

DRAFT National Capital Region Freight Plan

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Introduction – Or Why Should We Do Freight Planning?

- **The multimodal transportation system is vital to the economy of the Region and to the quality of life of its residents**
- **Each year hundreds of millions of tons of freight valued in the billions of dollars move over the Region's roadways and railways and pass through its airports**
- **Growing employment, population, and wealth will continue to drive demand for freight**
- **Economic growth along the eastern seaboard, throughout the nation, and across the world will result in greater quantities of goods moving into, out of, and through the Region**
- **Evolving supply chain practices, expansion of the Panama Canal, and increasing urbanization are but a few of the factors that will impact freight flows in the future**

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Introduction – Or Why Should We Do Freight Planning?

The TPB as the Metropolitan Planning Organization for the National Capital Region has an important role to play in ensuring that the regional transportation system continues to be responsive to and supportive of the freight demands placed on it by its residents, businesses, and visitors.

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Overview

- **Builds on initial 2010 National Capital Region Freight Plan**
- **Supportive of MAP-21 requirements**
- **Intended as both a technical reference and a guide to future TPB freight planning activities**
- **Describes the role of freight in the Region's economy**
- **Provides an overview of the multimodal freight transportation system**
- **Describes the drivers of freight demand and resulting freight flows**
- **Identifies significant freight issues**
- **Provides recommendations for future freight planning action**

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Multimodal Freight System

National Capital Region Roads

Category	Mileage
Interstate	> 230
Primary	> 2,400
Secondary	> 2,100
Local	> 12,000

National Capital Region Railroads

Railroad	Class 1 Freight	Class III Freight	Passenger	Miles owned
CSX Transportation	<input checked="" type="checkbox"/>			211
Norfolk Southern Corporation	<input checked="" type="checkbox"/>			46
Maryland Midland Railway		<input checked="" type="checkbox"/>		26
Amtrak			<input checked="" type="checkbox"/>	18

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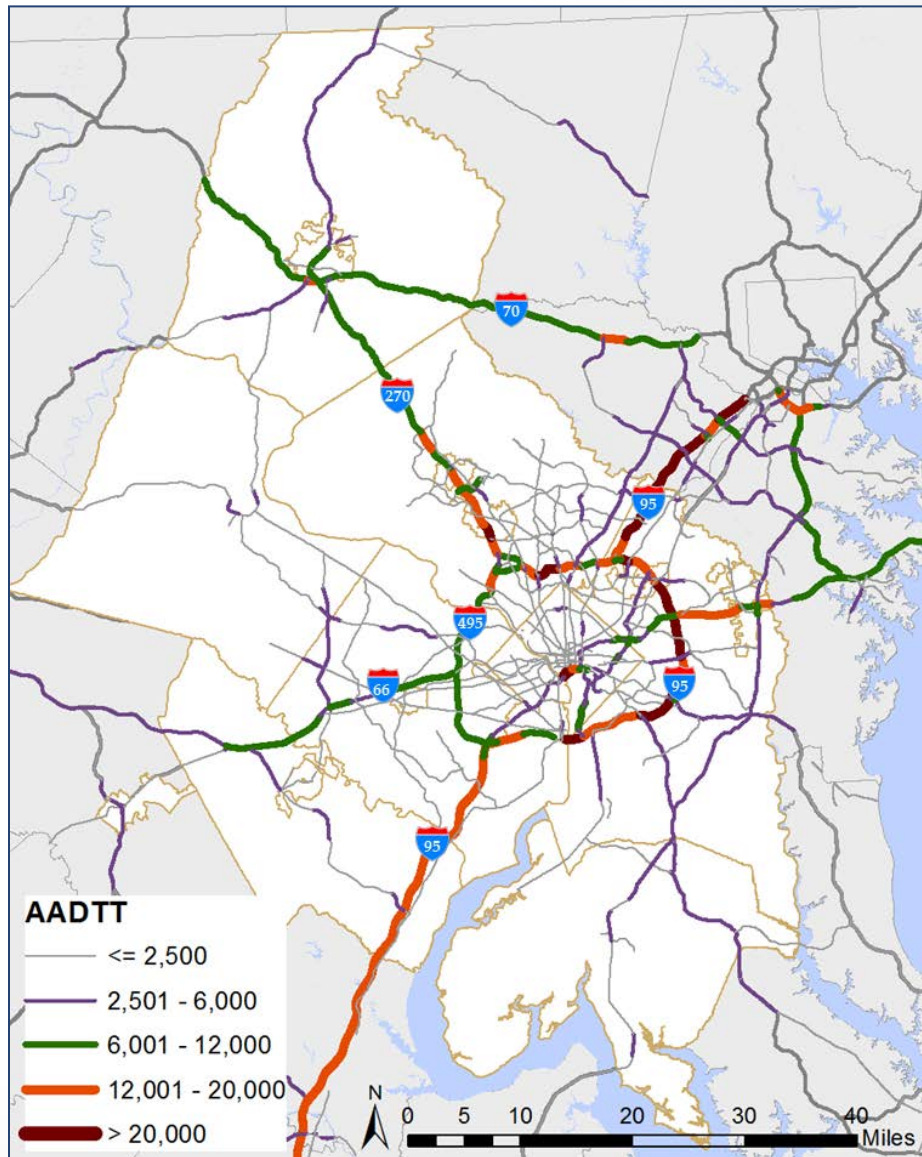
Multimodal Freight System

