HOW DO I GET STARTED?

Develop a Regional Freight Profile: Recognition and analysis of the existing conditions and trends in a region is necessary to inform regional freight planning and programming.

- Identify critical freight-related industries, facilities/terminals, modes, routes, usage, conditions, safety/security measures, etc.
- Summarize commodity flows by tonnage and value to, from, through, and within the region using available **data sources**
- Consider indirectly related characteristics (e.g., socioeconomics, land-use, safety, community/environmental impacts).

Identify Needs and Deficiencies: Identification of needs and deficiencies specific to freight operation will assist in programming key regional freight projects or areas for improvement.

- Estimate future demand on the freight transportation system.
- Identify current and potential bottlenecks.
- Focus on enhancing the region's economy, mobility, and safety/security.

Integrate Freight into Long Range Plans: Freight infrastructure and mobility should be included in regional long range plans.

- Plan with freight needs and deficiencies in mind.
- Integrate policies that align freight and regional community needs.
- Program investments to meet the most critical needs first.
- Develop performance measures using readily available data to assess freight infrastructure/efficiency longitudinally.

Investigate Funding Sources: There are several mechanisms through which MPOs and agencies can ascertain the funding needed to address regional freight needs and deficiencies.

- State/Federal Grants (e.g., FASTLANE, CMAQ, etc.)
- Loan and credit enhancement programs (e.g., Rail Revitalization and Improvement Funding (RRIF) and Transportation Infrastructure Finance and Innovation Act (TIFIA) programs)
- Tax-expenditure financing programs (e.g., accelerated depreciation, tax-exempt bond or tax-credit bond financing)

FREIGHT DATA SOURCES

Contact Your DOT for Data (e.g., Commercial Vehicle Counts, Weigh-in-Motion Data, Rail Inventories, etc.)

University at Albany-SUNY AVAIL NPMRDS Tool

National Inventory of Truck Parking Rest Areas

FHWA's Freight Analysis Framework

US Army Corps of Engineers (Port Groups/Districts, Waterways & Harbors)

Airports Council International - North America

Bureau of Transportation Statistics T-100 Air Cargo Data

US Energy Information Administration

Proprietary Data (e.g., TRANSEARCH estimates/forecasts)

Focus on Outreach and Partnerships: Outreach and public-private partnerships are instrumental in planning and financing freight improvements as private sector players have a strong role in freight transportation.

- Identify existing and potential private sector partners.
- Craft a targeted outreach plan.
- Create a Freight Advisory Council constituted of critical regional stakeholders.
- Identify a freight point of contact.

Train and Educate Staff: Freight-specific training and education programs help to support freight planning efforts at smaller-scale agencies without the need for dedicated freight staff.

- Train staff in freight analysis tools/data.
- Review current research and best practices made available by NCHRP, TRB, AASHTO, etc.
- Provide top-down support for education/training.
- Identify freight planning champions to integrate freight into the established planning process.

Source: National Cooperative Highway Research Program Report 570.
Guidebook for Freight Policy, Planning, and Programming in Small- and Medium-Sized Metropolitan Areas.

LOCAL SCALE EFFORTS

Regulatory tools available to municipalities:

- Road Use Agreements
- Local Truck Routes
- Community Benefit Agreements
- Zoning- Freight Overlay Districts
- Light and Noise Pollution Controls
- Special Tax Districts
- Other Local Policy Approaches

Planning tools available to local and regional agencies:

- Freight Related Traffic Impact Analysis
- Off-Peak Delivery Programs
- Vegetated Buffer Zones
- Freight Clusters
- Collaborative Crossing Improvements
- Growth Centric to the Critical Freight Network
- Industrial Infill Incentives
- Delivery Consolidation Programs
- Other Context-Sensitive Design Specifications

Source: CDTC Regional Freight & Goods Movement Plan

NYSAMPO FACT SHEET
FREIGHT

www.nysmpos.org

LOCAL & REGIONAL FREIGHT PLANNING

FREIGHT 101

The US economy is increasingly dependent on freight being shipped and delivered across the world. The ability to efficiently move freight, goods, and services is critical to supporting this commerce, in which over 60 million tons of freight, worth $40 billion, move through the US freight transportation system every day. Given the large-scale nature of freight and its attachment to major corporations, it can be difficult to plan for freight transportation on a smaller scale. MPOs and other regional or local entities may find it difficult to identify regulatory or planning activities that address the immediate needs of the freight transportation system while balancing community-oriented priorities. Fortunately, freight planning initiatives do not have to be large in budget or scale to make a significant impact on the community.

WHAT IS FREIGHT?

Freight is the movement of commodities: raw materials, goods, or products. Freight shipments vary based on (1) the players involved, (2) the cargo being transported, and (3) the mode or modes via which the cargo is transported.

{ PLAYERS }

The various players involved in transporting commodities include:

- **Shippers:** Origin of freight/goods.
- **Receivers:** Destination or interim destination for freight/goods.
- **Operators/Carriers:** Transports goods from the shipper to the receiver.
- **Facility Owners/Operators:** Own, operate, and/or maintain the infrastructure used by operators/ carriers to move goods.
- **Drayage:** Transports goods short distances between major rail, air, or ocean carriers to a destination or intermediate destination.
- **Transload:** Transfers bulk cargo (vehicles or containers) between modes while en route from a shipper to receiver.
- **Intermodal:** Connection between modal networks where cargo can be exchanged between modes.
- **Third Party Logistics Provider (3PL):** Specialists in logistics that provide a variety of transportation, warehousing and logistical services to buyers or sellers.
- **Fourth Party Logistics Provider (4PL):** Add additional supply chain capabilities, including consulting services and technology/ communications providers.

