Briefing on Study for Enhancing Consideration of Freight in Regional Transportation Planning

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COG/TPB Staff

TPB Technical Committee
May 4, 2007

Background

- Consultant study began fall 2006 on enhancing consideration of freight in regional transportation planning

- Draft final report was posted on May 1 for Technical Committee review and comment

- Deadline for comments: May 15

Study Objectives

- Identify issues and opportunities for enhanced freight planning consideration
- Lay the groundwork for specific TPB UPWP activities in future fiscal years
- Ensure coordination with freight planning activities of member agencies
- Develop initial freight information for use in current regional discussions and CLRP development

Tasks and Completion Timeline

Report Chapters	Description
1. Context of State and Local Freight Planning Activities	States and DC are undertaking or have undertaken a number of relevant studies important for us to consider, also Baltimore and I-95 Corridor Coalition activities
2. Washington Region Freight Profile	The role of freight in the Washington region; commodity flows; the regional freight transportation system; freight generators; maps
3. Recommendations on Future Activities and Committee Approach to Freight Planning	Case studies of other MPOs; critical success factors, recommendations
4. Recommendations on Stakeholder Outreach Activities	Options for involving stakeholders in the process; survey ideas
5. Data Sets and Analytical Tools	Public and private sector data sets available for analysis and how they can be used
6. Conclusion	Summary and outlook

Key Findings: Overview

- While this region is not a large freight generator, its large population and vibrant economy demand a responsive freight system
- The region lies at the crossroads of several important national freight corridors
- Movement of goods is adversely affected by mounting highway and rail congestion
- Truck stops and parking facilities are in short supply
- Both local freight movement (≈ 41% by weight) and through movement (≈ 59%) are significant
- Air cargo is the fastest growing segment – airports and airport ground access will remain critical

Key Findings: What Is Being Moved

- Approximately 222 million tons of goods worth over $200 billion are transportation to, from, or within the region annually
- Construction materials (e.g., gravel), waste/scrap, and coal products are top commodities by weight
- Machinery and textiles are top commodities by value
- Significant growth is projected
- It is also estimated that an additional 314 million tons of goods pass through the region annually (through traffic)

Key Findings: Modes

- Approximately ¾ of the freight traveling to, from, or within the region is by truck
- Other modes (final delivery usually still has to be by truck)
  - Rail movements are significant for high weight, non-time sensitive cargoes
  - Air cargo, focusing on the highest value, time-sensitive goods, is the fastest growing segment – airports and airport ground access will remain critical
  - Pipelines move most of the petroleum products into the region
  - A marginal amount moves by water

Passenger Versus Freight Transportation Planning Characteristics

Passenger Planning	Freight Planning
Most passenger infrastructure is publicly owned and controlled	Private industry (ports, railroads, terminals, pipelines), own and control part of the system
Passenger trip generation well understood and documented	Freight movements sensitive to market forces, difficult to forecast
More available data	Fewer sources of data
Can typically be coordinated on a regional or local basis (small percent of intercity trips)	Requires multi-jurisdictional cooperation (higher percentage of long-distance trips)
	Freight uses the system differently; carrier perspective differs regarding problems (e.g., chokepoints) and solutions

Key Recommendations

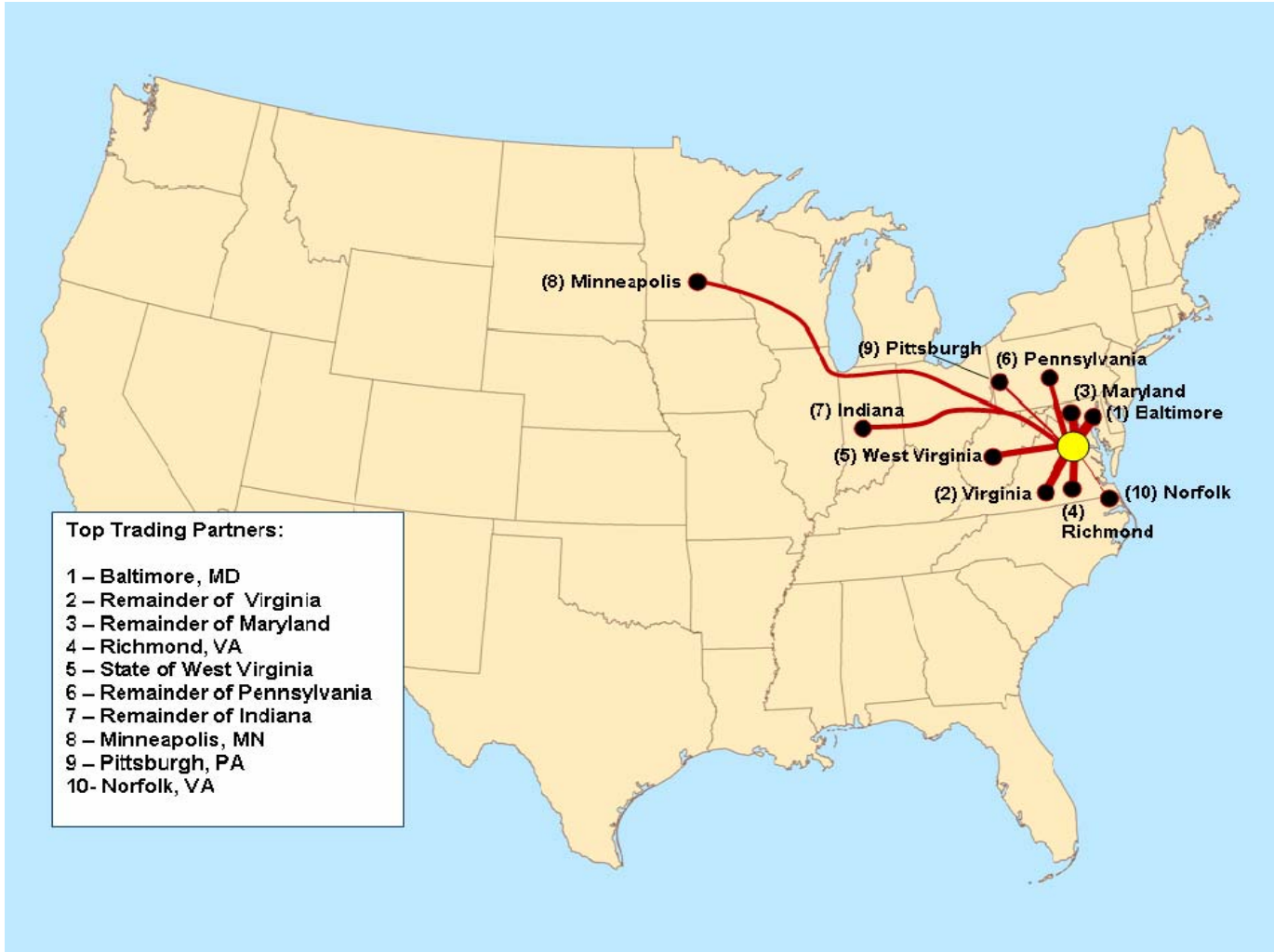
- Continue to engage in state freight activities
- Form a Freight Subcommittee with both public and private sector representatives
- Designate a COG/TPB staff person for freight planning
- Undertake freight stakeholder outreach activities – events, surveys, personal contacts, newsletters, Web site