Cargo Airports	<ul style="list-style-type: none">▪ Washington Dulles International Airport▪ Ronald Reagan Washington National Airport▪ Baltimore Washington International Thurgood Marshall Airport
Marine Terminals	<ul style="list-style-type: none">▪ Port of Baltimore▪ Port of Virginia▪ Miscellaneous barge terminals (Anacostia and Potomac rivers)
Intermodal Connectors	<ul style="list-style-type: none">▪ Jessup Auto Distribution Facility▪ Alexandria Intermodal - Norfolk Southern▪ Virginia Inland Port▪ Ronald Reagan Washington National Airport

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Multimodal Freight System

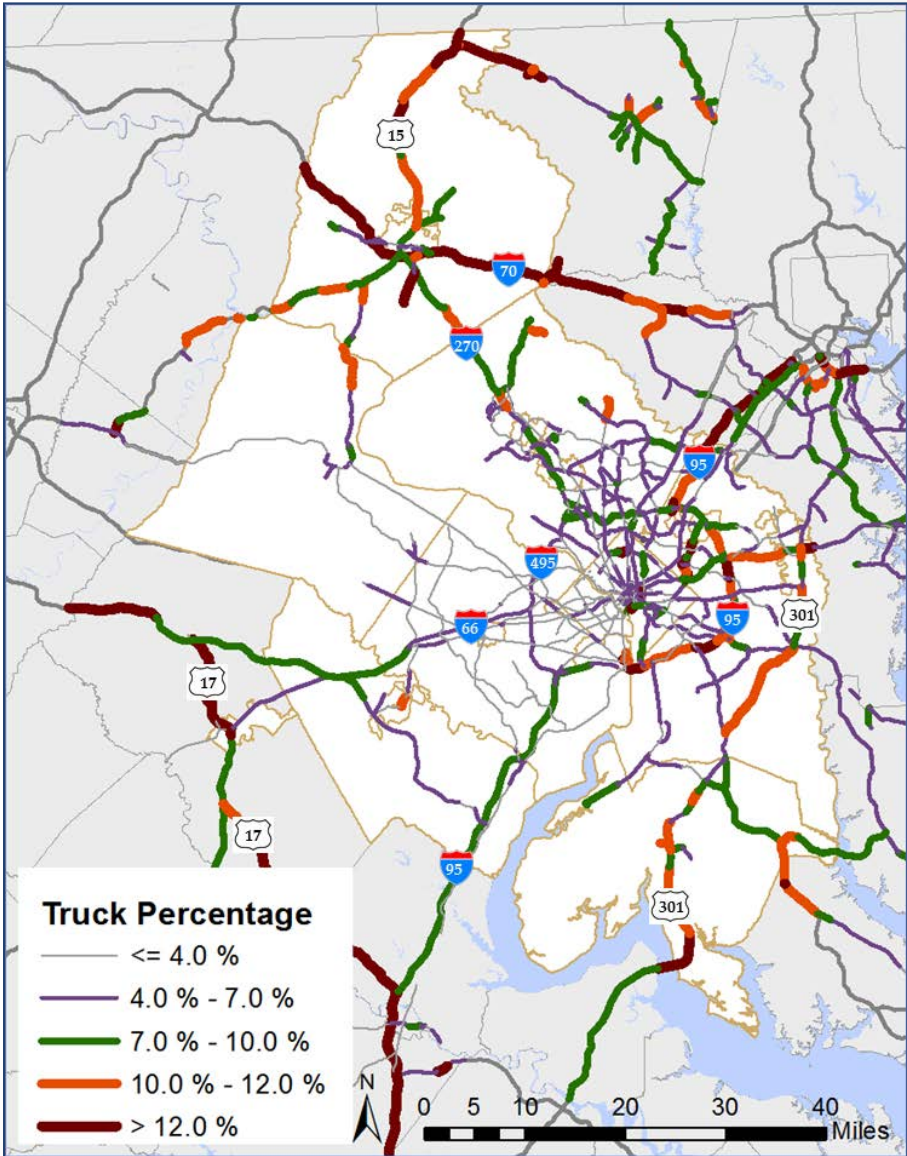
Truck Volumes, 2013



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Multimodal Freight System

Truck Percentages, 2013



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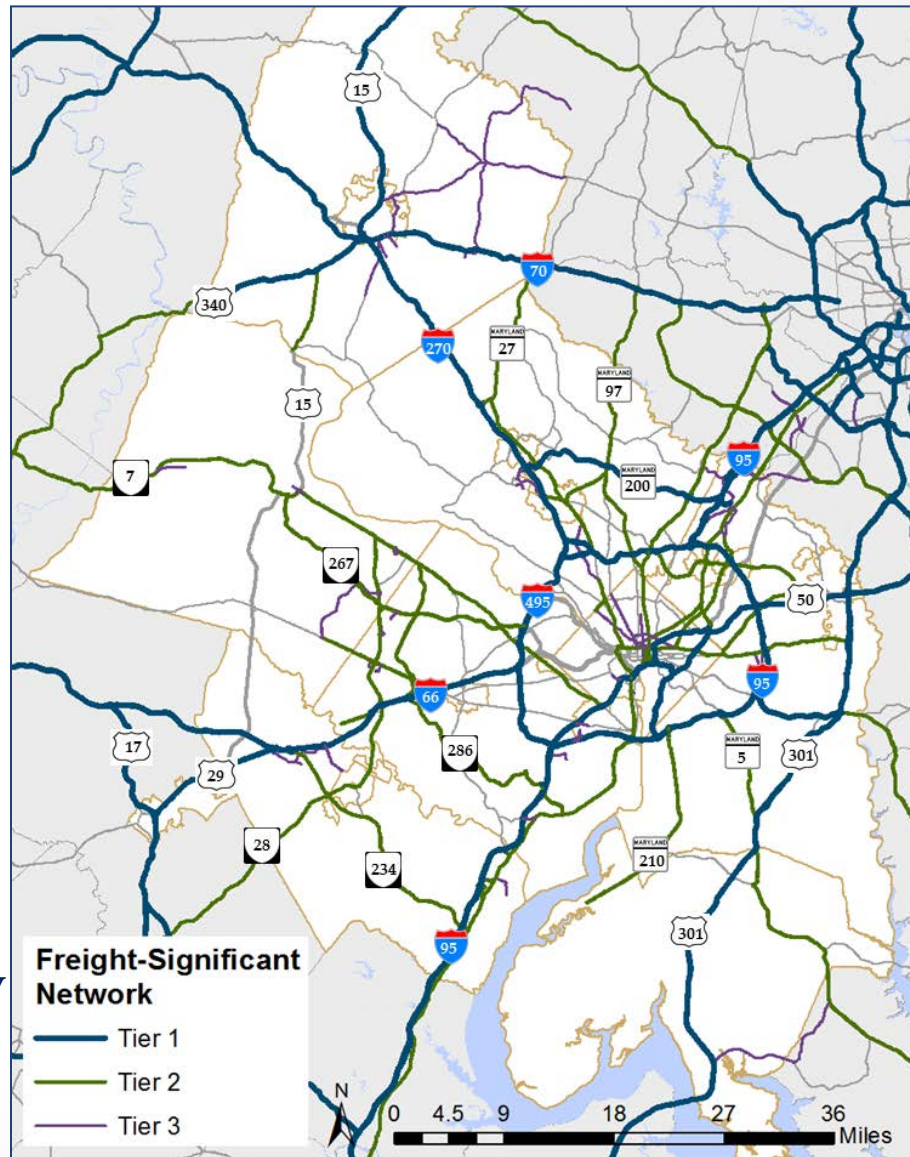
Multimodal Freight System

