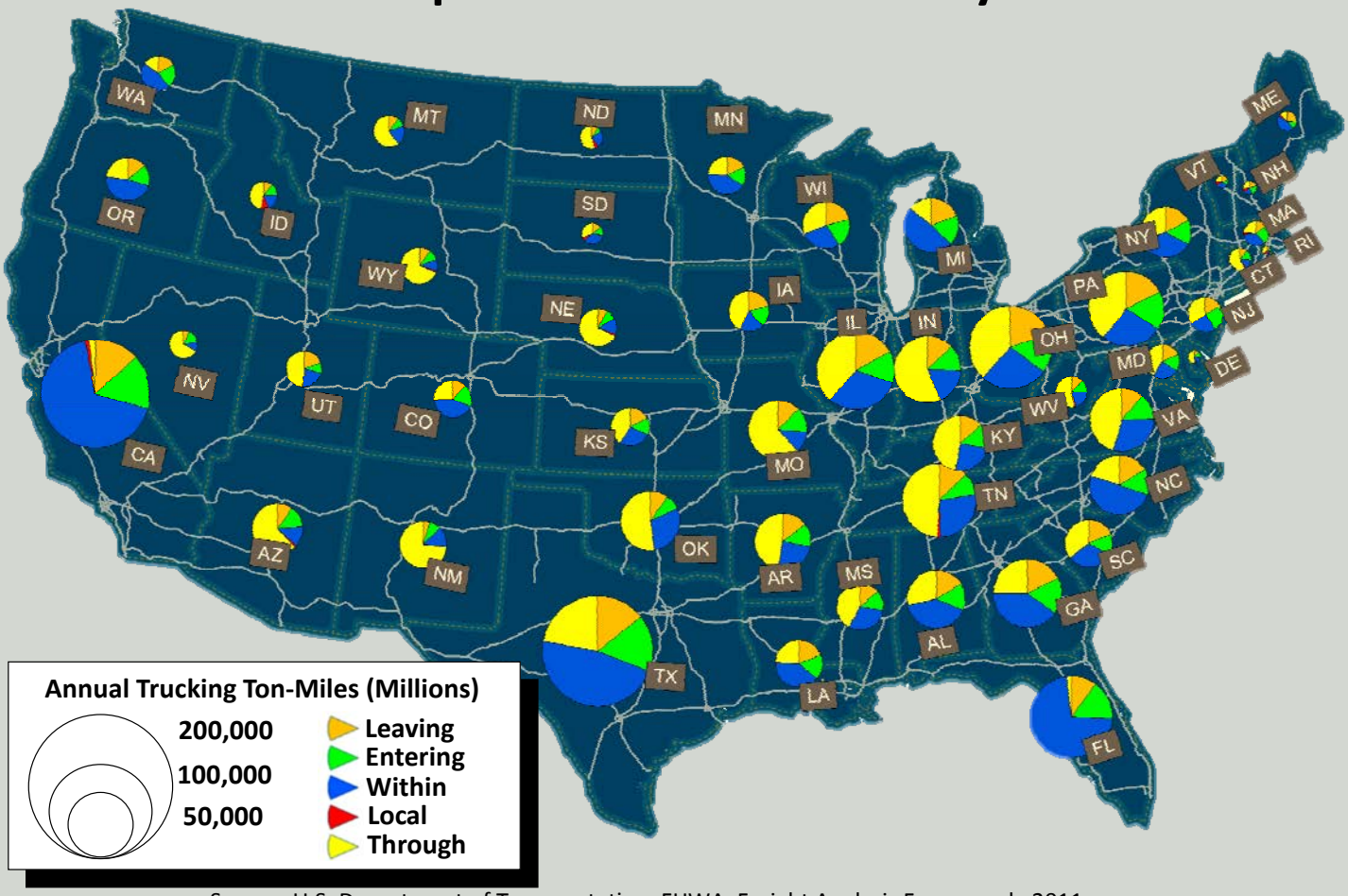
Indiana's ability to compete in a global marketplace goes beyond being industrious and having a strong work ethic. It also demands an efficient transportation system that can deliver products reliably and on time. At the center of the nation's Midwest manufacturing belt, the efficiency of Indiana's freight transportation. With Indiana leading the nation in interstate highways that run through the State, 3rd in total freight railroads, and ports on Lake Michigan and the Ohio River, Indiana will remain in the middle of U.S. logistics patterns.

State to State Truck Flows Using Indiana Corridors



Source: U.S. Department of Transportation, FHWA, Freight Analysis Framework, 2011

Truck Shipment Characteristics by State

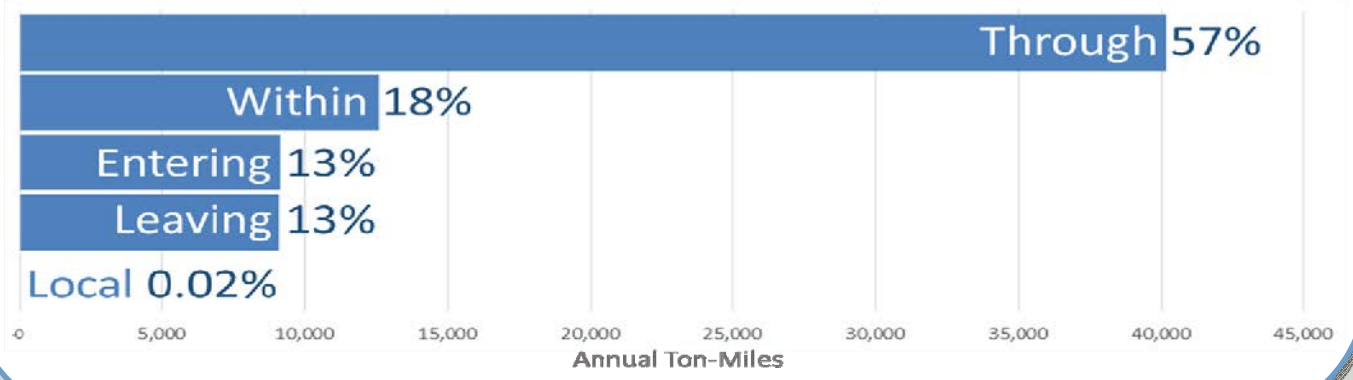


Source: U.S. Department of Transportation, FHWA, Freight Analysis Framework, 2011

Indiana's Highway System Plays a Major Role in National Freight Movement

Currently, 57% of the truck traffic on Indiana highways are through trips, and in terms of annual ton-miles of through truck movements, Indiana is second in the nation.

Indiana Truck Flows, 2011



Trends in Modes Used for Freight

From the standpoint of ton-miles of commodity movement, it is instructive to know that 47% of goods movement associated with the state are shipped via truck. Trucks are more efficient for the shorter distances of in-state trips. Trucking is growing at an average annual rate of 2.7%, and forecasts show this market share growing to 59% by 2040. This is consistent with the economics of efficient truck vs. rail delivery distances.

Rail is the next most significant freight mode carrying 25% of Indiana's freight in terms of ton-miles. Rail has gained market share in recent years (2007 to 2011), but projections to 2040 indicate that trend will reverse. Rail freight in Indiana is forecast to grow at a slow 0.7% annual rate. It is believed that rail system capacity restrictions are holding back potentially higher growth rates.

Although air freight represents less than 0.1% of the State's freight traffic by weight, it actually carries nearly 8% by value. This statistic represents the typical market for air freight, which primarily transports goods that are lighter weight, less bulky, higher value, and more time-sensitive. Air freight forecasts for Indiana show significant growth, with an average rate of 6.1% per year.

Shipment by water currently represents 3% of Indiana's freight movement activity, but it is not experiencing significant growth. Forecasts show the water mode growing at 0.4% annually, but not keeping pace with the 1.7% rate of growth for all modes combined. Thus, the water mode is expected to lose market share over time. As shown later in this section, waterborne freight has efficiency advantages, ideal for bulk commodity shipments.

Shipping Patterns

The latest data from the Freight Analysis Framework shows, not surprisingly, that there is a large degree of interaction between Indiana and neighboring Midwestern states. The level of supply chain and freight interaction diminishes beyond about 6 hour travel time radius. However, there are still significant freight interactions with the Northeast, Texas, and California. Also, data shows significant interaction with Canada and Mexico.

Indiana, as the "crossroads of America" has always played a major role as a pass-through state. A full 57% of Indiana highway truck traffic is actually passing through the state. This is the largest percentage of through-movements of any state in the U.S. In terms of ton-miles, Indiana is second only to Tennessee for the quantity of through movements. Indiana's freight infrastructure (highways and railroads in particular) are essential to national freight flows.

Freight Flow by Ton-Miles

Freight flow can be considered from the standpoint of goods moving to, from, or within the state. The top commodities driving Indiana's economy are coal (to, from, and within the state), crude petroleum (to the state), base metals (from the state), gravel (to and within the state), and cereal grains (from and within the state). The biggest sectors of anticipated growth are motorized vehicles and manufactured products (both from the state). Coal is forecast to decrease in importance, but remain a top commodity within Indiana's economic structure.

What is striking about the data is that Indiana is a base producer of natural resources, grains, and manufactured products. In fact, Indiana is the most manufacturing-intensive state in the country. Even the top commodity imports (from other states) are primarily the raw materials for Indiana's steel and auto building industries. This is of special importance because manufacturing drives secondary job production and the broader economy. Freight infrastructure undergirds this economy.

Freight transportation is paramount in making Indiana's food and agricultural products available throughout the country and world. Indiana's growing population and economy have created proportional increases in energy demand. Indiana's stone industry, a historical fixture of the State's economy, has relied on truck and rail service for decades and remains a top commodity (by weight) transported on the State's freight transportation network. The future expansion of the Indiana economy will depend on the health of such primary industries.

Freight Flow by Value

When viewed by dollar value, again the strength of Indiana's manufacturing sector emerges. A summary of top commodities by value shows that motor vehicles, steel, and other manufactured goods dominate the top of the list. Forecasts to 2040 show these commodities growing significantly over time, but today's top sectors will continue to be the top sectors for the foreseeable future.

Top Indiana Commodity Movements by Ton-Mile

Top Commodities	Millions of Ton Miles, All Modes		Net Export to Areas Outside Indiana	Net Import from Areas Outside Indiana
	2011	2040		
Petroleum & Coal Products (not otherwise classified)	25,155	23,717		*Moderate Volume*
Coal	23,657	19,350		*Moderate Volume*
Base metals	20,868	27,074	*Large Volume*	
Crude petroleum	19,202	28,407		*Large Volume*
Gravel	15,880	32,515		*Large Volume*
Cereal grains	12,426	13,852	*Moderate Volume*	
Plastics/rubber	7,835	13,492	*Moderate Volume*	
Metallic ores	7,405	4,304		*Large Volume*
Other foodstuffs	6,994	11,943		
Animal feed	6,260	5,659	*Large Volume*	
Motorized vehicles	5,903	14,384	*Large Volume*	
Basic chemicals	5,748	5,858		
Nonmetal min. prods.	3,986	8,723	*Large Volume*	
Waste/scrap	2,221	3,469		
Wood prods.	1,558	3,584		*Large Volume*
All Commodities	226,054	339,553		

Source: U.S. Department of Transportation, FHWA, Freight Analysis Framework, 2011

Top Indiana Commodity Movements by Value

2011

2011	Origin-Destination			
Top Commodities	**Indiana-Outside**	**Outside-Indiana**	**Indiana-Indiana**	**Grand Total**
Motorized vehicles	56,865	25,869	13,762	96,495
Base metals	30,467	25,155	13,992	69,614
Machinery	19,511	24,027	24,651	68,189
Plastics/rubber	29,770	14,015	7,344	51,129
Mixed freight	11,485	12,263	8,500	32,248
Articles-base metal	10,659	13,314	7,920	31,893
Electronics	11,045	18,455		29,501
Precision instruments	20,903			20,903
Coal-n.e.c.		11,415	8,286	19,701
Other foodstuffs	9,557		7,289	16,845
Misc. mfg. prods.	15,346			15,346
Crude petroleum		12,326		12,326
Pharmaceuticals		11,410		11,410
Gasoline			9,692	9,692
Cereal grains			7,547	7,547
Milled grain prods.				-
Sum of Top Commodities	215,607	168,250	108,981	492,838
Top Commodities Pct. Of Total	75.0%	61.7%	63.6%	67.4%
All Commodities	287,326	272,857	171,408	731,592
Origin-Destination Pct. Of Total	39.3%	37.3%	23.4%	100%

Source: U.S. Department of Transportation, FHWA, Freight Analysis Framework, 2011

2040

2040	Origin-Destination			
Top Commodities	**Indiana-Outside**	**Outside-Indiana**	**Indiana-Indiana**	**Grand Total**
Motorized vehicles	120,156	44,925	25,627	190,707
Base metals	36,153	23,957	14,171	74,281
Machinery	39,312	61,804	47,564	148,680
Plastics/rubber	38,309	23,232	8,980	70,521
Mixed freight	23,375	29,160	17,924	70,458
Articles-base metal	11,752			11,752
Electronics	25,139	52,853	9,750	87,742
Precision instruments	117,589	57,914	12,132	187,636
Coal-n.e.c.				
Other foodstuffs	13,063		9,433	22,497
Misc. mfg. prods.	70,070	29,713	16,225	116,008
Crude petroleum				
Pharmaceuticals		45,390	13,684	59,074
Gasoline				
Cereal grains				
Milled grain prods.		16,003		16,003
Sum of Top Commodities	494,919	384,951	175,489	1,055,360
Top Commodities Pct. Of Total	83.2%	71.7%	67.4%	75.8%
All Commodities	595,008	536,870	260,448	1,392,326
Origin-Destination Pct. Of Total	42.7%	38.6%	18.7%	100%

Source: U.S. Department of Transportation, FHWA, Freight Analysis Framework, 2011

System Performance by Mode

The Freight industry represents a multi-billion-dollar industry directly supporting thousands of jobs across the state, and indirectly touching on the quality of life and livelihoods of nearly everyone. Several key corridors through Indiana are of national significance. So the continued viability of the Freight System is critical to on-going economic development. This section describes Indiana's infrastructure by mode.

Performance Based Planning

Under MAP-21, the evaluation of various transportation improvement strategies will now need to consider each strategy's effect on the chosen performance measures and strategic goals. These quantified measures will be integrated into the planning process and project selection by the INDOT. For freight planning purposes, INDOT has designated five general planning categories, with relevant performance measures clustered with each category (see below). Performance measures were chosen such that they can be meaningful to decision makers, stakeholders, political leaders and the general public.

These performance measures serve as the basis for target-setting with respect to what various programs will accomplish. The target-setting and monitoring processes accounts for the fact that many performance measures reflect not only results of actions taken by an agency, but external factors as well (e.g., traffic volumes and environmental conditions).

Performance measures are designed to be useful for signaling when changes are warranted for strategies and priorities (e.g., in long-range plan updates and in development of capital, maintenance, and operation program budgets).

Specific performance measures by which INDOT uses to assess the suitability of the state's freight transportation system to maintain and grow the economy include:

Travel Demand	Travel Efficiency	Safety	Environment	Economic
• Traffic Volume • Vehicle miles traveled; • Vehicle hours traveled	• Congestion delay by vehicle hours • peak period speeds • average speeds • Specific road segments by LOS • Lane miles by LOS	• Accident prediction by road class • Accident summary for state (PDO, Injury, Fatal, Total)	• Air emissions	• User benefit $ • Benefit-cost ratio • NPV of project • GDP Impact • Personal Income • Employment Impact

Highways

For the purpose of freight and mobility planning for state-owned roadway facilities, INDOT has historically used a corridor hierarchy system based on connectivity, purpose, and the National Highway System (NHS) that consists of the following categories:

- Interstates;
- A principal arterial network – Non-interstate roadways which provide access between an arterial route and a major port, airport, public transportation facility or other inter-modal transportation facility;
- The hierarchy also includes the Strategic Highway Network (STRANET) - Highways important to U.S. strategic defense, including access connector routes between major military installations and the STRANET; and,
- It includes intermodal connectors – roads that connect National Highway System (NHS, see below) routes to intermodal transportation facilities: ports, international border crossings, airports, public transportation and transit centers, interstate bus terminals, and rail yards.

INDOT uses a corridor hierarchy system for statewide prioritization of needs. This hierarchy system has three levels led by roads that are part of the NHS.

Statewide Mobility Corridors

These corridors are the top-end of the highway system, and are meant to provide mobility across the state. They provide safe, high-speed connections for long-distance trips between the metropolitan areas of Indiana, and to those of surrounding states. They are the freight arteries of the state, and thus, are vital for economic development. INDOT has as a strategic goal to directly connect metropolitan areas of 25,000 in population or greater with a set of free flowing high quality corridors.

Regional Corridors

These corridors are the middle tier of the highway system, and are meant to provide mobility within regions of the state. They provide safe, high-speed connections for medium-distance trips between smaller cities and towns.

Sub-Regional Corridors

These corridors make up the remainder of INDOT's highway system. They are used for safe, lower speed, short-distances trips. They provide access between local land uses and the rest of the state network.

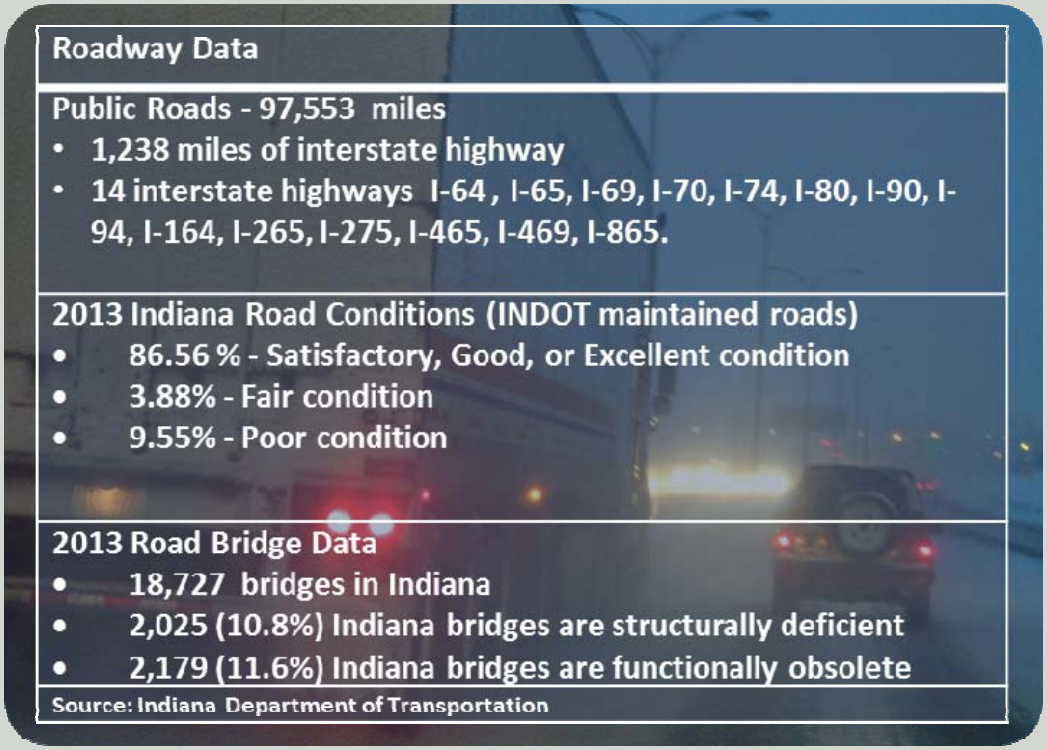
Designation of Indiana's Portion of the National Freight Network

MAP-21 legislation directs the states to designate their portion of the National Freight Network. The starting point of this network is the U.S.DOT designated Primary Freight Network (PFN). The PFN designation process identified the most significant national highway segments, but was limited to a maximum of 27,000 centerline miles nationally. Indiana's portion of the PFN contains major segments of I-70, I-65, I-80, I-94, and I-69, but in many cases is not continuous (has gaps) between major cities. The legislation instructs the states to add the remaining (non-PFN) Interstate highway system to the National Freight Network, and then allows the states discretion in terms of identifying additional non-interstate, but critical rural corridors. INDOT has nominated the remainder of the Statewide Mobility Corridors not already in the PFN or Other Interstates categories, for inclusion in the National Freight Network. The INDOT proposed National Freight Network designations are shown on page 22.

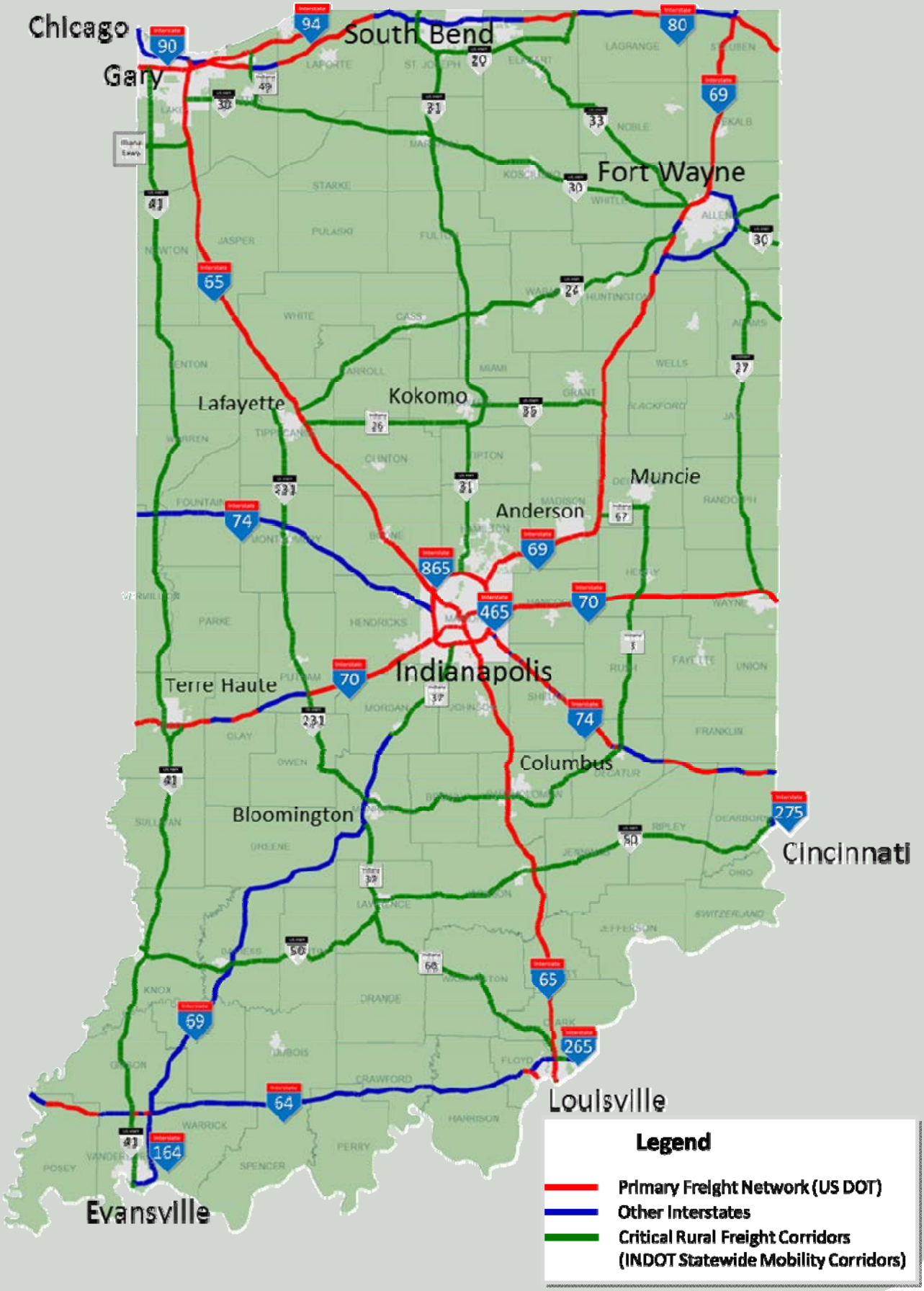
Measurement and Forecasts of Performance on the National Freight Network

Travel demand modeling, using the Indiana Statewide Travel Demand Model (includes a sophisticated freight/commodity flow model), was conducted to identify freight bottlenecks and to generate highway freight performance measures. Current and forecast bottlenecks are shown on pages 23 and 24 respectively. Network assumptions for the future include committed projects such as all of Major Moves, Ohio River Bridges, Illiana Expressway, etc., so that benefits of those projects will be embedded in the baseline forecasts.

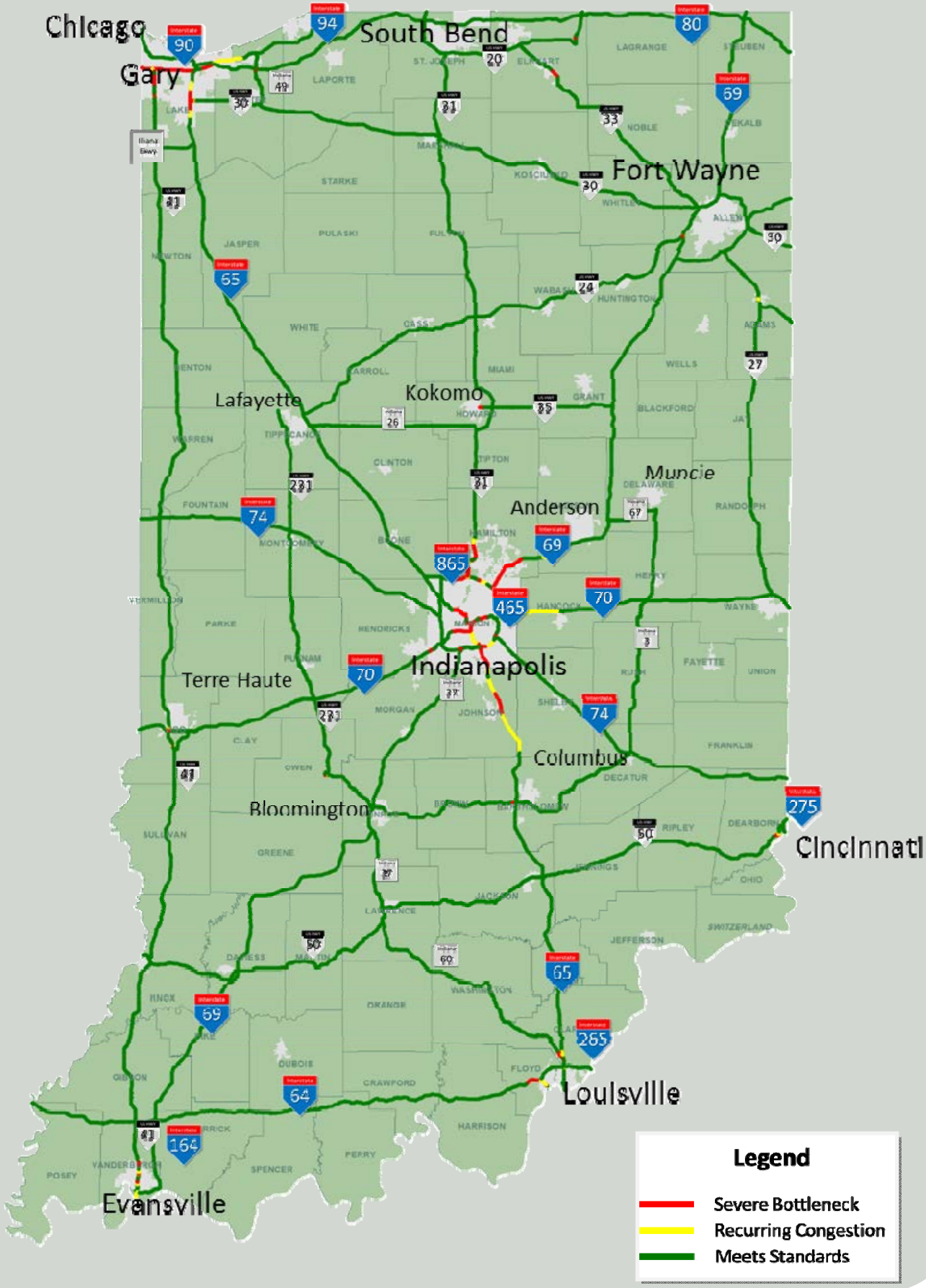
Tables for network performance statistics by Planning Category are shown on tables contained on page 25 (base year 2010) and page 26 (forecast year 2035). Results show the effectiveness of Indiana's recent major capacity projects, in that there is very little congestion on the National Freight Network. Looking out to the year 2035, forecasts show 95% of freight VMT will be able to move without congestion delays. From any perspective, the performance data shows a smoothly operating highway system. The few bottlenecks identified here are fairly short duration during each day, and for the vast majority, INDOT is already developing projects to expand capacity on these corridors (e.g. adding lanes on rural sections of I-65).