Washington Region Freight Profile

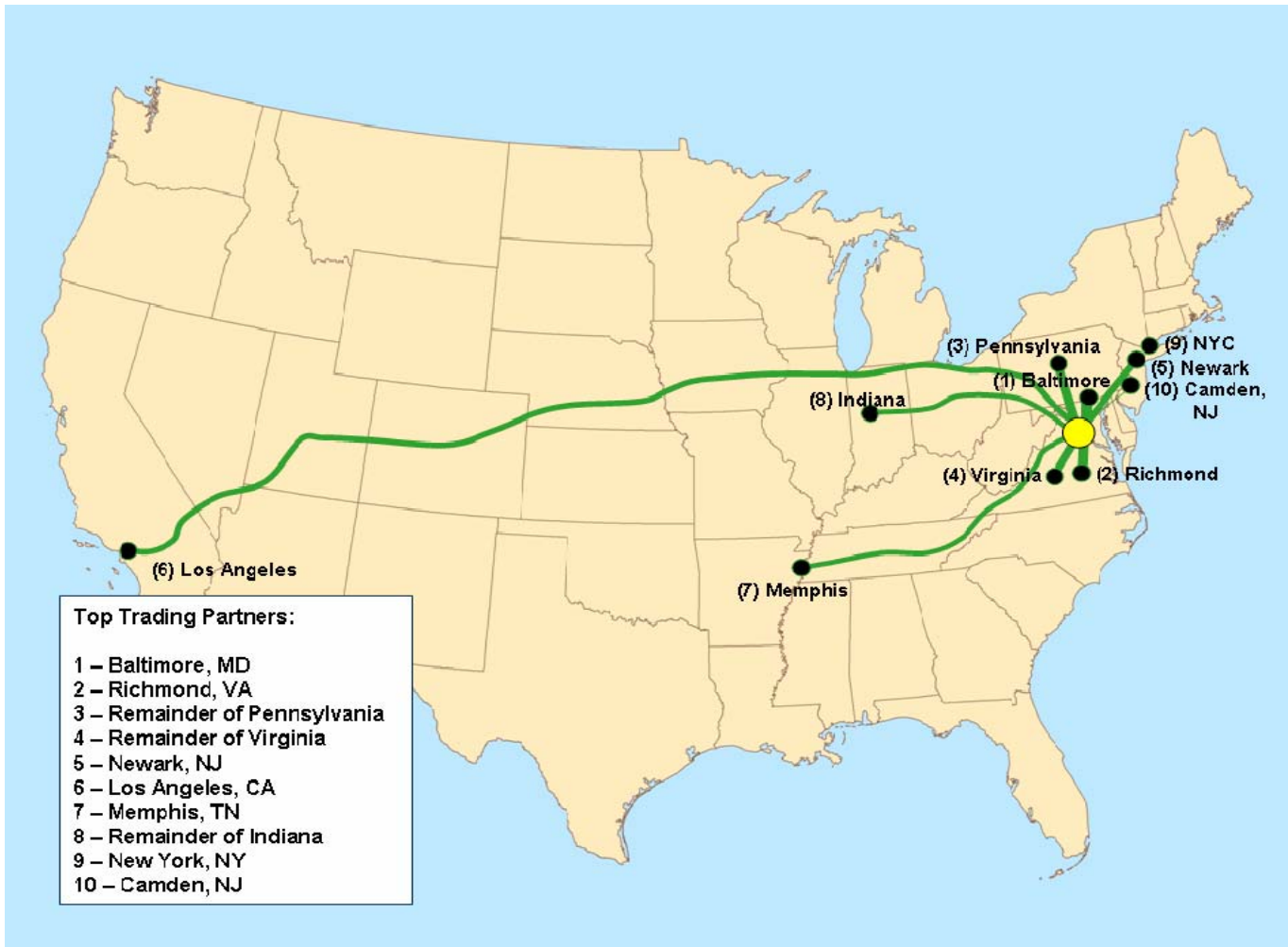
Data Sources Keyed to the National Freight Analysis Framework (FAF)

Geography is Larger Than the TPB Area;
Detailed Data Does Not Include Through Trips

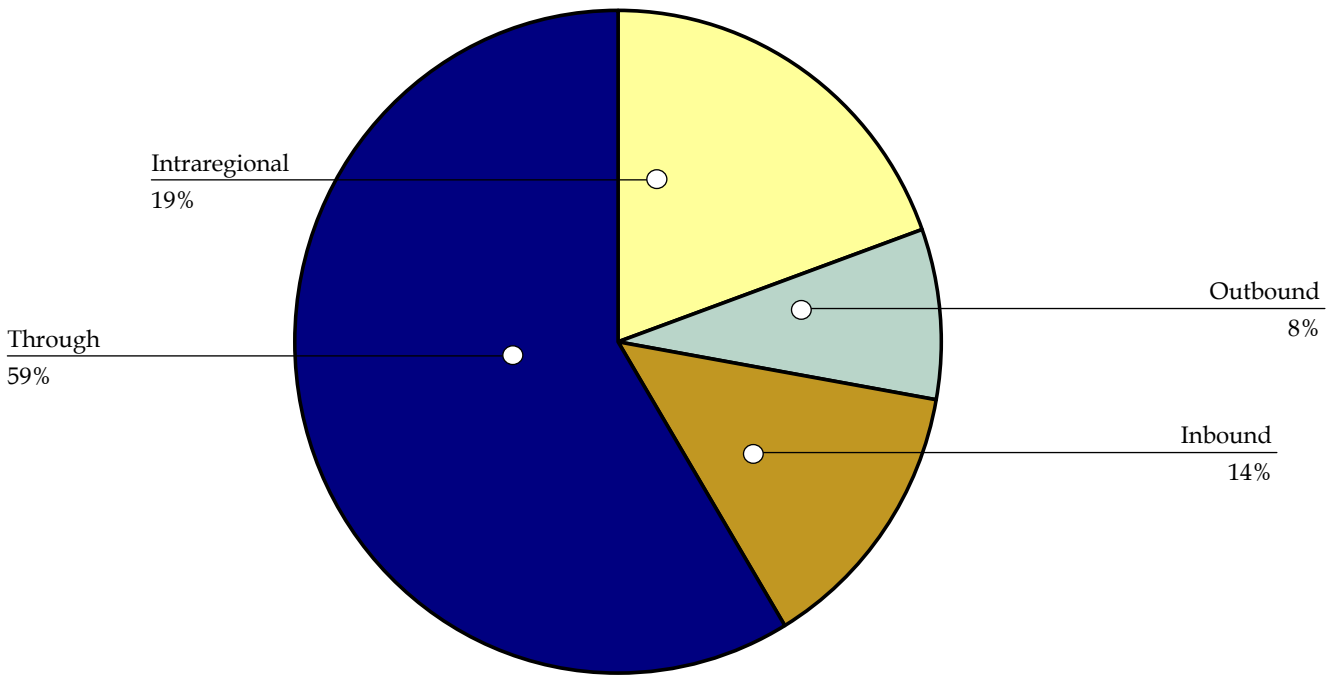
Top Washington, D.C. Metro Region Trading Partners by Weight, 2002



Top Trading Partners by Total Value, 2002

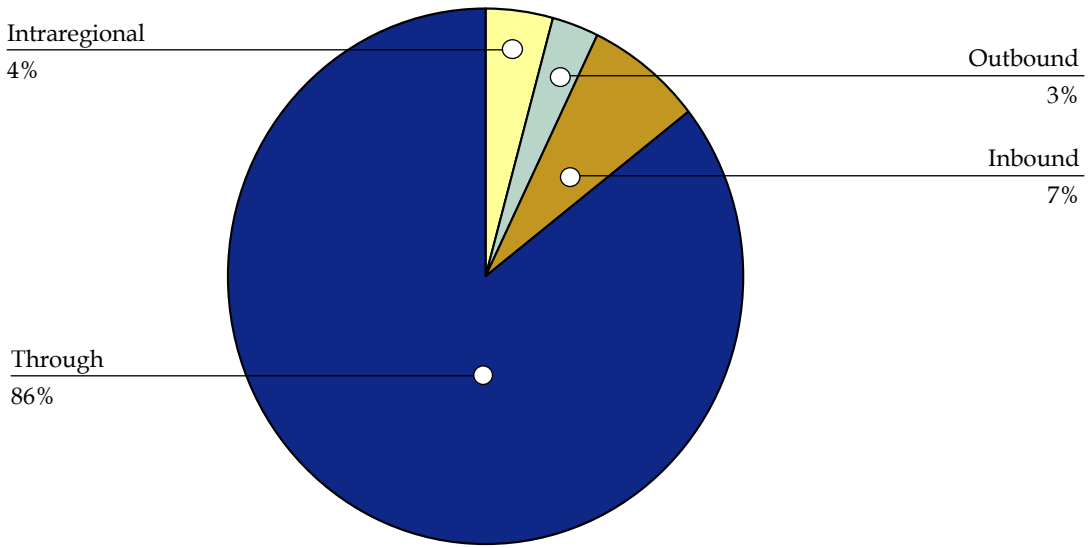


Estimated* Regional Commodity Flows By Direction of Movement By Weight



* Estimates are based on 2 Sources: Inbound, Outbound, and Intraregional numbers are based on 2002 FAF data. Through traffic is based on 2003 estimate in Draft Maryland Freight Profile, 2007.