Regional Freight-Significant Network

Tier 1: state-designated truck routes, interstates, and other high volume roadways

Tier 2: allows trucks to permeate the Region and provide access to important freight generators and attractors

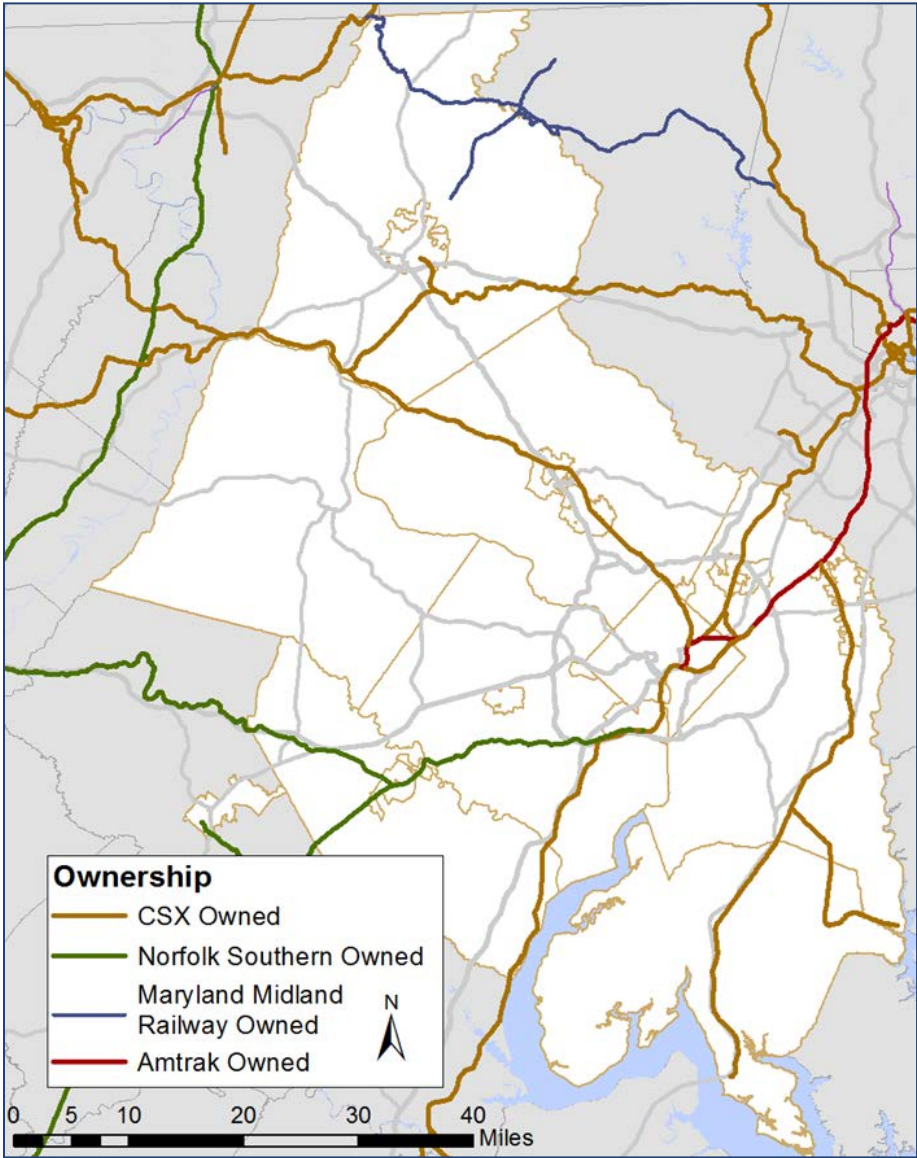
Tier 3: last mile connectivity



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Multimodal Freight System

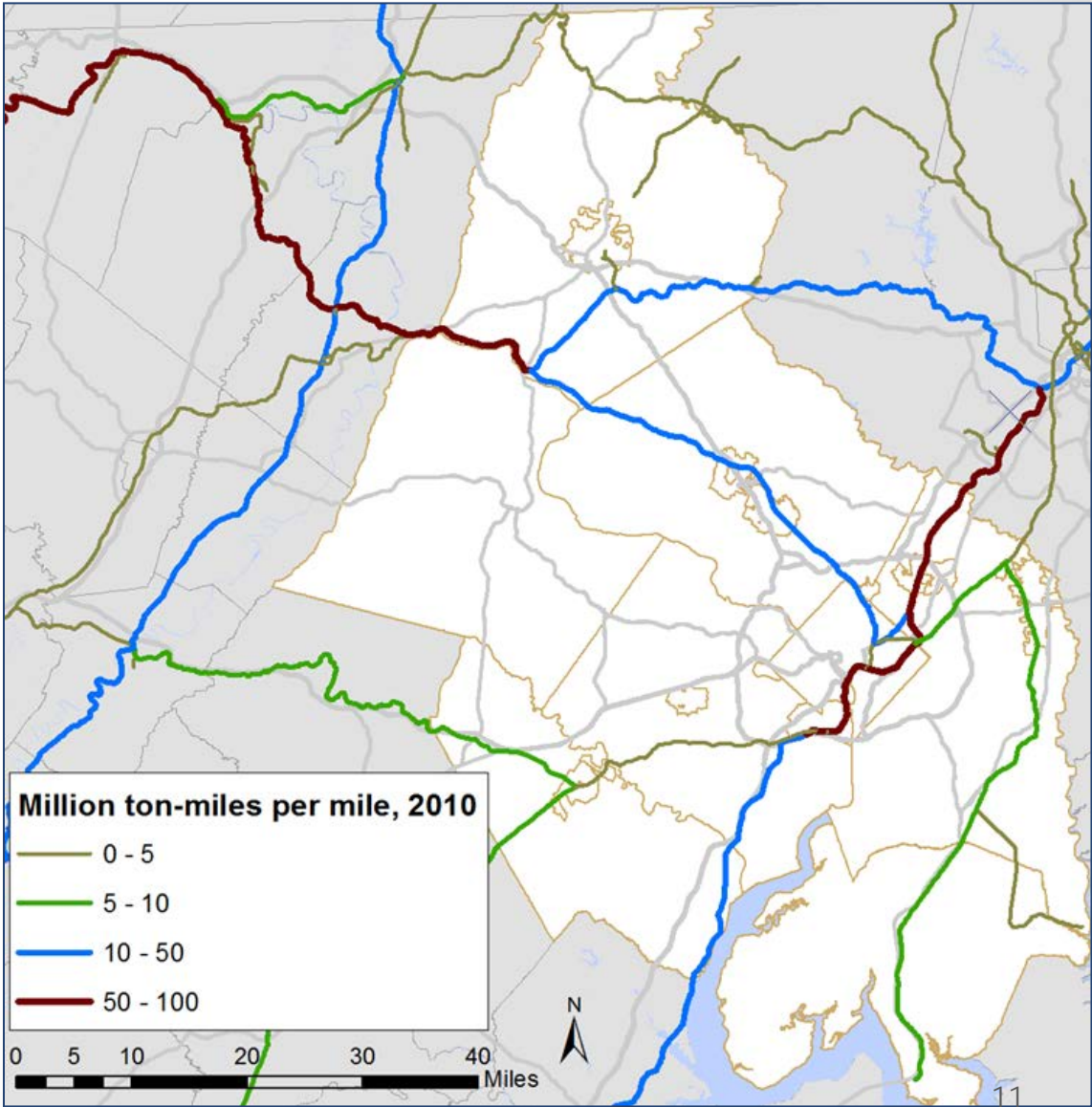
Rail Ownership



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Multimodal Freight System

Rail Density, 2010



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Freight Demand (FAF Analysis)

Dimensions of Analysis

Commodities	<ul style="list-style-type: none">▪ Standard Classification of Transported Goods (SCTG) – 2 digit
Weight / Value	<ul style="list-style-type: none">▪ Weight is an indicator of the demand that freight places on transportation infrastructure▪ Value is an indicator of the economic activity associated with freight
Direction	<ul style="list-style-type: none">▪ Inbound▪ Outbound▪ Intraregional▪ Through
Mode	<ul style="list-style-type: none">▪ Truck▪ Rail▪ Multiple Modes▪ Water▪ Air▪ Pipeline

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Freight Demand (FAF Analysis)

