“Will Transportation Shape the Region's Economy?”

Bruce Lambert
Executive Director, ITTS
WHAT DRINK CAN’T YOU LIVE WITHOUT?

- When do you expect to get this?
- Where do you expect to get this?
- How much are you willing to pay in time or money to get it?
- What are your expectations?
OUTLINE

- Transportation Matters
- Globalization
- DRA Needs Transportation
- Can I get on the network?
- Freight planning will be more important
- Logistics and economic development
- Public Private Partnerships
TRANSPORTATION MATTERS
Does Transportation Even Matter?

1. Access to Markets
2. Access to Workers
3. Congestion causes delays
EVERYONE WANTS STUFF!!!

Every day
- 60 million tons of freight worth $40b

Annually – Every American needs...
- 50 tons of stuff
- 11,000 ton-miles

What Does It Cost
- 9% of US GDP spent on logistics
- 5% of Govt. Spending is Infrastructure
OPERATIONS - TRADITIONAL PUSH SUPPLY CHAIN FRAMEWORK

Supplier

Supplier

Supplier

Manufacturer

Distributor

Customer

“PUSH” METHODS OF CONTROL (relative importance)

Transport System

Information System

Inventory
Operations - Modern Push Supply Chain Framework

- Supplier
- Supplier
- Supplier
- Supplier
- Supplier
- Supplier
- Supplier
- Supplier
- Supplier
- Supplier

3PL

Designer
Manufacturer
Marketer

Distributor
Customer

Recycled products
Point-of-sale data

“Pull” Methods of Control (relative importance)

Inventory
Information System

Transport System
A Shipper Perspective on Infrastructure/Logistics

- Demands low-cost, reliable service
- Mode and geographically neutrality
- Wants “just in time services”
- Firms outsourcing the “Headaches” of logistics
- No one believes congestion will go away
- Often ignore primarily “freight” infrastructure
- Transportation costs have direct bottom-line implications
TRENDS SHAPING CARRIERS/TRANSPORTATION SYSTEMS

- Increasing cross-modal coordination for door-to-door services
- Increasing carrier consolidation and alliances
- Carriers offering value added logistics and information assistance
- Increased electronic technologies used to improve carrier performance
- Significant increases in operational capacity expected from IT- and ITS-enabled freight transportation systems
- Growing reliance of DoD on the commercial freight system
TRANSPORTATION MATTERS

Everyone depends on freight transportation

Changing logistical demands by shippers and carriers
GLOBALIZATION

Trade Corridors
FDI
Economic Value
Commodities
GLOBALIZATION MEANS WHAT...

- Corporate Headquarters
- Imports
- Foreign Direct Investment
- Exports
TOTAL US TRADE CONTINUES TO INCREASE

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U.S. SHARE OF WORLD GDP, 1980-2012

Source: International Monetary Fund, 2012.
GDP Growth Rates for Various Regions

(Real GDP, percent change)

Source: IHS Global Insight
FOREIGN DIRECT INVESTMENT-
THOUSAND JOBS (2010)

- Transportation needs vary
- Like to locate near “neighbors”
- Tend to use more import sourcing

Bar chart showing the number of foreign direct investment-thousand jobs in various states:
- Alabama
- Arkansas
- Florida
- Georgia
- Kentucky
- Louisiana
- Mississippi
- North Carolina
- South Carolina
- Tennessee
- Virginia
- West Virginia

The bars indicate the number of jobs, with taller bars representing more jobs.
EXPORT RELATED JOBS AS SHARE OF EMPLOYMENT, 2008

The bar chart illustrates the percentage of manufacturing jobs and the percentage of private sector employment in various states in 2008. The states are listed along the x-axis, and the percentages are plotted on the y-axis. The chart shows a comparison between the manufacturing sector and the private sector employment across different states. The states mentioned include Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, West Virginia, Virginia, Regional Average, and US Average.
Growth of Exports as a Share of State GDP (2000-2011)
GLOBALIZATION MEANS

Trade will increase

Exports remain a key market
Industry Share of the Mississippi Economy, 2011

- Agriculture, forestry, fishing, and hunting: 3%
- Mining: 2%
- Utilities: 3%
- Construction: 5%
- Manufacturing: 15%
- Wholesale trade: 4%
- Retail trade: 8%
- Transportation and warehousing: 3%
- Services: 39%
- Government: 18%
COMPARISON OF FREIGHT DEPENDENCY: US, SELECTED STATES (2010)

![Graph comparing freight dependency in the US and selected states. The x-axis represents states: US Average, Arkansas, Kentucky, Louisiana, Tennessee. The y-axis represents the share based on estimated industry clusters, NAIACS code. The graph shows the percentage distribution of consuming and producing industries.](image-url)
LOUISIANA NEEDS INFRASTRUCTURE TO CONNECT TO MARKETS

Major Flows by Truck To, From, and Within Louisiana: 2007

Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty-five FAF trucks per day and between places typically more than fifty miles apart.