Estimated* Regional Commodity Flows By Direction of Movement By Value

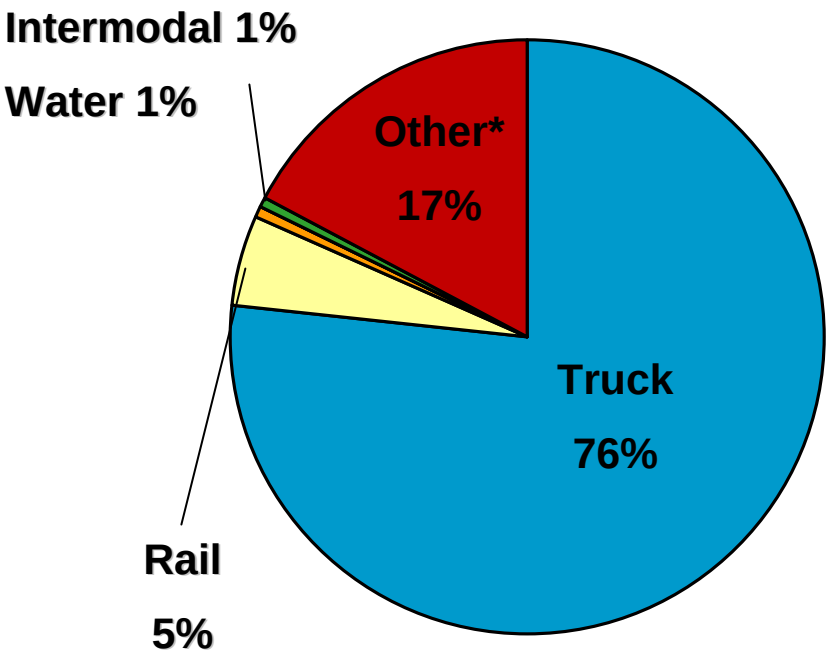


* Estimates are based on 2 Sources: Inbound, Outbound, and Intraregional numbers are based on 2002 FAF data. Through traffic is based on 2003 estimate in Draft Maryland Freight Profile, 2007.

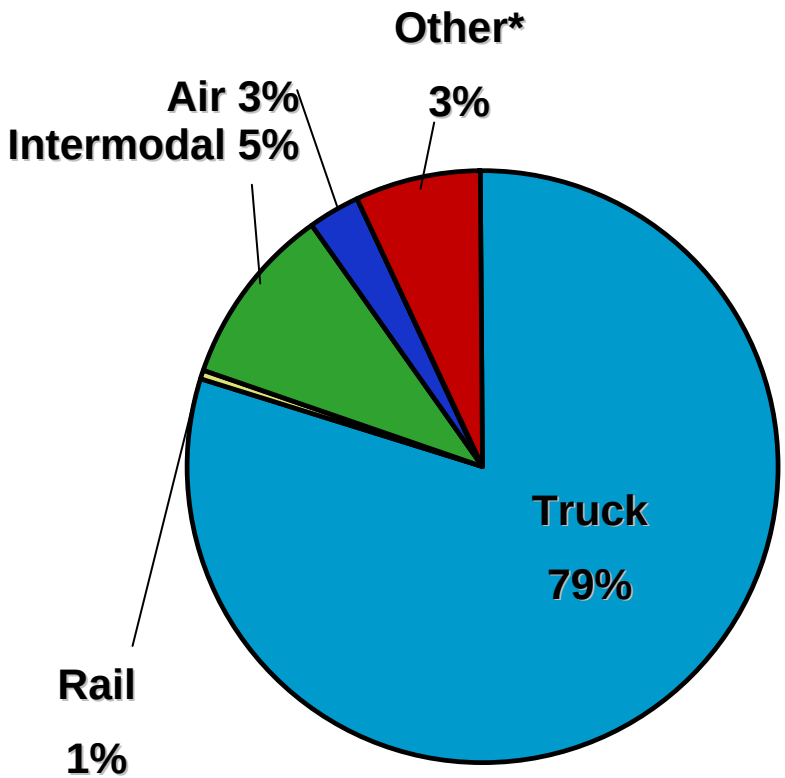
Metro Washington Freight Movement By Mode

Does Not Include Through Trips

Mode Split (weight)



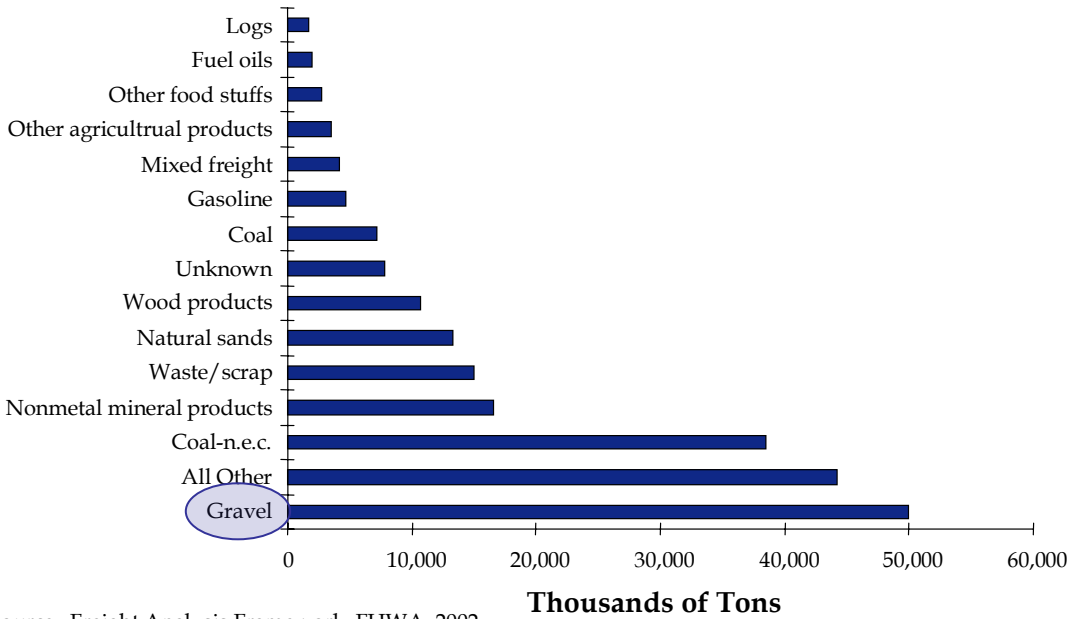
Mode Split (value)



Source: 2002 FAF
*Other = pipeline or unknown mode

Top Commodities by Weight

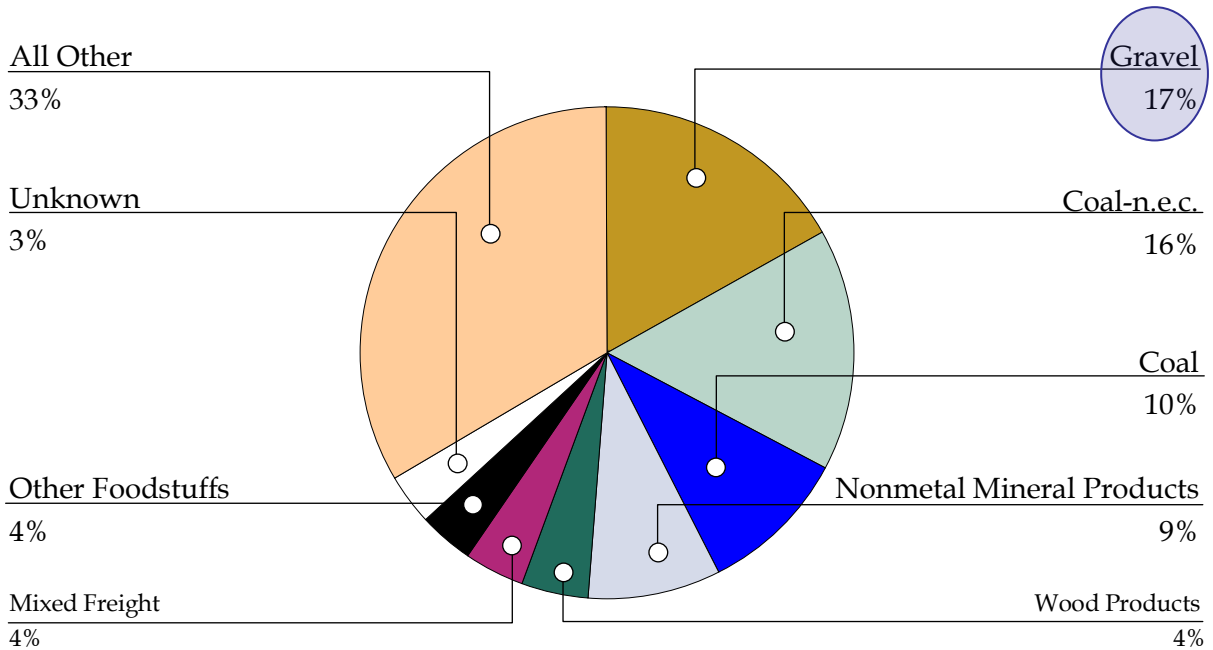
Top Commodities Transported To, From, and Within the Washington D.C. Region
by Tonnage



Source: Freight Analysis Framework, FHWA, 2002.

