
Freight Planning

Fort Smith Freight Summit

November 18, 2009

*Bi-State Metropolitan Planning
Organization*

Arkansas State Highway Department

*Federal Highway Administration –
Arkansas Division*



Today's Presentation

- *Introduction to freight planning*
- Importance of freight planning
- Freight trends
- Freight challenges
- Freight planning success factors

Introduction to Freight Planning

Definitions

■ **Freight**

- Goods transported by a vessel or vehicle.

■ **Freight Shippers**

- Any business that routinely transports its products from one place to another.

■ **Freight Planning**

- Addressing and identifying a method to commit resources to enhance freight activities.

Introduction to Freight Planning

Freight vs. Passenger Transportation

Passenger Movements

- Movements often begin and end within the same jurisdiction.
- Less infrastructure impact.
- Less intermodal in nature.

Freight Movements

- Complex chain of interregional or international trips.
- Heavier vehicles have greater infrastructure impacts.
- Often more intermodal in nature.

Introduction to Freight Planning

Freight vs. Passenger Planning

Passenger Planning

- Can be handled within a single jurisdiction.
- Trip generation and attractions well understood and predicted.
- Plenty of publicly available data.
- Well-defined funding and financing sources and strategies.
- Stakeholders easily identified.

Freight Planning

- Multi-jurisdictional cooperation required.
- Freight movements sensitive to market forces, difficult to forecast demand.
- Fewer sources of publicly available data.
- Often requires innovative funding and financing sources/strategies.
- Freight stakeholders harder to identify and more challenging to engage.

Introduction to Freight Planning

Freight Stakeholders

■ **Public Sector**

- Federal, state, and local transportation planning agencies.
- Economic development and trade organizations.
- Federal, state, and local law enforcement.

■ **Private Sector**

- Shippers and receivers of freight (businesses).
- Freight transportation service providers.
- Owners and operators of freight facilities.
- Neighborhoods and communities affected by freight transportation.

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Importance of Freight Planning

Federal Guidelines for Freight Planning

- Intermodal Surface Transportation Efficiency Act (ISTEA)
 - Added freight as a factor for states and MPOs to consider during their transportation planning efforts.

- Transportation Equity Act for the 21st Century (TEA-21)
 - Encouraged states and MPOs to include shippers and freight service providers in the transportation planning process.

- Safe, Accountable, Flexible, and Efficient Transportation Equity Act of the 21st Century: A Legacy for Users (SAFETEA-LU)
 - Enhances the freight planning of ISTEA and TEA-21.

Importance of Freight Planning

Freight Contributes to Overall Quality of Life

- Movement of raw materials to farms and factories.
- Movement of goods from farms and factories to wholesalers and distributors.
- Movement of finished products to retailers and consumers.
 - Packages and mail delivered to your front door.
 - The typical food in a supermarket has traveled farther than some people do in a year of vacations.

