

# NATIONAL CAPITAL REGION FREIGHT PLAN

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TPB Technical Committee

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# Agenda

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- Introductory comments from TPB staff, TPB Freight Subcommittee Chair Laura MacNeil
- Plan review from Walker Freer, ICF
  - Freight planning framework
  - Structure
  - Key points
  - Overview of key findings
  - Recommendations and next steps



# Regional Freight Planning Framework

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- Highlights freight's significance to the regional economy
- Incorporates planning factors and goals identified in Visualize 2045
- Aligns with federal freight policies and regulations
- Sets the stage for freight to be considered in the regional long-range transportation plan and all other regional planning activities



# Plan Structure

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- **Section 1** - Introduction
- **Section 2** - Multimodal Freight Transportation System
- **Section 3** - Freight Demand
- **Section 4** - Key Trends Influencing Freight in the Region
- **Section 5** - Regional Freight Issues, Challenges, and Opportunities
- **Section 6** - Regional Freight Policies
- **Section 7** - National Capital Region Projects Important to Freight
- **Section 8** - Recommendations and Next Steps
- **Appendix**



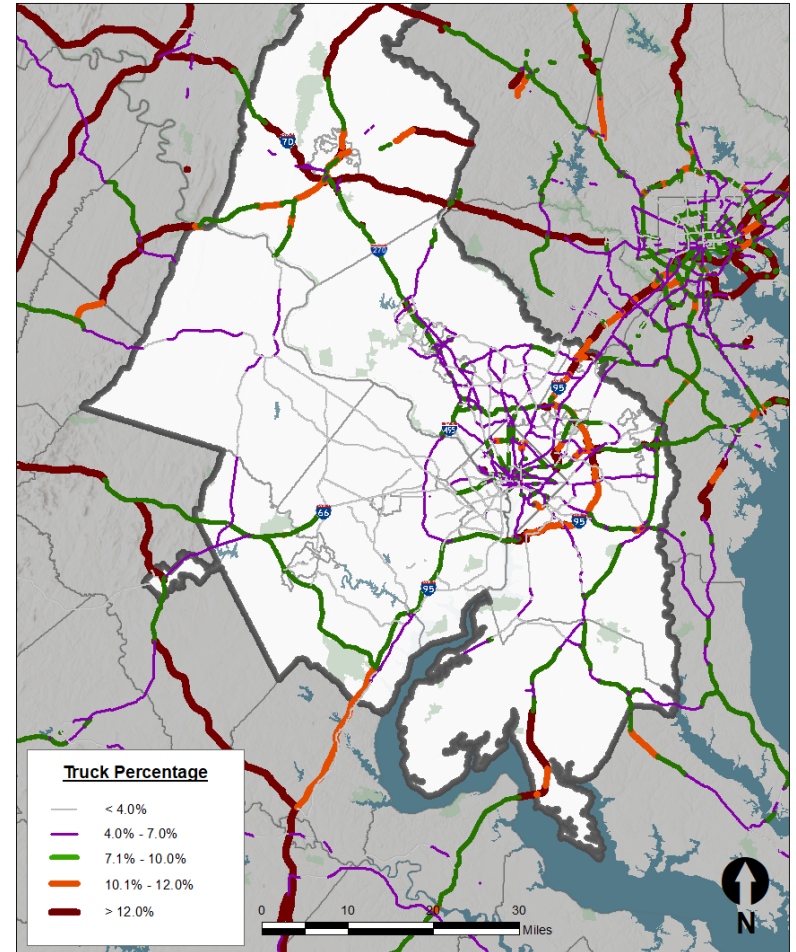
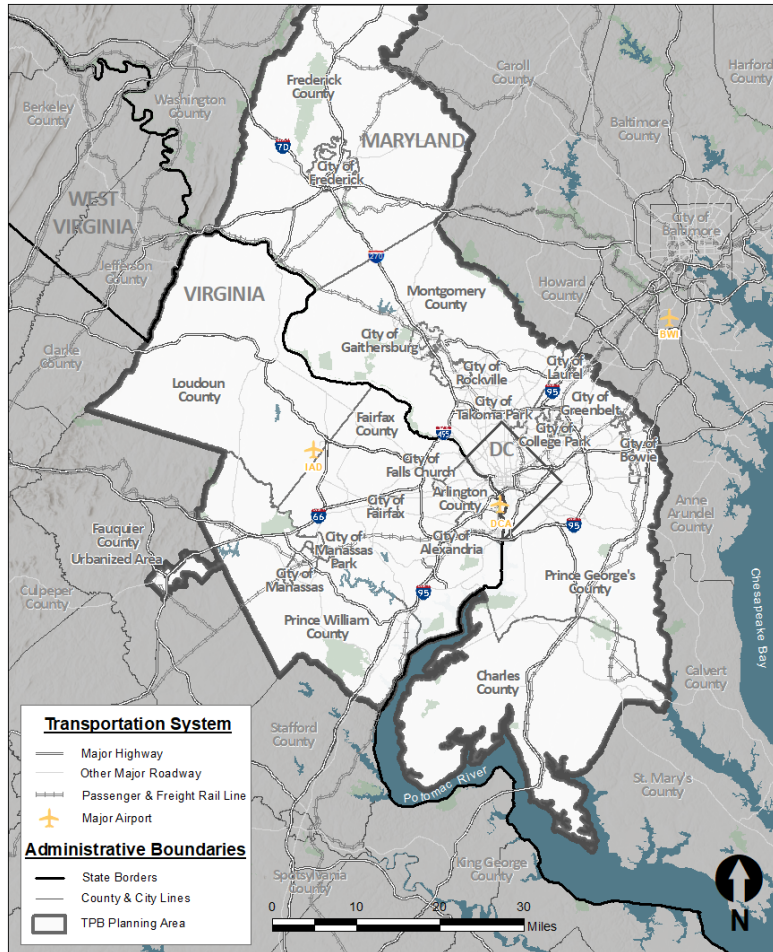
# Key Points from the Plan