Top Commodities by Weight – Inbound

Top Commodities Transported to Washington, D.C. Metro Region
by Tonnage



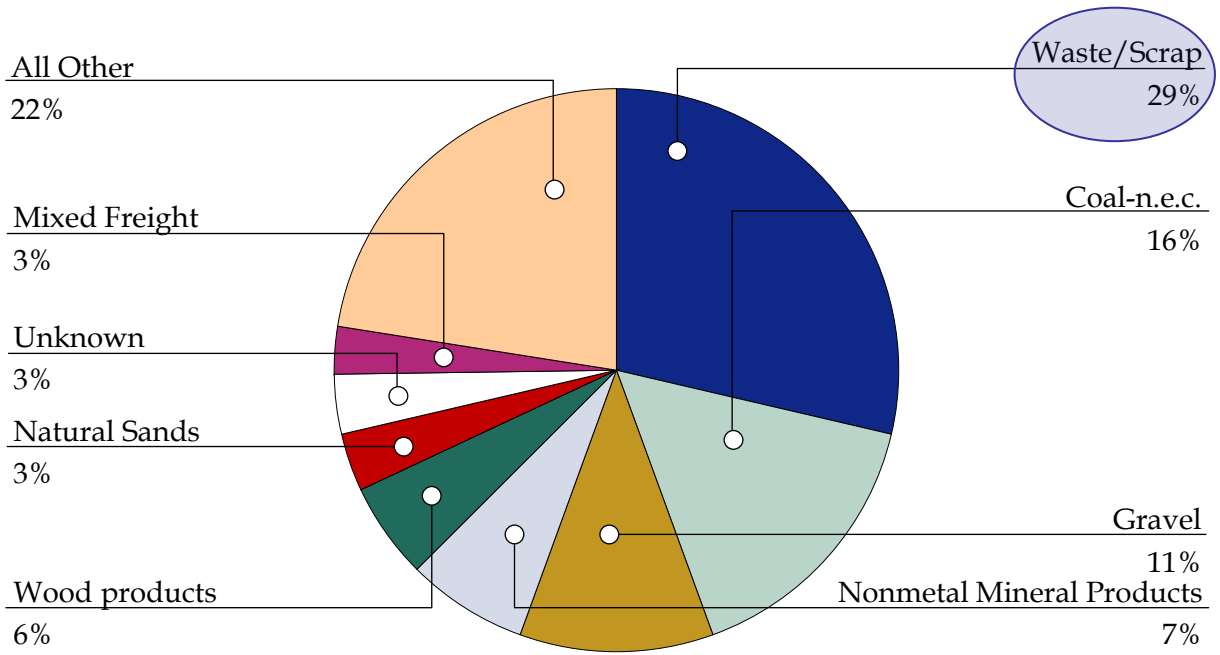
Source: Freight Analysis Framework, FHWA, 2002.

Coal n.e.c. Classification:

Selected coal products, and products of petroleum refining, excluding gasoline, aviation fuel, and fuel oil.

Top Commodities by Weight - Outbound

Top Commodities Transported from Washington, D.C. Metro Region
by Tonnage



Source: Freight Analysis Framework, FHWA, 2002.

Coal n.e.c. Classification:

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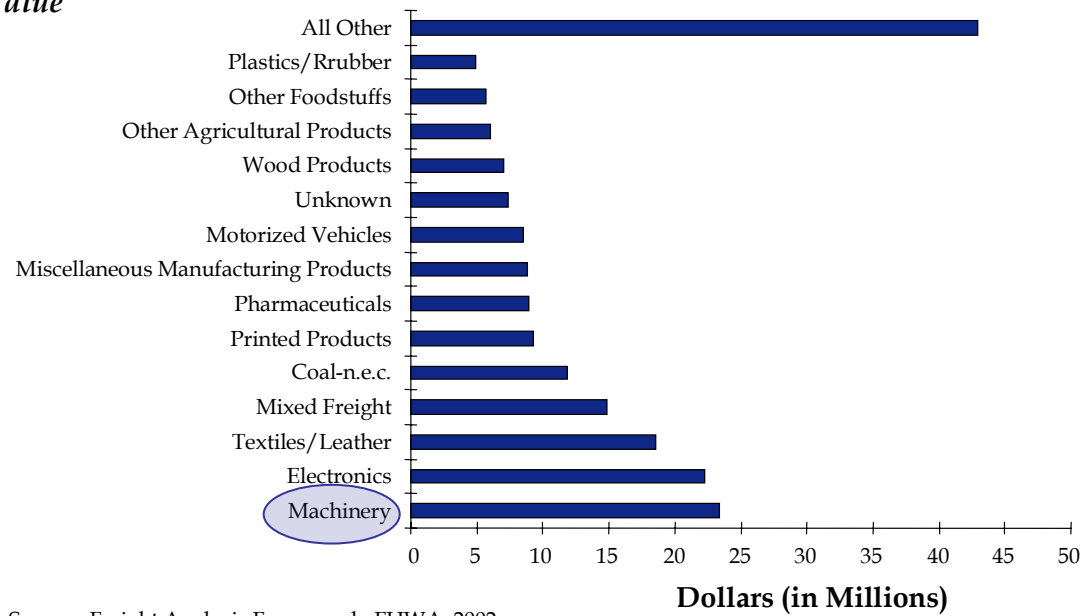
Top Commodities - Value

Top Commodities Transported To, From, and Within the Washington, D.C. Metro Region
by Value

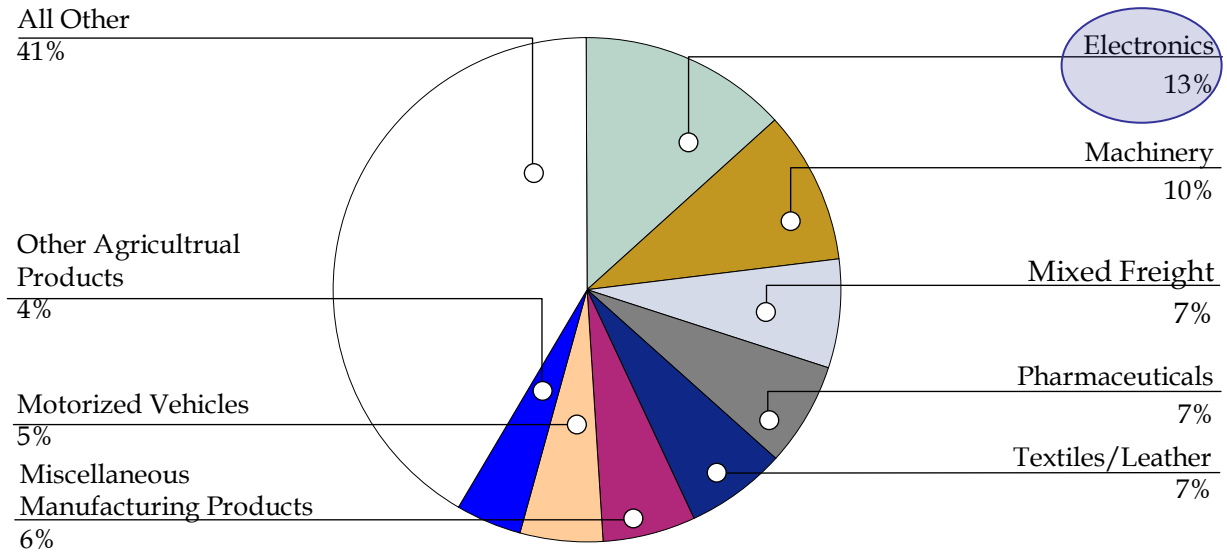


Source: Freight Analysis Framework, FHWA, 2002.

Missile Defense Propulsion

Top Commodities by Value - Inbound

Top Commodities Transported to Washington, D.C. Metro Region
by Value



Source: Freight Analysis Framework, FHWA, 2002.