Importance of Freight Planning

National Impacts

- Border Crossings
- NAFTA Corridors
- Gateway Corridors

Importance of Freight Planning

Fort Smith Impacts/Highways

- Gateway Corridors

I-40/540

I-49

US-59/259

US-67/167

US-71/271

Importance of Freight Planning

Fort Smith Impacts/Rail

- Class One
BN
KCS
UP
- Class Two
AR&MO
Fort Smith
- Class Three

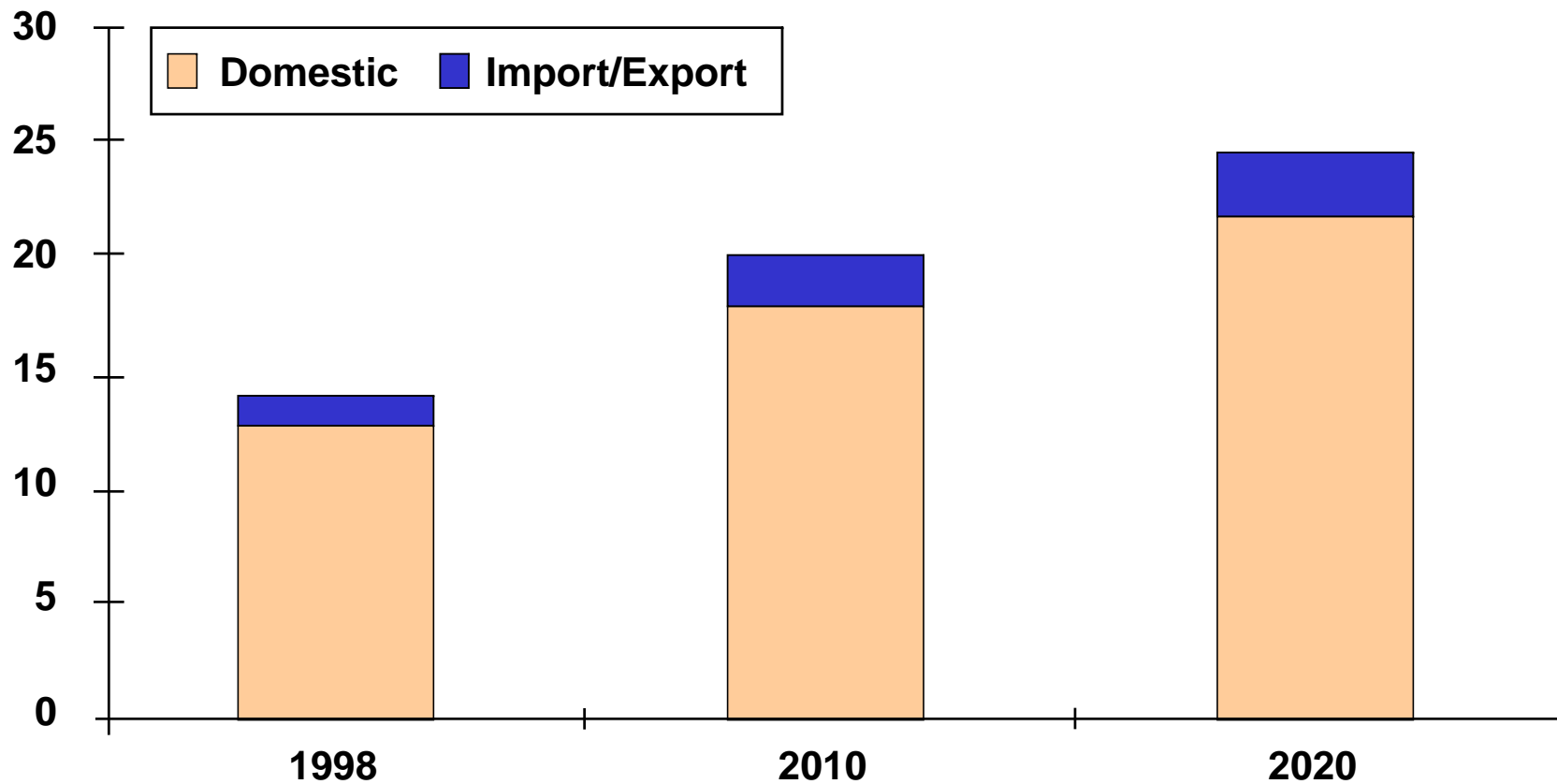
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Freight Trends

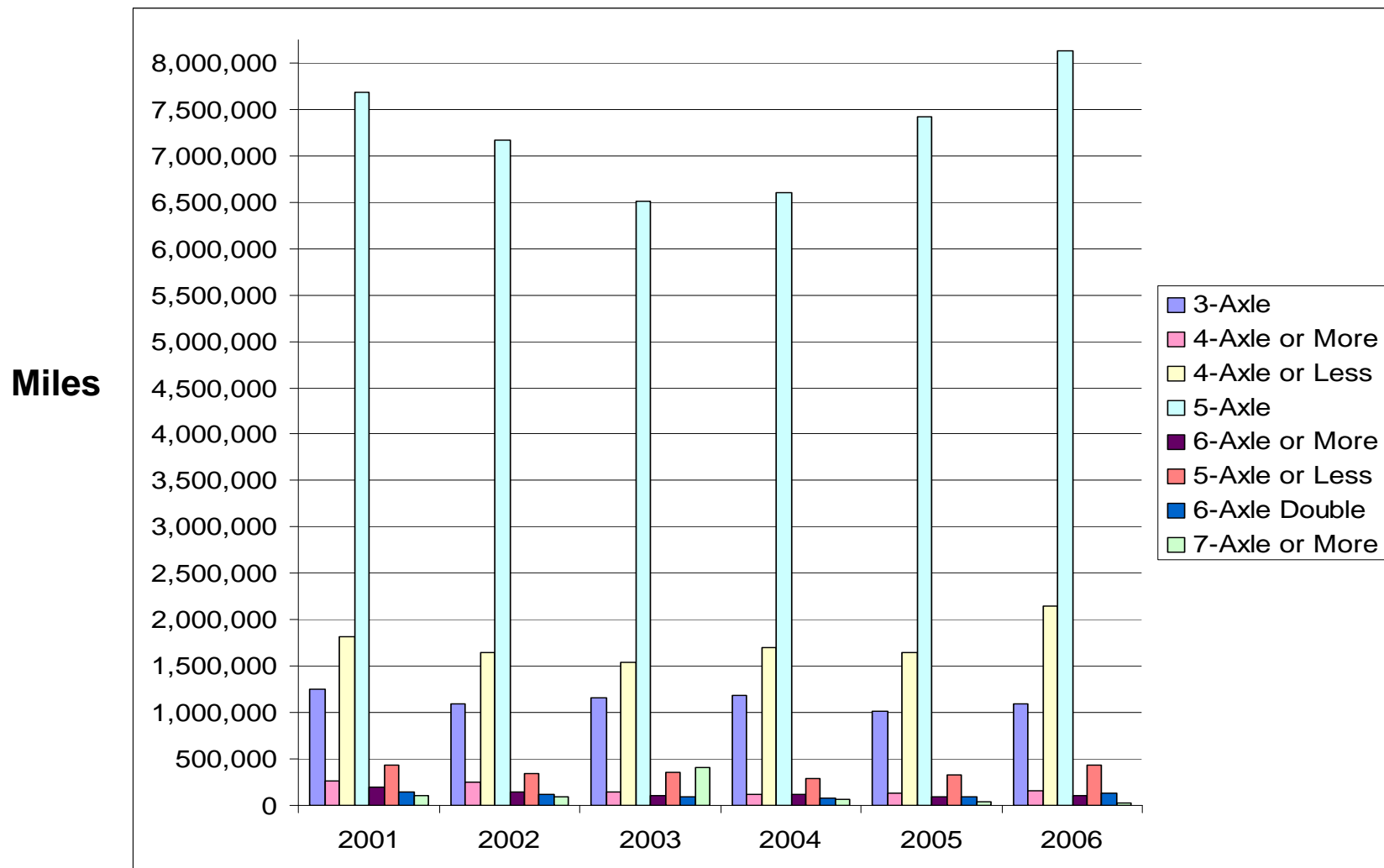
Anticipated Growth in Freight Traffic 1998 to 2020