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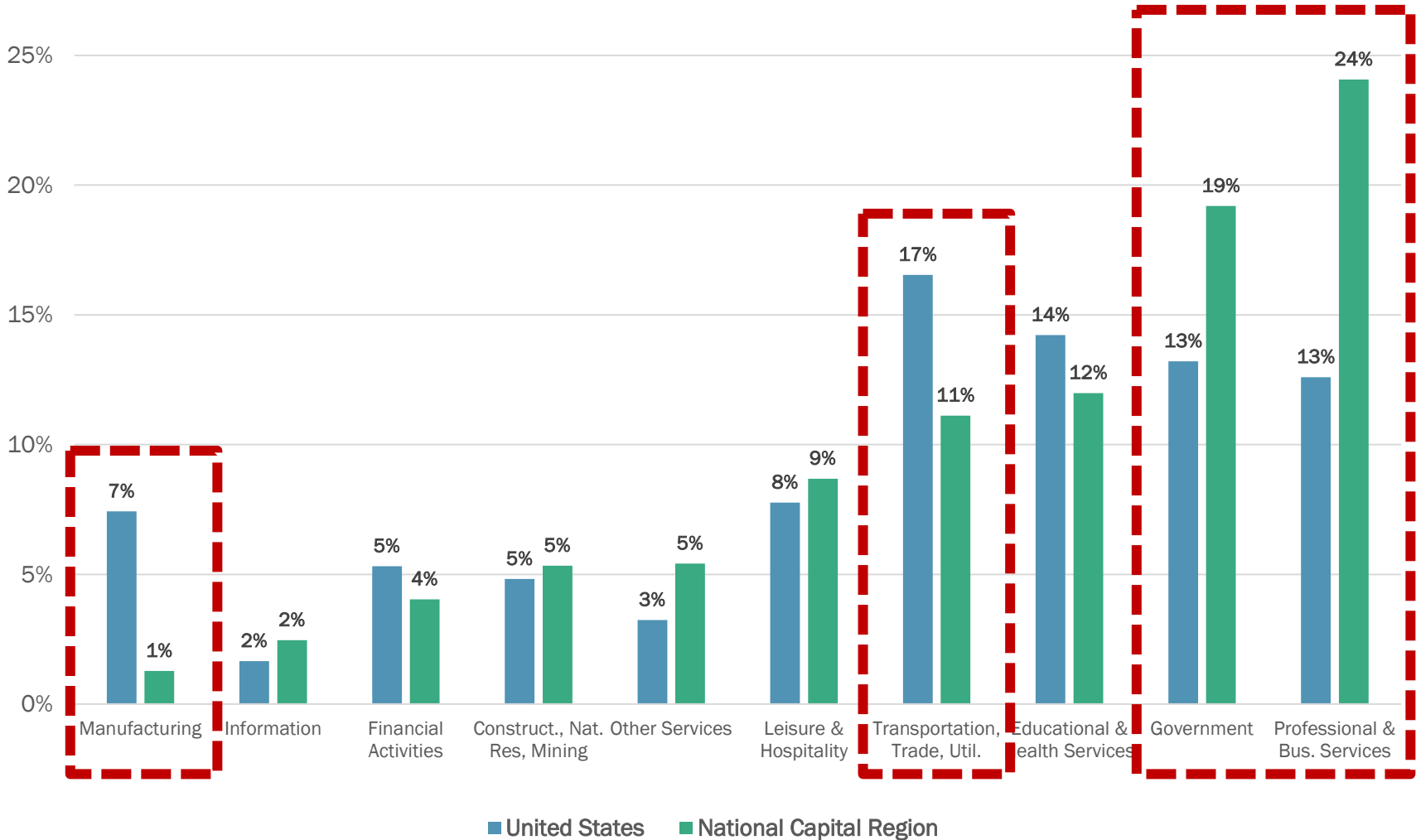
1. Freight movement is shaped by regional, state-level, and federal policies, priorities, and performance measures
2. Commercial trucking remains the dominant freight transportation mode in the region: 73% by value and 72% by weight
3. Since the 2016 Freight Plan, technological trends, evolving supply chain and logistics patterns, and impacts from the COVID-19 pandemic have altered how freight is transported
4. Proactively managing freight movement and delivery at the regional and local levels is critical as the region's population continues to grow and demand for goods increases
5. Freight movement remains vital to the economy of the National Capital Region and to the quality of life of its residents