{ CARGO }

Cargo consists of many different commodities that are traded in commerce. Commodities are typically transported as:

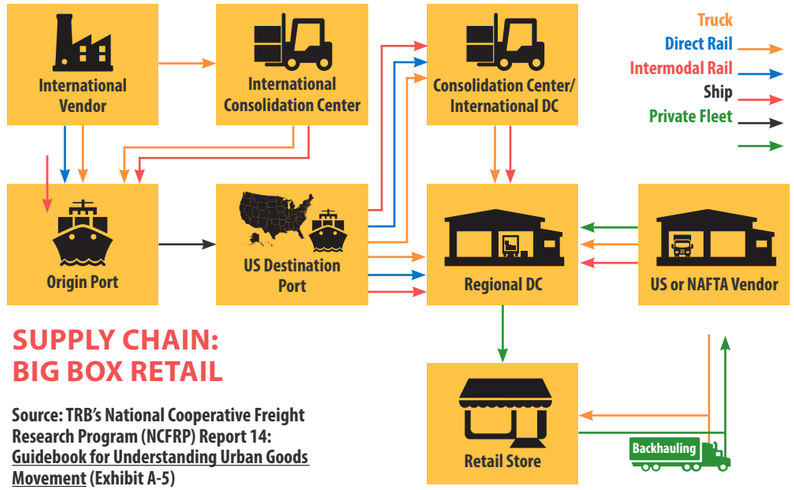
- **Unbound Cargo:** Transported in a loose, unpackaged form.
- **Cargo of Non-Uniform:** Transported on pallets or in sacks, drums, or bags.
- **Containerized Cargo:** Transported in large size boxes, often for ocean freight shipment.

{ MODES }

Cargo is moved using one or more of the following modes:

- **Highway/Road:** Trucking is the most commonly-used mode for moving freight and goods on roads and highways.
- **Rail:** Rail is efficient for moving heavy goods and containerized cargo over long distances.
- **Marine/Water:** Ocean-going ships transport containerized, bulk (unpackaged cargo in large quantities) and breakbulk (unpackaged cargo transported individually) goods, and "heavy lift" (indivisible commodities over a ton with width and/or height over 100 meters) or "over dimensional" (exceeds standard legal size criteria) cargo across oceans. They are essential to global trade.
- **Air:** Cargo airplanes move goods over long distances quickly. Airplanes are good for moving high value, light goods, as well as goods that expire.
- **Pipelines:** Pipelines are used to move liquid goods such as petroleum products, water, or bitumen. Petroleum products must be transferred to other modes at pipeline terminals including tank farms.

The figure below illustrates the supply chain supporting a typical "big box" store involving combinations of shippers, operators, infrastructure providers, and receivers around the world. With today's "just in time" inventory and delivery systems, disruption to a link in the supply chain can have significant effects on the overall operation and ability to supply the ultimate destination.



SUPPLY CHAIN: BIG BOX RETAIL

Source: TRB's National Cooperative Freight Research Program (NCFRP) Report 14: Guidebook for Understanding Urban Goods Movement (Exhibit A-5)

"Creatively addressing freight at a community level requires a dialogue between the freight industry and public decision-makers, as well as community outreach, to instill a common understanding of the issues surrounding freight. By acknowledging that freight is necessary to support businesses and people and reviewing these types of planning tactics, local communities

- Capital District Transportation Committee, Regional Freight & Goods Movement Plan

HOW DOES FREIGHT AFFECT MY REGION?

When considering how freight may affect your region or locality, it is important to think about (1) the characteristics of your area, (2) your

BRAINSTORM

How does freight affect your region, your stakeholders, and your agency?

YOUR REGION:

1. What conflicts exist between system users and impacted communities (i.e., at-grade rail crossing issues, noise from airports, highways or trains, high-accident locations, conflicting needs or projects/success stories, land uses)? How are the conflicts being mitigated?

2. Are there any major freight-related problems that are known within the transportation community (public and private)?

3. How is freight related to the economic base of the community? What percent of our region's jobs are classified as transportation or transportation-related?

4. Are there major freight generators, terminals, or intermodal facilities in the area? Where are they? What are the key freight routes serving your region?

5. How does/can freight affect the quality of life in the region? Are there routes or facilities located through or near communities?

6. How can weather (i.e., major storms, snow/ice, etc.) affect freight movement seasonally?

YOUR STAKEHOLDERS:

1. Which agencies are involved in regional transportation planning,and programming activities? Is the private sector involved?

2. What are the largest businesses in the region? Do we understand their operations? Do they move a lot of freight? What mode(s)?

3. Do we understand what materials or products are moving into, out of, within, and through our region?

4. What transportation service characteristics are most important to our shippers and receivers? Efficiency? Safety/Security? Reliability? Competitiveness?

5. Do we understand the concerns of our freight stakeholders? What are their needs? What would they like to see improved?

6. How can site plan review and considerations be conducted/adjusted to help local governments identify on best site layout practices?

YOUR AGENCY:

1. What freight planning efforts have we already conducted? What resources were used to support these efforts?

2. Are we aware of a regional private sector freight champion who has or could support our freight policy, planning, and programming activities?

3. Are we aware of MPO staff who have expertise or interest in freight planning?

4. What support have we received or can we expect from local, state, or federal partners? What is the state-of-the-practice of statewide freight planning? Is our Federal Highway Administration (FHWA) Division Office active?

5. What kind of freight-related data do we use or have access to?

SOURCE:

National Cooperative Highway Research Program Report 570. Guidebook for Freight Policy, Planning, and Programming in Small- and Medium-Sized Metropolitan Areas. (Tables 2.1-2.3)