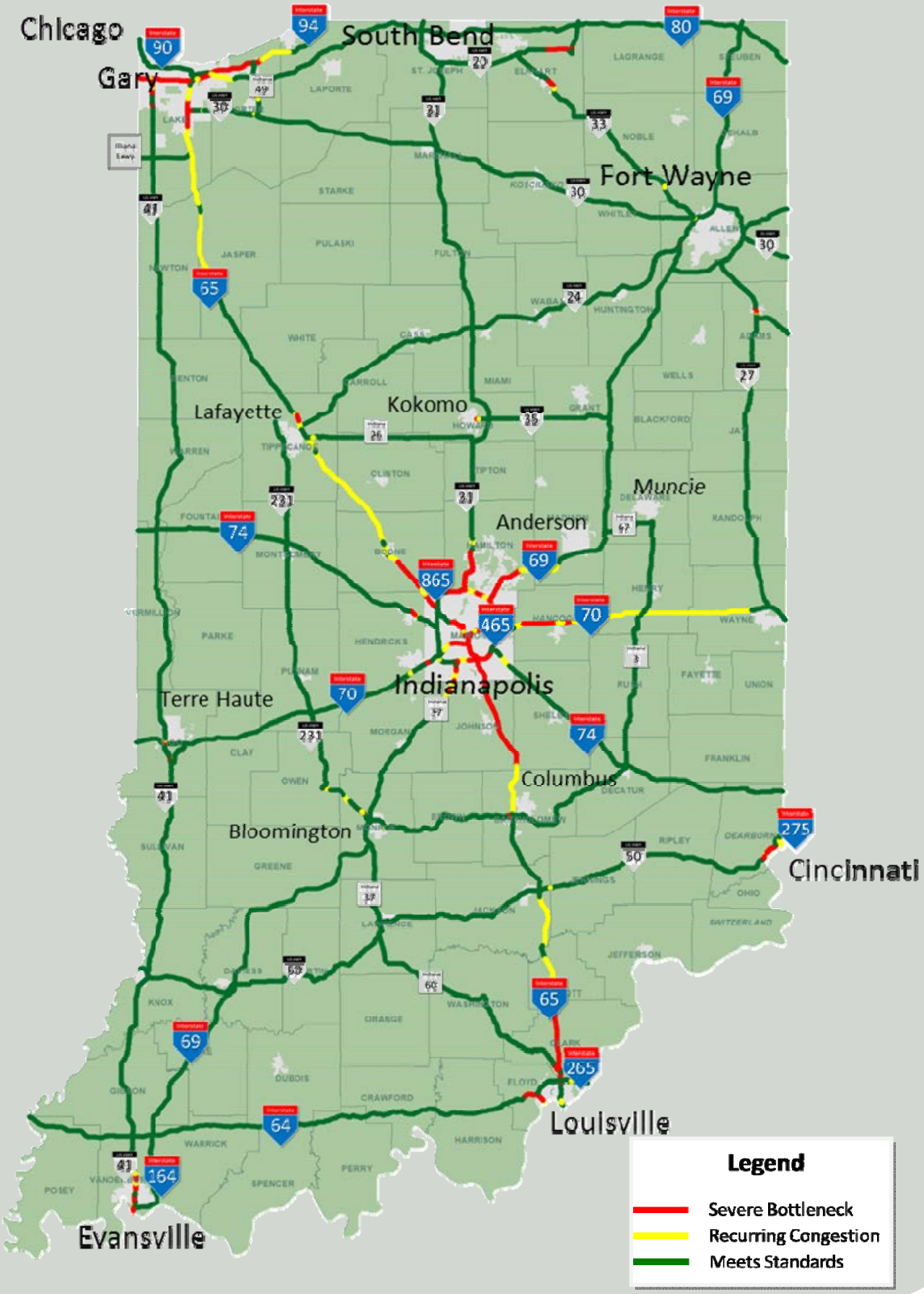
MAP-21 National Freight Network for Indiana



National Freight Network Bottlenecks, Current



National Freight Network Bottlenecks, 2035



Indiana Freight Network System Performance, 2010

Planning Category	Performance Measure	Network Statistics					
		A: FHWA Primary Freight Net	B: Other Interstates	C: Statewide Mobility	National Freight Network (A+B+C)	Other INDOT Hwys	All Indiana Highways
Travel Demand							
	Centerline Miles	801	492	1,444	2,737	10,666	13,403
	Average Daily Traffic	48,256	19,762	13,472	24,779	6,963	10,601
	Daily Vehicle Miles (VMT)	38,635,132	9,719,186	19,455,532	67,809,850	74,271,323	142,081,173
	Daily Vehicle Hours (VHT)	610,181	147,261	348,128	1,105,570	1,431,764	2,537,334
	Daily Truck VMT	14,663,599	3,371,365	5,437,662	23,472,626	17,429,079	40,901,705
	Average Daily Truck Volume	18,315	6,855	3,765	8,577	1,634	3,052
	Percent Trucks	37.95%	34.69%	27.95%	34.62%	23.47%	28.79%
Travel Efficiency							
	Avg. Daily Speed	63.32	66.00	55.89	61.33	51.87	56.00
	Lane Miles at LOS E or worse	642	8	110	760	206	967
	Truck VMT at LOS E or worse	433,868	2,630	31,007	467,505	53,693	521,197
	Percent of Truck VMT Congested	2.96%	0.08%	0.57%	1.99%	0.31%	1.27%
Safety							
	Annual Fatal Accidents	62	19	114	195	145	340
	Annual Injury Accidents	1,997	527	3,538	6,063	9,387	15,450
	Annual Property Damage Accidents	7,683	2,038	10,989	20,710	26,363	47,074
Enviroment							
	Annual Truck Emissions (Tons CO2)	3,097,559	746,933	1,068,479	4,912,971	1,566,563	6,479,533
Economic							
	Aggregate Annual Trucking User Costs (Millions)	$ 3,513	$ 812	$ 1,615	$ 5,940	$ 17,035	$ 22,975
	Trucking User Costs per Mile	$ 0.77	$ 0.77	$ 0.95	$ 0.81	$ 3.13	$ 1.80

Note: Costs are in $2014

Indiana Freight Network System Performance, 2035

Planning Category	Performance Measure	Network Statistics					
		A: FHWA Primary Freight Net	B: Other Interstates	C: Statewide Mobility	National Freight Network (A+B+C)	Other INDOT Hwys	All Indiana Highways
Travel Demand							
	Centerline Miles	801	492	1,444	2,737	10,666	13,403
	Average Daily Traffic	59,482	29,842	16,575	31,523	8,908	13,527
	Daily Vehicle Miles (VMT)	47,622,710	14,779,145	23,897,807	86,299,662	95,019,455	181,319,117
	Daily Vehicle Hours (VHT)	783,995	227,996	435,769	1,447,760	1,849,927	3,297,687
	Daily Truck VMT	17,633,871	5,715,808	5,769,330	29,119,010	21,490,652	50,609,661
	Average Daily Truck Volume	22,025	11,541	4,002	10,637	2,015	3,776
	Percent Trucks	37.03%	38.67%	24.14%	33.74%	22.62%	27.91%
Travel Efficiency							
	Avg. Daily Speed	60.74	64.82	54.84	59.61	51.36	54.98
	Lane Miles at LOS E or worse	1,560	23	208	1,792	498	2,289
	Truck VMT at LOS E or worse	1,184,794	10,661	69,732	1,195,455	198,802	1,394,257
	Percent of Truck VMT Congested	6.72%	0.19%	1.21%	4.11%	0.93%	2.75%
Safety							
	Annual Fatal Accidents	78	29	142	249	262	511
	Annual Injury Accidents	2,478	793	4,322	7,594	14,064	21,658
	Annual Property Damage Accidents	9,533	3,066	13,429	26,028	41,991	68,019
Enviroment							
	Annual Truck Emissions (Tons CO2)	3,549,556	1,230,728	1,135,237	5,915,520	1,822,354	7,737,874
Economic							
	Aggregate Annual Trucking User Costs (Millions)	$ 4,293	$ 1,371	$ 1,746	$ 7,410	$ 3,252	$ 10,662
	Trucking User Costs per Mile	$ 0.78	$ 0.77	$ 0.97	$ 0.82	$ 0.49	$ 0.68

Note: Costs are in $2014

Rail System

Indiana has 4,273 railroad route miles, of which 88 percent are operated by four Class I railroads, principally CSX Transportation, Inc. (CSXT) and Norfolk Southern (NS). The Canadian National Railroad (CN) also has operations in Northern Indiana. The remaining miles are operated by 40 Port Authority, regional, local, and switching & terminal railroads. CSXT operates 1,635 miles and Norfolk Southern operates 1,491 miles. Additionally, Amtrak, owns 18 miles of line in Indiana as part of its Michigan line service.

Nearly two-thirds of Indiana rail traffic consists of farm products, coal, and primary metal products. Other major commodity groups include scrap metal, and chemicals. Approximately 65 percent of rail freight moving in Indiana is interstate freight traffic that neither originates nor terminates in Indiana.

Short line railroads in Indiana are a vital element of the state's rail network, serving 62 counties, 15 of which are served only by short lines. Indiana short lines handle nearly 350,000 carloads of various commodities, mostly in conjunction with the large Class I freight railroads.

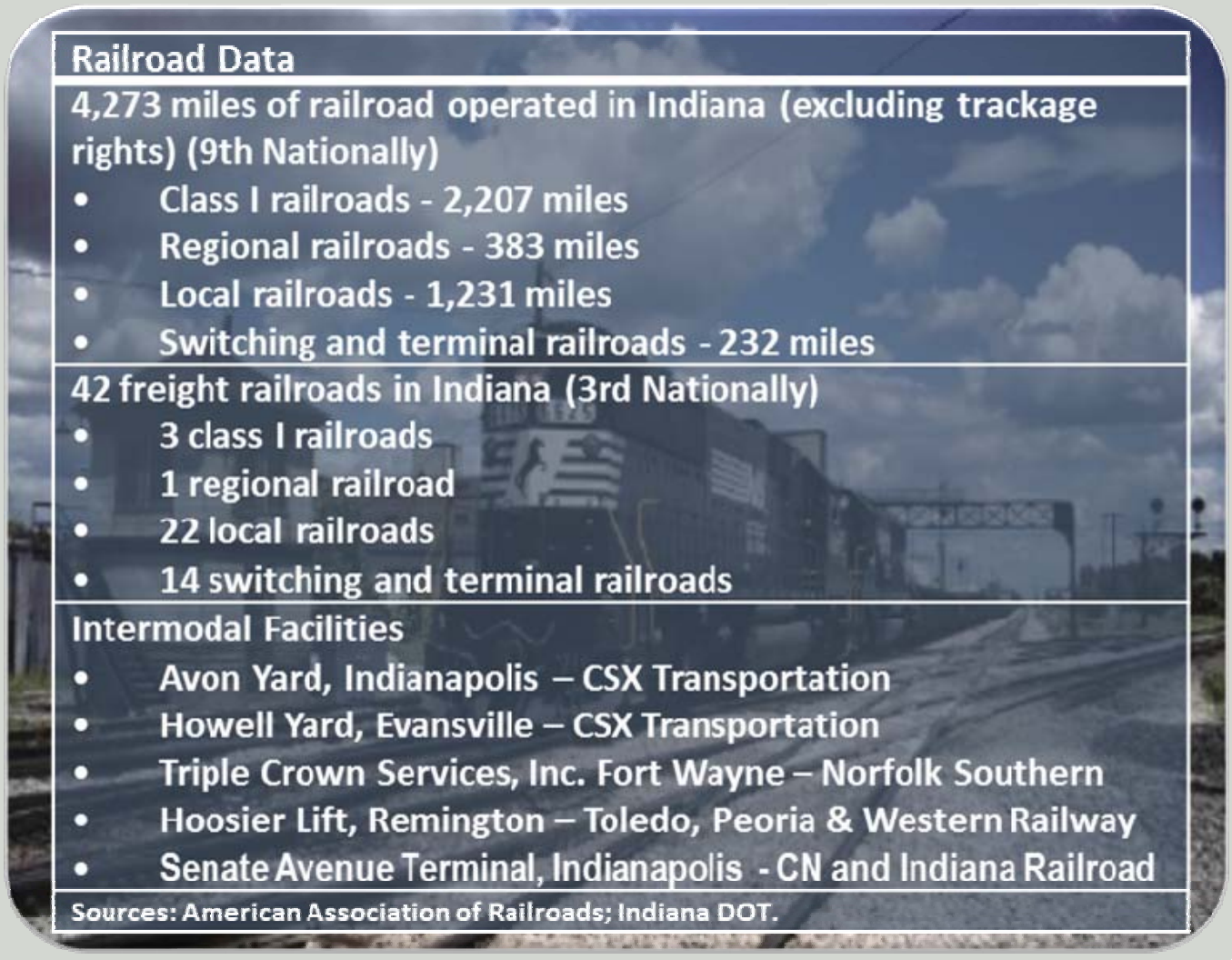
The current rail system in Indiana is structured primarily to handle east-west traffic. Primarily through northern Indiana to and from Chicago, central Indiana through Indianapolis, and southern Indiana between Louisville and St. Louis. These routes are mostly double-track. The north-south routes through

Evansville (CSXT) and Muncie (NS), while carrying substantial traffic, are primarily single-track. The east-west routes carry nearly four times the traffic volume of the north/south routes.

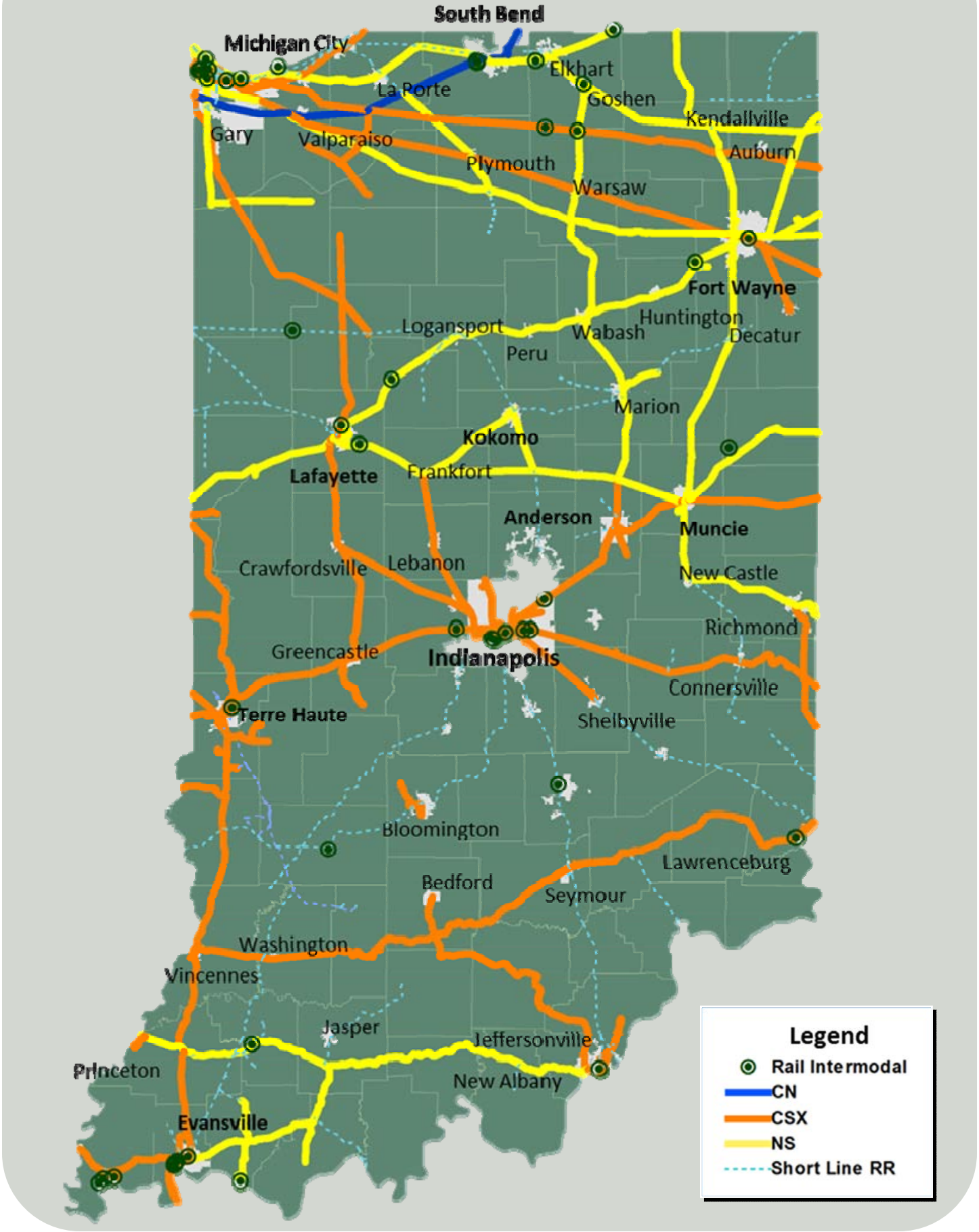
Due to recent increases in tonnage moved by rail, excess capacity in the national rail network is quickly being consumed. Rail lines converging on the Chicago area in Northwest Indiana are at capacity, though the Indiana Gateway Rail project, and the merger of the CN and EJ&E will help to relieve some portion of this bottleneck. The CSX line in Evansville and the NS line leaving the state into Champaign, Illinois, are approaching capacity. In 2035, however, assuming no new major added capacity or changes, most of Indiana's major interstate rail lines are expected to be operating at or above capacity.

Rail/Truck Intermodal Access

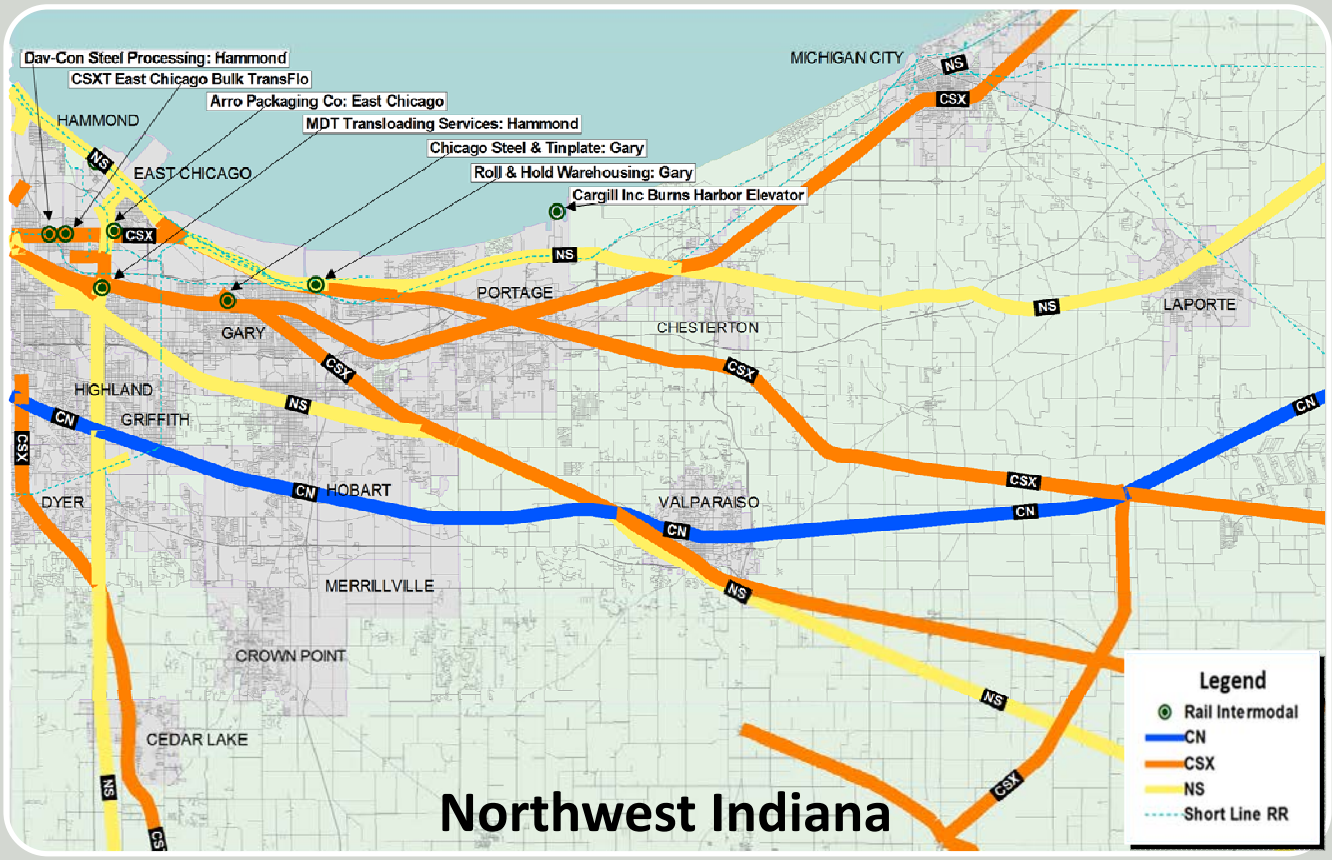
Access to major rail yards and rail/truck intermodal facilities is critical for the viability of intermodal transport in Indiana. Highway access roads to the NS Triple Crown facility in Fort Wayne and the Avon CSX facility in Indianapolis were designated as National Highway System (NHS) intermodal freight connectors of national significance. Access roads to the Triple Crown facility, including

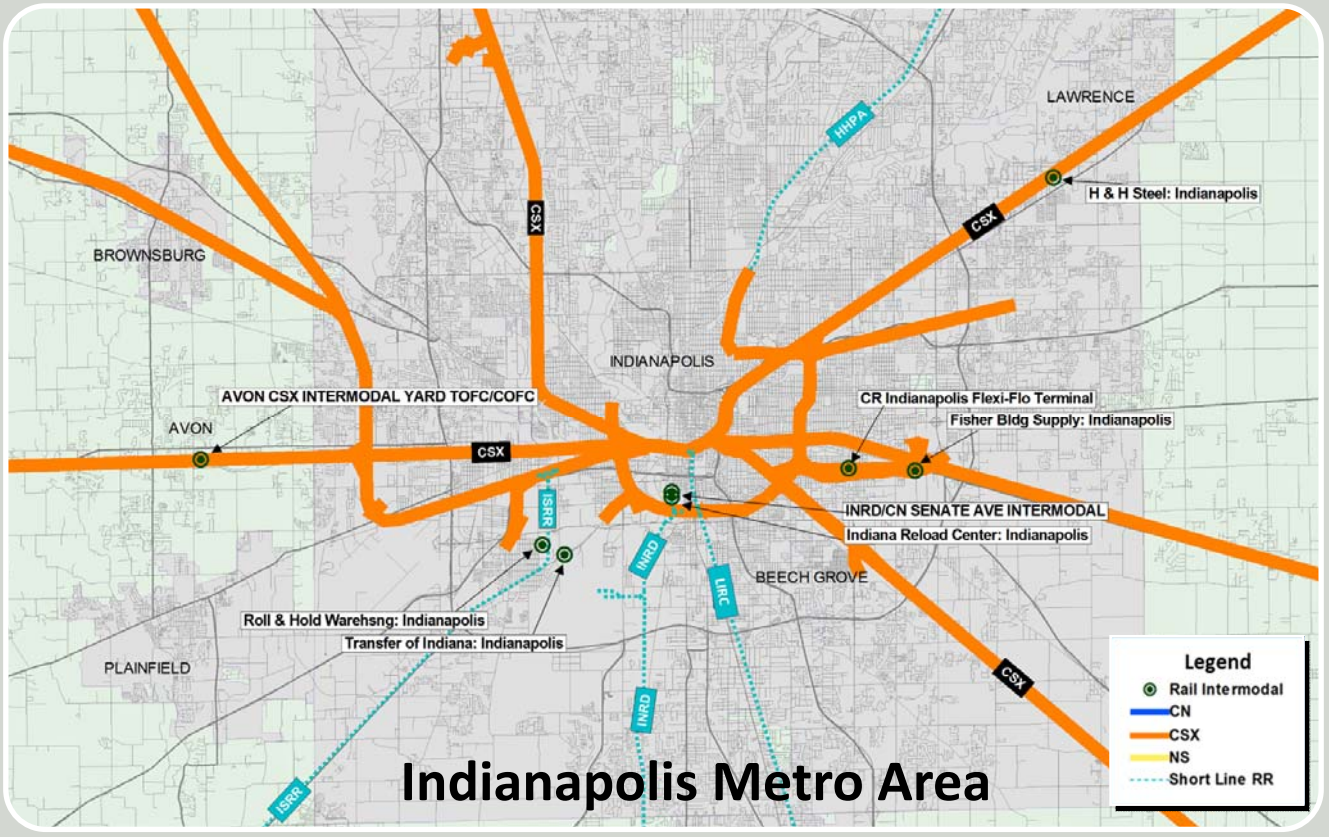


Indiana Railroad Network



Indiana Railroad Network





Pontiac Street and Wayne Trace, are currently operating at LOS A and B, with similar conditions predicted in 2035, according to output from the Indiana Statewide Travel Demand Model. U.S. 36, however, which connects the Avon CSX facility with I-465 in Indianapolis, is operating between LOS D and F along different segments, with slightly more congested segments expected in 2035.

The Roanoke General Motors facility, an intermodal rail/truck facility of statewide significance, can be accessed by Lower Huntington Road and Lafayette Center Road. These roads are operating between LOS A and B and are expected to have similar conditions in the future, while nearby I-69 will experience more congested conditions in the future at LOS C. U.S. 24/U.S. 231 connects the Hoosier Lift in Remington to nearby I-65 and is currently operating at LOS C. In 2035 both U.S. 24/U.S. 231 and I-65 are expected to function at LOS C, but without capacity improvements, large sections of the I-65 Indianapolis to Chicago corridor will be experiencing significant traffic delays.

Rail-related safety performance continues to improve. The rail safety trends reported in the "Rail Related Accidents and Incidents" section of the current Indiana Rail Plan indicate a steady and continuing decrease in all rail-related incidents and fatalities in Indiana.

Commercial Waterways

With Lake Michigan at its north and the Ohio River at its south, Indiana ports are conveniently reachable from points throughout the Great Lakes, the Mississippi River Valley, the Gulf of Mexico, and along the Atlantic Ocean. The Ohio River is maintained at a depth of nine feet, but freezes during the winter, limiting navigation for part of the year.