# Regional Freight Network



# Share of Employment by Industry Sector



Source: U.S. Bureau of Labor Statistics



# Top Commodity Types by Weight

| Rank | Commodity Class               | Total<br>(thousands of tons) | Share |
|------|-------------------------------|------------------------------|-------|
| 1    | Other petroleum products      | 52,427                       | 24%   |
| 2    | Gravel and crushed stone      | 36,903                       | 17%   |
| 3    | Non-metallic mineral products | 29,172                       | 13%   |
| 4    | Waste and scrap               | 13,965                       | 6%    |
| 5    | Mixed freight                 | 10,125                       | 5%    |

- Outbound freight by weight in the National Capital Region increased from the 2016 Freight Plan.
- 33% of total freight by weight is inbound, 25% is outbound, and 42% is interregional.





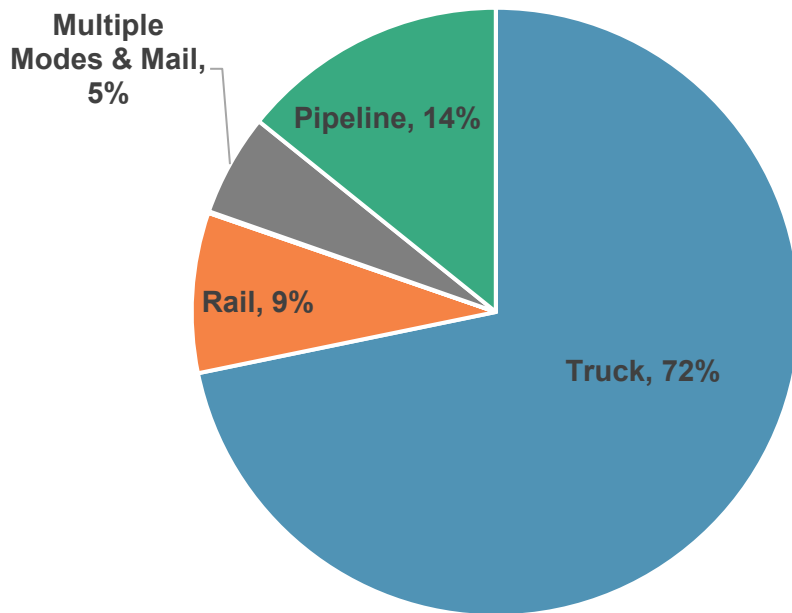
# Top Commodity Types by Value

| Rank | Commodity Class                     | Total (millions) | Share |
|------|-------------------------------------|------------------|-------|
| 1    | Mixed freight                       | \$43,596         | 17%   |
| 2    | Electronic and electrical equipment | \$36,846         | 14%   |
| 3    | Pharmaceutical products             | \$23,286         | 9%    |
| 4    | Motorized and other vehicles        | \$16,207         | 6%    |
| 5    | Miscellaneous manufactured products | \$14,877         | 6%    |