WHERE IS IT GOING? BY DESTINATION

Regional
35%

Intra-State Trade, 25

Non Regional Trade
14%

Nafta
7%

Other
17%

Other Intl
10%
Ton Miles of Truck Shipments by State for 2002

Regional Average

- Within/Local
- To/From
- Through

Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Mississippi
North Carolina
South Carolina
Tennessee
Virginia
West Virginia

0% 25% 50% 75% 100%
Delta Development Highway System

- Since 2000, DRA
  - funded 139 transportation projects, investing $25 million.
  - 26,000 jobs are projected to be created and retained.

- DDHS
  - 3,843 miles of improved facilities with an estimated total system investment of $18.5 billion over 20 years.

- When fully completed
  - 130,000 additional full-time equivalent jobs
  - $3.5 billion in additional income (in 2006 dollars)
Economy depends on moving products into, within, from state

Delta Regional Network important
CAN I GET ON THE NETWORK?
Note: Highway & Rail is additional highway mileage with daily truck payload equivalents based on annual average daily truck traffic plus average daily intermodal service on parallel railroads. Average daily intermodal service is the annual tonnage moved by container-on-flatcar and trailer-on-flatcar service divided by 365 days per year and 16 tons per average truck payload.

2,000 Trucks Driving Through Little Rock - After 24 Hours
What is a Freight Corridor?

- Different terms: Trade or traffic lane or route
- Will be multijurisdictional
- May have multimodal options
- Mixed users (carriers/shippers) on corridor
- Connectivity and access are critical
- Mix of local, regional, international traffic
“THE JOB CREATION / LOGISTICS MESSAGE”
KY – top 200 firms - Intermodal facilities

Yellow – Top 200 Firm
Green – Intermodal Facility
Comparability of transport modes
THE ECONOMICS OF INTERMODAL

Direct All-Truck Routes
(Door-To-Door 50 MPH)*

Intermodal Route

Origin Terminal (12 Hour Dwell)

Intermediate Terminal 12 Hour Dwell

Destination Terminal 12 Hour Dwell
Drayage Issues and Network Overlaps

- Who pays for the drayage for containers?
- What about chassis pools?
- What about equipment availability?

Source: IHS Global Insight TRANSEARCH
Radius to 80% of total dray volume, red radii are top volume
FREIGHT FACED UNIQUE CHALLENGES

- NHS Connectors
  - Poor physical condition
  - Poor geometrics
  - “Orphan status”
  - Inadequate coordination of investment strategies

- Freight Outreach Findings
  - Freight is not adequately addressed at state and local level
  - Difficult to bring public and private sectors together
  - Proceedings are posted on website and CD-Rom
Can I get on the network?

Transportation Access is critical

Multimodal transportation options changing

Region is Critical Region in US Transportation System
FREIGHT PLANNING WILL BE MORE IMPORTANT
JOE HOLLINGSWORTH, JR.

1. The South becomes even more competitive in the world economy
2. South shifts from manufacturing to service sector which improves manufacturing
3. Migration continues as the South becomes “land of opportunity”
4. South develops knowledge based economy
5. South leads way in education reform
6. Contiguous counties around major metropolitan areas will be the action
7. South becomes practically the only location for automotive plants
What Will the Future Be?
MIT Future Freight Flows

- Naftastique!
- Millions of Markets
- Global Marketplace
- One World Order
AASHTO - Transportation Invest In Our Future
AND WHAT?

- Will exports go up or down in 10 years?
- Where will people live in ten years?
- Where will the state see more truck traffic?
- What if we go to heavier/longer trucks?
- What if the State attracts more manufacturing?
- Truck parking issues?
- Impose more safety measures in transportation?
- What does this cost my economy?
Freight Movements Not Going Away!!
So...

Three Options Exist:

- Build (improve) freight system capacity
- Increase Efficiencies and Operations
- Create or Support emerging transportation options (thinking outside the box)
MAP-21 Freight Provisions

- National Freight Policy
- Establishment of a National Freight Network
- Critical Rural Freight Corridors
- National Freight Strategic Plan
- Cost Sharing Formulas
- Freight Transportation Conditions and Performance
WHERE ARE WE GOING?

- Project vs. System Driven
- Communicating Value
- Analytical Orientation
- Still not multimodal - silos exist
- Funding streams
Freight planning will be more important.

We can all agree that freight traffic will increase.

Evolving federal policy.
LOGISTICS AND ECONOMIC DEVELOPMENT
Firms See Transportation as Critical

Site Selection Magazine

- 90% stated - transportation directly influences their business.