Waterway Data

Indiana is 15th nationally in total foreign & domestic waterborne shipping, which is focused on the Ohio River and Great Lakes

Ohio River – 385 miles of border with two public ports/dock operated by the Ports of Indiana*

- Jeffersonville* – MG Rail provides on-site rail switching and connects to CSX, Louisville & Indiana RR, and indirectly to Norfolk Southern
- Mount Vernon* – The Southwind Maritime Center – Evansville Western RR connects with Union Pacific, BNSF, CSX, Canadian National, and Norfolk Southern
- Private ports - 64

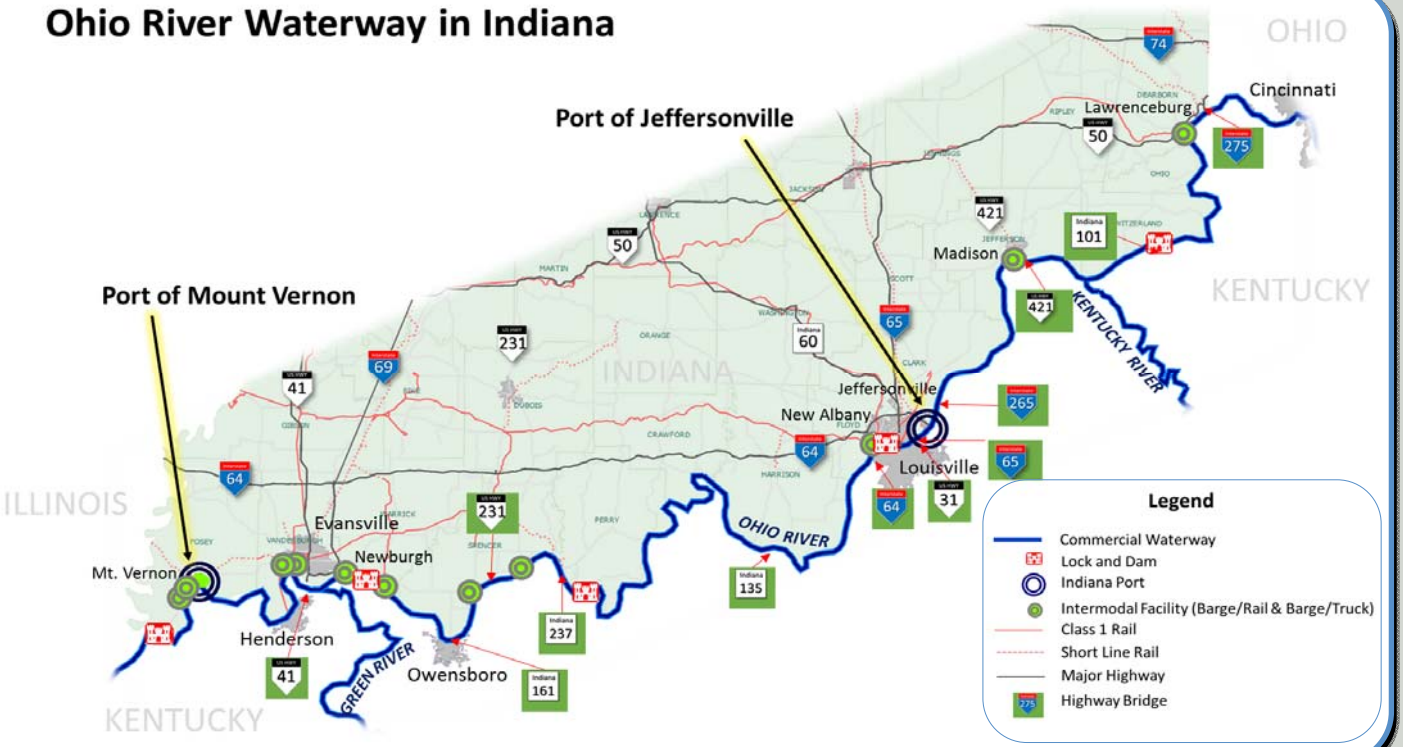
Lake Michigan – 43 miles of border with one public port/dock operated by the Ports of Indiana*

- Burns Harbor* – Rail access by Norfolk Southern and Indiana Harbor Belt RR with connections to all major RRs in Chicago
- Three private ports/docks – Buffington Harbor, Indiana Harbor and Gary Harbor
- Three fourths of the nation's iron and steel is shipped from these Lake Michigan ports

Source: Bureau of Transportation Statistics; American Association of Port Authorities; Ports of Indiana; Army Corps of Engineers.

Indiana Water Freight Infrastructure

Ohio River Waterway in Indiana



Indiana's Great Lakes Ports

The Indiana Port Commission (doing business as the Ports of Indiana) operates three public marine ports, described below:

Port of Indiana – Burns Harbor is located on Lake Michigan in Portage, Indiana. The largest commodities processed at this port are steel, iron, and grain. The facility also handles substantial volumes of chemicals, fertilizers, limestone, coal, and heavy lift cargo. This port handles barges traversing the Inland Waterway System via the Illinois Waterway, bulk carriers traveling throughout the Great Lakes, and ocean vessels crossing the Atlantic via the St. Lawrence Seaway. The port facility has 30 on-site tenants and covers over 500 acres. It is served by four railroads, including one Class I railroad (NS). Indiana SR 249 connects the port directly to I-94, less than a mile away.

Port of Indiana – Jeffersonville is located on the Ohio River, directly across the river from the city of Louisville, Kentucky. This rapidly growing facility includes an on-site "steel campus" where numerous value-added steel production activities occur. There are more than 25 on-site tenants, and over 300 acres of available, undeveloped land. The port primarily handles steel products, grain, and fertilizers. It is directly served by MG Rail, CSX and the Louisville & Indiana Railroad, as well as an on-site switching railroad. The eastside Ohio River bridge and related I-265 connections which are under construction will provide a more integrated connection to a larger string of belt highways encircling Jeffersonville, Clarksville, and Louisville, Kentucky. INDOT is also partnered with the port in development of an internal heavy haul roadway (see section 5 of this report for details).

Port of Indiana – Mount Vernon, also on the Ohio River, is located approximately 15 miles west of Evansville, Indiana. The facility covers over 800 acres, has nine on-site tenants, and offers substantial growth potential. The largest commodities traveling out of the port are coal and grain, and the largest incoming commodity is fertilizer. Cement and minerals are among the other commodities passing through this port. An ethanol plant on-site has the potential to greatly increase freight activity at the port. Rail service to the port is provided by CSX, while the nearest limited access highway is I-164 in Evansville. Other highway access improvements were recently studied as part of INDOT's Major Highway Management Plan. The best performer of options tested, was an upgraded North-South connection along SR 69 to I-64.

In addition to Indiana's public port system, there are numerous other port facilities throughout the State, most of them privately owned. Among the largest of these are Lake Michigan ports at Indiana Harbor, Gary, and Buffington. These ports primarily serve the steel industry of northwest Indiana. Together with the three public Ports of Indiana, these six facilities handle nearly two-thirds of all waterborne freight in Indiana.

Highway Access to the Ports

Highway access roads to many of Indiana's port facilities were designated as NHS intermodal freight connectors of national significance. Various ports along the Ohio River in the Cincinnati area are accessible to I-275 via U.S. 50. Segments of U.S. 50 in this area currently range from LOS A through D, while in the future some segments are expected to operate at LOS F. The ramp connecting I-275 with U.S. 50 and Belleview Avenue is estimated at LOS F currently.

SR 62 connects the Southwinds Maritime Center in Mount Vernon with SR 69. These facilities are expected to continue operating at LOS A through 2035.

Several port facilities exist in Evansville, all of them linked by SR 62. SR 62 ranges from LOS A to F currently, with conditions expected to degrade on more segments in the future. Ray Becker Parkway is expected to remain at LOS A through 2035 as is an upgraded Fulton Avenue.

The Perry County Port Authority port facilities in Tell City are considered an intermodal facility of statewide significance. SR 66 and SR 37 range from LOS A to D now and in 2035, though most segments operate at LOS C.

Both Buffington Harbor and Indiana Harbor are located in the Chicago region, directly adjacent to the City of Chicago, and access roads and highways suffer from daily urban congestion. Cline Avenue, the main arterial adjacent to the two ports, operates between LOS A and LOS D, depending on the segment. In 2035 some segments are expected to degrade to LOS B through E.

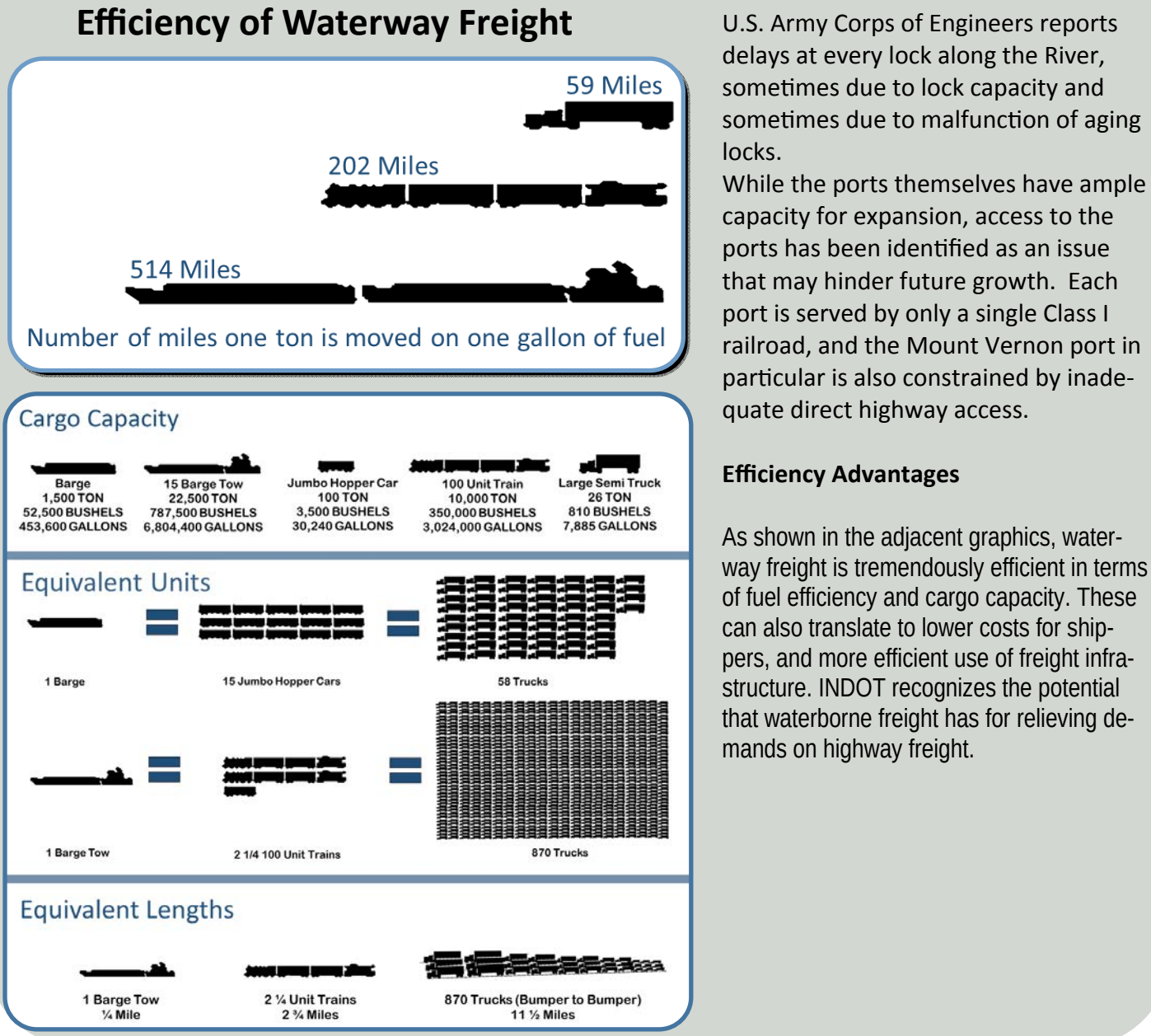
Bottlenecks

Due to the nature of river transport, locks are frequently bottleneck points along the Ohio River. The U.S. Army Corps of Engineers reports delays at every lock along the River, sometimes due to lock capacity and sometimes due to malfunction of aging locks.

While the ports themselves have ample capacity for expansion, access to the ports has been identified as an issue that may hinder future growth. Each port is served by only a single Class I railroad, and the Mount Vernon port in particular is also constrained by inadequate direct highway access.

Efficiency Advantages

As shown in the adjacent graphics, waterway freight is tremendously efficient in terms of fuel efficiency and cargo capacity. These can also translate to lower costs for shippers, and more efficient use of freight infrastructure. INDOT recognizes the potential that waterborne freight has for relieving demands on highway freight.

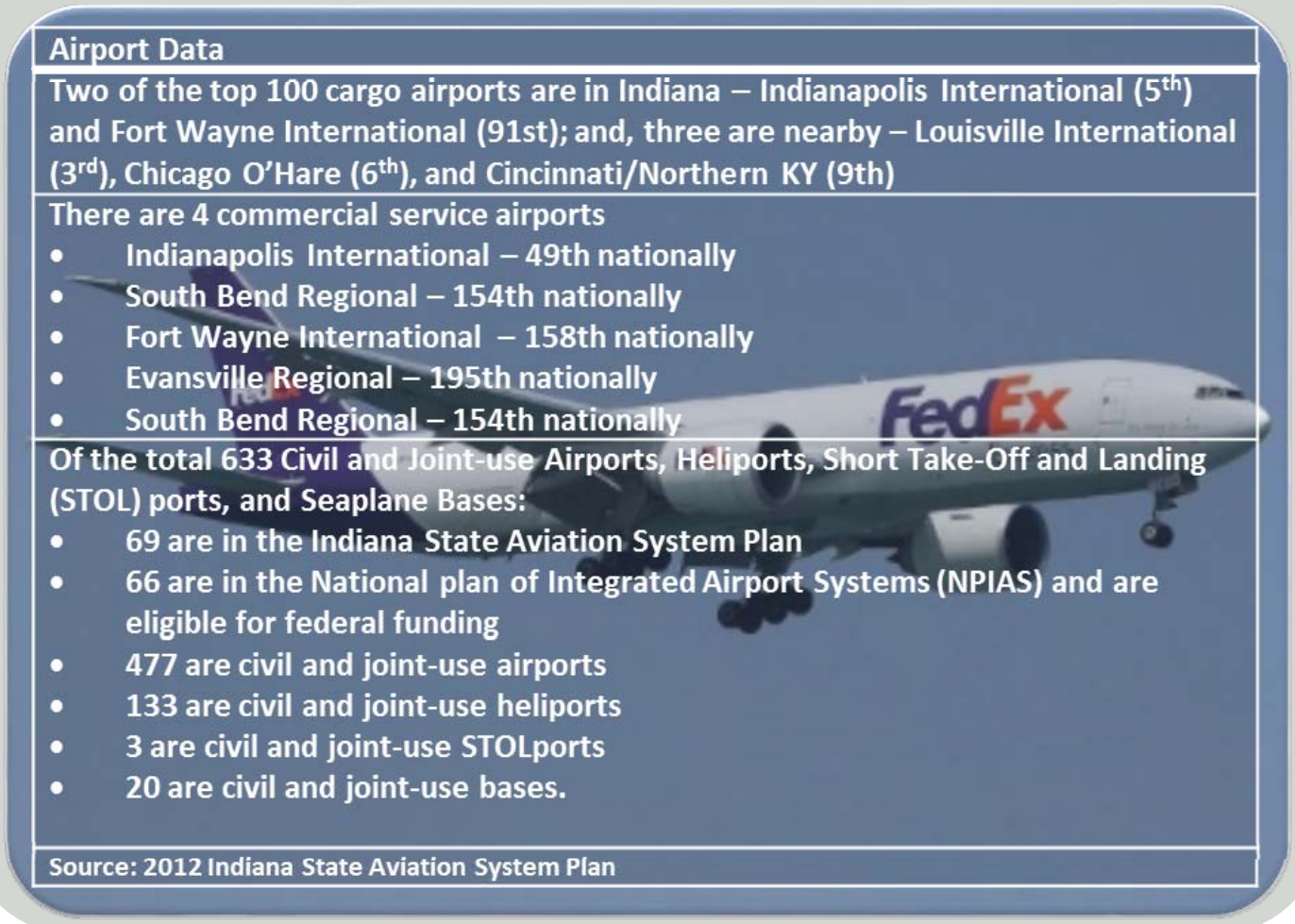


Air Freight Infrastructure

Although air freight represents less than 0.1 percent of the State's freight traffic by weight, it actually carries nearly 8 percent by value. This statistic represents the typical market for air freight, which primarily transports goods that are lighter weight, less bulky, higher value, and more time-sensitive. An example of this is the biotechnology industry, a major user of air freight services.

In Indiana 18 airports each handled at least one ton of air cargo, and five of these had volumes of 100 tons or greater: Indianapolis, Fort Wayne, South Bend, Evansville, and Gary. Indianapolis International Airport is by far the most significant airport in Indiana for air freight, handling over 1 million tons of combined inbound and outbound freight annually. A high concentration of air cargo activity in close proximity to Indianapolis, and the world's second largest FedEx facility at that airport, have contributed to Indianapolis' ranking among top U.S. airports for freight. Federal Express operated 76 gates and occupied over 500 acres at the airport, employing around 5,000 people, with continued plans for expansion. Integrated express carriers FedEx and UPS have determined that centralized locations such as Memphis, Louisville, and Indianapolis are prime sites for streamlining operations in the U.S. and internationally.

In 2012 an updated Indiana State Aviation System Plan (ISASP) was completed. It serves as the plan-



Airport Data

Two of the top 100 cargo airports are in Indiana – Indianapolis International (5th) and Fort Wayne International (91st); and, three are nearby – Louisville International (3rd), Chicago O'Hare (6th), and Cincinnati/Northern KY (9th)

There are 4 commercial service airports

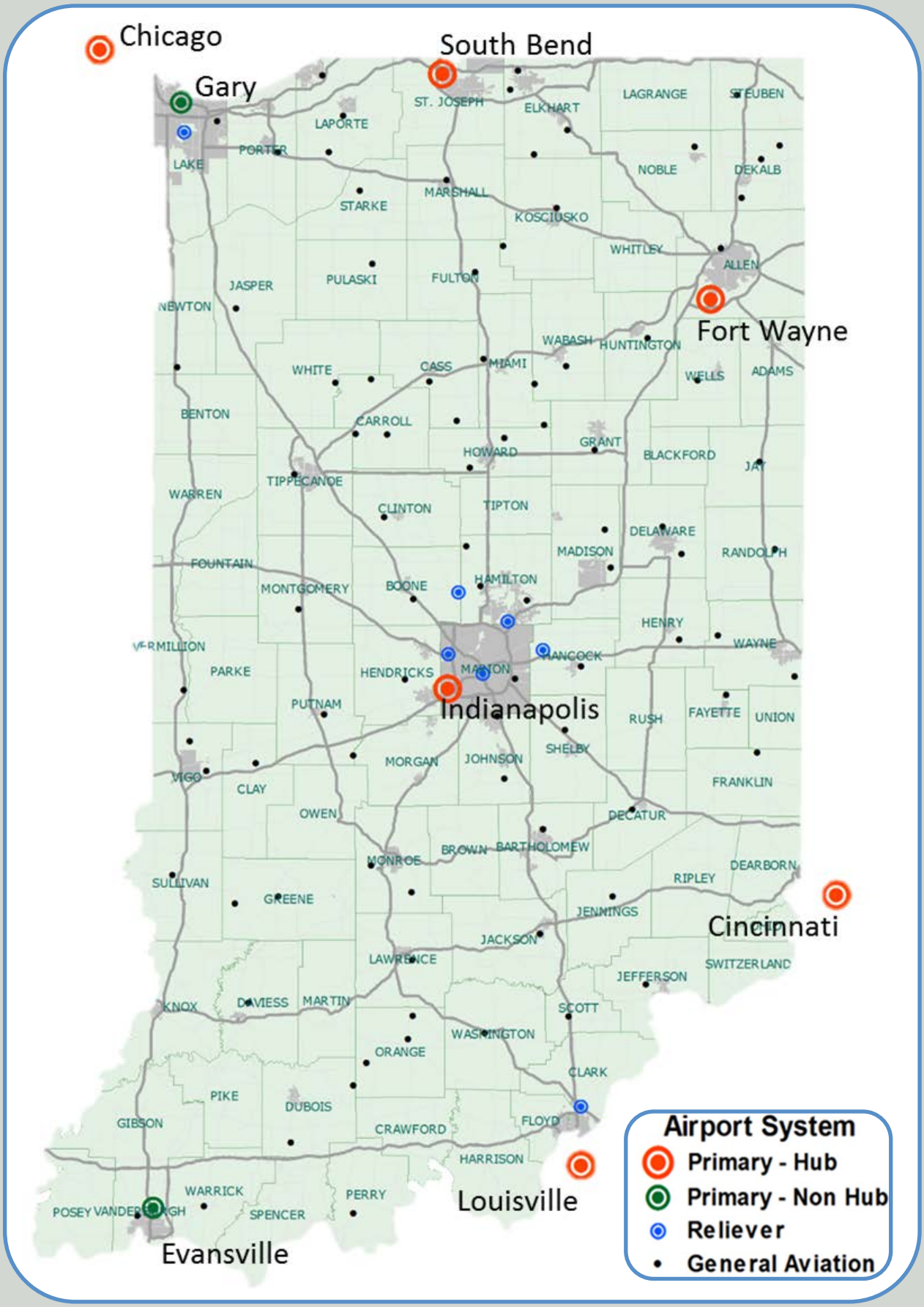
- Indianapolis International – 49th nationally
- South Bend Regional – 154th nationally
- Fort Wayne International – 158th nationally
- Evansville Regional – 195th nationally
- South Bend Regional – 154th nationally

Of the total 633 Civil and Joint-use Airports, Heliports, Short Take-Off and Landing (STOL) ports, and Seaplane Bases:

- 69 are in the Indiana State Aviation System Plan
- 66 are in the National plan of Integrated Airport Systems (NPIAS) and are eligible for federal funding
- 477 are civil and joint-use airports
- 133 are civil and joint-use heliports
- 3 are civil and joint-use STOLports
- 20 are civil and joint-use bases.

Source: 2012 Indiana State Aviation System Plan

Indiana Air Freight Infrastructure



ning framework for the coming years. It covers system goals, airport roles in the overall system, minimum service level requirements and forecasts, as well as documenting the economic benefits of the system to Indiana.

Indiana has more than 580 private–use airports and 115 public-use airports. Of the public-use airports, 69 are considered of statewide importance and are therefore included in the Indiana ISASP. The Indiana aviation system has been continuously developed over the years using federal, state and local funds, and it provides statewide access for business, tourism and recreation .

At present, five primary (includes hub and non-hub) airports provide commercial passenger service. these include; Indianapolis International Airport, Fort Wayne-Allen County Airport, South Bend Airport, Evansville Regional Airport, and Gary/Chicago International Airport.

Another seven airports serve as reliever airports to those larger commercial airports. The balance of the 69 airports covered by the ISASP is 57 general aviation airports.

Indianapolis International Airport serves as the #2 hub for FedEx after Memphis. This reflects the advantage Indianapolis has being in a strategic Midwest location. In addition there are two other airports with 11,200 feet or more of runway – Fort Wayne and the Grissom Air Reserve Base. However, Indiana trails other regional states in its share of state transportation/warehousing gross domestic product. Indiana has excess air shipping capacity and generally the ability to expand its airports. This means Indiana airports have potential to act as reliever airports to other Midwest airports. Indiana has strong university aviation programs to support its air industry.

Air Cargo System Highway Access

Highway access roads to Indianapolis International Airport were designated as NHS intermodal freight connectors of national significance. The old Airport Expressway served as the main access point to the Indianapolis International Airport prior to the opening of the new passenger terminal in late 2008, is still an active gateway to the FedEx freight operation at the airport. At that time, this roadway was operating at LOS A, and is expected to continue to operate at an acceptable level of service into the future. The new primary passenger access point to the Indianapolis International Airport is located off of I-70 on the west side of the airport. U.S. 40 also connects Indianapolis International Airport with I-465. Several segments of US 40 between I-465 and the Ronald Reagan Parkway have peak period congestion at level of service F. More segments of US 40 near the airport are expected to degrade to below congestion thresholds by 2035.

Fort Wayne International Airport, is another cargo airport of national significance. It can be accessed from I-69 and I-469 via a variety of roads, including Indianapolis Road, Airport Expressway, and Bluffton Road. These roads, as well as the neighboring interstates, are expected to continue to operate at LOS A or B through 2035.

3

Multimodal Freight and Mobility Plan

In This Section:

Section 3: Stakeholder Outreach & Coordination

The Coordination and Outreach component of the Indiana Multimodal Freight and Mobility Plan (Plan) is an essential means of including the stakeholders, from both public agencies and the private sector, in the INDOT freight planning process. The purpose of the outreach effort is to obtain valuable input and gain a better understanding of the freight and logistics industry needs and issues.

The most recent outreach effort, builds on strong relationship with Conexus Indiana Logistics Council. Conexus is the catalyst to position Indiana as the recognized global leader in advanced manufacturing and logistics and was formed in 2007. Conexus is building industry partners and exploring new market opportunities, preparing Hoosiers to take advantage of manufacturing and logistics careers, and promoting a better understanding of the importance of these sectors to our economic future.

Input from others, including existing organizations, such as economic development groups at the state and regional level, and other agencies across the State. In addition, the State's Metropolitan Planning Organizations (MPOs) have provided their input on regional issues, as well as the freight carriers and shippers, who were targeted through the previous stakeholder outreach efforts.

Stakeholder Feedback

In 2008, Conexus first held six regional forums statewide in Northwest, North Central; Northeast, Central, Southwest and Southeast Indiana to determine the needs for the logistics industry. From these regional forums, Conexus formed the Conexus Indiana Logistics Council (CILC). CILC is a forum of 50 logistics executives and thought leaders from throughout Indiana representing the following logistics sectors: air; rail; trucking; waterborne; infrastructure; warehousing/distribution; distributors/ warehousing; and third-party providers.

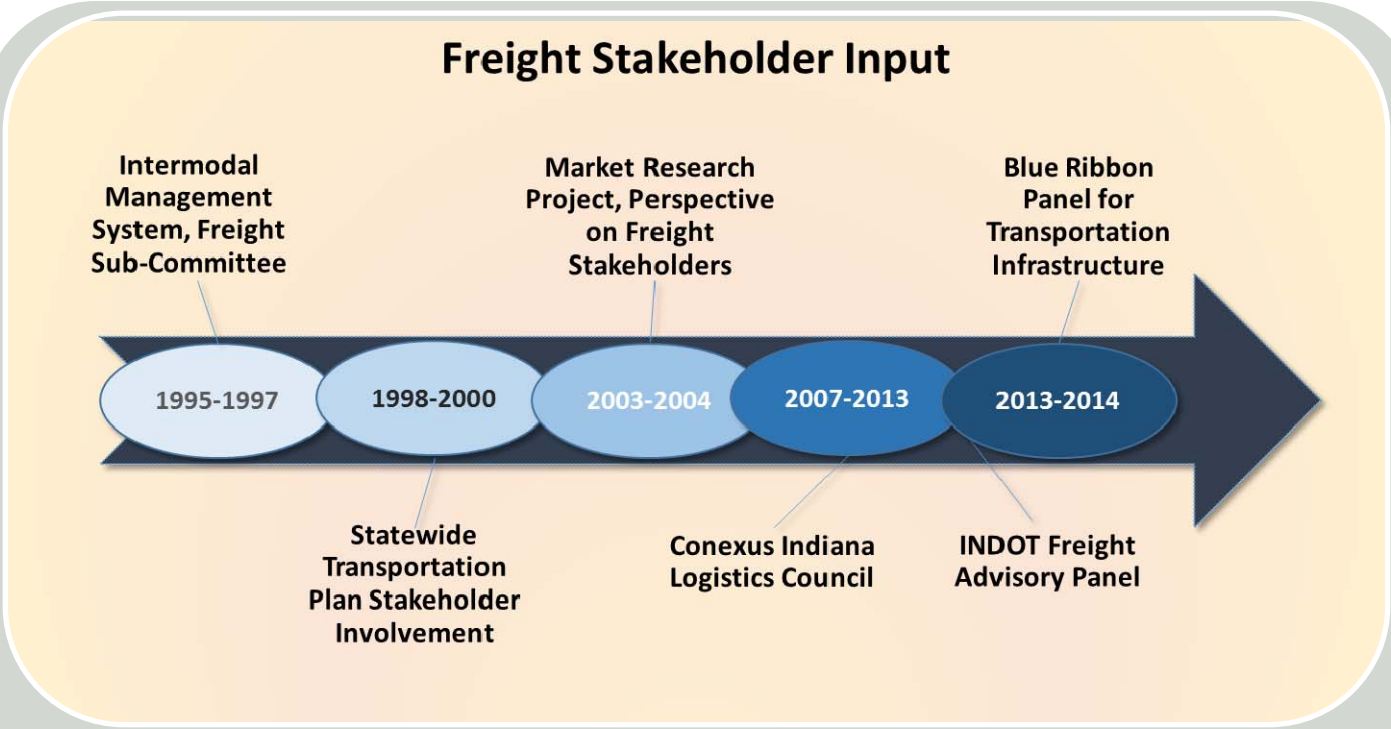
CILC created a strategic plan that would identify the logistics strategies and implementation tactics to achieve these strategies in *Phase I: A Plan for Indiana's Logistics Future*, which identified the key short -term logistics needs, whether through the private sector of the public sector. The plan was released in March of 2010 and has been a blueprint for the industry and has been widely used by the Governor of Indiana, the Indiana General Assembly, Indiana Department of Transportation (INDOT), Indiana Economic Development Corporation (IEDC), the Ports of Indiana and by member of Indiana's Congressional delegation. CILC has recently released (June 2014) *Phase II: A Plan for Indiana's Logistics Future* that discusses how to finance implementation tactics in Phase I and identifies the long-term . INDOT has non-voting representation on CILC as an ex-officio member along with IEDC and the Ports of Indiana.