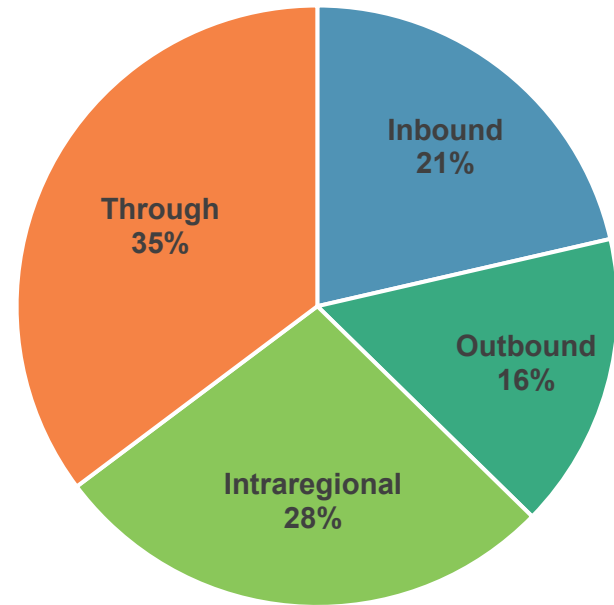


# Regional Freight Weight

## Weight (Mode)



## Weight (Direction)

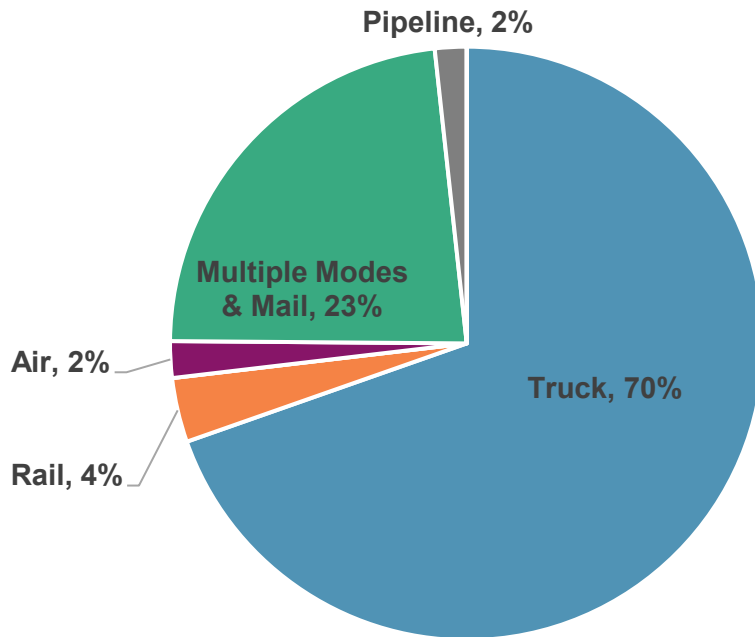


Source: Federal Highway Administration Freight Analysis Framework, 2020

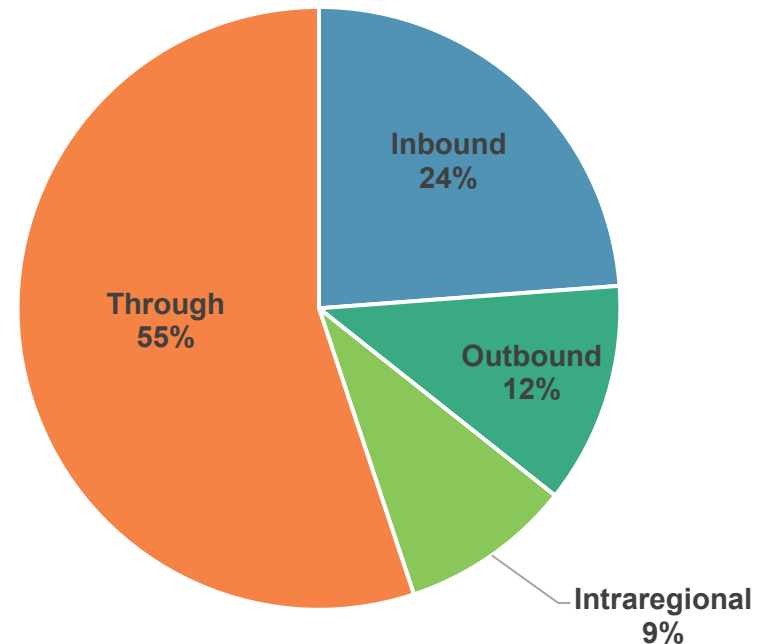


# Regional Freight Value

## Value (Mode)



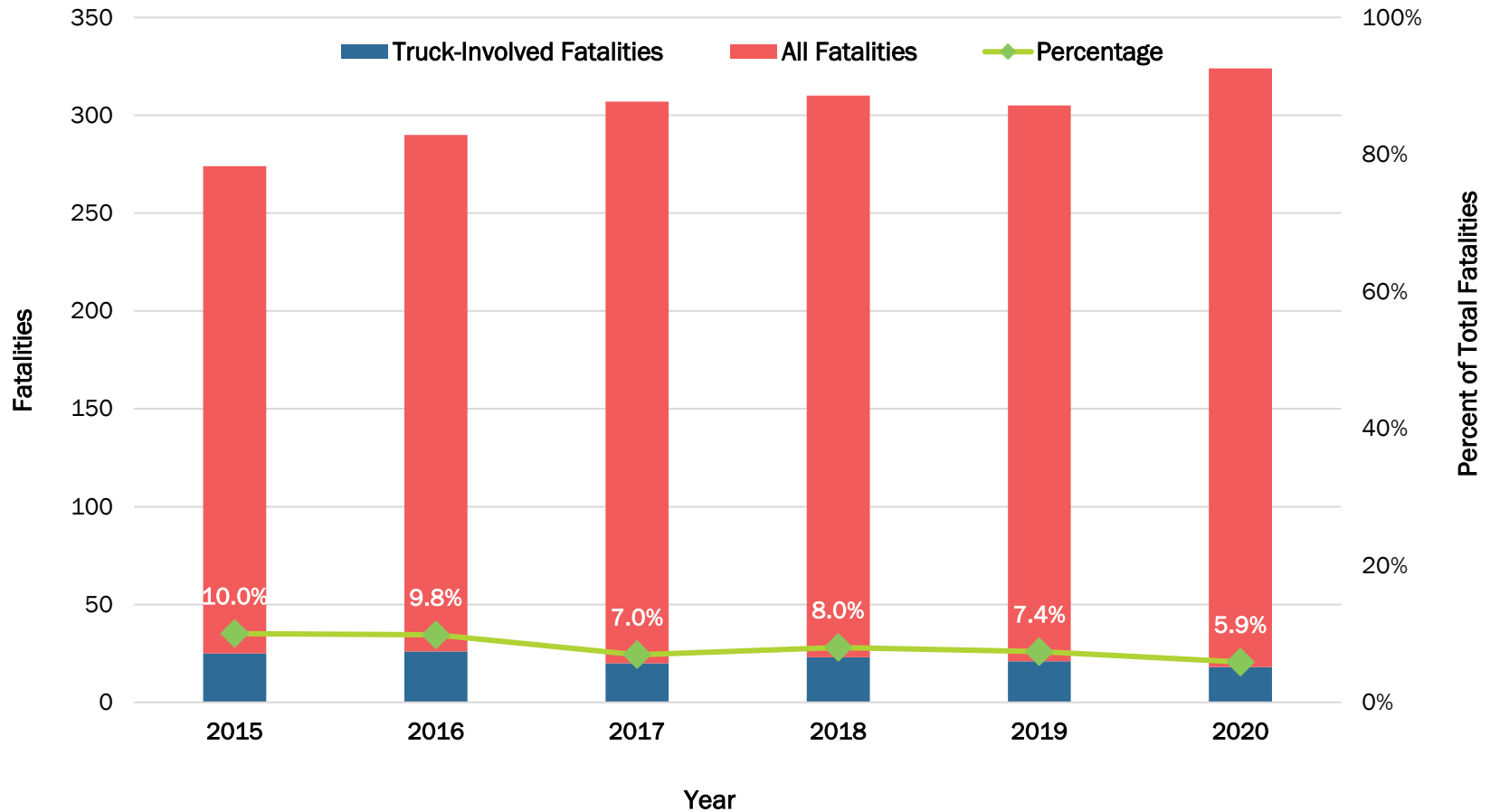
## Value (Direction)



