Freight Mobility supports Economic Development
Nationally Freight Mobility supports Economics & Economic Development

- **Gateway (Borders)**
- **Connector**
- **Promoting Exports**

- **Economic Competitiveness**
- **Connector**

- **Gateway (Intermodal Ports)**
- **Connector**

- **Trade & Exports Gateway (Seaports)**
What’s Driving Freight Planning?

- Federal Regulations
- State Legislations
- Transportation funding shortfalls
- Potential for private sector investment
- Private sector demands
- Economic development
- Funding flexibility and options
- Accountability & transparency for investments
## FAST Act Freight Provisions

**Fast Act: Fixing America’s Surface Transportation**

<table>
<thead>
<tr>
<th></th>
<th>MAP-21 State Freight Plan</th>
<th>FAST State Freight Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State Freight Plan required</strong></td>
<td>Optional (recommended)</td>
<td>Yes, as a condition for receipt of federal funding</td>
</tr>
<tr>
<td><strong>Connection to funding</strong></td>
<td>Yes, for approval to use 90/95% match for specific projects that also need approval</td>
<td>Yes, as a condition for receipt of federal funding Federal funding match changed</td>
</tr>
<tr>
<td><strong>Neighbor state coordination</strong></td>
<td>Not required</td>
<td>Section 70101, b. (8) States should support multi-state corridor planning and creation of multi-state organizations</td>
</tr>
<tr>
<td><strong>Planning horizon year</strong></td>
<td>Not specific</td>
<td>Five-year projection must be included</td>
</tr>
<tr>
<td><strong>Updates required</strong></td>
<td>Not specific</td>
<td>Minimum every five years</td>
</tr>
<tr>
<td><strong>Financial Investment Plan</strong></td>
<td>Identify projects</td>
<td>Investment Plan, fiscally constrained with priority projects identified</td>
</tr>
</tbody>
</table>
Factors Impacting Freight Mobility

Demographics

Technology

Trade/Industry Growth

Institutional & Regulatory

Logistics Industry

Environmental & Cultural
Ten Ways Technology is Impacting Freight

- Clean Energy
- Communications
- Management Systems
- Data Analytics & Information
- Operations
- Routing/Wayfinding
- Safety & Regulatory
- Security
- Smart Infrastructure
- Vehicles
### How should we think about Freight Mobility

<table>
<thead>
<tr>
<th>Yesterday</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory</td>
<td>Economic Development</td>
</tr>
<tr>
<td>Safety</td>
<td>Competitiveness</td>
</tr>
<tr>
<td>Capacity Needs</td>
<td>Investment Prioritization</td>
</tr>
<tr>
<td>Moving Vehicles</td>
<td>Moving People &amp; Freight</td>
</tr>
<tr>
<td>Vehicle Volumes</td>
<td>System Performance</td>
</tr>
<tr>
<td>Separate Modal Networks</td>
<td>Integrated Freight System</td>
</tr>
<tr>
<td>Separate Modal Movements</td>
<td>Intermodal Connectivity</td>
</tr>
<tr>
<td>Individual Jurisdictions</td>
<td>Commerce Corridors</td>
</tr>
<tr>
<td>Independent Decisions</td>
<td>Partnership with Users</td>
</tr>
<tr>
<td>Reactive</td>
<td>Proactive</td>
</tr>
</tbody>
</table>
Freight Mobility Plan: Holistic Approach

Integrated & Balanced Approach

FINDING THE BALANCE

- Economic Development
- Community Preservation
- Safety & Security
- Environmental Stability

- Mobility & Performance
- Accessibility
- Intermodal Connectivity
- Supply Chains

LIVABILITY

COMMUNITY

COMMERCE

WORKFORCE MOBILITY, ECONOMICS & LAND USE
Resiliency Factors to Freight Mobility

- **Reliability**
  - Inconsistent
  - Consistent

- **Redundancy**
  - Limited
  - Multiple (Options)

- **Durability**
  - Fragile
  - Tough/Hardened

- **Recoverability**
  - Lengthy/Long-Time
  - Quick ‘Bounce-Back’ from Disruption

- **Demand**
  - Unable to Accommodate
  - Accommodate Higher Demand

- **Adaptability**
  - Inflexible
  - Flexible to Accommodate Change

- **Vulnerability**
  - Risk Adverse
  - Risk Tolerant

**Factors:***
- Demand Surge
- Climate Change
- Shift in Patterns
- Dynamic Supply Chains
- Trade & Commerce Needs
- Growing Capacity Needs
- Technology
- Market Conditions
- Natural Disasters
- Policy Changes
- Weather Extremes
Economic Context & Impact of Freight

Goods & Commodities Flow; Freight Generators & Logistics Clusters; Supply Chain Connectivity

BOTTOM LINE: COMPETITIVENESS, JOBS & QUALITY OF LIFE
Supply Chain: Corn
Supply Chain Analysis

**INPUTS**

- Time
- Cost
- Capacity
- Reliability
- Availability
- Connectivity
- Safety
- Security
- Economic Impact

**OUTPUTS**

- Freight System Optimization
- Geographical Development Locations
- Project Evaluation & Prioritization
- Policies & Programs

**FREIGHT SYSTEM CRITERIA**

- Time
- Cost
- Capacity
- Reliability
- Availability
- Connectivity
- Safety
- Security
- Economic Impact

**MODAL CHARACTERISTICS**

- Air
- Truck
- Rail
- Water
- Pipeline
- Transferability

**INDUSTRY FACTORS**

- Agriculture
- Manufacturing
- Distribution
- Market Locations

**Additional Information**

Product Competitiveness
Support Travel Demand Modeling
Key Challenges and Recommendations

1. System Identification & Capacity
2. System Operations, ITS & IT
3. Safety/Security
4. Intermodal Connectivity
5. Rural Connectivity
6. USMCA and Border Challenges
7. Energy/Environment
8. Education/Public Awareness
9. Public and Private Sector Coordination
10. Funding/Financing
What is a Freight Project?

**Freight Focused**
to address a specific freight transportation need

**Freight Related**
to address multiple transportation concerns, of which freight is one element

**Freight Impacted**
to address general transportation needs, however freight mobility may be positively affected
Data Collection & Commodity Flows

DATA SOURCES

- FAF 4.1
- TranSearch data
- BTS CFS summary data
- Rail Waybill (Freight Rail)
- ATRI Data (Truck)
- Air Cargo (FAA T100)
- USA Trade data
- Water (USACE)
- State & MPO data
- NPMRDS data
- Industry data
- BLS / Census
- IMPLAN economic model

KEY INDUSTRIES
Identify your Freight Network and System

- Identify the multimodal Freight Mobility routes
- Backbone for investment and decision-making
- Provides guidance at the local level to enhance connectors to the system
- Guides land-use and economic development decisions