Governor's Blue Ribbon Panel for Transportation Infrastructure

In November, 2013, Governor Mike Pence announced the establishment of a Blue Ribbon Panel to plan the next generation of transportation infrastructure in Indiana. The Panel, a priority objective in Pence's Roadmap for Indiana, will review projects related to all four modes of transportation: water, air, road and rail. Based on a set of metrics they will develop, the Panel will identify a list of priority projects over the course of the next ten years. For the longer term, the group will explore and monitor innovations in transportation infrastructure to keep Indiana on the cutting edge. INDOT is providing staff support and technical expertise to this process, and will be responsible for eventual implementation of project recommendations.

Past Input Received by INDOT

- The INDOT Intermodal Management System Report (October 1997) was developed in a cooperative effort with major transportation stakeholders. The INDOT Planning Division developed the IMS in conjunction with Freight and Passenger Advisory subcommittees. These subcommittees contained representatives of other INDOT divisions, Federal agencies, metropolitan development organizations, trade associations, facility managers, and individual mode operators and transportation providers.



- 2011 Indiana State Rail Plan – This plan provided a broad view of the freight and passenger rail industry in Indiana. The plan detailed the importance of the state's freight industry in relation to the various sectors of Indiana's economy. The plan also outlined some of the benefits and challenges faced by Indiana's short line railroads and an overview of passenger rail planning activities and an analysis of existing services.

- INDOT Market Research Project, Perspective on Freight Stakeholders (2004) – This research study identified concerns of major shippers and carriers for consideration in the statewide planning process, and provided initial recommendations to INDOT regarding the integration of freight and goods mobility issues in the statewide plan. The Market Research Project can be found online at http://www.in.gov/indot/files/completePDFdocument.pdf.

- Indiana Multimodal Freight and Mobility Plan (2009) – This entailed a comprehensive analysis of the current and future freight transportation system in Indiana. It identified gaps and needs, proposed solutions, and a methodology for evaluating freight projects. During the development of the 2009 Indiana Multimodal Freight and Mobility Plan a Freight Advisory Committee was established and supported by INDOT to oversee the study. This committee consisted of private and public sector stakeholders, including shippers, carriers, agencies, and organizations with a vested interest in moving freight efficiently to, from, and within the State of Indiana. The advisory committee, which has since evolved into the current Indiana Logistics Council, represented 41 organizations from the public and private sectors, was identified as the appropriate body to serve in this advisory capacity. During the initial stages of the Plan's development, a stakeholder survey was conducted. The purpose of the survey was to provide a qualitative understanding of freight issues and trends that would complement the quantitative data collected from other sources.

Freight Stakeholders at the Metropolitan Level

A significant group of stakeholders includes representatives of Indiana's 14 MPOs. Six of the 14 MPOs have freight components in their current LRTPs, most of these involve discussions of freight issues, with only a few actually identifying freight-related projects. Accordingly, three of the MPOs employ specific evaluation criteria or performance measures to prioritize freight projects for inclusion in their LRTP and TIP. Most of the MPOs are beginning to realize the need for Freight Planning and the linkages between freight mobility and economic development. It appears that this realization will result in more emphasis in the future on freight planning at the regional level.

In Northwest Indiana, the Four Cities Consortium grew out of the Conrail acquisition (by NS and CSX) to address the issue of at-grade crossings. (The Consortium included the cities of Whiting, Hammond, East Chicago, and Gary.) The Four Cities Consortium was linked to the CREATE program in Illinois, and has since been dissolved (2007).

Michiana Area Council of Governments conducted a Freight Inventory and Study in 2004. Freight projects were subsequently designated in the LRTP's project listings. MACOG completed a Truck Route Inventory Report for Elkhart, Kosciusko, Marshall, and St. Joseph Counties in 2007. In addition, MACOG's Comprehensive Economic Development Strategy provides a regional view of freight-producing industries in the region.

Terre Haute conducted a rail relocation study in 2011, and are now implementing grade separations and rail crossing ITS projects.

The Evansville MPO performed a survey in 2005 to identify freight concerns in each of its five counties. In addition, the Southwest Indiana Intermodal Terminal Feasibility Study was completed in 2006.

Fort Wayne added truck modeling capabilities to their travel demand model in 2011

MCCOG's Intermodal Study was completed in 2000. In addition, a railroad grade separation study was done in 2009.

The Indianapolis MPO's Freight Plan was completed in 1998.

OKI conducted a Freight Study in 2009

KIPDA has added a component to model freight flows within their travel demand model. KIPDA has also developed a survey to identify potential freight bottlenecks within the region.

Summary of General Stakeholder Input

Based on stakeholder conversations and outside research, there are many factors that suggest that Indiana is primed for growth in industries that have been established strongholds in the State, particularly manufacturing. The optimal site locations for industrial growth are hinged upon having access to an efficient transportation system as well as to a capable labor pool. For this reason, it appears that Indianapolis and other population bases with multimodal access are ideal candidates to embrace business growth. The following stakeholder points support this claim:

- Overall the State has an effective base of transportation infrastructure from which to build across all modes.
- A vast majority of freight traffic through the State is pass-through traffic, en route to or from destinations outside of Indiana. It is in the best interest of most Indiana businesses to begin to capture a portion of this traffic.
- Connectivity to a large consumer population base in Indiana and neighboring states is one of the primary attributes of business siting in Indiana.

In particular, the Central Indiana area is in a favorable position for aggressive economic development for the following reasons:

- Ample room for air cargo expansion on the entire north side of Indianapolis International Airport;
- Excellent highway connectivity in all directions with the exception of the Southwest, where the I-69 linkage between Indianapolis and Evansville is currently under development;
- Class I rail connectivity to East coast and West coast seaports; and
- Relatively low-priced land available for industrial/logistics-oriented uses.
- Availability of qualified, skilled workers for general labor, manufacturing, and warehouse jobs is an emerging concern.
- Key industry growth is occurring in numerous sectors: automotive and transportation equipment (Honda, Toyota, and Subaru); telecommunications, logistics and distribution; and life sciences.
- Traditional agricultural trends related to the production of grain are being complemented by emerging ethanol and biofuel industry growth.

Highway-Related Stakeholder Input

Similar to other states in the U.S., the Indiana highway system is the predominant mode of freight transport in the State, and it comes as no surprise that many of the issues facing the trucking industry in Indiana reflect national trends. Examples of these broad concerns include: availability and retention of qualified and reliable drivers; shift from owner-operators to larger companies due to increased expenses; continuing pressure to keep prices competitive despite rising fuel costs; and increased pressure from shippers to increase weight and cube capacity of vehicles.

Topics that arose which are specific to the State of Indiana are summarized in the bullets that follow:

- There is substantial demand for truck parking facilities along major interstate routes. Existing facilities are full on a consistent basis which is a cause for concern as related to hours-of-service regulations. It was noted that public truck parking facilities do exist along the Indiana Toll Road, in locations formerly occupied by service plazas; however, these facilities do not include electrical hook-ups for trucks (causing noise and air quality concerns for nearby neighborhoods).

Strengths

- Reputation as "Crossroads of America"
- #1 in nation for interstates with 14
- #1 in interstate highway miles
- Major Moves funding for Indiana highways and roads
- State of Indiana focus on road building
- Positive visibility of trucking
- Viewed as a center for surrounding major cities
- I-69 to Southwest Indiana

Weaknesses

- Bottlenecks or traffic congestion – Northwest Indiana; South Bend to Indianapolis; Indianapolis; and Jeffersonville/New Albany
- No Interstate access to Southwest Indiana
- No Interstate/highway access to Southwest Indiana Port
- Lack of adequate capacity on Indiana's Interstate highway
- Federal/state user of gas taxes for other general Federal/state revenue needs
- Lower truck weight limits compared to surrounding states
- Lack of Federal/state funding

- There is a need for the distribution of freight movement over an expanded portion of the 24-hour clock (most freight movement occurs during the 12-hour workday, 6:00 a.m. to 6:00 p.m., with the heaviest occurrence during the core business hours of 7:00 a.m. to 4:00 p.m.).
- The completion of the I-69 corridor between Indianapolis and Evansville will greatly improve truck and passenger flows in the southwestern portion of the State, while enhancing access to the Port of Indiana-Mount Vernon.
- Highway and bridge infrastructure improvements should be targeted toward key freight corridors.
- Congestion issues are relatively modest for the most part at the statewide level, however there

Opportunities

- Freight tonnage will increase by 60% by 2035 according to USDOT
- Work to relieve the bottlenecks around Northwest Indiana; South Bend to Indianapolis; Indianapolis; and Jeffersonville/New Albany
- Upgrade statewide strategic bridges that are structurally deficient or functionally obsolete
- Build Interstate access to Southwest Indiana
- Build Interstate/highway access to Southwest Indiana Port
- Dedicated truck lanes – separation of trucks from passenger cars
- Allow increase in truck weight limits through use of ESAL weight limits
- Federal and state firewall on gas taxes for highway use only

Threats

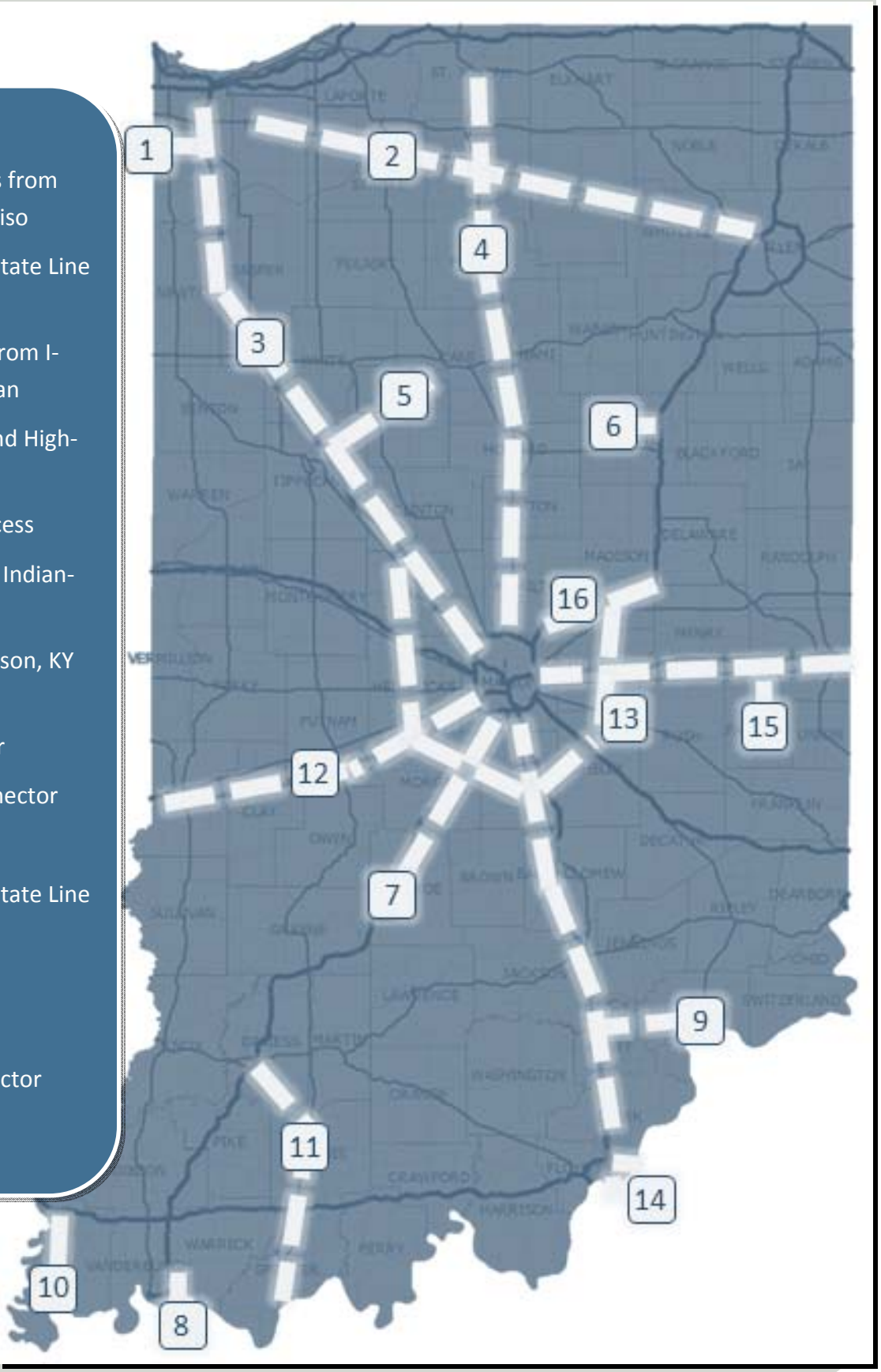
- Lack of funding to build roads necessary to relieve bottlenecks or traffic congestion
- Lack of funding to upgrade statewide strategic bridges that are structurally deficient or functionally obsolete
- Lack of funding and attempts to stop Interstate access to Southwest Indiana
- Lack of Interstate/highway access to Southwest Indiana Port
- Surrounding states of Illinois, Michigan, Tennessee and Wisconsin offer grants/loans/tax credits for trucking economic development/ private investment
- Lack of Federal/state highway dollars for new/ existing roads
- Continued use of gas taxes for other general Federal/state revenue needs
- Competitiveness issues due to lower truck weight limits

is a realization that congestion is increasing. Current problem areas exist in the northwest part of the State due to the effects of Chicago, as well as on the east side of Indianapolis (particularly the northeast quadrant).

- Truck accessibility is a concern at the local level. Many cities have implemented partial or total truck bans, leading to complaints from truckers. Further, the trucking industry is not in strong support of a statewide truck routing system.
- At the state level, greater discussion is predicted regarding increasing truck size and weight limits to accommodate continuing growth in freight movements without unnecessarily impacting congestion, safety and road degradation.
- Generally speaking, the trucking industry is complimentary of the state agencies involved in regulation and enforcement, particularly the Indiana State Police, Department of Revenue, and Bureau of Motor Vehicles. The regulatory environment is "very friendly" to trucking, particularly due to a focus on efficiency.
- The trucking industry continues to support growth in Indiana, and recognizes that this is directly dependent upon growth in the manufacturing sector.
- Local (short-haul) trucking is highly reliant on the network of primary arterials throughout the State.

Stakeholder Identified Projects with Statewide Implications

1) Illiana Expressway
2) US 30 – Limited Access from Fort Wayne to Valparaiso
3) I-65 Additional Lanes State Line to State Line
4) US 31 Limited Access from I-465 to State of Michigan
5) SR 25 Hoosier Heartland High-way
6) Marion, IN Limited Access
7) I-69 from Evansville to Indian-apolis
8) I-69 Evansville/Henderson, KY River Bridges
9) Madison, IN Connector
10) Mt. Vernon Ports Connector
11) Jasper, IN Connector
12) I-70 Additional Lanes State Line to State Line
13) Commerce Connector
14) Ohio River Bridges
15) Connersville, IN Connector
16) I-69 Added Lanes



Railroad-Related Stakeholder Input

Indiana is served by an intricate network of short-line, regional, and class I railroads, and accordingly, rail is second only to trucking (measured by weight) as a mode of freight transportation in the State. The rail industry has been pinpointed as a sector with significant growth potential, both because of the existing infrastructure and right-of-way in place, as well as its ability to develop intermodal facilities. All indications are that container traffic is an appealing option to both the shipping and manufacturing industries, and the issue of intermodal development has been on the radar screen of public officials and private industry representatives throughout the State for several years. The majority of rail related comments derived from stakeholder interviews revealed specific areas for improvement and investment in the State's rail infrastructure.

Key points are summarized in the bullet points below:

- Demand for freight rail service is increasing nationwide, and rail companies are making targeted capital investments at a faster rate than in the past to relieve key bottlenecks throughout their national systems.

Strengths

- 9th in rail miles
- 4th nationally with 41 freight railroads
- 4 small intermodal facilities
- Heavy presence of Tier I railroads – Canadian National, CSX and Norfolk Southern
- 6 of Top 10 commodities originating in Indiana – coal; farm products; food products; primary metal products; waste & scrap material; and transportation equipment
- 4 of Top 10 commodities terminating in Indiana – coal; primary metal products; petroleum products; and waste & scrap material
- Ports of Indiana bonding authority for rail facilities

Weaknesses

- Primarily pass through state for rail intermodal
- Reliant on Chicago intermodal rail service
- Lack of large volume intermodal facility(ies)
- Limited railroad access to ports
- Lack of private investment compared to surrounding states
- Lack of "ownership" by public entities on rail freight movement
- Lack of Federal/state funding

- There are several logical locations for intermodal facilities in Indiana, however funding arrangements remain a key concern.
- Rail connectivity with the East Coast is provided by NS and CSX; there is a demand for West Coast originating traffic destined for Indiana that can bypass Chicago, which is now being served by the Senate Avenue CN/INRR intermodal facility opened in 2013
- The potential of establishing new trailer on flat car (TOFC) service from Louisville to New Jersey presents an intriguing option for the trucking industry to efficiently deliver auto industry products to the East Coast.
- Specific areas for efficiency improvements include connectivity among and between operators through enhanced technology; consolidations among short-lines and continued

Opportunities

- Capture more economic benefits from the large amount of pass through freight traffic
- Freight tonnage will increase by 60% by 2035 according to USDOT
- Completing upgrades or additions to Indiana's multimodal rail system
- Create large volume intermodal facilities decreasing Indiana's reliance on Chicago to West Coast ports
- Build additional/better railroad access to Indiana's ports
- Federal and state investment tax credit incentivizing private rail investment
- Funding for inter/multimodal rail development

Threats

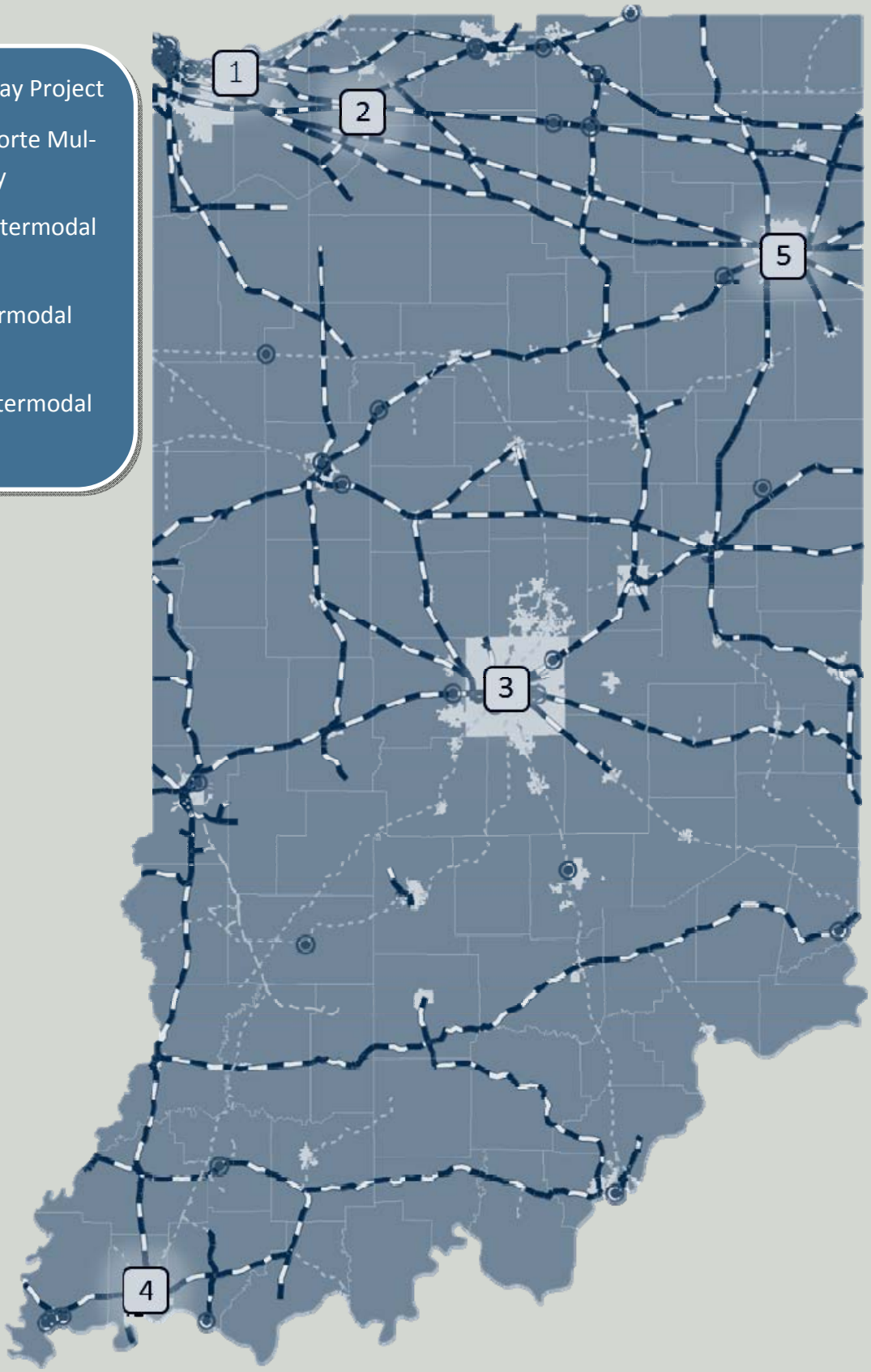
- Continuation of Indiana as a pass through state for rail
- Reliance on Chicago for intermodal services
- Lack of intermodal service bypassing Chicago
- Lack of ownership by public entities of intermodal opportunities
- Surrounding states push for rail investment
- Surrounding states of Illinois, Kentucky, Michigan, Ohio, Tennessee and Wisconsin offer grants/loans/tax credits for rail economic development/private investment
- Loss of private rail investment to surrounding states
- Federal cap and trade legislation

abandonments (or fire sales) by Class I's of marginally operating infrastructure, shifting operations to local operators; and increased intermodalism to ensure economic development benefits remain in-state.

- With the nearest rail yard with West Coast connectivity in Joliet, Illinois there is demand from area businesses for a rail yard in the Indianapolis area to process freight to and from West Coast ports.
- Indiana's mining industry is reliant on rail's ability to transport high-volume, lower-value bulk commodities. Coal-specific comments are summarized below:
- In many cases the Class I's are not interested in increased coal movement. Coal is less profitable than other commodities and the Class I's are near capacity on many lines.
- Connectivity is lacking between southwestern Indiana, where the coalfields are located, and the Class I Railroad mainlines and major ports of northern Indiana.
- Reliability issues in rail delivery of coal are forcing power plants to maintain higher coal inventories. Capacity and bottleneck issues are also an issue if Indiana intends to export coal to a wide geographic area.
- Although there is significant Class I mileage in Indiana, the railroads are focusing investments elsewhere. Indiana is part of a nationwide network, primarily serving pass-through traffic.
- Increases in demand for rail movement of other commodities (containers, ethanol, grains) may further inhibit growth in the coal sector. However, it is also an opportunity for partnership with other industries (and the Ports of Indiana) as these other sectors are in need of infrastructure improvements as well.
- The Department of Natural Resources issues new coal extraction permits regularly, including at least one entirely new coal mine site in Gibson County, suggesting that Indiana has the potential to increase coal production to meet greater demand, if that demand can be satisfied by necessary transportation services.
- Numerous short-lines are moving coal between mines and plants. As far as exporting via rail, the challenge is connecting the coalfields to the Class I mainlines. Also, Class I railroads are not interested in moving coal short distances.

Stakeholder Identified Rail Projects with Statewide Implications

1) Indiana Gateway Project
2) Kingsbury/LaPorte Multimodal Facility
3) Indianapolis Intermodal Facility
4) Evansville Intermodal Facility
5) Fort Wayne Intermodal Facility



Air Cargo-Related Stakeholder Input

From an economic development perspective, the State has set its goal on continuing to attract industries that fall into the light and specialty manufacturing sectors in order to build upon an already sizeable base. It is these specific and in some cases niche types of businesses that can realize the most potential from having access to reliable air cargo facilities. The primary appeal of shipping by air is that it can often provide a more timely, reliable, and secure service than other mode options. While Indianapolis International Airport is the State's largest cargo airport with commercial service, there is air cargo capacity at several other commercial airports within the State.

Specific air cargo-related comments are summarized below:

- Consistent investment in air cargo from the private sector indicates solid growth potential.
- There is substantial growth potential in high-value, low-volume cargo handled by air. Perceptions of the manufacturing and logistics industry around Indianapolis are changing

Strengths

- Strong network of airport facilities
- 5 of Top 125 cargo airports nearby: Indianapolis #5; Fort Wayne #91; Louisville #3; Chicago O'Hare #6; Cincinnati #9
- Existing excess air capacity
- #2 FedEx Hub at Indianapolis Airport
- 3 Airports with 11,200 feet or more of runway – Fort Wayne, Grissom and Indianapolis
- Midwest location
- Strategic geographic coverage of aviation facilities located around the state
- Strong university aviation programs
- Federal government reimburses up to 95% of costs for qualified airport projects

Weaknesses

- 7th of 8 compared to Midwest/Great Lakes Region states in air transport as a share of State transportation/ warehousing GDP
- Indiana airports have minimal international/domestic business; other than the domestic cargo shipping at Indianapolis Airport
- Bottlenecks due to airport congestion at Chicago O'Hare Airport
- Reliant on Chicago O'Hare Airport for international/domestic air cargo
- Lack of "ownership" by public entities on air cargo movement
- Lack of Federal/state funding

to reflect the air cargo capabilities and potential that are present.

- Opportunities exist for the development of niche markets that are reliant on time- and temperature-sensitive goods, such as pharmaceuticals.
- There is a need to convince freight forwarders to include Indianapolis International Airport in the mix of traditional hubs such as Miami, New York, Atlanta, and Chicago.
- The Indianapolis area is primed for aggressive economic development:
- Available space exists for air cargo expansion at Indianapolis International Airport; and
- Land is available for industrial/logistics-oriented uses.

Opportunities

- Position Indiana as a reliever (avoiding congestion in Chicago) airport for domestic/international cargo by utilizing our excess capacity
- Actively recruit FedEx to bring entire domestic business to Indianapolis allowing FedEx to grow their international business in Memphis
- Create a Southern Indiana strategy to better utilize the Louisville Airport
- Airports have capacity to expand
- Several airports currently have runways & facilities to accommodate air shipping opportunities
- Dedicated air fund creating more Federal funding

Threats

- Continued underutilization of Indiana airports
- Dependent on increasing bottlenecks in Chicago leading to inefficient air cargo service
- Lack of state funding to meet infrastructure needs
- Reliance on Chicago for intermodal services
- Surrounding states of Michigan, Tennessee and Wisconsin offer grants/loans/tax credits for air economic development/private investment
- Loss of matching dollars from Federal government because of lack of state investment
- Federal cap and trade legislation

Waterway-Related Stakeholder Input

The State's waterway freight system has traditionally been largely defined by the agricultural and mining industries, as barge transport is well-suited for high volume low-cost bulk materials. This pattern is shifting slightly due to an emerging ethanol market and discussions of integrating container traffic into Indiana logistics trends.

Waterborne freight comments are summarized below:

- A continuation of recent trends in bulk commodities can be expected into the foreseeable future.
- There is a need to address the interdependence of fertilizer shipments (currently received from global sources).
- Sidings in fertilizer stations are getting more difficult and costly to maintain.
- There is significant potential for introducing container traffic to the Ohio River ports.
- There is a lack of sufficient lock and dam infrastructure on the inland waterway network.