Source: Federal Highway Administration Freight Analysis Framework, 2020



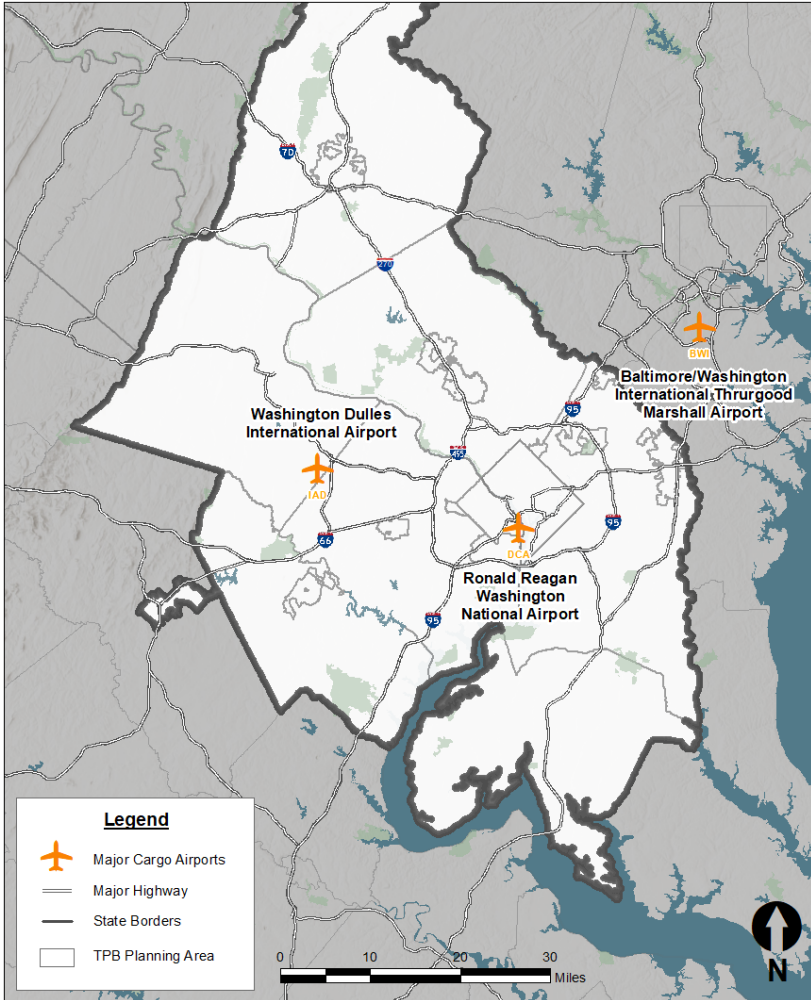
# Regional Truck-Involved Fatalities



Source: Fatality Analysis Reporting System, Fatality and Injury Reporting System Tool (via NHTSA)