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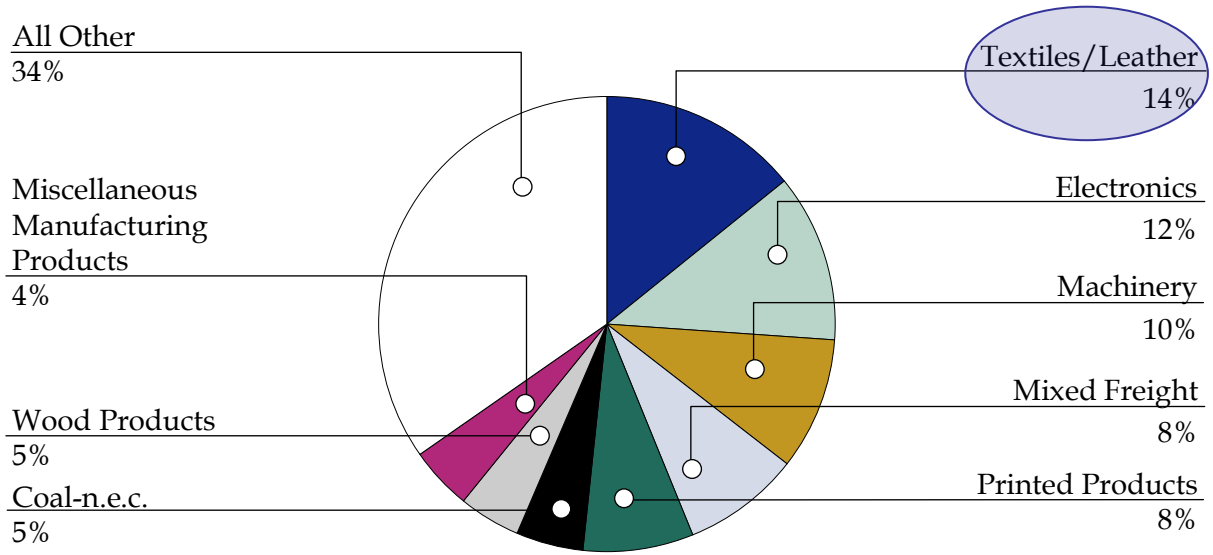
Top Commodities by Value - Outbound

Top Commodities Transported from Washington, D.C. Metro Region
by Value



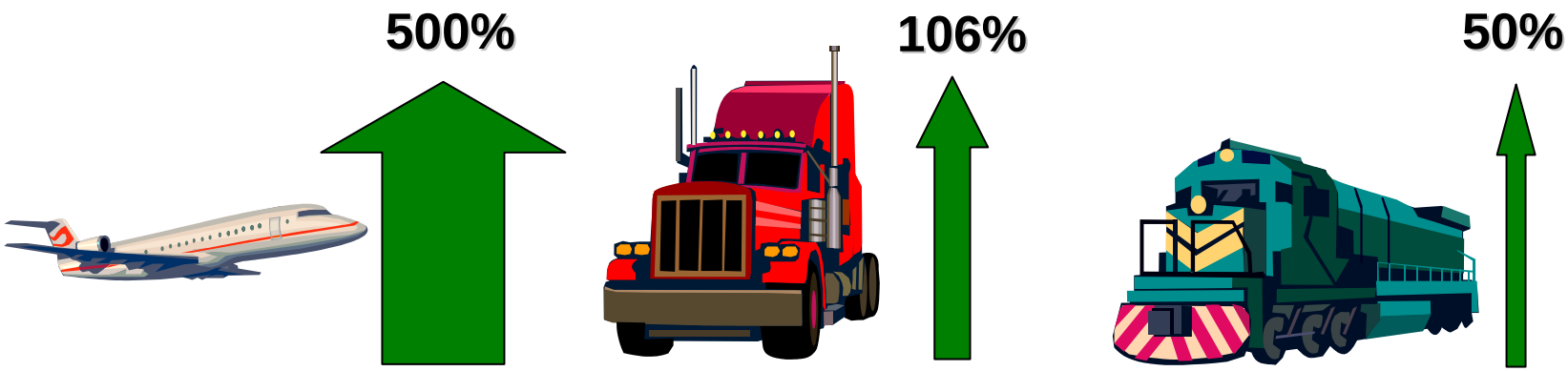
Source: Freight Analysis Framework, FHWA, 2002.

Coal n.e.c. Classification:

Selected coal products, and products of petroleum refining, excluding gasoline, aviation fuel, and fuel oil.

Future Trends - 2030

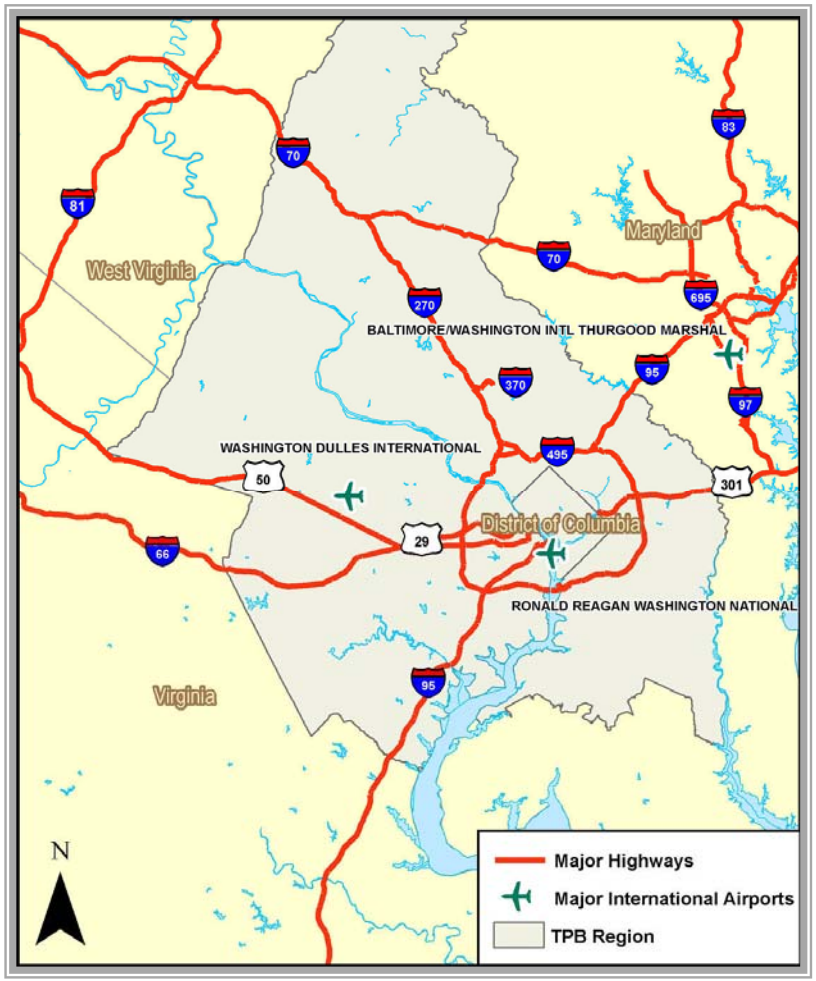
- COG/TPB region will experience higher rate of growth for freight than national average.
- Inbound, Outbound, and Intraregional tonnage expected to increase by 110% (national = 70%).
- Inbound, Outbound, and Intraregional value expected to increase by 145% (national = 116%).
- All modes will see an increase in freight traffic:



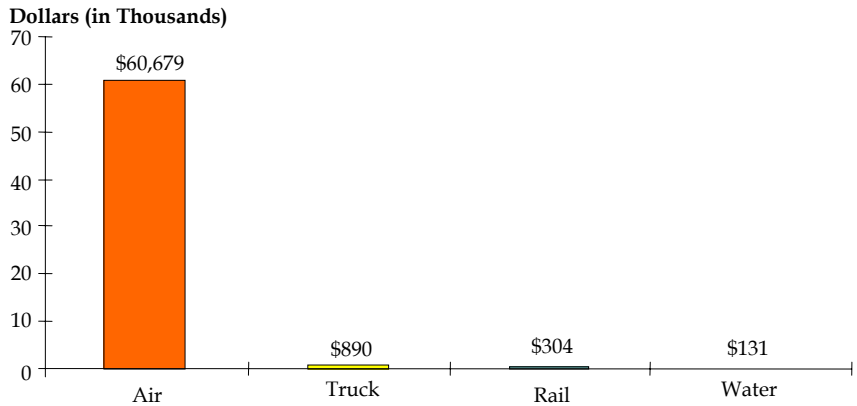
- High-value commodities, like pharmaceuticals, mixed freight, electronics, and motorized vehicles are expected to grow the most, both from a tonnage standpoint and a value standpoint.