Strengths

- 15th nationally in total foreign & domestic waterborne shipping
- 3 public ports – 1 on Lake Michigan and 2 on the Ohio River
- 67 private ports – 3 on Great Lakes and 64 on the Ohio River
- Indiana Congressional District One is #1 in steel shipping in U.S. with 31 million tons of commodities and 77% of the nation's iron ore/steel
- Ports of Indiana (public and private)
- Ports of Indiana bonding authority for port activity

Weaknesses

- Decaying lock infrastructure on Great Lakes; Ohio & Mississippi rivers
- Dredging issues for ports and waterways on Great Lakes; Ohio & Mississippi rivers
- Limited area for disposal of dredged material from Lake Michigan
- Limited railroad access to ports
- Lack of "ownership" by public entities of waterborne shipping
- Lack of Federal/state funding
- Lack of public and legislator understanding of importance of locks infrastructure

- Privatization could be a means of improving efficiency of operations and management at public terminals.
- The potential exists for incremental expansion for inland waterway movement of certain intermodal cargo as fuel and transportation pricing increase as a percentage of TOC.
- Homeland security issues for domestic bulk shipments will be a growing concern in the near future.

Waterborne Project Needs Identified with Statewide Implications

1) Soo Locks Reconstruction
2) Olmsted Locks Reconstruction

Opportunities

- Reengineer and repair the decaying lock infrastructure on Great Lakes; Ohio & Mississippi rivers
- Dredge the areas around the ports and waterways on the Great Lakes; Ohio & Mississippi rivers
- Create a solution for disposing of dredged material from Lake Michigan
- Build additional/better railroad access to Indiana ports
- Harbor Assistance Program to incentivize ports and private investment
- Adequate funding for locks projects

Threats

- Failure of decaying lock infrastructure leading to stoppage of all barge traffic on Ohio River and lack of access to Lake Michigan for iron ore to steel mills
- Inability to provide necessary access by not dredging Lake Michigan, Mississippi & Ohio rivers
- Loss of business due to inadequate railroad access to ports
- Surrounding states of Michigan, Tennessee and Wisconsin offer grants/loans/tax credits for waterborne economic development/ private investment
- Lack of Federal/state funding for locks infrastructure repair

Indiana Summary

Strengths

- Indiana has a trade surplus
- Leader in export/imports of important commodities (coal, iron/steel products, grain, food products, scrap metal, etc.)
- Indiana's use of public/private partnerships to facilitate the funding of key projects
- Adoption of Daylight Savings Time

Weaknesses

- Lack of import/export diversification
- Lack of coordinated logistics agenda at the Indiana General Assembly
- Increase in unemployment insurance (UI) tax on state level
- Lack of public understanding of logistics
- Lack of public understanding of need for infrastructure expansion/improvement
- Public misperception of global trade & positive impacts on Indiana
- Lack of awareness of importance for air, rail &

Opportunities

- Freight Tonnage will increase by 60% by 2035 according to USDOT
- The value of U.S. imports and exports is expected to be equivalent to 60 percent of GDP by 2030
- Position Indiana as an international freight gateway
- Work for diversification of exports/imports
- Creation of logistics association facilitating and advocating for public changes
- Educate public on positive impacts of logistics industry, explain the facts on how the logistics industry impacts everyday life
- Educate public on need for infrastructure expansion/improvement
- Educate public on high-skill, high wage jobs in logistics
- Educate public on positive impacts of global trade
- Increase understanding of importance of air, rail & water transportation modes

Threats

- Failure of decaying lock infrastructure leading to stoppage of all barge traffic on Ohio River and lack of access to Lake Michigan for iron ore to steel mills
- Inability to provide necessary access by not dredging Lake Michigan, Mississippi & Ohio rivers
- Loss of business due to inadequate railroad access to ports
- Surrounding states of Michigan, Tennessee and Wisconsin offer grants/loans/tax credits for waterborne economic development/private investment
- Lack of Federal/state funding for locks infrastructure repair

4

Multimodal Freight and Mobility Plan

Section 4: Economic Drivers and Impacts

In This Section:

Indiana's freight transportation system underpins the State's $298 billion economy and its three million jobs. Prior to the recession, Indiana historically lagged behind the nation's economic growth rate. Since mid-2009, Indiana's growth has either been on par or stronger than the national rate.

Since 2009 Indiana's labor market has mostly outperformed the nation as a whole, especially during the early part of the recovery period. In 2012, Indiana benefited from strong growth in manufacturing payroll employment, pushing Indiana's growth rate above 2%, compared to the nation's 1.6%. Indiana's gross state product (GSP), the most common measure of economic size and activity, grew by 55% between 1990 and 2008 (adjusted for inflation), essentially the same as the percent increase in U.S. gross domestic product (GDP) posted over the same period. Between 2009 and 2013, the GSP for Indiana has grown nearly 10%, as the economy has recovered from the "Great Recession".

Population and Demographic Trends

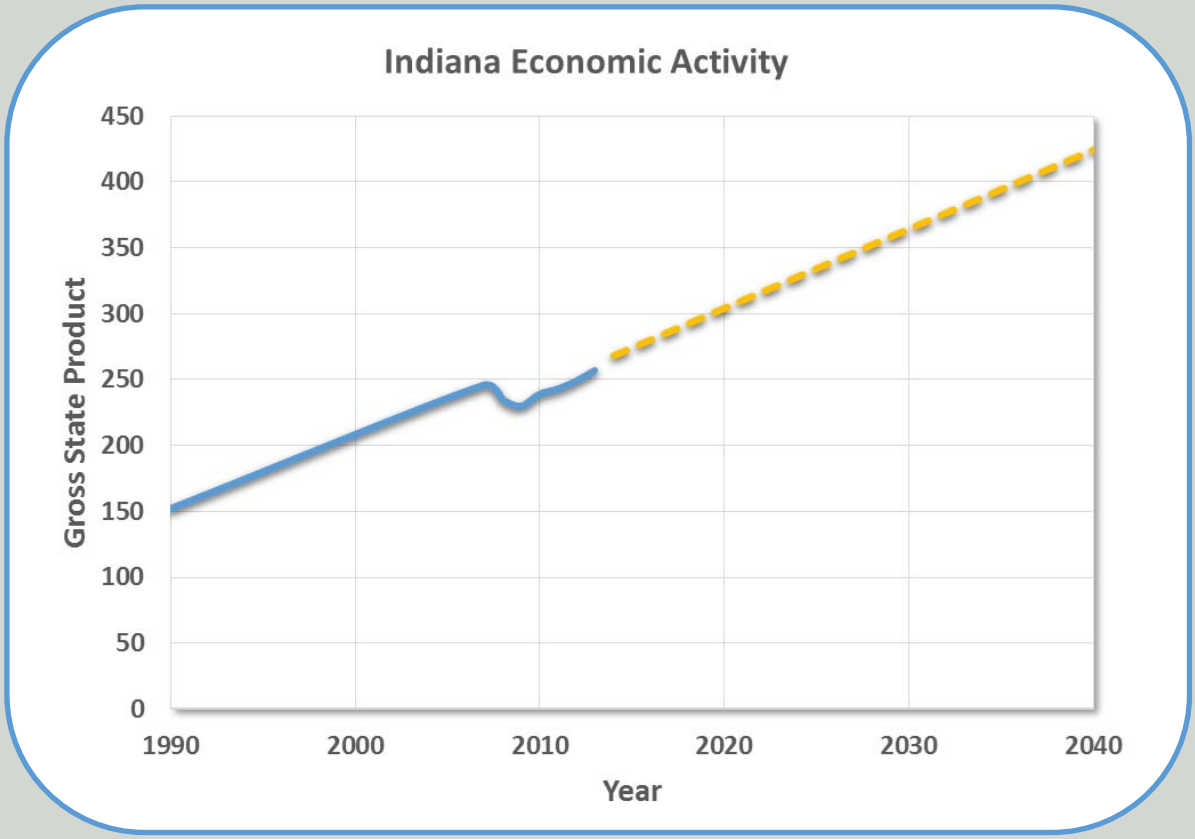
Indiana's population in 2010 of 6.5 million is projected to grow to 7.3 million people by 2040, representing a labor force increase from 3.25 million to 3.40 million. The Indiana population is aging, and this will eventually reduce the workforce.

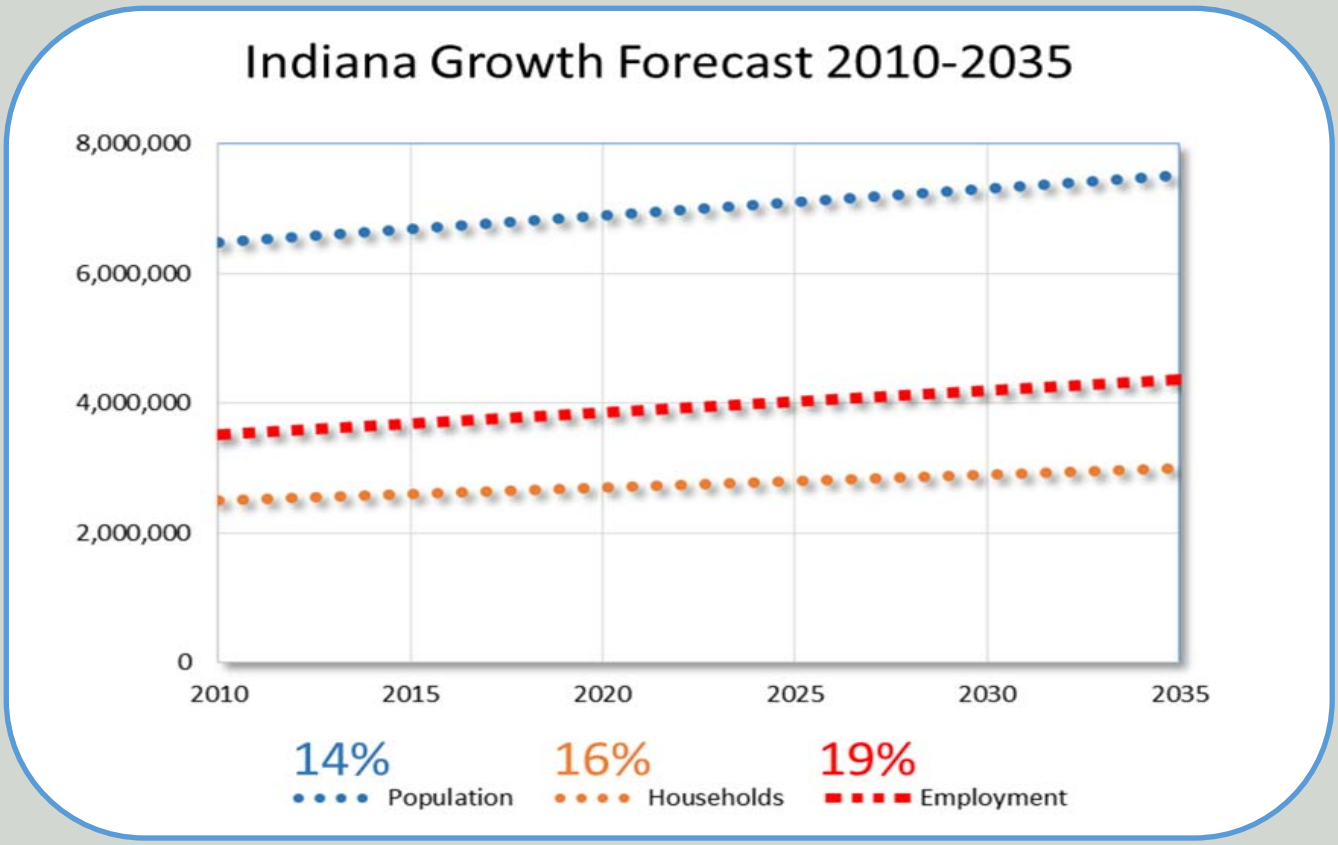
Population Growth Distribution

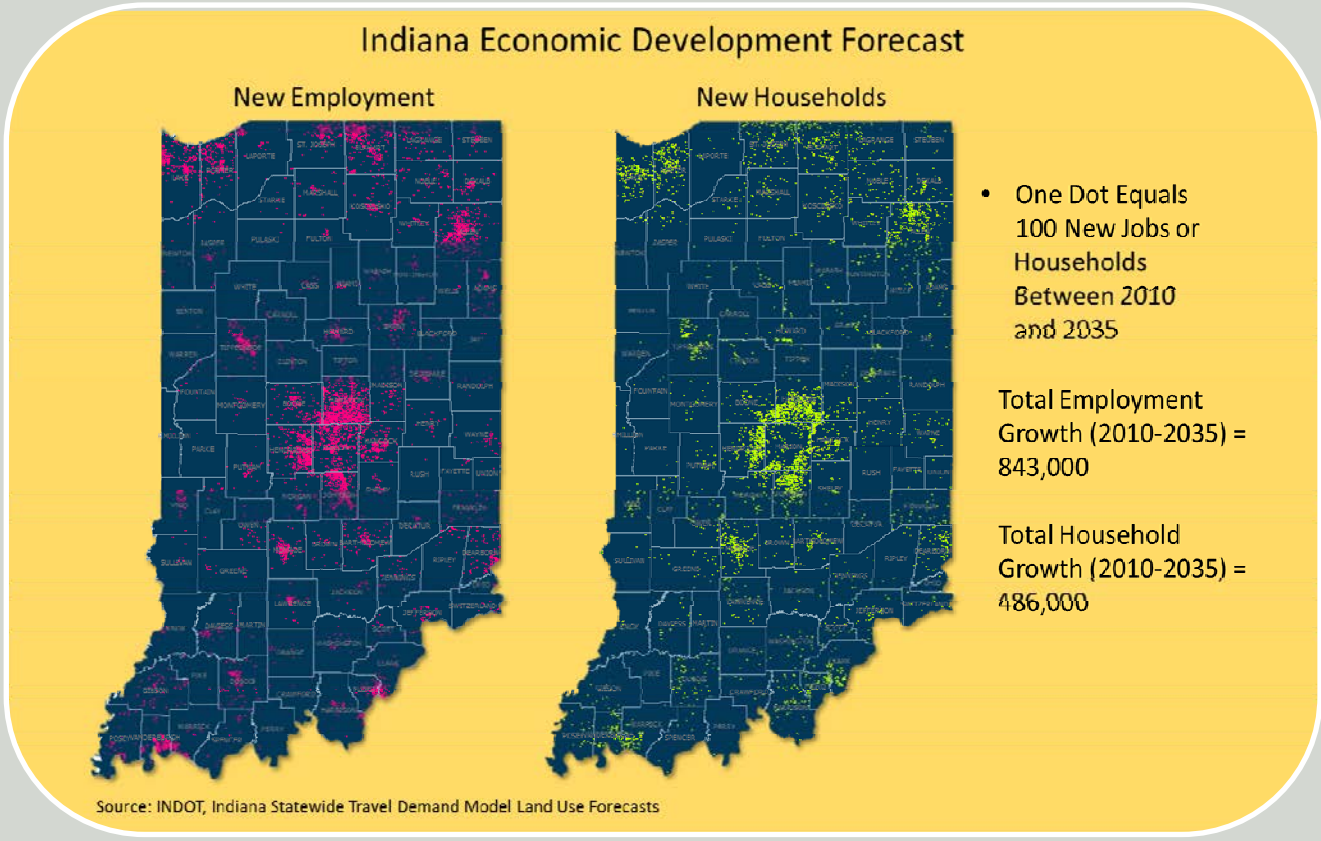
With economic globalization and continued trends in technological development, many of the geographic constraints for business and/or household location will weaken. This may result in a continued trend in employment and residential decentralization, further increasing travel on our state's highway and local road systems.

Population projections by the Indiana Business Research Center show where residential and business growth will be the greatest. The graphic shows the sixteen counties with projected population increases to 2040 of 10,000 or more. These sixteen counties account for 86 percent of the net population growth projected for Indiana to 2040. They are within or adjacent to the largest metropolitan areas in the state or are home to Indiana's two largest public universities. These counties will see the largest amounts of urban development and the highest levels of conversion of rural land to urban uses.

An additional twelve counties are projected to have population growth in excess of 5,000 persons by 2040, accounting for an additional nine percent of the state's projected population growth. These counties will also experience significant urban development.




Indiana Growth Forecast 2010-2035
8,000,000
6,000,000
4,000,000
2,000,000
0
2010
2015
2020
2025
2030
2035
14%
Population
16%
Households
19%
Employment


Indiana Economic Development Forecast
New Employment
New Households
• One Dot Equals 100 New Jobs or Households Between 2010 and 2035
Total Employment Growth (2010-2035) = 843,000
Total Household Growth (2010-2035) = 486,000
Source: INDOT, Indiana Statewide Travel Demand Model Land Use Forecasts

Business Climate

Since the end of the Great Recession, Indiana's manufacturing sector has recovered faster than the national average, with a 4.6 percent growth in employment between 2009 and 2011, and a ranking of 3rd in the nation in terms of recovery. Indiana performs well in comparison to neighboring states based on a variety of measures generated by the Ball State Center for Business and Economic Research. The overall manufacturing ranking was an A grade. Likewise its logistics, tax climate, and global reach receive an A grade. The lowest grade is assigned to human capital, a D grade. This grade, is attributed to lower levels of education and training. Enrollment for associate degrees was very high during the recession and this is the negative rebound effect, which is a statistical anomaly. The state performs poorest in benefit costs, liability gap, diversification, and innovation. Overall, the business climate in Indiana is strong.

Manufacturing Trends in Indiana

An examination of the change in manufacturing production by sector from 2005 to 2011 finds that production grew in: 1) petroleum and coal, 2) primary metal manufacturing, 3) chemicals, and 4) food. Production declines were heaviest in transportation equipment and machinery.

Increased Global Competition

To compete in the global economy, firms in the United States have in recent years restructured their manufacturing processes with an emphasis towards increased production efficiency and quality. On-site

2014 Scorecard
Indiana and Neighboring States

Category	Indiana	*Indiana Compared to Last Year*	Illinois	Iowa	Kentucky	Michigan	Ohio
Manufacturing Industry Health	A	*same*	C	A	B	A	B+
Logistics Industry Health	A	*same*	A	B	B+	B-	A
Human Capital	C-	*better*	C	B	D	D	C
Worker Benefit Costs	C	*better*	C	C	D	C+	C
Tax Climate	A	*same*	D-	F	C-	B	C
Expected Fiscal Liability Gap	C	*worse*	F	C	F	D+	C
Global Reach	A	*same*	C+	C	A	B	A
Sector Diversification	C	*same*	C	C-	C+	F	C+
Productivity and Innovation	C+	*same*	A	C-	D	C	C

Source: Ball State University Center for Business and Economic Research

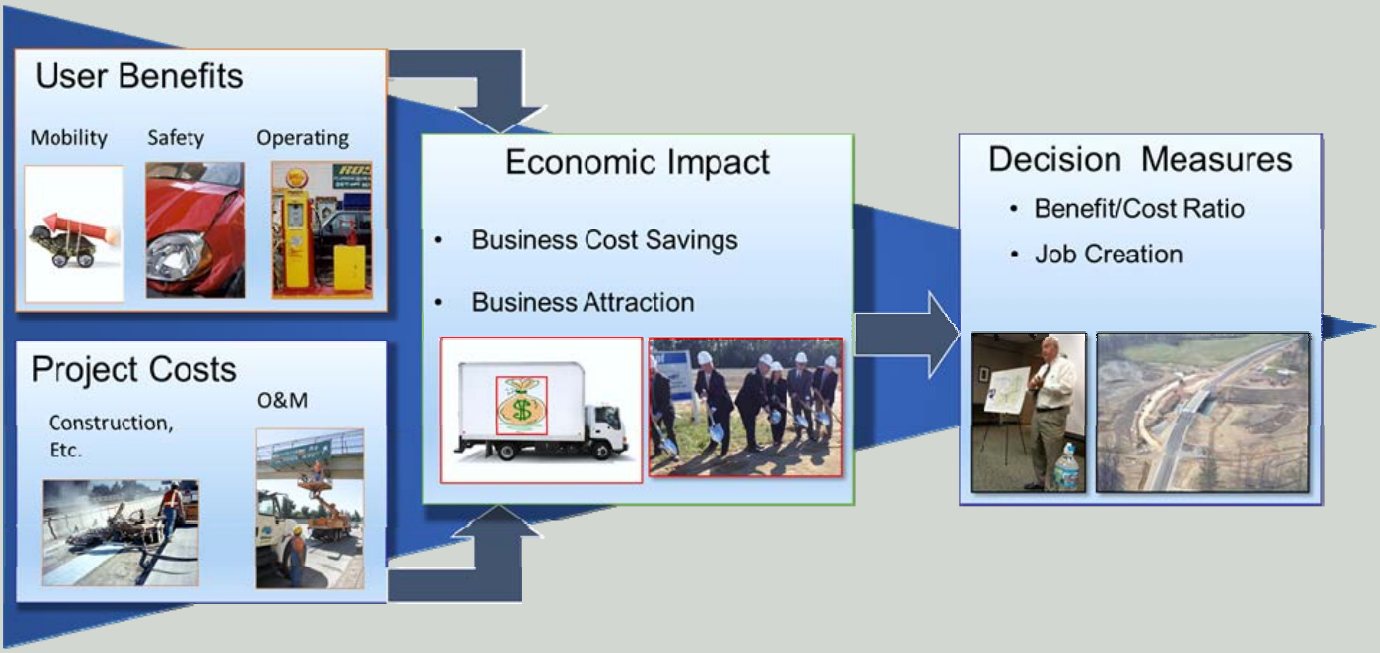
inventory levels have been reduced through the use of a concept that is commonly known as "just-in-time delivery." As its name suggests, just-in-time delivery in the manufacturing process requires that parts and materials be delivered to the manufacturing assembly point when needed. This concept reduces the need for costly warehousing, but increases the need for an efficient and reliable transportation system. Finished products are frequently shipped directly to the customer shortly after production.

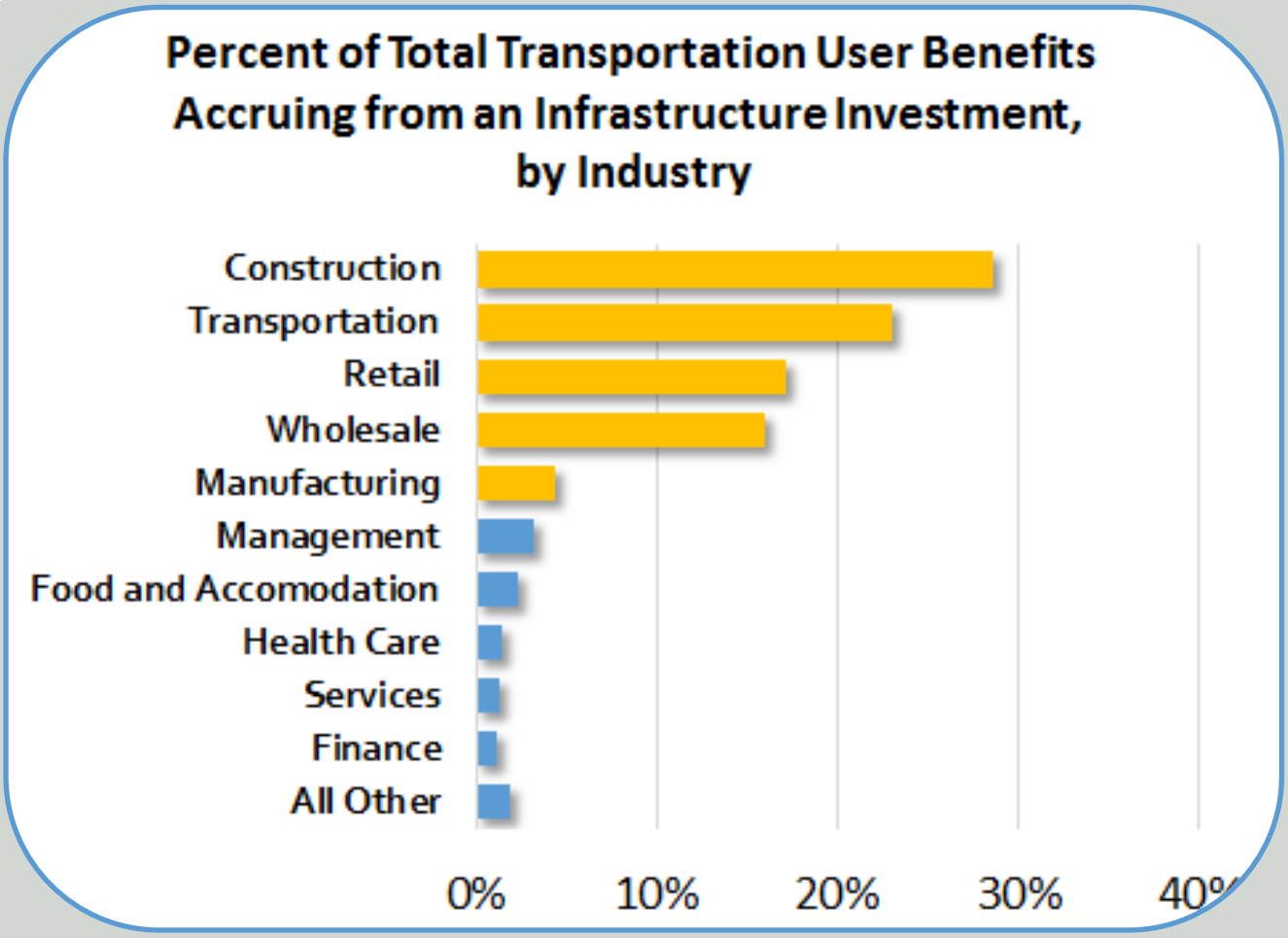
The rise of the Internet and the application of business-to-business software have streamlined and accelerated the manufacturing process. Orders for products can now be placed and processed in real time. Computer integrated manufacturing systems can automatically monitor and record part component and material consumption in the assembly process, thereby increasing the timeliness of placing and filling orders for product production and delivery.

Just-in-time delivery places greater demand and expectations upon the reliability and capacity of the transportation infrastructure. At any given point in time, more product is on the road and less in warehouses than previously, so the highway system becomes the warehouse. The efficiency of the transportation system affects travel time and delivery of materials and products from plant to plant and from plant to retail outlet.