# Air Cargo

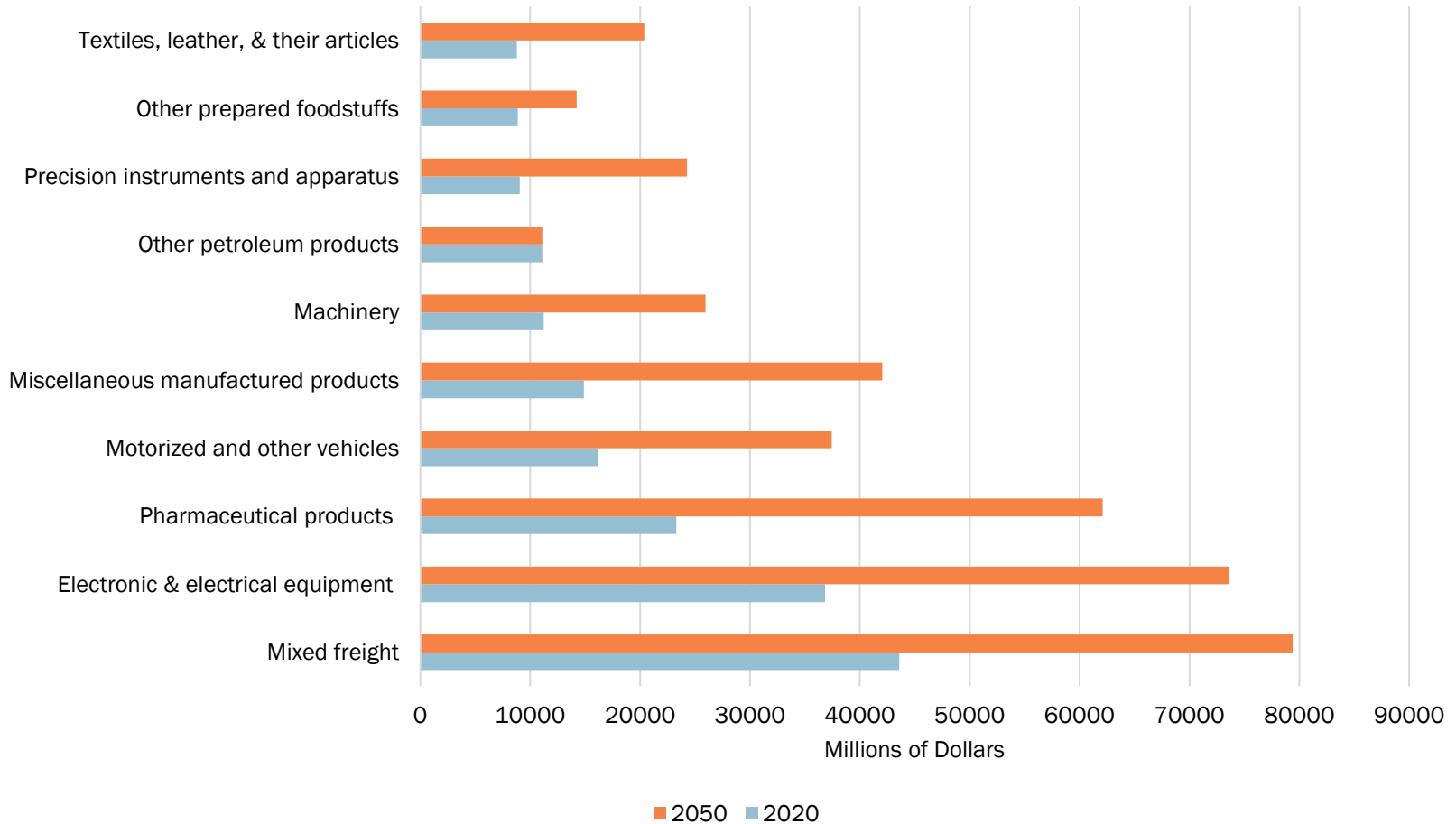


| Rank | City (Airport Code)   | Total Cargo (metric tons) |
|------|-----------------------|---------------------------|
| 1    | Memphis TN (MEM)      | 4,613,431                 |
| 2    | Anchorage AK (ANC)    | 3,157,682                 |
| 3    | Louisville KY (SDF)   | 2,917,243                 |
| 4    | Los Angeles CA (LAX)  | 2,229,476                 |
| 5    | Miami FL (MIA)        | 2,137,699                 |
| 6    | Chicago IL (ORD)      | 2,002,671                 |