Freight Tons (in Billions)



Freight Trends

Arkansas Daily Truck Vehicle Miles Traveled



Freight Trends

Arkansas Impacts

- MPOs: Monitor truck and freight movement for MPO Study Area and evaluate efficient movement.

- AHTD: Monitor intermodal activities for transportation planning purposes.
 - River Port.

 - Airport.

 - Rail Road Facilities.

Freight Trends

Changing Logistics Systems

Manufacturing-Based Economy

- Regularly scheduled flows of bulk products.
- Greater reliance on maintaining inventory levels.
- More long-haul movements.
- More resistant to transportation system delays.

Service-Based Economy

- Time-sensitive flows of customized products (just-in-time delivery).
- Greater reliance on information, transportation vehicles act as “rolling warehouses”.
- More frequent, shorter movements.
- Less resistant to delays, requires reliable transportation system.

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Freight System Challenges

Infrastructure

- Surface streets and facilities.
- Low bridge clearances.
- Pavement deterioration.
- Inadequate turning radii for trucks.
- Insufficient bridge weight limits.

Freight System Challenges

Port and Intermodal Access

- Increasing freight volumes and worsening highway congestion cause landside access problems at ports, airports, and intermodal terminals.

Freight System Challenges

Overall System Reliability

- System users are placing more emphasis on reliability and predictability of transportation services.
- Economic development becoming more dependent on high quality, multimodal transportation services.

Freight Challenges

Institutional and Policy Challenges

■ **Freight Planning Requirements**

- Lack of guidance as to how and what extent States and MPOs should consider freight within transportation planning process.

■ **Funding**

- Highway-related freight improvement projects are usually eligible for federal or state funding, but intermodal projects often shoehorned into other programs.

■ **Data**

- Publicly available data often lacks industry detail due to privacy concerns, but privately-maintained data sets are often costly and require extensive analysis.

Freight Challenges

Institutional and Policy Challenges

■ **Multi-Jurisdictional Planning**

- Multi-jurisdictional coalitions are important for regional freight planning, but implementation of projects may be difficult.

■ **Inter- and Intra-Agency Coordination**

- State DOT's modal organization may hinder cross-modal communication and lead to fragmented freight planning.
- State DOTs and MPOs may not have influence over non-highway modes.

■ **Freight Security**

- Many States/MPOs unclear of role in addressing freight security.

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Freight Planning

Factors of Success

- **Development of data and tools**

- Good freight planning begins with good freight data.
- Freight analytical tools can be complex, but many inexpensive, reliable tools exist.
- Data can come from many different public and private sources.

- **Networking with stakeholders**

- Understand who the stakeholders are and work to build trust, define policy, develop plans, and implement projects.

Freight Planning

Factors of Success

- **Education and outreach efforts**

- Provide information and resources to decision-makers and general public on the importance of freight and integrating freight into the transportation planning process.
- Provide knowledge and expertise on freight issues to DOT and MPO staff.

- **Intra- and inter-agency coordination**

- Most freight projects involve several agencies – both within and outside transportation.

Freight Planning

Factors of Success

- **Linking freight to existing statewide/metropolitan long-range planning processes.**
 - Treating freight with same level of emphasis as passenger movements and facilitate long-term commitment to freight planning.

- **Project definition, prioritization, and delivery.**
 - Project delivery legitimizes freight planning programs and helps maintain momentum.
 - Innovative project development and funding methods are critical.

Freight Planning

Getting Started

- FHWA Freight Professional Development Program
 - Existing and future training opportunities.
 - Technical assistance.
 - Freight resource library.
 - University-based freight and logistics programs.

Freight Planning

Getting Started

- Freight Peer-to-Peer (P2P) program
- “Talking Freight” seminar series
- Freight Analysis Framework (FAF) Toolkit
- NHI Training Opportunities
 - Course 139001, Integrating Freight in the Transportation Planning Process.
 - Course 139002, Freight Forecasting in Transportation Planning.
- FHWA Freight Planning Website
 - www.fhwa.dot.gov/freightplanning/index.htm