Economic Impact Analysis

The potential economic impacts of project investments is a major factor in project selection, prioritization and funding. INDOT evaluates economic impacts of freight-related investments by comparing the cost of providing infrastructure improvements to the long-term changes in real personal income;

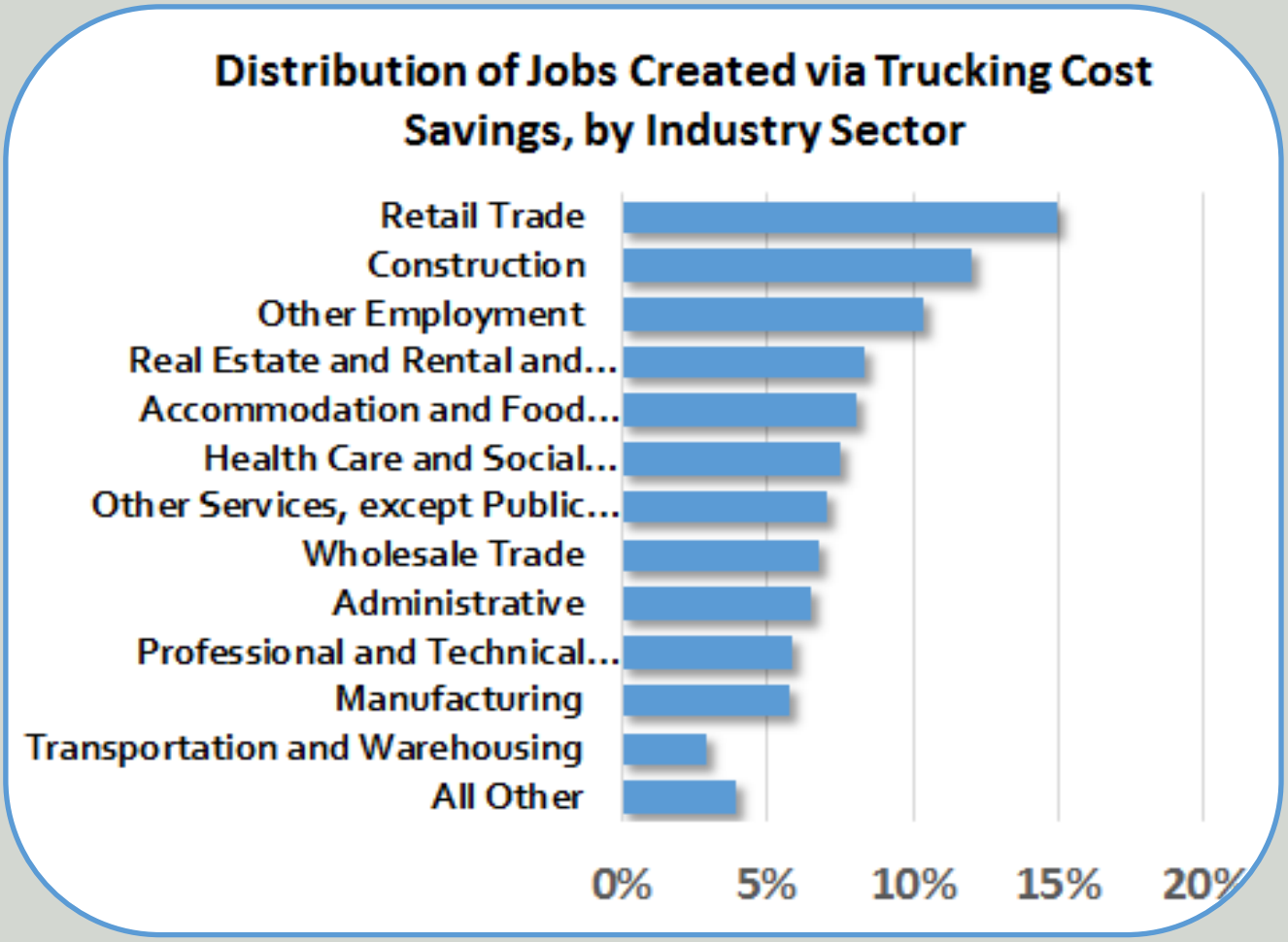




employment, economic output, and gross state project (GSP); and, other economic impacts. Estimated transportation impacts, such as user benefits, and improved reliability and accessibility affect industry costs and competitiveness. Individual projects, or the entire investment program can be evaluated. This approach combines current and future traffic volume-based economic impacts with transportation/economic impacts based on other factors (e.g., sensitivity of various industries to reduced shipping costs and accessibility improvements).

System user benefits that accrue over the useful life of a project are used to offset cost estimates of the infrastructure improvements. Descriptions of long-term benefits, cost-effectiveness, and business attraction potential provide INDOT the ability to evaluate project concepts as a focused set of investments supporting freight transportation and the Indiana economy. The analysis methodology uses various models of Major Corridor Investment Benefit Analysis System (MCIBAS) These include the Indiana Statewide Travel Demand Model (ISTDM), NET_BC, and REMI (an economic model). These are already part of INDOT's suite of tools. The results of the MCIBAS process are integrated as a supplemental "freight" factor in the decision making and prioritization process used by INDOT.

The benefits generated by increasing highway capacity are based on lower congestion levels that reduce travel times, fuel consumption, and air quality emissions. Personal time in vehicles is reduced



and operating costs for businesses (driver costs and fuel) go down. New and reconstructed roads typically improve safety conditions, and that can be translated into reduced costs.

User benefits in the form of time savings and safety benefits are calculated based on the travel demand model (ISTDM) and the NET_BC post-processor. The benefits of projects of a lesser scale, like geometric improvements, cannot be calculated using the ISTDM. But the benefits in terms of travel time, delay, and safety improvements, can be documented from previous studies or national sources.

In the model process, user benefits are split into three categories based on mode: truck, business automobile, and non-business automobile. Modal values vary due to trip purpose and differences in the value of time from mode to mode.

Trucks and business auto user benefits derive from cost savings as the number of hours drivers are in vehicles is reduced, as is fuel use. These translate into productivity improvements. Productivity gains (and increased competitiveness) add to increased business activity which in turn generates multiplier effects on employment, income and output, which can also be quantified.

Non-business auto user benefits are also estimated using value-of-time measures. However, private trip user benefits do not result in productivity impacts that generate changes in aggregate economic

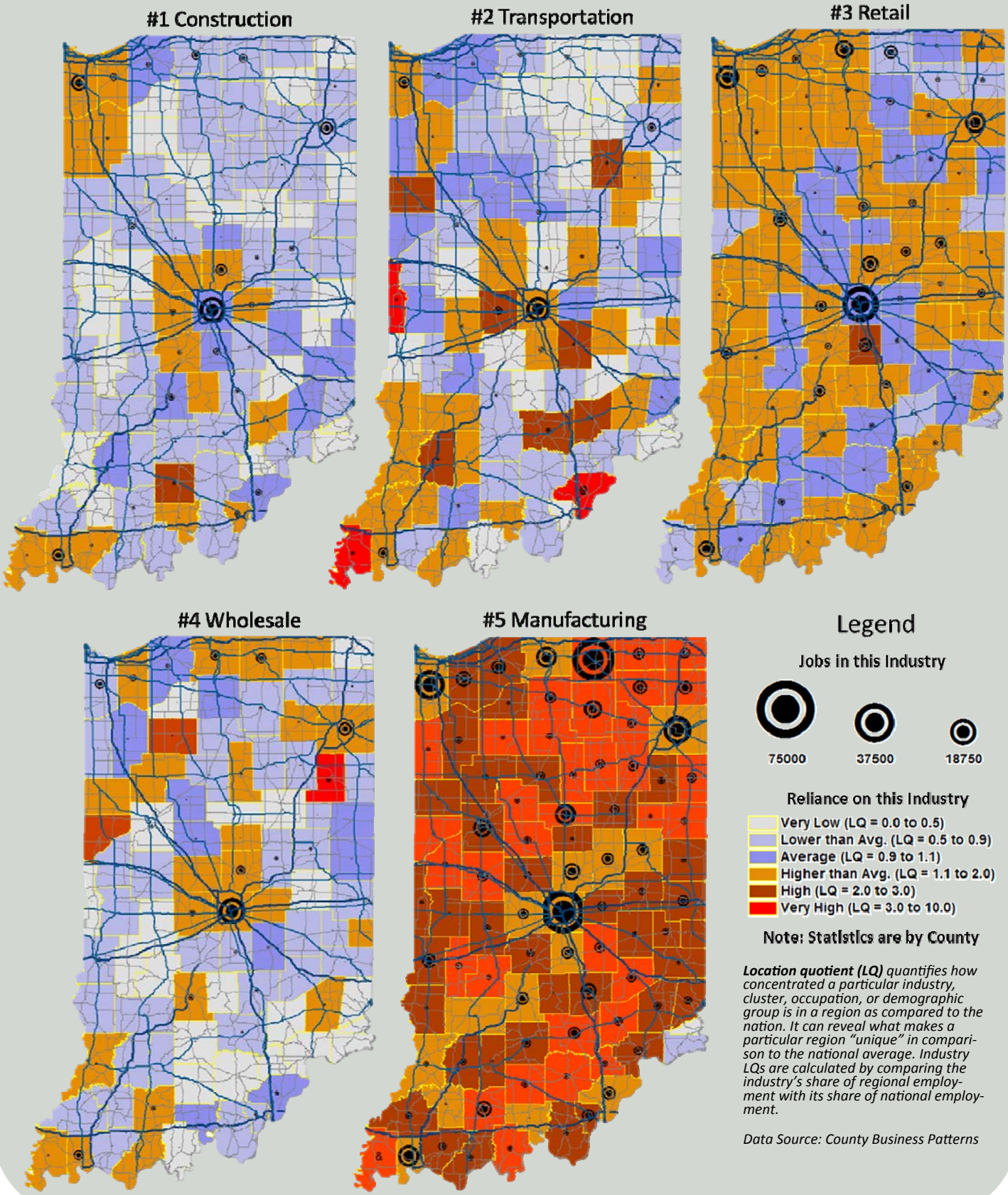
variables. As a result, these non-business user benefits are estimated but not included in the regional economic impact (REMI) analysis. Rather, user benefits for non-business travel are accrued by private motorists and contribute to their respective welfare. Hence, they are added to the post-REMI regional economic benefits, prior to performing benefit-cost analysis.

The business portions (trucks and business auto) of the monetized user benefits (from NET_BC) serve as inputs to the REMI model (a dynamic simulation of the Indiana economy) in order to calculate the macroeconomic benefits (e.g., GSP) that might accrue as a result of the construction of the roadway improvement. The GSP benefits from REMI and non-business auto benefits are then combined and compared to a project's costs--capital as well as operation and maintenance--to estimate the benefit-cost ratio of implementing the improvement.

Unlike road projects, rail improvement projects do not have readily-available modules similar to the ISTDM and NET_BC to produce monetized user benefits. The approach to identifying the benefits resulting from rail improvement projects is therefore based on measuring production cost savings that would result from the proposed improvement. This approach requires considerable knowledge of how the rail line is used and a solid estimate of the time savings that would be associated with the rail improvement. These data should be provided by the project sponsor when it is submitted for funding consideration. More specifically, to assemble the overall rail user benefits that will be used as a cost savings for the REMI model, the following information is required:

- Annual throughput affected by proposed investment;
- Value per ton;
- Cost of capital; and,
- Travel time savings from proposed investment.

Top Five Industries Most Sensitive to Transportation Costs and Where They are Located



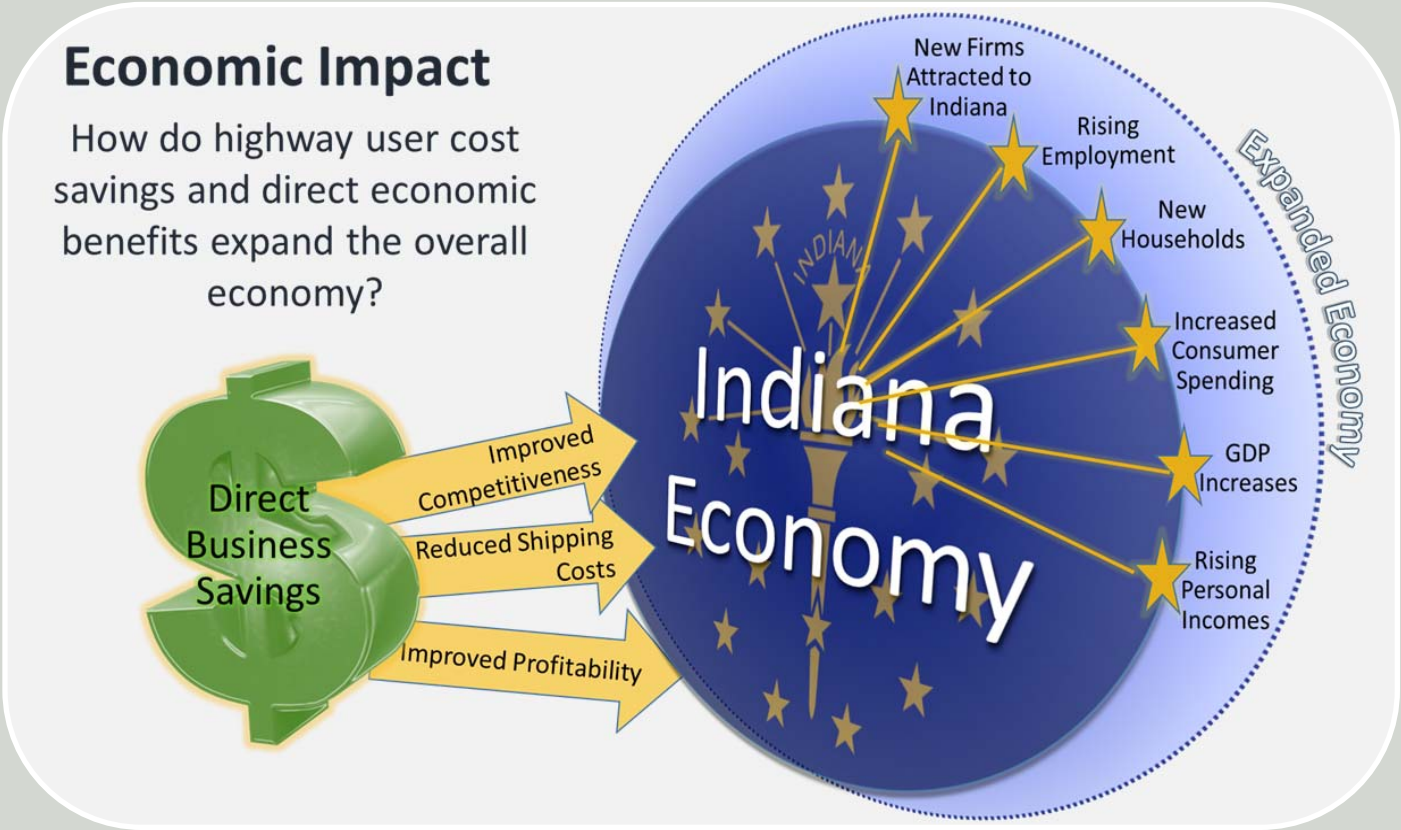
Location quotient (LQ) *quantifies how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region "unique" in comparison to the national average. Industry LQs are calculated by comparing the industry's share of regional employment with its share of national employment.*

Data Source: County Business Patterns

Wider Economic Impacts

The Economic Impacts Analysis System (EIAS) component of MCIBAS estimates the total economic impact of highway projects by taking into account multiplier effects. EIAS estimates these effects using travel efficiencies and cost savings for business trips and induced business attraction and retention benefits. This process and MCIBAS in general are described more fully in other INDOT documentation.

To estimate the total benefits of projects, the increase in real personal income (due to the business user cost savings multiplied through the economy) was added to the user benefits of non-business trips. Other economic impacts, such as changes in gross state product (GSP), output, and employment (jobs) were also calculated. However, these economic impacts were not added to the user benefits in the benefit-cost analysis to avoid double counting.



"Indiana handles over $500 billion in freight shipments per year, providing hundreds of thousands of Hoosiers with careers in logistics, Governor Pence recognizes logistics as one of Indiana's core industries for future job creation efforts."

- Rich Cooper, CEO for the Ports of Indiana

While projects are likely to impact businesses and residents in neighboring states as well as improve through traffic, the economic analysis described below is limited to the benefits and costs associated with Indiana businesses and residents

Economic impacts represent monetary flows and do not necessarily capture all aspects of project benefits or the impacts on quality of life. Also, the economic benefits estimated in MCIBAS differ from the user benefits described in the previous section:

Type of trip. User benefits include all travel time savings, vehicle operating cost changes, and safety benefits, regardless of trip purpose. The economic impact analysis includes only the benefits that increase the flow of money, due to reduced costs (or increased sales) for businesses or increased income available for individuals to spend. While clearly benefitting users, the time savings and safety benefits for personal travel do not translate into direct impacts on the dollars flowing in the economy.

Highway usage. The user benefits described in the previous section accrue only to individuals and businesses that use the portions of the highway network being improved. Economic benefits are broader and may accrue to any Indiana business or resident deriving additional income from business growth attributable to the highway improvements. Economic benefits may accrue to people that do not use the affected highway system. These benefits can include income from business generated by both "indirect effects" (growth of suppliers to the directly-benefiting businesses) and "induced effects" (growth of other activities from consumer spending associated with additional worker income). In this way, the economic impacts can include non-user benefits.

Business Attraction Impacts

The EIAS component of MCIBAS estimates business attraction effects based on business cost savings, improvements to market accessibility, and competitive industry factors.

- Increase in employment within a three-hour drive to estimate the increase in the size of supplier markets
- Increases in highway access (decrease in drive times) to airports and intermodal terminals, which lower business costs for business that rely on air and rail transport.

When evaluating a project, accessibility changes are calculated for every Indiana County. There are typically, large variations in the individual county accessibility changes. For example when looking at the complete Major Moves program, while the average employment (supplier market) accessibility increased by 1.2 percent, some counties experienced virtually no accessibility change, while the largest change was 15.5 percent. These changes are used to estimate the direct business attraction in each county. The large improvement in supplier market accessibility leads the changes followed by improvements in airport accessibility.

These direct job effects are used as inputs into the REMI model to estimate full statewide economic impacts for Indiana. The business attraction model estimates only the effects for industries that tend to export their goods and services outside the State. This eliminates potential double-counting if local retail and service industries were included in this calculation. Roughly half of the business attraction is expected to occur in manufacturing industries, while wholesale trade is expected to benefit most in terms of business attraction based on highway investments. Economic benefits grow gradually over time and reach their maximum effect in after 5-6 years of project completion.

Employment Impacts

REMI estimates the increase in employment in 70 industry categories, roughly consistent with 3-digit North American Industry Classification System (NAICS) codes. In addition to the job growth that REMI forecasts will be created in the "no-build" scenario, a given project's estimated impact on extra jobs added to Indiana's economy over a 20 to 25 year project life-cycle is estimated.

Employment grows over the entire analysis period. During this time, user benefits grow with the completion of each new project in addition to regular growth in traffic. After several years, the growth in employment caused by a given project slows, but continues with growing business user benefits over time.

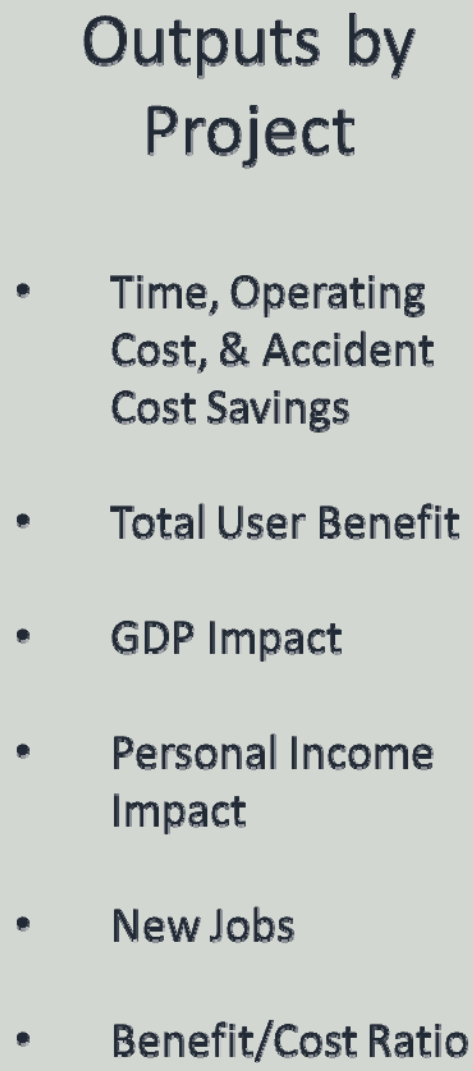
Other Economic Impacts

REMI provides estimates of gross state product, real personal income, and business output impacts. Since these economic impacts were derived from the same user benefits, only real personal income is added to non-business user benefits to calculate the numerator when computing a project's benefit/cost ratio. The other three economic impacts are provided to present alternate dimensions of economic benefits, but they are not included in the benefit/cost analysis to avoid double counting.

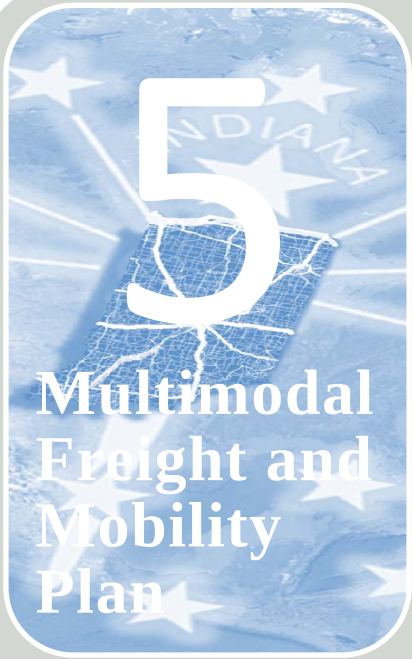
Net Present Value of Benefits

In order to calculate the benefit/cost ratio and net present value of projects, the various benefits streams are discounted to constant dollars and added together. Although the User Benefits section described several user benefits due to the project(s), not all of these benefits can be expressed in monetary terms and not all are additive. The components of benefits used in the benefit/cost ratio calculation are:

- Travel time savings for non-business users
- Vehicle operating cost savings for non-business users
- Economic and non-economic components of accident cost reductions for non-business users plus, the non-economic component of accident cost reductions for business users
- Real personal income impacts.



MCIBAS estimates each of these benefits for the forecast year. Growth rates in travel demand and annual expenditures for projects are then calculated to estimate annual benefits and costs for each year in the analysis period. The annual streams for the four components of benefits are discounted and summed to compute their present values.



In This Section:

Section 5: Action Plan

This final section of the Indiana Freight and Mobility Plan deals with concrete actions that INDOT will take over the coming years. Many actions are currently underway as of this printing. This Plan is intended to be a living document and thus will be updated on a frequent basis so that INDOT can stay abreast of the changing infrastructure needs and challenges faced by the freight and logistics industry.

This section will cover; significant freight projects that are currently underway; current freight planning activity; freight policies and strategies; financial resources; and other on-going challenges.

Current Action

INDOT is actively engaged in financing and building a wide range of freight infrastructure projects around the state. The following section provides a brief summary of these projects.

Significant Freight Projects Currently Underway

INDOT Major Moves Initiative, 2006-2016

INDOT is currently completing the final projects from the Major Moves Initiative. In 2005, the Indiana Department of Transportation (INDOT) launched a ten-year, multi-billion dollar plan called Major Moves. The plan allowed Indiana to expand and improve its existing highway infrastructure in an accelerated timeframe.

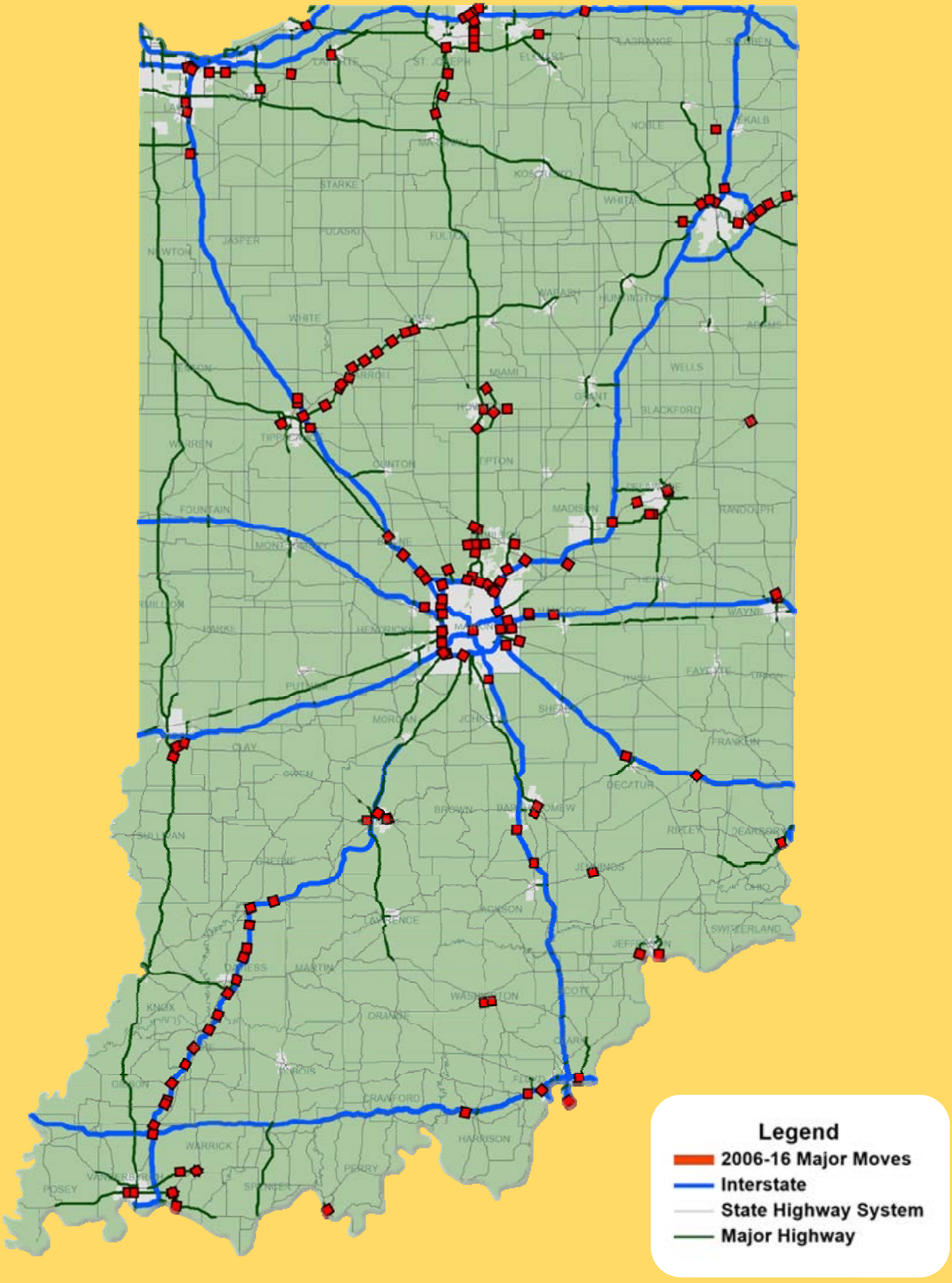
Major Moves added 104 new roadways with approximately 1,600 lane-miles. In addition to the new infrastructure, the Plan included interchange reconstruction, pavement preservation, and bridge rehabilitation or replacement.

To help fund Major Moves, the State committed $2.6 billion from a long-term (75-year) lease of the Indiana Toll Road. This funding commitment has allowed Major Moves to continue even during economic uncertainty.

Overall, economic impact analysis shows that the Major Moves projects will generate $13.3 billion of economic benefits over a 25 year analysis period. Roughly half of the benefits are due to travel time savings for non-business users. However, the business cost savings and business attraction impacts of the Major Moves projects will generate nearly $5.7 billion in real personal income for state residents (or 43 percent of the project benefits).

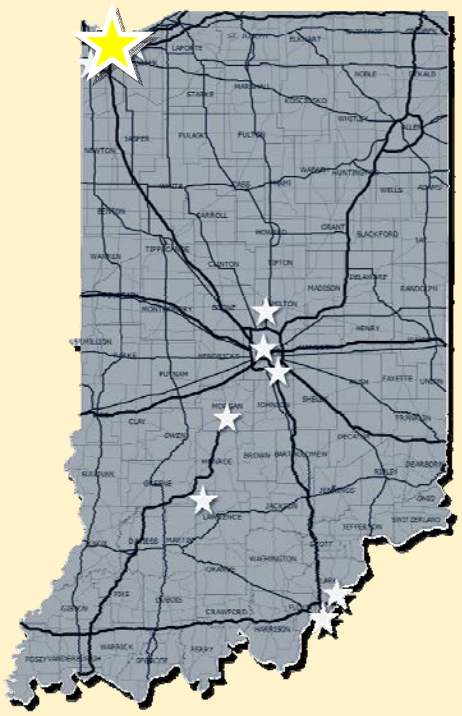
The benefit-cost ratio of the Major Moves investments is approximately 3.0. This means that every dollar spent on Major Moves projects produces more than three dollars in value to Indiana residents and businesses.