| 7    | Cincinnati OH (CVG)   | 1,300,758                 |
| 8    | New York NY (JFK)     | 1,104,480                 |
| 9    | Indianapolis IN (IND) | 1,013,054                 |
| 10   | Ontario CA (ONT)      | 843,852                   |
| 26   | Baltimore MD (BWI)    | 269,976                   |
| 33   | Washington DC (IAD)   | 197,917                   |

Source: Airports Council International, 2020  
 Freight activity at DCA not within the top 100 U.S. airports.



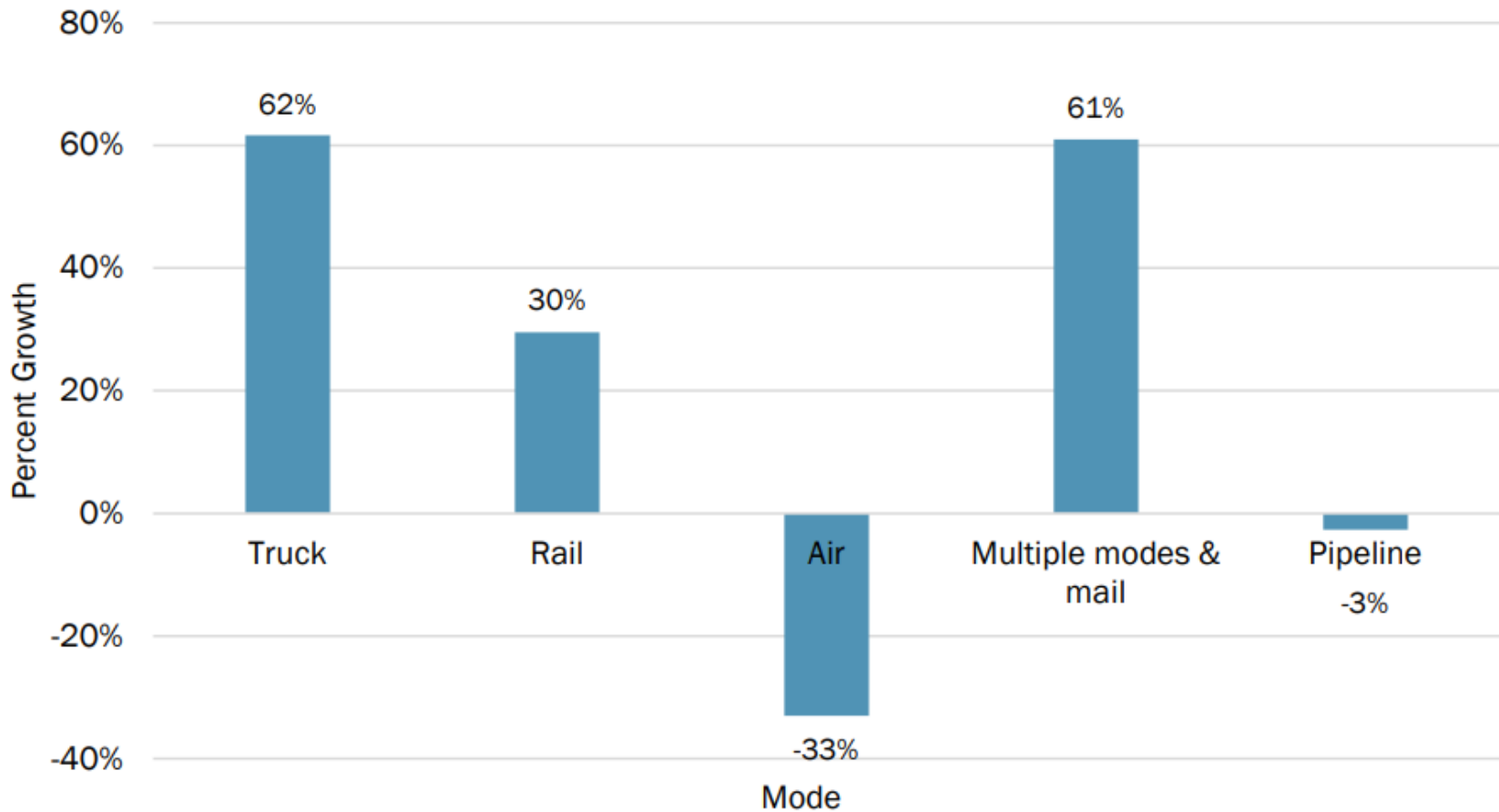
# Forecasted Growth in Regional Commodities by Value