- More freight is projected to flow to and from the region, while slightly less freight will be traveling within the region

Airports



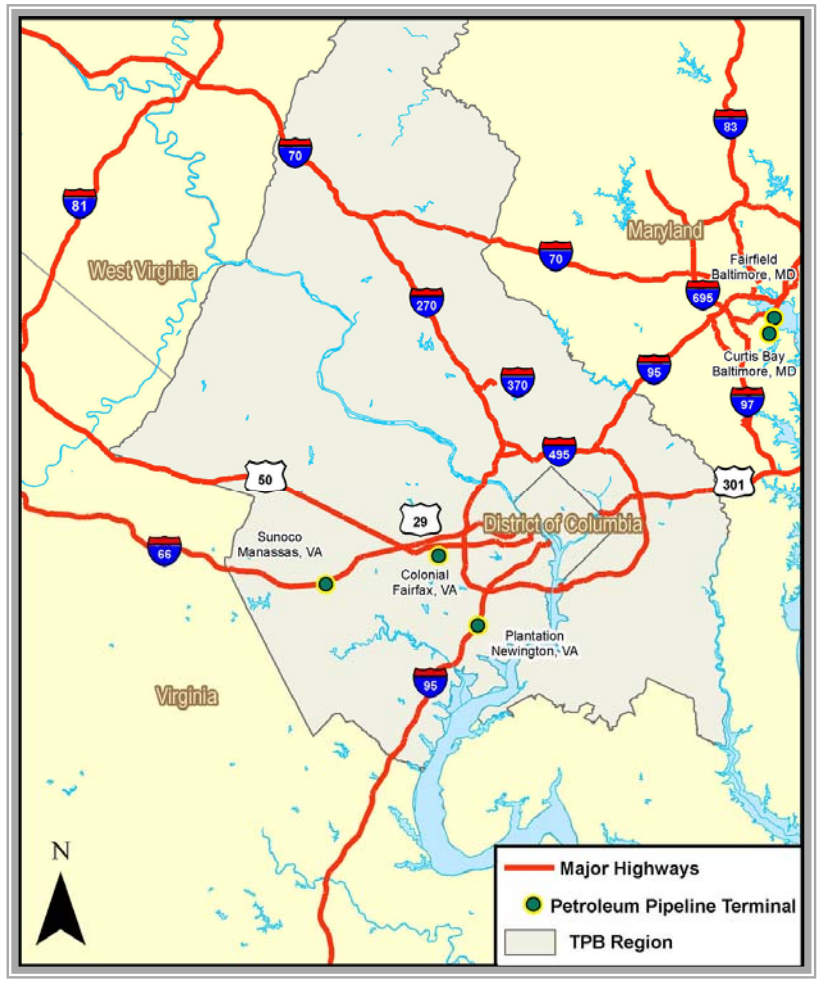
Average Value Per Ton of Domestic U.S. Freight
Year 2000



Source: Reebie Associates' TRANSEARCH and U.S. DOT Freight Analysis Framework Project.

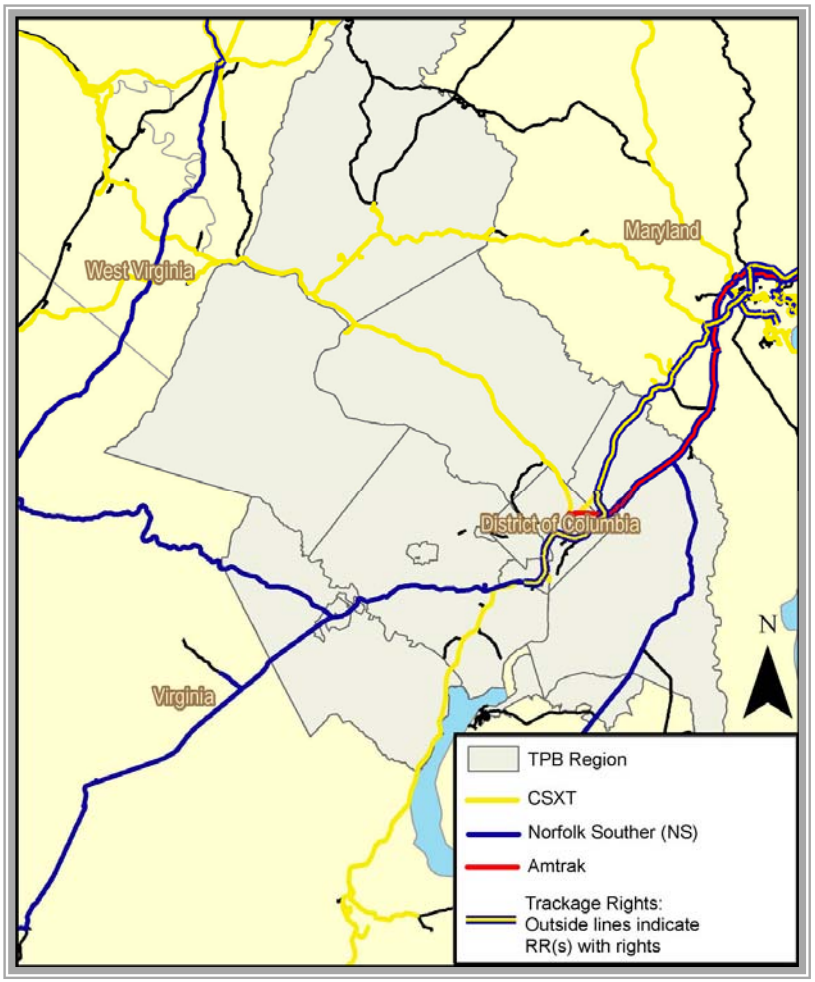
Pipeline


Shell
V-Power
MOTIVA
STOP

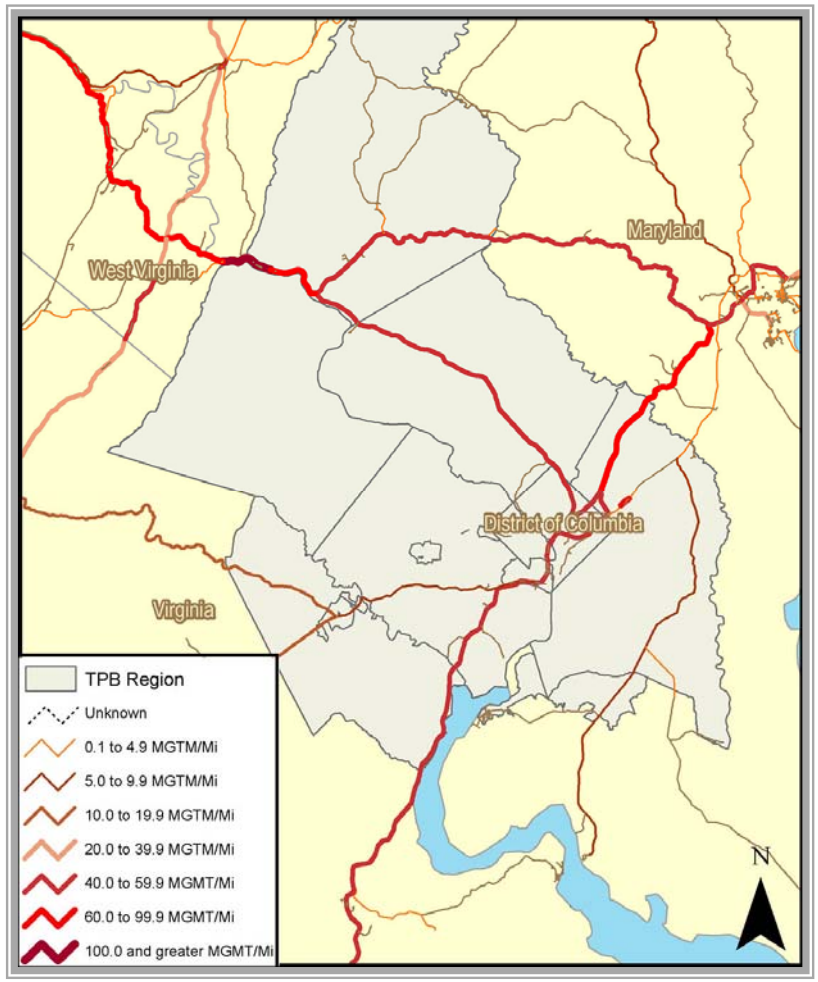

West Virginia
Maryland
District of Columbia
Virginia
Fairfield
Baltimore, MD
Curtis Bay
Baltimore, MD
Sunoco
Manassas, VA
Colonial
Fairfax, VA
Plantation
Newington, VA
N
Major Highways
Petroleum Pipeline Terminal
TPB Region