Major Moves 2006-2016 Projects



Significant Freight Projects Currently Underway

Indiana Gateway Rail

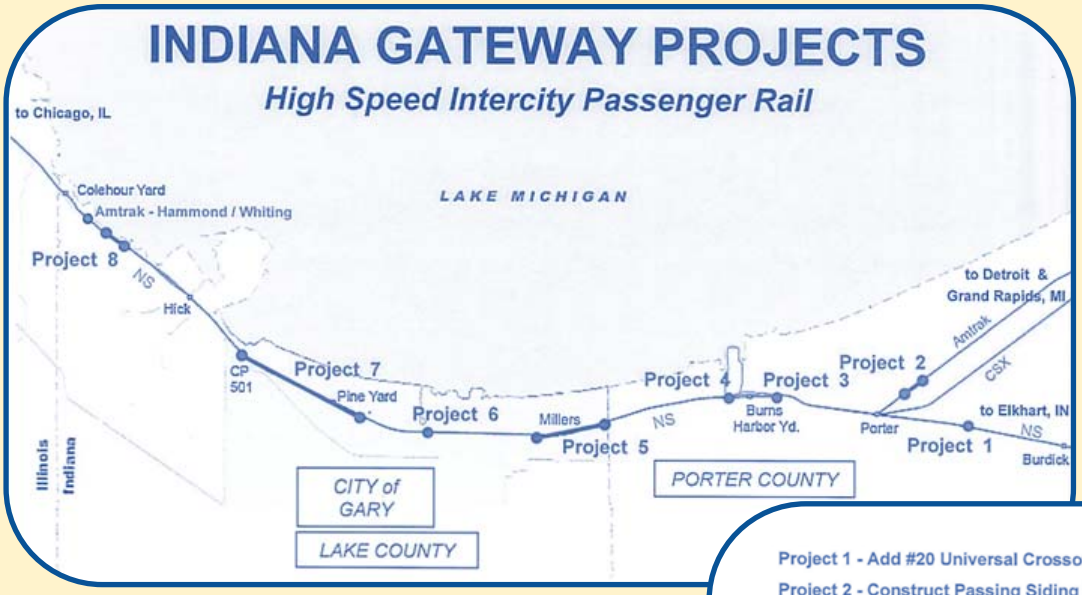


The Indiana Gateway consists of eight separate construction projects, from the Michigan State Line to the Illinois State Line; with the largest centered on the Pine Yard in Gary. Some of the projects were underway by the end of 2013. The projects will not only get Amtrak trains through this area more efficiently, but will also reduce delays for freight shipments through the region.

The Indiana Gateway project was first announced in January 2010 as part of the Federal Government's nationwide high-speed rail initiative. In all, $8 billion in funding was announced for national projects, including $2.6 billion for Midwest projects centering on Chicago.

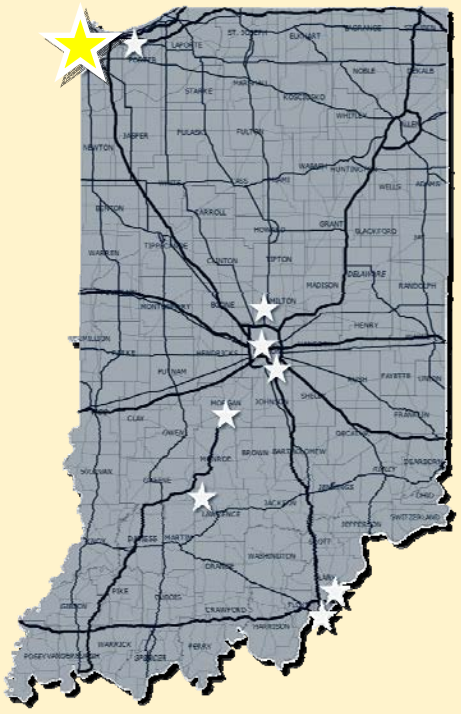
The most heavily traveled portion of the corridor is at the Porter Junction, where 14 Amtrak trains and 90 freight trains cross paths every day. That makes it one of the nation's most congested rail junctions.

Development of the $71 million Indiana Gateway project involved extensive coordination between Norfolk Southern railroad, Amtrak, the Federal Railroad Administration and INDOT.



Project 1 - Add #20 Universal Crossover at MP CD-497.3
Project 2 - Construct Passing Siding MP D-238 to 238.3
Project 3 - Add #20 Universal Crossover at MP CD-485
Project 4 - Add #20 Universal Crossover at MP CD-487
Project 5 - Construct 3rd Main Track MP CD-490.2 to 492.5
Project 6 - Add #20 Universal Crossover at MP CD-495
Project 7 - Construct 3rd Main Track MP CD-497 to 501
Project 8 - Add #20 Universal Crossover & Construct 3rd Main Track MP CD-505.9 to 506.5

Illiana Expressway



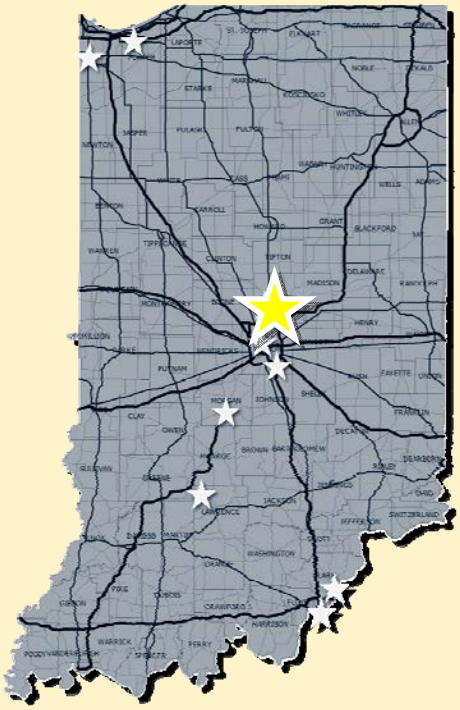
The overall 47-mile, $1.5 billion Illiana Expressway project is being simultaneously developed by both the Illinois and Indiana Departments of Transportation. Indiana's 12-mile portion is expected to be around $300 million. Indiana and Illinois officials are using a public-private partnership to finance the project .

The Indiana Department of Transportation also included the widening of a 12-mile section of I-65 between U.S. 30 and Indiana State Road 2.

The vision of the Illiana Corridor dates back to the 1909 Plan of Chicago by Daniel Burnham and Edward Bennett that included an "Outer Encircling Highway" serving northeastern Illinois and northwest Indiana. Conceptual highway corridors linking Illinois and Indiana south of Interstate 80 were also studied by regional planning agencies in both states in the 1960's and 1970's. More recently, feasibility studies for a potential Illiana Expressway were completed in 2009 by Indiana and a supplemental study in 2010 by Illinois. These showed that transportation improvements could be possible, and set the stage for formal studies. Following completion of these studies, a memorandum of understanding was signed on June 9, 2010 by the Governors of Illinois and Indiana, which formalized the partnership between the two states for planning a potential new transportation linkage.

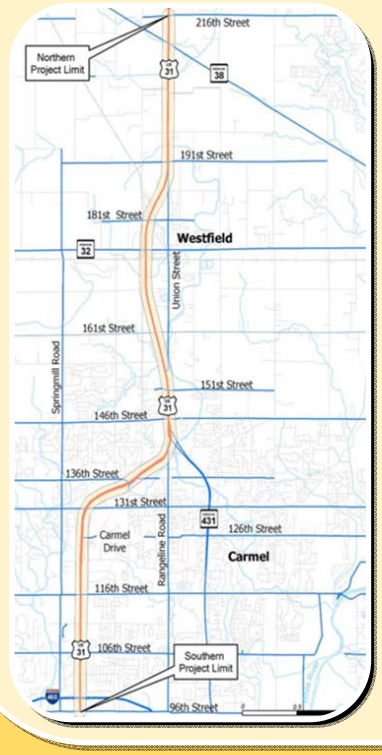
Significant Freight Projects Currently Underway

US 31 Freeway Project



INDOT currently has three freeway upgrade projects along US 31 between Indianapolis and South Bend. The projects include an upgrade of US 31 in Hamilton County, a freeway by-pass of Kokomo, and a freeway by-pass re-alignment between Plymouth and South Bend. These projects are intended to reduce congestion, improve safety, and provide continuity of commerce and regional travel for a US highway that stretches from Michigan to Alabama. Work on all three congested sections of US 31 is underway, and when completed, travel time between Indianapolis and South Bend is expected to decrease by about 30 minutes.

Special MAP-21 Freight Project Funding has been made available for the US 31 Hamilton County project , which will upgrade US 31 to freeway standards from I-465 at the Marion-Hamilton County line, through Carmel and Westfield to State Road 38. **This project is the first in the nation to use a new provision** in the Moving Ahead for Progress in the 21st Century (**MAP-21**) transportation legislation that provides additional federal matching funding because of the importance of this corridor to statewide and national freight movement. The Federal Highway Administration's Indiana Division assisted in securing Secretary LaHood's approval of $23 million in increased federal funding for the U.S. 31 Hamilton County project. This allows Indiana to maximize its allocations of state and federal transportation funding before using Major Moves construction funds, which generate investment earnings.



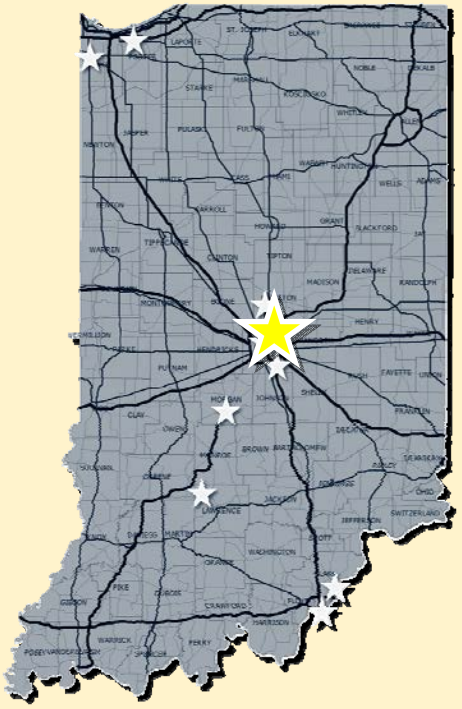
New CN/INRR Intermodal Facility

The Indiana Rail Road Co. and the CN Railway (CN) recently opened a joint venture intermodal terminal in Indianapolis. The new facility offers Indiana importers and exporters a new West Coast rail connection for containerized products moving to/from Asia, primarily via the container port at Prince Rupert Island and Vancouver, British Columbia. Indiana Rail Road opened the new intermodal freight terminal at its existing rail yard on Senate Avenue in downtown Indianapolis in 2013.

National clothing retailer OSP Group has already altered its supply chain to serve its Indianapolis facility through the new intermodal service.

The new intermodal facility has several major advantages:

- It saves significant travel time for shipments from/to Indianapolis as it bypasses rail to truck bottlenecks in Chicago
- It is minutes from all Interstate highways
- Tri-Weekly service to/from the Ports of Prince Rupert and Vancouver in Canada
- Provides another option to move grain back to west coast export markets.
- The facility serves as a US Customs-bonded Container Yard
- USDA staff are on-site for weights, grades and documentation
- Expansion potential on nearby land parcels



"This is an exceptional opportunity for Indiana importers and exporters who for years have asked for all-rail, direct West Coast intermodal service. The CN and Indiana Rail Road service offers a way for shippers to avoid the bottleneck of Chicago and the congested I-65 corridor to Central Indiana. This service provides a more reliable, consistent and environmentally friendly movement of goods that is less susceptible to costly weather and congestion delays." - Thomas Hoback, president and CEO of Indiana Rail Road.

Significant Freight Projects Currently Underway

Operation Indy Commute I-65 & I-465 South

Operation Indy Commute is a new initiative by INDOT to strategically open up recurring commuting bottlenecks in the Indianapolis metropolitan area. The program is modeled after successful, quick-turnaround traffic flow improvements built in other states under the Federal Highway Administration's Localized Bottleneck Reduction Program.

The project is the second in Indiana to benefit from a provision in the surface transportation legislation, Moving Ahead for Progress in the 21st Century (MAP-21), that gives FHWA discretion to raise the allowable federal match on eligible critical freight projects.

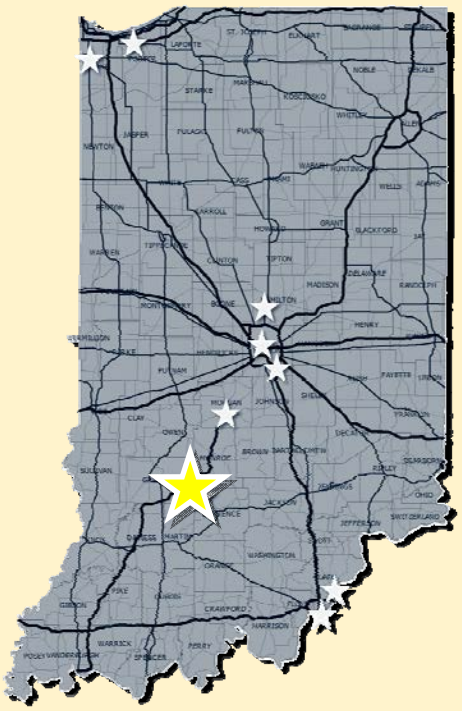
The I-465/I-65 interchange is critical to freight movement in the Indianapolis region. The interchange currently serves more than 110,000 vehicles per day, of which nearly 19,000 are trucks. The project involves important modifications to reduce congestion, help make freight movement more reliable and to make travel through downtown Indianapolis more efficient.

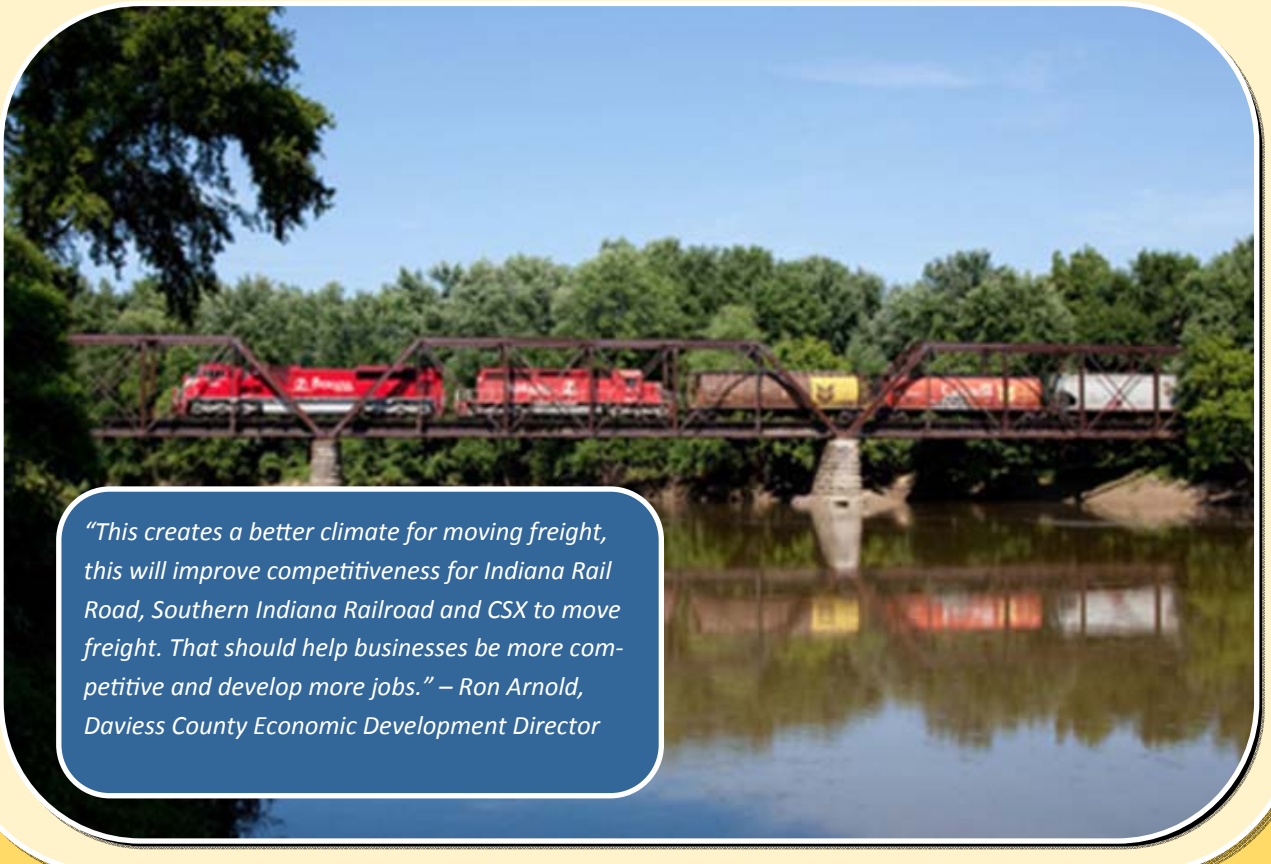
"The project will relieve congestion and reduce the time it takes to deliver goods through an interchange that could be used by as many as 23,000 trucks a day within 20 years," FHWA Administrator Victor Mendez said. "And the safety improvements will benefit everyone driving through the interchange to and from the Indianapolis area."

The new interchange will improve capacity by building a two-lane flyover ramp, expanding existing ramps and adding new lanes on the mainline to accommodate increasing traffic demands.

White River Freight Railroad Bridge Replacement

In September, 2013 Federal Railroad Administration announced a federal grant awarded to the Indiana Railroad (administered by INDOT) for an infrastructure project critical to community transportation in Greene County. The current 110-year old steel bridge is obsolete, even though 26,000 carloads use it each year. The Transportation Investment Generating Economic Recovery, or TIGER Discretionary Grant, allows Indiana Railroad the opportunity to replace the White River Freight Railroad Bridge with a new bridge structure. This $8.2 million grant award will help with the nearly $14 million project. The project will improve freight transportation in Greene County by supporting industry weight standards for railcars and will remove the current clearance restrictions set by the current bridge. The TIGER Discretionary Grant Program is a highly competitive process and receives interest from applicants across the country.

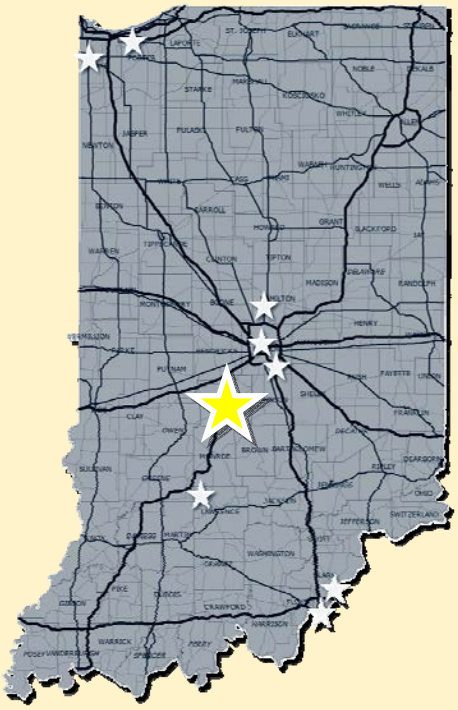




"This creates a better climate for moving freight, this will improve competitiveness for Indiana Rail Road, Southern Indiana Railroad and CSX to move freight. That should help businesses be more competitive and develop more jobs." – Ron Arnold, Daviess County Economic Development Director

Significant Freight Projects Currently Underway

I-69 Evansville to Indianapolis



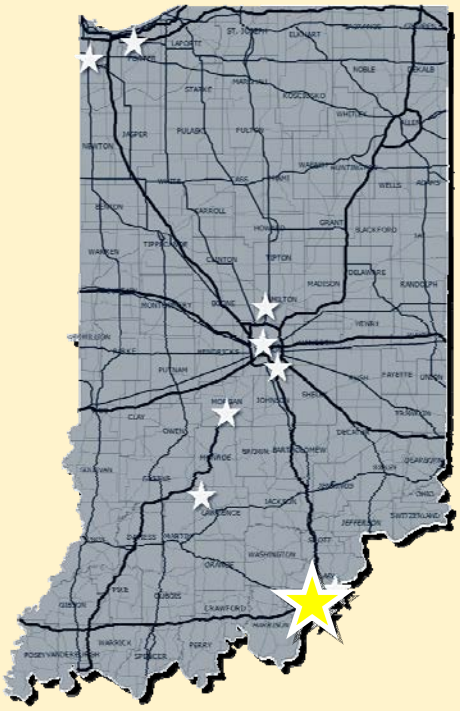
The new Interstate 69 between Evansville and Indianapolis is a key component to the future economic vitality of southwestern Indiana, and will connect an entire region with improved access to jobs, education and healthcare. The 142-mile I-69 corridor was divided into six independent sections in the Tier 1 Final EIS, which was approved with a Record of Decision in March 2004.

The first three sections opened for business in November 2012 – under budget and years ahead of schedule – and save motorists more than 30 minutes travel time in the 67 miles between Evansville and Crane. Construction is underway on all 27 miles of I-69 Section 4 between Crane and Bloomington, which is expected to open to traffic in phases during late 2014 and early 2015.

I-69 Section 5 will upgrade approximately 21 miles of four-lane, divided S.R. 37 to interstate standards, with seven interchanges and five overpasses from just south of Bloomington to just south of S.R. 39 in Martinsville. I-69 Section 5 is the second Indiana project to receive a combined Final EIS/ROD under MAP-21 legislation.

The Indiana Finance Authority (IFA) and INDOT are building on the success of the East End Crossing of the Ohio River Bridges Project by using an "availability payment" P3 to deliver I-69 Section 5. An availability payment P3 is an alternative to traditional transportation bonding that taps private sector innovation and competition to reduce costs and accelerate the construction schedule. It transfers from taxpayers to the private sector risks of cost overruns, both during construction and for operations and maintenance during a defined time period. If the road isn't made "available" to the public in compliance with performance standards in the contract, the recurring, inflation-adjusted payments are reduced accordingly.

Port of Indiana to River Ridge Commerce Center Heavy Haul Route



INDOT and local partners are jointly participating in a $22 million deal to build a heavy haul road connecting River Ridge Commerce Center in Jeffersonville and the Port of Indiana-Jeffersonville.

The Port and River Ridge currently have no direct link. Trucks must maneuver between the two sites using SR 62, then I-265 for a short period. The heavy haul corridor will open the potential for further economic development, such as auto, steel or appliance manufacturers moving into River Ridge, all of which would benefit from direct river access.

The planned road, called the Heavy Haul Corridor, will be an extra-wide two-way direct connection designed to meet specifications for oversized loads, such as steel coils or other raw materials; of the 28 companies at the port, about 15 are involved in steel processing. While the large loads can be moved inside the port's campus via rail, the heavy haul road will allow access for those same materials into River Ridge.

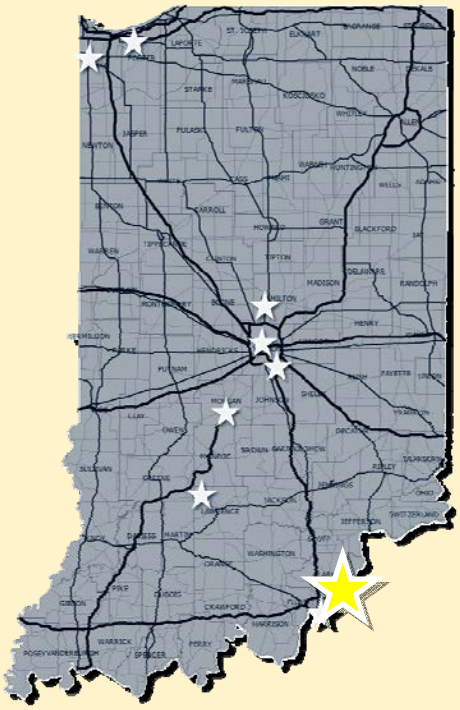
Development potential at the two sites is also closely tied to the Ohio River Bridges Project, which includes a Downtown Crossing bridge, and an East End Crossing bridge. The East End Crossing project will provide an interchange on I-265 that will give direct access into River Ridge. The heavy haul corridor is being constructed to open at the same time as the East End Crossing in 2017.

The heavy haul road is being funded through a collaboration between the Indiana Department of Transportation, the city of Jeffersonville, Clark County, River Ridge Development Authority, and the Port of Indiana-Jeffersonville equally sharing the expense to match the state's investment.

INDOT is also considering a partnership for a rail connection between the Port and River Ridge that would run parallel to the heavy haul corridor. The port currently has a railroad provider, and River Ridge has an outdated rail line, but the two sites do not have a direct rail connection.

Significant Freight Projects Currently Underway

I-265 and East End Ohio River Bridge Projects



The East End Crossing is part of the broader Ohio River Bridges Project. The Ohio River Bridges Project will provide two new bridges across the Ohio River, the East End Bridge and the Downtown Bridge, and connecting roadways.

The East End Crossing is a public-private-partnership tendered by the Indiana Finance Authority ("IFA") for the development, design, construction, financing, operation and maintenance of a bridge facility and associated roadway and facilities across the Ohio River; connecting Clark County, Indiana and Jefferson County, Kentucky.

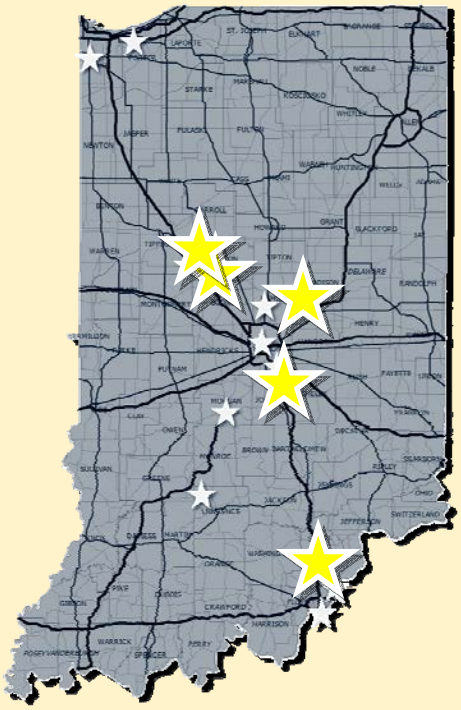
Interstate 265 provides a partial beltway around the New Albany, Indiana, metropolitan area. It acts as a conduit between Interstate 64 in the west and Interstate 65 in the east. Work is underway to connect Interstate 265 in Indiana and Kentucky via the East End Bridge across the Ohio River.

Design of the overall Ohio River Bridges Project of Kentucky and Indiana project was completed in 2014. Construction on both crossings was underway in 2013.

The components of this major construction initiative are as follows:

- Interstate 265 Connector/East End Bridge — Cost: $1.276 billion; Completion: 2017.
- Interstate 65 Downtown Louisville Bridge Replacement — Cost: $1.307 billion (figure includes the Kennedy Interchange and approaches); Completion: 2018.
- Interstate 64, 65, and 71: Reconstruct Kennedy Interchange — Cost: $659.8 million; completion: 2024.

Major Moves 2020



In April 2014, Governor Pence directed the State Budget Agency to release funding for the "Major Moves 2020" highway construction program. The newly enacted HEA 1002 legislation invests $200 million in projects immediately and allows Indiana to expand capacity on heavily-traveled sections of rural interstates – two lanes in each direction – that are now approaching 50 years of age.

- I-65 between State Road 44 near Franklin and Southport Road in Indianapolis
- I-65 in the Lafayette area from State Road 38 to State Road 26

The new law also allows the state to release $200 million for additional interstate expansion projects:

- I-65 in the Lafayette area from State Road 26 to State Road 25
- I-69 from State Road 37 in Fishers to State Road 13 in Madison County
- I-65 from Sellersburg (Exit 9) to Memphis (Exit 16) in Clark County

Total funding of $400 million will be invested within one year and is expected to support more than 9,800 jobs for Hoosiers. Last year Governor Pence also dedicated hundreds of millions in additional dollars for Indiana's roads and bridges. The state has made a total of $800 million in new money available for roads and bridges, including $200 million for local governments.

"Roads mean jobs, and Major Moves 2020 will improve Indiana's transportation infrastructure to enhance our position as the Crossroads of America. Major Moves 2020 will put Hoosiers to work now and reinforce Indiana's position as a national transportation hub and a global distribution powerhouse. It is one of the reasons Indiana continues to be recognized as a great place to do business."

- Governor Mike Pence

Current Freight Planning Activity

INDOT Major Highway Management Plan

Now that the majority of Major Moves projects are constructed and operational, INDOT is preparing the next set of corridor investment priorities by way of a Major Highway Management Plan (MHMP) study.

The purpose for the MHMP is to identify a set of strategic highway investments that support :

- a highway system that increases mobility while minimizing congestion
- provides safe facilities
- fosters freight movement and facilitates intermodal connectivity
- supports economic development and, establishes a climate for job creation .