Source: Freight Analysis Framework, FHWA



# Forecasted Growth in Tonnage by Mode (2020-2050)



Source: Freight Analysis Framework, FHWA



# Freight Impacts

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## Freight enables livability:

- The movement of goods is essential to ensure and maintain a high quality of life in the National Capital Region
- Freight-related industries represent 12% of employees in the National Capital Region

## Freight considerations:

- Forecasting the need for future freight infrastructure and facilities to support the region's future population growth
- Reviewing and addressing freight movement is important to understand impacts on regional mobility, access, safety, and equity





# Equity Emphasis Area Analysis

| Roadway Classification                | Major Roadway Miles within NCR | Major Roadway Miles within EEAs | Major Roadway % within EEAs |
|---------------------------------------|--------------------------------|---------------------------------|-----------------------------|
| Interstate                            | 234                            | 52                              | 22%                         |
| Principal Arterial-Freeway/Expressway | 270                            | 51                              | 19%                         |
| Principal Arterial-Other              | 802                            | 203                             | 25%                         |
| Total/Average Percent                 | 1,305                          | 306                             | 23%                         |

| Roadway Classification                | NCR Roadway Truck % | EEA Roadway Truck % | Outside EEA Roadway Truck % |
|---------------------------------------|---------------------|---------------------|-----------------------------|
| Interstate                            | 6.5%                | 6%                  | 6.7%                        |
| Principal Arterial-Freeway/Expressway | 4.2%                | 5.3%                | 3.9%                        |
| Principal Arterial-Other              | 3.6%                | 3.7%                | 3.5%                        |
| Total/Average Percent                 | 4.7%                | 4.9%                | 4.69%                       |



# Topic Areas Addressed in Freight Policies

## 2023 National Capital Region Freight Plan

1. Encourage projects/programs that support TPB Visualize 2045 policies
2. Prioritization of freight projects
3. State of good repair
4. Environmental/resiliency objectives
5. Best practices
6. Bottlenecks
7. Rail options
8. Equity
9. Economic development
10. Livability
11. Security/cybersecurity
12. Safety education, enforcement, and engineering
13. Hazmats routing
14. Hazmats information sharing
15. First responder training/exercises
16. Collaboration regionally and with the private sector
17. Performance measurement
18. Sustainability
19. Land use/rail capacity collaboration
20. New technologies and emerging business practices



# Maintaining Strong Regional Freight Planning

- Continue to support the TPB Freight Subcommittee; include private sector participation
- Joint meetings with other TPB subcommittees
- Host periodic regional freight forums
- Continue to collect and analyze freight data and make data available to member jurisdictions and the public
- Maintain relationships with local jurisdiction planners; highlight economic development aspects of freight
- Continue to facilitate coordination with federal, state, local, and private-sector freight partners
- Coordinate TPB's IJA freight-related activities
- Support TPB's Continuous Airport System Planning (CASP) program (addressing air cargo)
- Continue to identify and communicate freight-related infrastructure issues to member agencies



# New/Strategic Regional Activities

- Continue to monitor key economic and industry trends
- Monitor the impacts within Equity Emphasis Areas
- Continue to monitor technological developments in freight movement
- Monitor policies and efforts related to truck electrification, decarbonization, conversion to clean fuels
- Deploy a regionwide robust electric vehicle charging network (or refueling stations for alternate fuels)
- Ensure consideration of freight movement issues in regional curbside management planning
- Continue to monitor the development of new and emerging freight-relevant data sources and incorporate them into transportation planning activities as appropriate
- Provide information to the TPB and freight stakeholders on the status or progress on this Plan's identified freight policies when such information becomes available



# Next Steps

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- July 7 – Present to TPB Technical Committee
- July 7–11 – Quick comments welcome
- July 19 – Present to TPB
- July 19 – August 21 – Comments welcome
- September 8 – Present revised draft based on comments to TPB Technical Committee
- September 20 – On TPB agenda for approval



# Comments and Questions?

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# Contacts

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