Top Commodities by Weight

Rank	Commodity Class	Total (thousands of tons)	Cumulative Share
1	Gravel & crushed stone	41,277	19%
2	Waste & scrap	32,319	35%
3	Nonmetallic mineral products	25,212	47%
4	Other petroleum products	14,421	53%

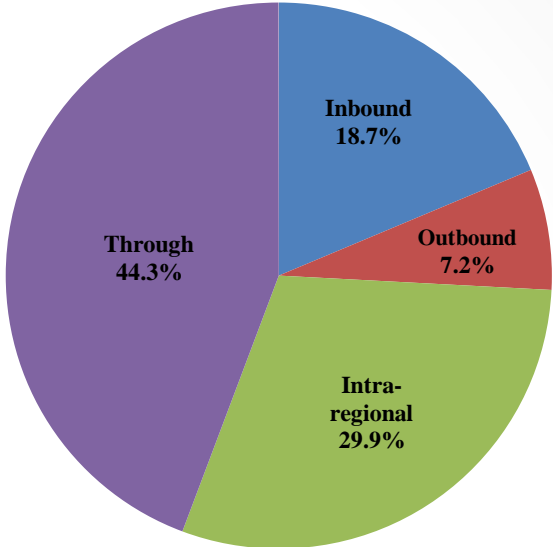
Top Commodities by Value

Rank	Commodity Class	Total (millions of \$)	Cumulative Share
1	Electronic & electrical equip.	31,848	13%
2	Machinery	27,578	25%
3	Mixed freight	22,584	34%
4	Pharmaceutical products	19,225	42%

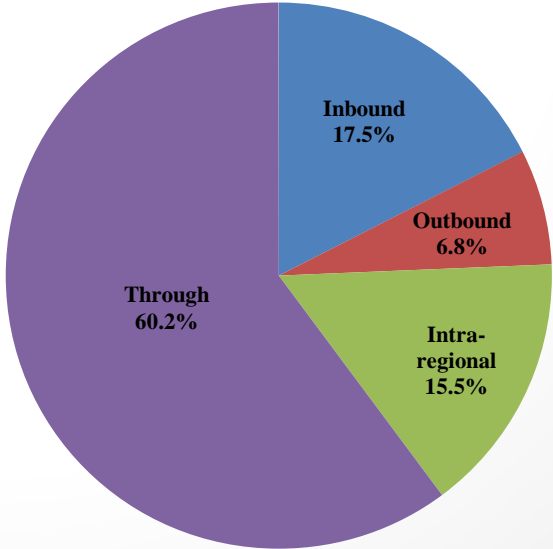
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Freight Demand (FAF Analysis)

Direction (Weight)



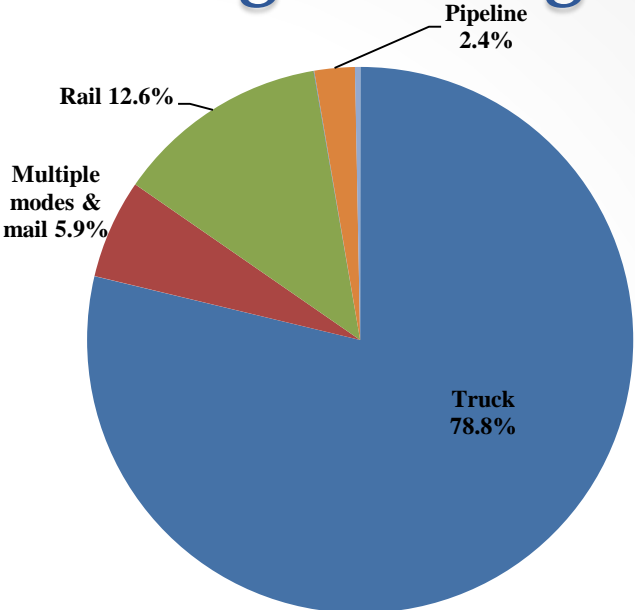
Direction (Value)