Rail System

Rail Owners and Operators

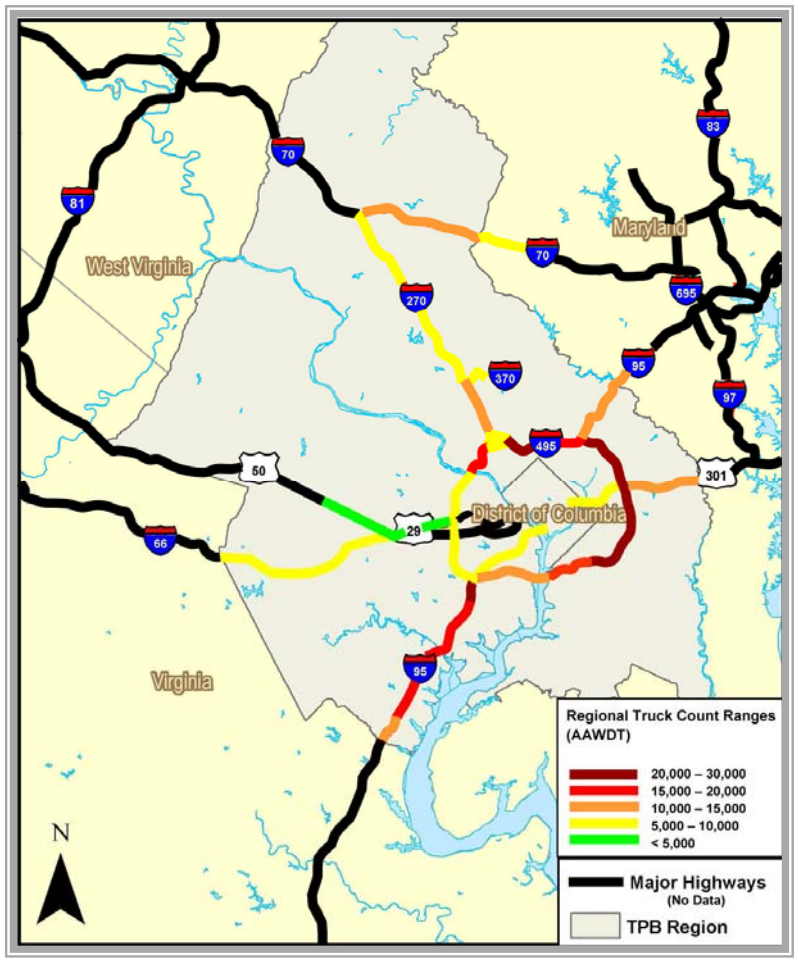


Rail Density



Highway System

Regional Truck Counts

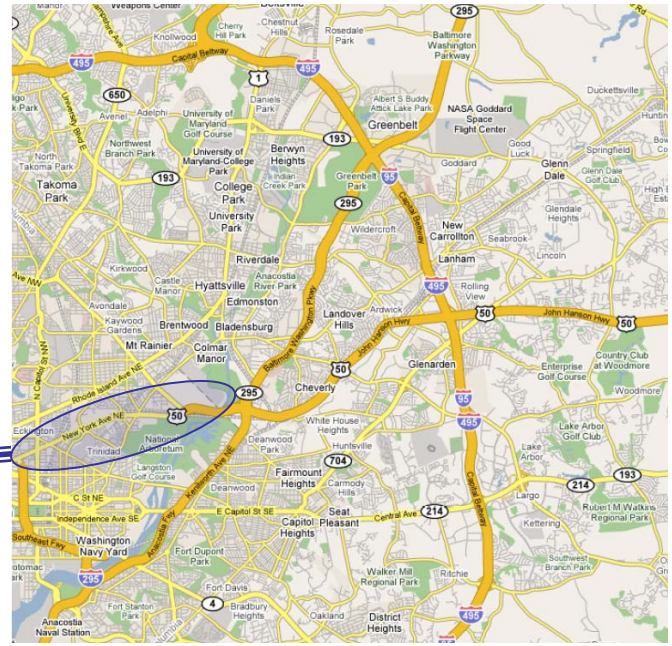


Sources to Identify Freight Generators

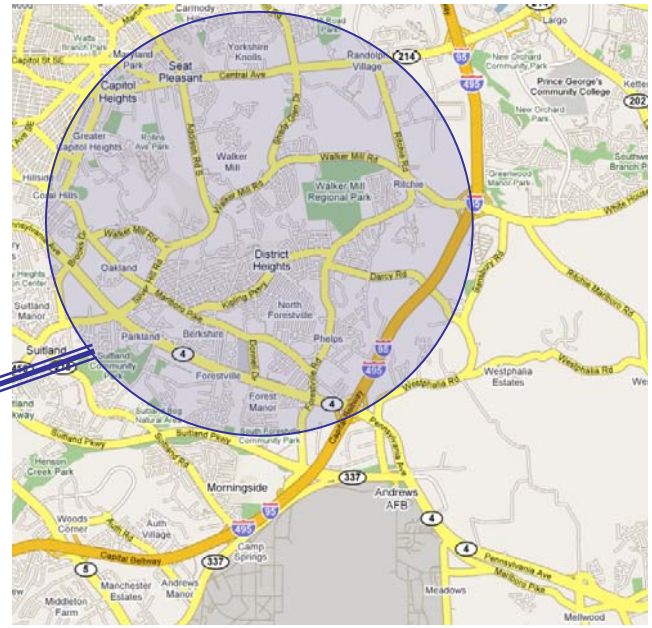
- The Bureau of Transportation Statistics' Intermodal Terminals Database;
- Lists of mining and mineral operations provided by the Minerals Information Team, U.S. Geological Survey;
- A listing of petroleum pipeline terminals from COG/TPB staff;
- The recent Motor Carrier Threat Assessment Study conducted for DDOT by the Volpe Transportation Center;
- Lists of major warehouse and manufacturing facilities from local and state economic development agencies;
- Facilities from railroad and trucking company web sites; and
- Field reconnaissance.