KPMG

- 77% stated - infrastructure:
  - Becomes more important over the next five years
  - But system will remain inadequate without new investment
TRENDS IN ECONOMIC DEVELOPMENT

- Business Park Concept
- Greenfield-Brownfield development
- Clusters versus Growth Poles
- Site Selection Criteria
- Operational considerations
- Integrated Logistic Supply Chain Centers
- Firms locating big facilities with access to transportation infrastructure, not people
- Potential access to alternative energy is discussed (wind, water, solar)
WHAT WILL WE BUILD/OPERATE?

- What is your market?
  - Expand or Cannibalize
  - Corridor – End or Middle
- What type of facility/services are needed?
  - What “Freight” is “Freight”
- Develop densities and services
  - Service Requirements
  - Drayage and equipment issues
  - Domestic and international
  - Shippers bear what costs?
**Key Asset for Transportation Cluster Development**

- Similar resources
  - Natural (raw materials)
  - Built (e.g., intermodal facilities)
- Specially trained workforce
- Quality organizational governance
- Competition
- Collaboration (share ideas and learn from each other)
  - Localized because of the informal nature of knowledge flow
  - Short feedback loops
  - Recent research finds that global connections are important (cf. Fitjar and Rodríguez-Pose 2011)

Source: Chad Miller, Un. Of Southern Miss.
RAILROAD TERMINALS

The Carload Terminal

The Transload Terminal

Intermodal Terminals

- Port Terminals
- Inland Ports
- Gateway Terminals and Cross-town movements
- Intermediate Terminals
- Transload terminals
- Specialty Terminals
- Paper Ramps
INTEGRATED LOGISTICS CENTER – LAND USE COMPONENTS

Customer Facilities
Light manufacture
Distribution
Storage
500-800 Acres

Export Trans Loading

Intermodal Container
Terminal
200 Acres

Customer Facilities
Light manufacture
Distribution
Storage
500-800 Acres

ILC Serving Rail Yard

CSXI & Auto Ramp
Customer Facilities
300 Acres - 500

3PLs
TRANSFLO
Cross dock
Packaging
Assembly
300-500 Acres

Highway Access

Interstate or Beltway

Air
Freight

3-5 miles

Rail Network Mainline

3-5 miles

Charles McSwain
Strategic Direction of Development

Inside-Out: Where the facility is driven by an inland carriage company (e.g., railroad, barge, logistics service provider)

Outside-In: developed by port authorities, terminal operators or ocean carriers
The Implications of Freight Movement

**Good**
- Access to markets
- Workforce development
- Economic growth

**Bad**
- Congestion
- Emissions
- Safety
- Free Rider problem
- Who really bears costs of transportation
Logistics and Economic Development

- Site Development more dependent on logistics
- Need to look at transportation when planning for economic development
- Not everyone likes transportation
YOU TOO COULD BE A WINNER...
Freight Access and Mobility May Create Transformative Opportunities
What Outcomes May Occur from Infrastructure Projects?

- Improved commercial operations (cost savings, reliability)
- Change Routings (move equipment around)
- Change Capacity or Scale of Services (Bigger equipment expand plant)
- Induced Service or Calls (new players)
- Nothing, or even worse, declining traffic
What Must I Do to Be Successful:

- Develop Facilities
- Keep Locals Happy
- Create Jobs
- Promote
- Partnerships
- Secure Revenue Stream

Growth
Who Are the Players?

Private
- Shippers
- Carriers
- Economic Developers

Public
- State
- Local
- Federal
PRIVATE SECTOR ROLE IN INTERMODALISM

- Rail terminals – private networks
- Shippers – Outsource “logistics headaches”
- “Big corridor” focus
- Changing Site Selection criteria
- Chassis issues
- Shipping line services
- What Champion is driving this?
PUBLIC SECTOR ROLE IN INTERMODALISM

- Mostly as landlords
- Jurisdictional responsibility and competition
- Economic Development “Catalysts”
- Civic Pride and Competition
- Very capital intensive, but may not be profitable
- Conflicts over local objectives
- What Champion is driving this?
WHO IS RESPONSIBLE FOR WHAT?
YOU TOO COULD BE A WINNER BUT...

- Find the right public-private sector partners
- Improve connectivity with system and to hinterlands
- Work on funding agreements (incentives)
- Manage Expectations
- Patience
THE DISCUSSION IS IMPORTANT

- Connecting with global markets
- Regional transportation needs
- Economic Development (land use/access)
- Corridors – Federal, State
- Finding partners

But who is listening?
You Too Could Be A WINNER…

Transportation Remains Important to the Region

Changing Markets will require changing transportation

The future remains unwritten

Need to reconsider transportation with economic development
What are you going to drink next?

- It came from somewhere
- It was packaged ready for your needs
- It was available when you wanted it
- It should meet your expectations concerning price and quality
- Can this benefit this area?