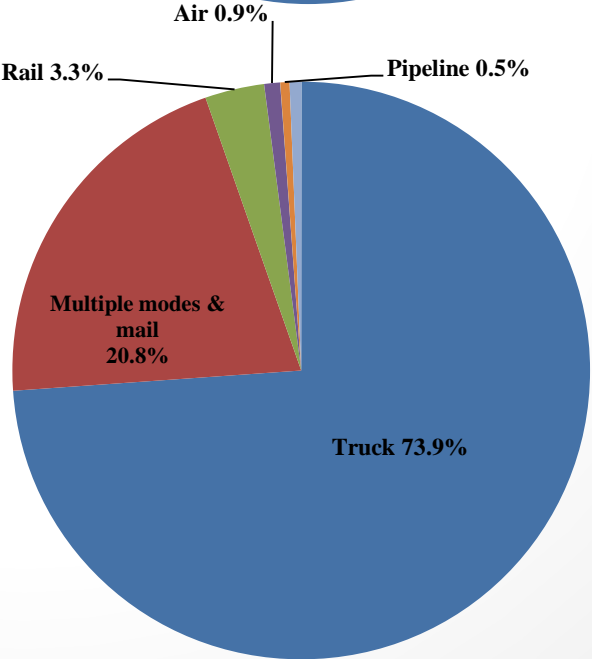
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Freight Demand (FAF Analysis)

Mode (Weight)



Mode (Value)



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Trends

Key Trends Impacting Freight

Population Growth	<ul style="list-style-type: none">▪ A growing population generates additional demand for goods of all kinds
GDP and Employment	<ul style="list-style-type: none">▪ Direct relationship between GDP growth and freight transportation demand▪ BTS Freight Transportation Intensity Index▪ Freight demand by industry
Evolution of the Supply Chain	<ul style="list-style-type: none">▪ From a “push” to “pull” supply chain paradigm▪ New technology + demanding customer expectations▪ Evolving distribution center design and locations▪ The changing last mile
Industry Trends	<ul style="list-style-type: none">▪ Trucking – consolidations, technology, drivers, and cash▪ Rail – increasing productivity, growth of intermodal, and new crude oil markets▪ Ports and Shipping – Panama Canal, west coast labor issues

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Issues

Freight Issues in our Region

Congestion and Delay	<ul style="list-style-type: none">▪ Major auto bottlenecks \equiv major truck bottlenecks▪ Rail congestion hampers efforts to passenger rail – issues relate to capacity and clearance constraints
Truck Parking	<ul style="list-style-type: none">▪ Safety - hours of service rules
Freight and the Environment	<ul style="list-style-type: none">▪ Air quality, noise, hazardous materials
Crude by Rail	<ul style="list-style-type: none">▪ Shale oil chemistry – recent derailments – national attention▪ No crude oil unit trains through the District of Columbia
Freight in Regional Activity Centers	<ul style="list-style-type: none">▪ Regional goal to concentrate development in activity centers▪ This will bring trucks into close proximity to pedestrians, bicyclists, and other vulnerable road users▪ Freight in complete streets environment

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Recommendations to Maintain and Strengthen Regional Freight Planning

- 1) Continue to Support the TPB Freight Subcommittee**
- 2) Maintain and Strengthen Private-Sector Participation in the TPB Freight Subcommittee**
- 3) Create Opportunities to Hold Joint Meetings with Other TPB Subcommittees**
- 4) Develop “Freight Around the Region” Brochures in Coordination with Member Jurisdictions**
- 5) Organize Periodic Regional Freight Forums**
- 6) Collect and Analyze Freight Data and Make Available to Member Jurisdictions and the Public**
- 7) Continue Coordination with Federal, State, Local, and Private-Sector Freight Partners**

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Recommendations to Maintain and Strengthen Regional Freight Planning

- 8) **Coordinate TPB's MAP-21 Freight-Related Activities – Including Performance Measures**
- 9) **Identify and Communicate Freight-Related Infrastructure Issues to Member Agencies to Address in their Planning and Programming Activities**
- 10) **Strengthen Relationships with Local Jurisdiction Planners**
- 11) **Highlight Economic Development Aspects of Freight with Local Jurisdiction Planners**

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Strategic Freight Planning Recommendations

- 1) Raise Freight Profile within Local and Regional Planning Processes**
- 2) Develop and Communicate Helpful Information about Accommodating Freight within Regional Activity Centers**
- 3) Continue Participation in FHWA Effort to Develop Innovative Strategies for Improving Freight Movement in Urban Areas**
- 4) Monitor Developments of Autonomous and Connected Freight Vehicles**
- 5) Monitor Key Economic and Industry Trends Impacting Goods Movement**