Freight Generators and Clusters

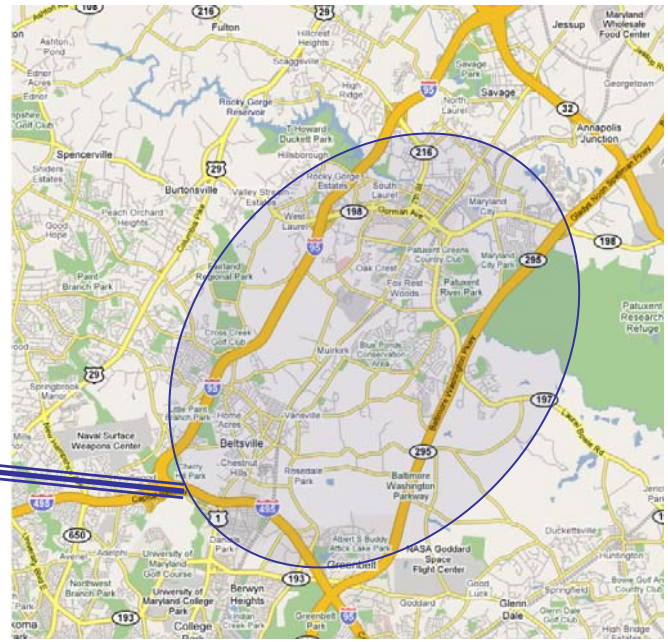
New York Ave., Washington, DC



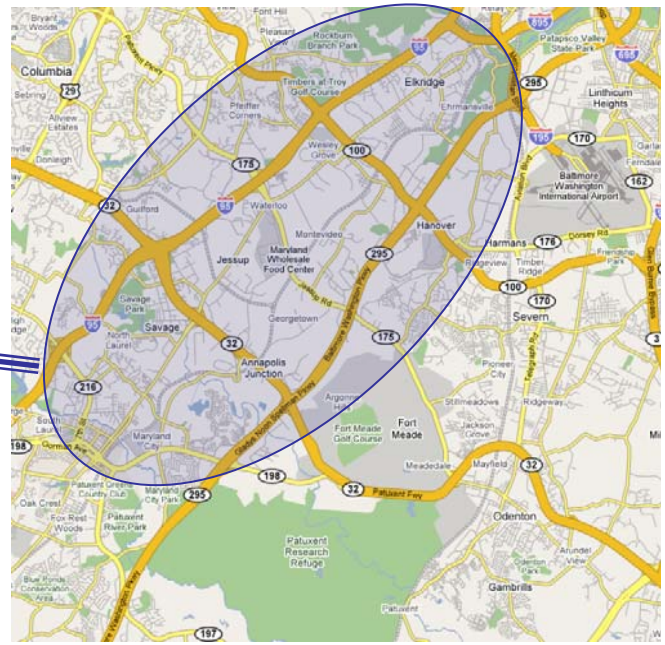
Capitol Heights



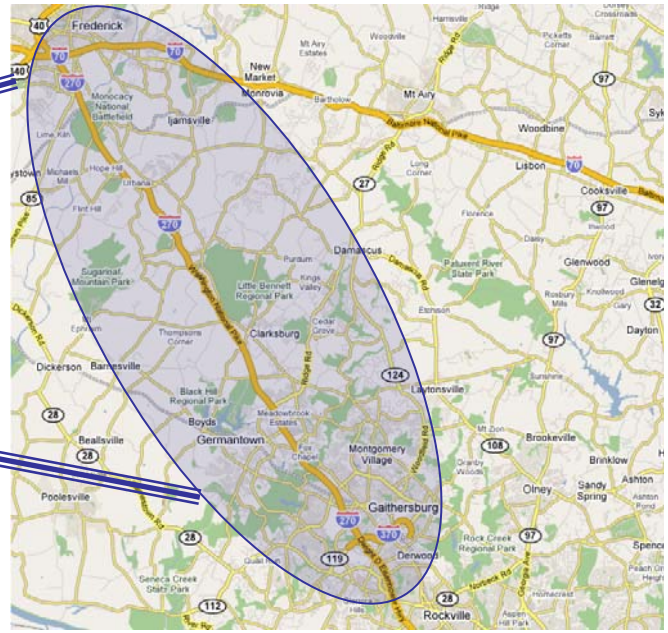
Beltsville / Laurel



Jessup / Savage / Elkridge



Gaithersburg; Frederick



ORGILL
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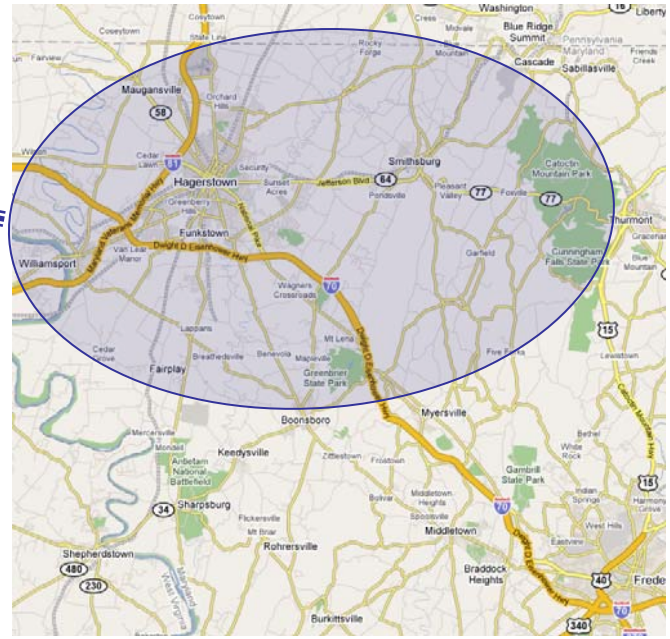
TOYS R US

Hagerstown


Hagerstown
Frederick
Maryland
West Virginia
Jessup/Savage/
Elkridge
Gaithersburg
Dulles
Beltsville/
Laurel
New York Ave.
Capitol Heights
Manassas
Springfield/
Newington/
Lorton
Virginia
Freight Cluster
TPB Region
Major Highway
Rail Line
Freight Generator
Major International Airport
N


Hagerstown
Smithsburg
Funkstown
Williamsport
Boonsboro
Myersville
Keedysville
Sharpsburg
Rohrersville
Middletown
Shepherdstown
Braddock
Heights
Burkittsville


RUST-OLEUM
STOPS RUST
RUST-OLEUM
STOPS RUST

Dulles


Hagerstown
Frederick
Maryland
West Virginia
Jessup/Savage/
Elkridge
Gaithersburg
Dulles
Beltsville/
Laurel
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Freight Cluster
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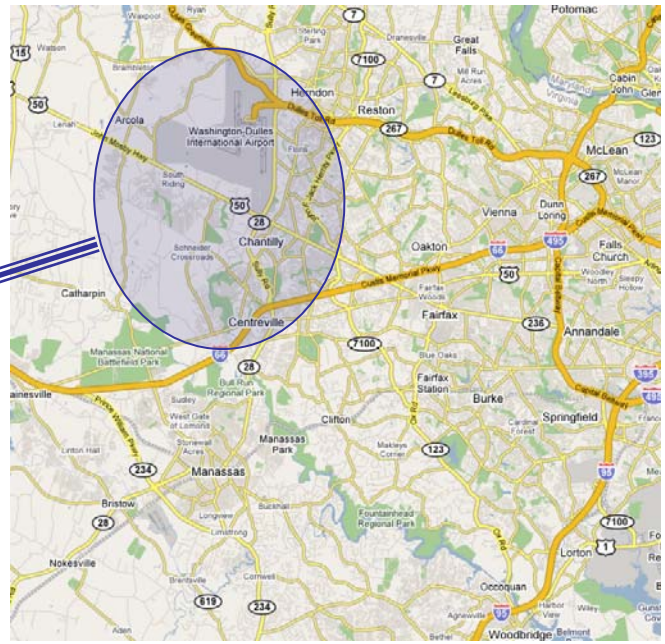
Washington-Dulles
International Airport
Herndon
Reston
Arcola
Chantilly
Centreville
Fairfax
Oakton
Vienna
McLean
Annandale
Burke
Springfield
Manassas
Bristow
Nokesville
Occoquan
Woodbridge


ProLogis Park
Dulles Distribution Center
(703) 751-9292
ANIXTER
NIPPON EXPRESS
SEARS LOGISTICS
CORPORATE EXPRESS
CULLIGAN
CAVALIER LOGISTICS

Manassas


Hagerstown
Frederick
Maryland
West Virginia
Jessup/Savage/
Elkridge
Gaithersburg
Dulles
Beltsville/
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New York Ave.
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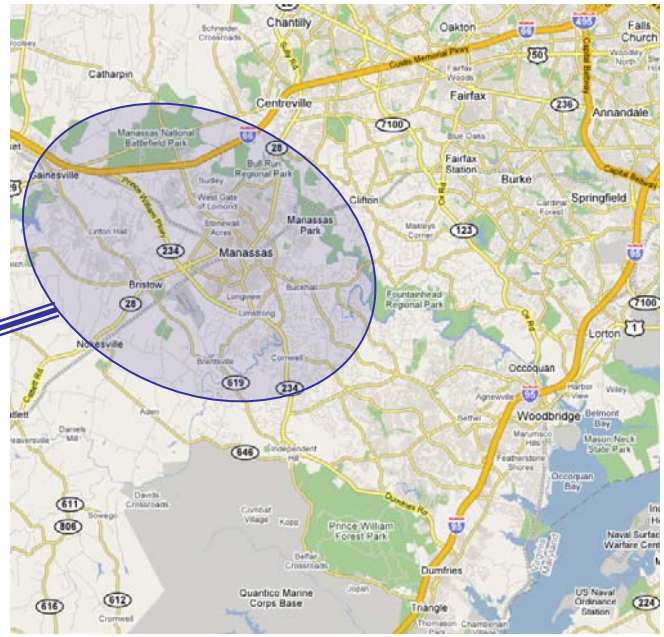
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Oakton
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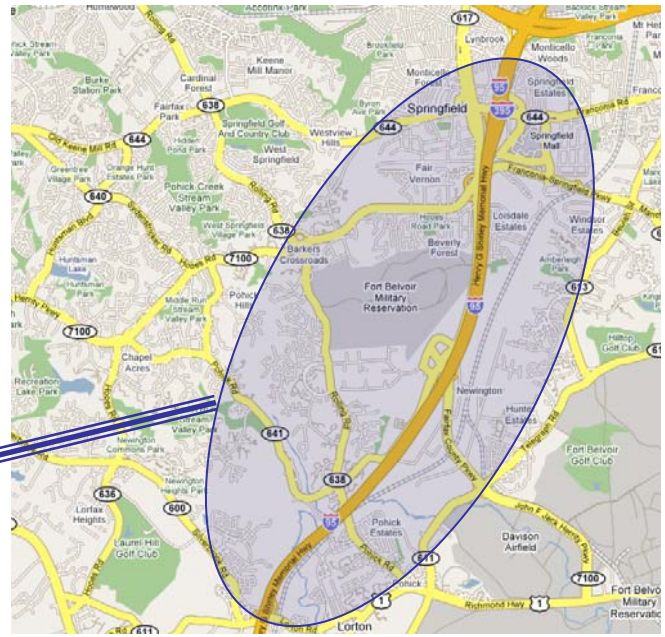
Fairfax
Annandale
Manassas
Springfield
Burke
Bristow
Woodbridge
Occoquan
Lorton
Dumfries
Quantico Marine
Corps Base


Micron


Lexar
Professional
Memory Cards

Springfield / Newington / Lorton



Outlook

- Study completion by May 31
- Follow-up on recommendations
  - Determination of committee structure
  - Increased outreach to stakeholders
  - Integration of information into CLRP
- Information is welcome on local freight planning activities
- Even though we are not an industrial area, we still have freight movement issues