The MHMP process takes the planning and asset management tools, already in place at INDOT, and uses these tools in to set priorities in line with the previously mentioned goals. Since commerce and economic development opportunity are ever increasingly important factors, there was a strong emphasis on commercial highway users, benefit-cost analysis, and economic impact potential for the various corridor concepts. Each corridor concept was subjected to an engineering scoping review to develop the best possible estimates for construction, right of way, utility re-location, and design costs.

A major focus of this effort was placed on maintaining the capacity of the existing Interstate Highway System . However, several new corridor concepts are ideas proposed via the Conexus Indiana Logistics Council, and Regional Logistics Council stakeholder involvement process. Other additional corridor concepts similar to those coming out of the Conexus process were added to the list to be evaluated.

The MHMP utilized a tiered approach. Tier 1 focused on identifying corridors most worthy of investment to promote the most operational and economic benefit for the State of Indiana. Tier 2 delved into more detail by breaking the corridors that survived the Tier 1 analysis into individual segments and prioritizing these segments based on forecasted benefit The analysis and ranking of

corridor segments via the MHMP performance criteria scoring process provides a solid foundation to prioritize individual project investments. The potential for a corridor to recover all or a portion of its cost through tolling was also a factor when establishing priorities.

Indiana Blue Ribbon Transportation Infrastructure Panel

In November, 2013, Governor Mike Pence announced the establishment of a Blue Ribbon Transportation Infrastructure Panel to plan the next generation of projects in Indiana. The Panel, a priority objective in Governor Pence's Roadmap for Indiana, is reviewing projects related to all four modes of transportation: water, air, road and rail. Based on a set of metrics, the Panel is identifying a list of priority projects needed for the future. The group is exploring and monitoring innovations in transportation infrastructure to keep Indiana on the cutting edge. INDOT is providing staff support and technical expertise to this process, and will be responsible for eventual implementation of project recommendations. The Panel's recommendations will be presented to Governor Pence on July 9, 2014

Lt. Governor Sue Ellspermann and Cathy Langham, President of Langham Logistics, is co-chairing the Panel. Additional members of the Panel include:

- Mike Cline, Purdue University
- Richard Conner, American Structurepoint
- Mike Daigle, St. Joseph County Airport Authority
- Mark DeFabis, Integrated Distribution Services Inc.
- Chip Edington, OSP Group
- Dennis Faulkenberg, Appian Inc.
- Andrew Fox, Chicago South Shore & South Bend Railroad
- Gary Mayor Karen Freeman-Wilson
- Pete Georgeon, with ArcelorMittal USA Flat Carbon
- Mayor Tom Henry, city of Fort Wayne
- Mark Holden, A&R Logistics
- Scott Jones, ChaCha
- Douglas Joest, Evansville-Vanderburgh Airport Authority District
- Chris Matney, Indianapolis Airport Authority
- Hank Menke, OFS Brands
- Don Miller, Mt. Vernon Barge Service
- Bob Palmer, AGFS of FedEx
- Don Sansone, Red Gold Inc.
- JR Saylor, Brightpoint Inc.
- Zack Scott, UPS-Ohio Valley District
- Noah Sodrel, Sodrel Truck Lines Inc.
- Mark St. Clair, Consolidated Grain & Barge Co.
- Phil Terry, Monarch Beverage Co.
- Mayor Lloyd Winnecke, city of Evansville.

"We know that our transportation infrastructure provides Indiana with a dynamic advantage over other states, with the expertise and recommendations of this Blue Ribbon Panel, Indiana will keep its finger on the pulse of infrastructure innovation and strive to provide businesses and Hoosiers with the most efficient transportation system available." - Governor Mike Pence

Freight System Strategies

Several recommended freight policy actions are discussed in the following section. Due to the nature of policy strategies, a shorter time frame is often more appropriate. Though priorities may differ, most strategies can and should be pursued in parallel and as soon as staff resources allow. Many policy strategies can have impacts far outweighing implementation costs relative to large infrastructure projects; additionally, some policy strategies may be necessary for the successful implementation and completion of freight infrastructure projects.

The freight link to planning and programming is the broadest policy strategy, and is also among the most important. It ensures that freight is considered at all levels of INDOT planning and programming. Without this link, it is difficult to achieve most other policy recommendations.

Communication is also a vital component for the future of freight transportation in Indiana; it should be continuous, multi-faceted, and targeted to numerous audiences. Communication helps to present information on projects and policies to stakeholders; obtain feedback and useful information for planning and better refining existing proposals; and achieve buy-in and support. These audiences can range from other state and local governments and agencies; Federal, state, and local decision-makers; and private industry. Ongoing and open communication will help project and policy implementation, particularly the acquisition of funding. It improves coordination, consistency, and creates a stronger unified voice for freight funding and improvements. Communication also includes data and system understanding policies, such as real-time communication of freight system conditions.

Roadway Recommended Strategies

Strategies for addressing roadway needs have evolved from stakeholder involvement, analysis by the Indiana Logistics Council, and analysis by INDOT. These are highlighted below.

The $400 million Major Moves 2020 program and funding is to be the blueprint for Indiana highways. That program identified locations for added travel lanes on key corridors to address congestion, bottlenecks, and to improve maintenance of traffic on rural interstate corridors.

Construction projects should be coordinated to avoid repeated disturbance of traffic due to lane closure, maintenance of traffic, and detours, by cross-asset analysis among bridge, maintenance, pavement, and construction projects;

Full use should be made of operational improvements (interchange modifications, intersection improvements on key corridors);

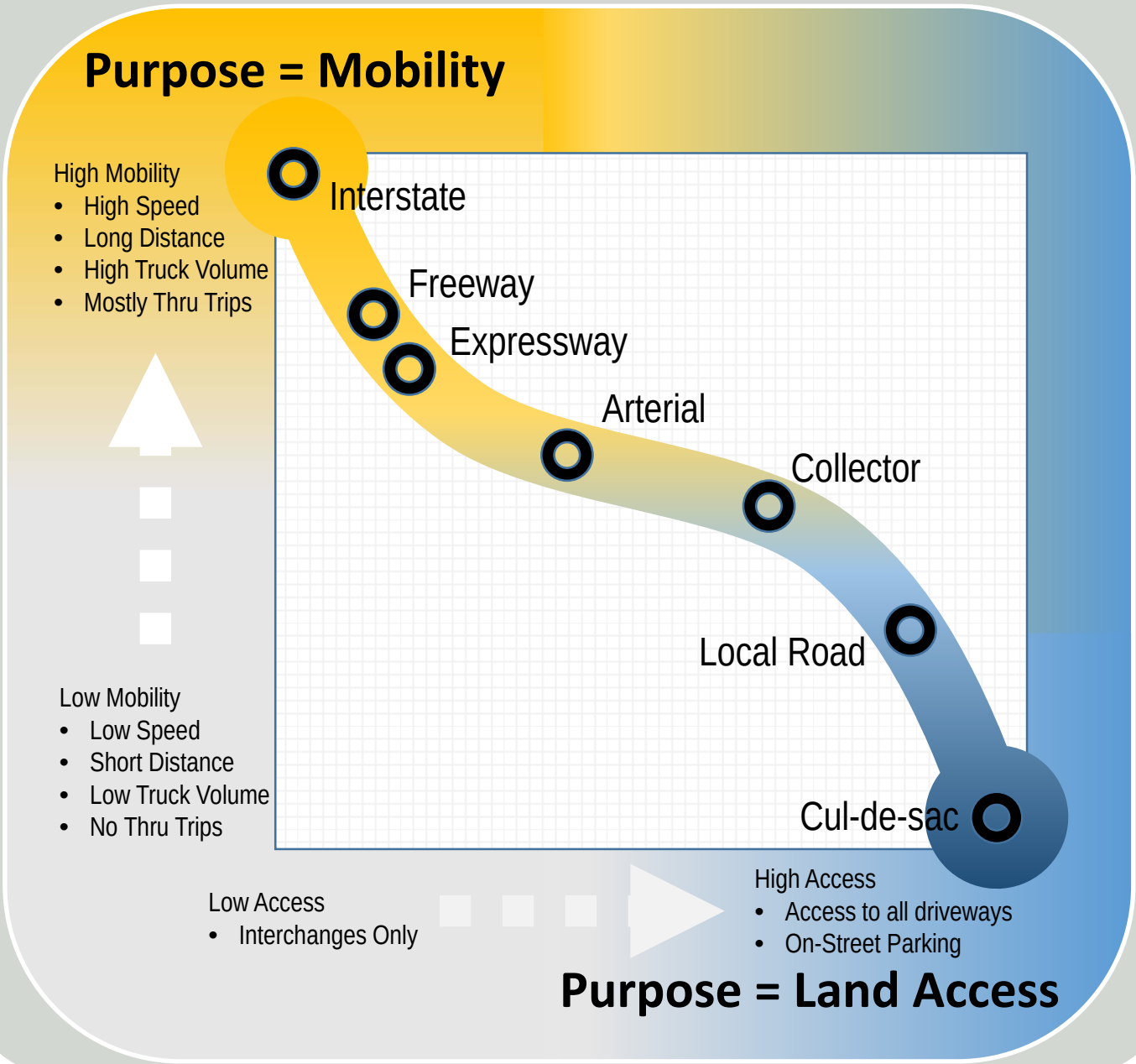
- Demand strategies should be pursued (congestion pricing, tolling, ITS, and other);
- Dedicated truck lanes should be investigated;
- The need for public versus private truck rest areas should be reviewed, along with provision of electrical hookups at sites;
- Strategic bridges that are structurally or functionally deficient should be upgraded; and,
- The economic costs and benefits of increased truck weight limits should be investigated.

Access Management Strategies

Access management is a series of strategic techniques designed to control roadway access for purposes of safety and capacity.

INDOT has adopted an asset management process to identify cost-effective and efficient transportation improvements. Increasing the efficiency of the transportation system maximizes use of the existing system through intersection improvements, driveway and side street consolidation, traffic signal optimization, improved traffic operations from lane and freeway ramp modifications, and intelligent transportation system treatments such as incident management and traffic surveillance and control.

In 2009, INDOT prepared an "Access Management Guide" for use by state and local transportation officials to implement access management techniques. Specific guidelines are provided for direct applications, and a template is provided for developing access management standards (model ordinance) for local governments.



INDOT will use corridor specific access management plans that focus on: driveways, public street connections, signalization and spacing, and medians. Access management plans are to include: a base map or schematic of the corridor, which shows the existing property lines and available right-of-way; roadway and intersection cross-sections; traffic signalization; and existing and anticipated future land uses. All existing driveways along with designation of parcels as developed or undeveloped are to be inventoried and analyzed for future transportation needs.

Corridor benefits include:

- Reduced traffic congestion over longer periods of time;
- Enhancement/preservation of traffic flow and roadway capacity;
- Improved safety and reduced crash frequencies;
- Economic growth via consistent travel times and improved access to businesses and homes; and,
- Preservation of the public investment in the transportation infrastructure.

The INDOT Access Management Guide can be found in its entirety at: http://www.in.gov/indot/files/guide_total.pdf.

The functional classifications of roads can be thought of as a balance between vehicular throughput and access to adjacent land uses. Higher-order roadways—such as freeways, expressways, and arterials—limit access to allow higher speeds, and reduce conflicts, to preserve their movement function. Local streets, at the other end of the spectrum, have less restrictive access control, because they are intended primarily to provide access to abutting properties.

Dedicated Truck Lane Strategies

A concept undergoing national review is dedication of a lane(s) for exclusive use by trucks. It is based on the hypothesis that separating trucks from other traffic could reduce congestion, improve mobility and enhance safety, while improving the flow of goods and encouraging commerce and economic growth throughout the Midwest and the nation.

Interstate 70, one of the heaviest traveled roadways in America, has experienced steady increases in

traffic volumes and studies shows this trend will continue. While private automobile volumes have increased, commercial truck volumes, hauling goods, commodities, and providing services, have increased at an even higher rate.

In September of 2007, the U.S. Department of Transportation selected 800 miles of I-70 through Indiana, Illinois, Missouri and Ohio as a "Corridor of the Future," one of six nationally significant transportation corridors.

A four-state coalition made up of Departments of Transportation from Indiana, Illinois, Missouri and Ohio applied for and received funding from the U.S. DOT to study the feasibility of constructing dedicated truck lanes on I-70.

The “I-70 Dedicated Truck Lanes Feasibility Study” found that there is a business case supporting the construction of dedicated truck lanes and such lanes could improve safety, reduce congestion and benefit the regional economy more than either keeping the corridor as-is, or by adding general purpose lanes. The final report was issued in fall 2011 and no action has been taken to date since. For more information, please visit the I-70 Dedicated Truck Lanes Feasibility Study Site: http://www.i70dtl.org/feasibilitystudy.html

Intelligent Transportation System (ITS) Strategies

The mission of INDOT’s Traffic Management Business Unit is to reduce congestion, improve safety, and provide reliable travel times on existing Indiana highways by deploying Intelligent Transportation Systems (ITS) technologies, providing traffic incident management services, and incorporating traditional traffic engineering methods.

The initial deployment of field devices has focused on the Interstate System in and adjacent to the state’s three largest metropolitan areas: Northwest Indiana near Chicago, Indianapolis, and Southern Indiana near Louisville. Detailed deployment information can be found in the INDOT Traffic Management Strategic Deployment Plan.

http://www.in.gov/indot/files/TMC_TrafficManagementStrategicPlan_v2-4.pdf

Additional Traffic Management initiatives are being pursued on key INDOT arterials, primarily related to traffic signals. There are several factors that will guide INDOT’s deployment of ITS:

- Deployment will support INDOT and FHWA’s strategic plans;
- Funding constraints will not allow for a statewide system deployment that will meet everyone’s expectations; and,
- ITS will be deployed in a manner that maximizes available resources.

The initial deployment will focus on areas which offer the best return on investment. As a result, ITS deployment will focus mainly on interstates and other freeways due to traffic volumes and composition and the limited flexibility to divert users in case of incidents. Deployment will take advantage of major construction projects, and focus on major urban areas such as Marion and Lake counties.

Overweight Vehicles Strategies

Virtual weigh stations are a cost-effective complement to traditional permanent weigh stations because they are inexpensive to install and operate. They are remotely monitored and not continuously staffed and can screen commercial vehicles on routes that bypass fixed inspection stations and on secondary roadways. Some use optical sensing to record license plates or other information, and they may involve weighing the vehicle. They allow for targeting violators, while not inconveniencing legal truckers. By focusing on overweight trucks, they allow for more effective enforcement. The expectation, borne by experience elsewhere is the number of overweight trucks on Indiana's highways will be reduced by improved compliance due to enhanced deterrence. Fewer overweight trucks will extend road life and reduce the risk to motorists from trucks whose weight exceeds the safe operating limits of the vehicle.

INDOT has partnered with the Indiana Department of Revenue, and the Indiana State Police on a $300,000 state and federal grant to purchase and install the first pilot systems. Currently, 50 permanent stations exist around the state. INDOT is working to convert these into virtual weigh-in-motion (WIM) stations, calibrate them, integrate them with other information streams, and distribute the information to those who need it. The long term plan is to increase the number of WIM stations by piggy-backing on existing projects and prioritizing sites based upon factors such as truck volumes and functional classification.

Truck Parking

A shortage of truck parking areas along many major highway corridors is among the major issues facing the trucking industry. In 2002, the Federal Highway Administration published a "Study of Adequacy of Commercial Truck Parking Facilities" which showed that the demand for public truck parking exceeded the supply by 177%. While, INDOT has recently added rest area truck parking on the I-70 corridor, the trucking industry has specifically identified this as a continuing problem in Indiana. The lack of availability of both public and private parking is compounded by hours of-service regulations and enforcement. The result is that often when drivers need to stop to rest they cannot find designated parking for their vehicle and are forced to park in locations such as highway ramps, along residential streets, or in commercial parking lots. Parking in these types of locations can present safety problems and result in objections by communities.

Public truck parking facilities do exist along the Indiana Toll Road in locations formerly occupied by service plazas; however, these facilities do not include electrical hook-ups for trucks.

Recommendations:

- Review results of the Midwest truck parking study underway and consider measures to address deficiencies, which may include not only providing more parking in targeted locations but also providing specific amenities needed by truckers.
- Optimize existing rest areas by considering intelligent transportation systems such as dynamic message signs on interstates informing truckers of truck parking availability in real time.
- Evaluate the potential of private companies developing and/or operating private truck parking areas.

Intermodal Recommended Strategies

Possible strategies (a number of which satisfy the requirements of MAP-21):

- Promote public awareness of the importance of logistics
- Identify logistics skills gap areas
- Train transportation planning professionals at the state and local levels relative to transportation needs and freight planning
- Support growth of logistics firms in Indiana
- Provide workforce development opportunities
- Increase coordination with industry leaders and stakeholder through the State Freight Advisory Committee as an ongoing standing committee of FMSIB;
- Consistent with MAP-21 develop planning tools to measure the impacts of freight and transportation investment decisions on logistics and business competiveness in Indiana;
- Provide a recurring broad-based forum, consisting of statewide business executives throughout the logistics industry, for collectively vetting critical relevant logistics public policy;
- Formulate agreements with neighboring states for coordinated improvements.

Rail System Recommended Strategies

The primary source of state assistance for infrastructure upgrades on short line railroads is the Industrial Rail Service Fund (IRSF), administered by INDOT. Established in its current form in 1997, the IRSF provides grants and low-interest loans to Class II and Class III railroads, as well as short lines operated by local port authorities. The IRSF is funded through 0.029% of the state sales tax. INDOT allocated grants totaling $2.1 million in Fiscal Year 2013 to nine railroads. The goal of the program is to assist short lines to upgrade infrastructure to accommodate 286,000 pound rail cars, and to upgrade bridges and track to attract new businesses. In previous years, grants have focused on upgrading excepted track (limited to 10 miles per hour for freight, with passenger trains prohibited) and repairing bridges.

Possible strategies rely on coordination and consultation with operating railroads:

- Identify railroad grade separation needs;
- Determine rail infrastructure improvement needs, such as points of conflict in the rail network;
- Act as an “honest broker” in negotiating rail solutions that benefit multiple railroads and the public;
- Sponsor intermodal facility(ies) and alternative routes, decreasing Indiana’s reliance on Chicago; and,
- Build additional/better railroad access to Indiana ports.

Water Port Recommended Strategies

The overall needs of the state's two navigable waterway systems are described in previous sections of this report. Waterborne freight-specific needs identified are focused on reliability, access, and efficient infrastructure. Overall, waterborne transportation is the most cost effective means for transporting low-value bulk goods over long distances, and is often a less expensive substitute for intermodal connection to rail or truck for these types of shipments. As such, an efficient and reliable waterway system reduces the cost of doing business within the state and improves Indiana's competitive advantage for exporting bulk goods, particularly to overseas locations.

One area with much at stake with respect to marine transport is the agricultural sector. Indiana's agricultural exports are the 10th highest in the nation. The state is the 5th ranking exporter of feed grains (including corn) and is 4th in soybean exports. Indiana also is a top 10 exporter of poultry products, seeds, and live animals/meat. Freight access to the country's international gateways on the East, West, and Gulf coasts are crucial to the competitiveness of the state's agricultural exports. Increased global trade means that Indiana is facing stiffer competition from producers around the world; therefore, access to an efficient and reliable Inland Waterway system is increasingly important to maintaining Indiana's competitive positioning. Recommended water-borne freight strategies are:

- Possible strategies rely on coordination and consultation with operating port authorities and owners:
- Re-engineer and repair decaying lock infrastructure on Great Lakes, Ohio and Mississippi rivers, and dredge the areas around ports and waterways
- Re-engineer and upgrade the Soo Locks and the Olmstead Lock and Dam
- Build additional/better railroad access to Indiana ports
- Expand the Harbor Assistance Program to incentivize ports and private investment
- Explore privatization to improve efficiency of operations and management at public terminals.
- Homeland security issues for domestic bulk shipments will be a growing concern in the near future.

Aviation Recommended Strategies

While there is adequate air cargo capacity and land available at the Indianapolis Airport long-term strategies are still important. One is to recruit FedEx actively to bring its entire domestic business to Indianapolis, allowing FedEx to grow their international business in Memphis. The corollary effect is to attract logistics centers that ship consumer and other goods on-demand direct to consumers.

Another long-term strategy is to provide dedicated air cargo funding to improve long-term planning and create more potential for federal funding.

Opportunities exist for the development of niche markets that are reliant on time- and temperature-sensitive goods, such as pharmaceuticals.

INDOT's Role in Freight Infrastructure Funding

Roadway Funding

Revenue is generated through fuel taxes, tire sales, truck and trailer sales, heavy-use vehicle sales, allocations from the federal General Fund, and via truck permits. Under the last federal authorization bill, TEA-21, spending allocations for generated revenue at the state level with federal guidance to twelve categories: Interstate Maintenance; National Highway System; Surface Transportation Program; Highway Bridge; Congestion Mitigation and Air Quality Improvement; Recreational Trails; Metropolitan Planning; Highway Safety Improvement; Railway-Highway Crossing; Safe Routes to Schools; Appalachian Highway System and Coordinated Border Infrastructure. Also, a small portion of revenue was allocated to research and planning at the state and Federal level.

Our biggest source of revenue comes from what is called the "State Highway Fund" and this fund is best described by the illustration below:

INDOT, with approximately 3,700 employees, utilizes approximately 20% of its entire annual budget on operational expenses. Operational expenses are typical items under the various classifications are outlined below:

- Facilities – new construction of a district, sub-district or unit building, salt dome, roof replacements, and day-to-day purchases such as light bulbs
- Equipment – snow trucks, transportation vehicles, loaders, chain saws, lawn mowers
- Operating – personnel and benefits, utilities, contracts, parts and supplies, travel
- Maintenance Work Program – salt, aggregate, hot mix asphalt, pipes, as well as contracts for rest parks janitorial, guardrail, mowing and herbicide, traffic utilities

Capital expenses are approximately 80% of INDOT's budget which includes the funds distributed to local entries on behalf of the US Department of Transportation. Expenses in this category are mainly associated with INDOT's assets – roads and bridges – and the expenses associated with building new and rehabilitating existing assets. Those associated expenses may include consulting fees for design or environmental work and purchasing right of way needed for a project. Also included as capital expenses are items associated with safety of our assets including the railroad grade crossing fund, access roads and work zone safety programs or other initiatives such as multi-modal (air, rail, and transit) and Transportation

State Highway Fund				
Fuel Taxes	**Permits**	**Federal Reimbursments**	**Motor Vehicle Highway Fund***	**Local Road and Street Fund****
Gasoline	Oversize/over weight freight loads, vehicle trip permits, street curb and billboard	Of payroll, matrials and test, vehicle depretiation	A portion of gasoline and diesel fuel taxes plus a portion of vehicle license fees, title fees, drivers license fees	A portion of gasoline and diesel fuel taxes plus a portion of vehicle license fees, title fees, drivers license fees

* After other disbursements are made from this fund, including the Indiana State Police and Bureau of Motor Vehicles, INDOT receives 53% of the remaining funds and local governments receive 47% of the remaining funds.

* INDOT receives 55% of the remaining funds and local goverments receive 45% of the remaining funds.

Railroad and Grade Crossing Funding

Railroads have always operated privately on their own rights of way in Indiana. The Federal Railroad Administration regulates activities related to interstate commerce, especially railroad ownership and rail line abandonment. INDOT has a Rail Team responsible for coordinating highway projects with railroads. The Rail Team provides technical advice and guidance to both highway and railroad-company designers, facilitates mutually-satisfactory resolution of any conflicts or problems, and administers agreements and reimbursement to railroads for highway projects.

Historically, railroads have not commonly received public funds, but they have begun to enter into public-private partnerships, especially to address the more intractable bottlenecks, such as the flow of goods through the Chicago area.

Apart from highway safety funding that can address grade separations and the like (see next section), revenue is generated through state sales tax allocations and federal General Fund allocations. The spending allocation for generated revenue is determined at the federal level by U.S. DOT and is disbursed through loans to be used for capital improvements. At the state level the spending allocation is determined by INDOT and is disbursed through grants, which can be used for the rehabilitation of railroad infrastructure or railroad construction.

The Railroad Grade Crossing Fund was instituted in 1997. Funds have been made available to local jurisdictions and railroads to fund safety improvements and crossing closures at highway/rail at-grade crossings.

Maritime Funding

The Ports of Indiana are not part of state government and not affiliated with INDOT. However, the Ports of Indiana and INDOT work cooperatively to facilitate transportation solutions. All three Ports of Indiana ports have capacity for growth, as do the ports' associated waterways. Actual expansion of port facilities will be spurred by private investment. The Ports of Indiana has the authority to use revenue bonds and other tools as incentives for development at its facilities without the use of tax dollars. INDOT's Rail Office plays a role in planning for ports through its work with freight railroads and roadway projects serving the ports.

Revenue is generated through a fuel tax, cargo tax and allocations from the federal General Fund. Spending of generated revenue is allocated by the Army Corps of Engineers. The Army Corps disburses the funds based upon internally prioritized project needs, the annual government budget and fund balances.

Aviation Funding

As is typical throughout the country, Indiana's airport system is owned by local governments and authorities and/or private sector interests. The Federal Aviation Administration controls planning and design aspects of airports and makes planning and construction grants for their upkeep and expansion. The federal government reimburses up to 95 percent of costs for qualified airport projects. The INDOT Office of Aviation provides technical and financial assistance to public-owned, public-use airports.

The Federal Aviation Administration (FAA) collects federal aviation revenue from aviation-related excise taxes on passengers, cargo, and fuel. These revenues provide funding for capital improvements to the U.S. airport and airways system. Revenue is distributed federally through the Airport Improvement Plan (AIP), federal guidelines and in some instances to larger airports that have minimal discretion to use the funds as necessary. The FAA prioritizes use of funds it disburses based upon its goals. Indiana only matches a minimum portion of the federal grants and has little input as to what projects are funded. Aviation is the only mode under INDOT 's jurisdiction that does not generate revenue to the state.

In 2012 an updated Indiana State Aviation System Plan (ISASP) was completed. It serves as the planning framework for the coming years. It covers system goals, airport roles in the overall system, minimum service level requirements and forecasts, as well as documenting the economic benefits of the system to Indiana.

Stellar Communities

The Stellar Communities program is a multi-agency partnership designed to fund comprehensive community development projects in Indiana's smaller communities. The Indiana Housing and Community Development Authority, Indiana Office of Community and Rural Affairs, and Indiana Department of Transportation, along with the State Revolving Fund, are participating in this innovative program.

The Stellar Communities program embodies collaborative government partnerships and successfully leverages state and federal funding from multiple agencies to undertake large-scale projects. Through this program, Indiana is doing more with current resources and making a bigger impact in communities, even with a slimmer budget.

On-Going Challenges

While, quite active and successful in financing and delivering major freight infrastructure investments, INDOT still faces several challenges:

- How should INDOT coordinate projects with other agencies?
- Can/should INDOT play a role in modernizing locks along the Ohio River, with the U.S. Army Corps of Engineers?
- How should the State consider funding multi-modal projects?
- What further opportunities are there for Indiana to use P3 funding to improve freight?

These will be important issues for INDOT to grapple with over the coming years.

About this Document

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Abstract

The Indiana Multimodal Freight and Mobility Plan provides a data-driven approach; supporting identification, prioritization, and financing of truck highway and intermodal freight projects. The Plan is designed to meet federal freight criteria and goals, and to integrate existing state modal plans into one state freight plan. Emphasis areas include: 1) Compliance with MAP-21 requirements; 2) Focus on highway and intermodal (Truck/Rail, Air/Truck, Water/Truck); 3) Measuring freight demand and performance on INDOT facilities; 4) Current economics and trends; 5) Measuring effectiveness/prioritization of freight projects; and 6) Implementation and funding. Engagement with the logistics industry was critical. Vital input was received from Conexus Indiana, Ports of Indiana and the Indiana Logistics Council.

Key Words	*Notes*
Freight Planning, Multimodal, Intermodal, MAP-21, National Freight Network, Logistics, Commodity Flow, Freight Stakeholders, Economic Impacts	

Indiana
A State that Works

INDIANA
Multimodal Freight and Mobility Plan

Indiana
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INDIANA DEPARTMENT OF TRANSPORTATION
INDOT

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