Future Freight Capacity Needs

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Overview of Presentation

- Nature of Study and Report
- Framework and Selected Findings of Study
- Conclusions and Recommendations
- Issues in the freight industry since 2001
Charge to Study Committee

- Examine trends and evaluate concerns
- Propose changes in government policy
Information Resources

- Review of past assessments/studies
- Survey of immediate policy issues
- Trends in traffic, infrastructure, and performance
- Four case studies
  - Virginia I-81/ Shenandoah Route
  - Upper Mississippi Locks
  - Washington FAST Corridor
  - Florida Freight Stakeholders Task Force
- Industry interviews
Five “ALARMING” Trends

1. Stagnant highway spending combined with continual traffic growth
2. Railroad industry downsizing and service disturbances
3. Congestion at terminals and border crossings
4. Long lead times and rising costs of infrastructure projects
5. Urban congestion and freight-passenger conflicts
1 Stagnant Highway Spending and Traffic Growth

- Highway capital stock is growing, but not as fast as VMT
- No good data tracking systemwide performance; available data do not prove general deterioration
- Evidence of highway productivity gains
- Many missed opportunities for high-payoff improvements
2 Railroad Downsizing and Service Disruptions

- Are major components of system max-ing out on capacity? There are conflicting indications
- Merger-related service disruptions were not indicators of capacity shortage
Findings from the Trends

3 Growing Terminal, Border Congestion

- DOT: data insufficient to judge adequacy of IM connector roads or of funding available
- Port system as a whole is not capacity-constrained (but data scarce)
- Border crossings: a complex infrastructure/regulatory/political problem
Findings from the Trends

4 Lengthening Project Delivery Times and Costs

- Anecdotal data that environmental review adds 1-6 years to delivery time of large highway projects
- GAO: Airport runway extensions becoming impossible
- Costs, benefits of review have never been studied
Findings from the Trends

5 Urban Congestion and Passenger/Freight Conflicts

- Bottlenecks tend to be near urban areas
- Freight – passenger rail usage issues
Conclusions from the Trends

- Still ample resources for expansion
- Pressure on transport costs from congestion; regulation likely
- Technology will reduce costs
- Market will respond to costs: changes in quantity, mix of services purchased; changes in land use
- Outcome will be tolerable, but far from optimal, without reforms in pricing, management, regulation
Prescriptions for Resolving Capacity Problems

1 **Maintain the status quo:** more resources for existing programs, refinements in program structure, more coordination

2 **Activist government:** new programs, expanded responsibilities, p/p partnerships, private sector grants, increased regulatory oversight, promotion of favored course of development

3 **Minimalist government:** deregulation, privatization, pricing, devolution
Guiding Principles for Government Freight Programs

- Goal of economic efficiency
- Government role is limited
- Government responsibility does not mean subsidy
- Finance provisions affect performance
Recommendations from TRB Report

- Comprehensive federal government freight program

- Recommendations on specific programs
  - Federal Freight Infrastructure Programs
  - Port Development
  - Operation and Management of the Inland Waterways
  - Decision-Making Processes and Planning
  - Regulatory Issues (reducing project delivery time)
Freight Capacity Issues Since 2001

- Post-September 11 freight Security
- Port Congestion
- Increased Intermodal Activity
- Chicago’s CREATE Project
- Trucking Hours of Service
- SAFETEA-LU
- Truck Only Lanes
- Iowa Truck/Rail Capacity
Post-September 11 Freight Security

- Congestion is evident near ports and border crossings
- Increased delay in ship to truck loadings
- Businesses that operate near border crossings or process international shipments are affected
- New processing technology at borders will aim to improve delays
Port Congestion

- Southern California Ports handle much of the container ship traffic from Asia
- Los Angeles/Long Beach Ports handle 25 million containers per year
- Significant ship/truck congestion in the areas of the ports
- Solutions:
  - Alameda Corridor
  - Ocean Carriers have sent ocean vessels to Canadian, Mexican and Eastern U.S. ports to avoid congestion
Increased Intermodal Activity

- More Asian Imports arriving on container ships
- Containers from 280 trucks can fit onto one freight train
  - Shortage of railcars
- Truckload capacity constraints, intermodal offers a shipping alternative
- Truckload freight costs have increased rapidly
  - 9.3% increase in intermodal activity (2004)
Increased Intermodal Activity

Rail and intermodal have inherent advantage in cost per ton mile of heavy freight.

Metro areas are strategizing to include intermodal into long range plans.
Chicago’s CREATE Program

- Chicago Region Environmental and Transportation Efficiency Program

- Program to streamline rail and truck movements through Chicago with added emphasis on intermodal activities

- Interchange of several interstate highways, four different railroads, numerous at-grade crossings

- Traffic passing through Chicago affects 5 million jobs across the country, $780 billion in goods, and $217 billion in wages
Chicago’s CREATE Program

- Emphasis on rail and intermodal activities as efficient transportation through the area
- $1.5 billion public-private plan to ease congestion and increase efficiency of freight travel in the Chicago area
- Coordinating truck routes, separation of passenger and freight trains, reduce rail at grade crossings
Trucking Hours of Service

- Effective October 1, 2005
- Amount of work time for truck drivers reduced from 15 hours to 14 hours
- Maximum of 11 hours after 10 consecutive hours off duty
- 60 hours of work every 7 days,
  - Drivers can restart their 7-day period if they were off-duty for 34 consecutive hours
Trucking Hours of Service

- Negative impact on capacity utilization within the freight industry
- Reduced fleet capacity by 12% in total shipments
- Impacted driver scheduling of trips through congested urban areas
- Change in market structure of motor carrier industry
  - Carriers prefer longer haul trips
SAFETEA-LU and the Freight Industry

- Freight Intermodal Distribution Pilot Program
- Freight Planning and Capacity Building Program
- Transportation Infrastructure Finance and Innovation Act
- Coordinated Border Infrastructure Program
A separate facility constructed for heavy vehicles

- Constructed within the median of an existing interstate highway corridor
  » Separated by a jersey barrier from auto traffic
- Constructed as a separate limited access truckway from the mainline interstate cross section

LCV Operation would be allowed
Existing Truck Lanes

- **NJ Turnpike Dual-Dual Configuration**
  - “Cars only” on inner set of lanes

- **Studies have considered truck lanes for:**
  - I-81 in Virginia
  - I-80: Illinois/Iowa
  - I-35 Trans-Texas Corridor from OK/TX border to Mexico
  - I-710 near Port of Long Beach (CA)
Freight Industry Benefits of Truck Only Lanes

- **LCV Operation**
  - Savings for the line haul portion of a trip

- **Operating cost savings**
  - Reduction in truck idle times
  - Higher average speeds because trucks have similar operating characteristics
  - Fuel cost savings/lower emissions levels
Travel Time Savings from Truck Only Lanes

- Est. $10 million in annual travel times savings (Seattle Feasibility Study)
- More predictable travel times for motor freight
  - Expansion of just-in-time delivery options
  - Improvement in domestic and international competitiveness
Issues in Iowa
Since the Release of the Report

- I-80 Capacity issues
  - Maintenance issues
  - Capacity improvements will be needed
  - Consideration for heavy truck volumes

- Mississippi River RR Crossing in Clinton
  - RR Bridge must swing open to accommodate barges on the river
Mergers have reduced the class I railroads

Competition from trucking and water transport

Shift from shipping grain toward the movement of value added goods where grain is the principal input

More Iowa goods travel to Mexico, Canada, and the Pacific Northwest by rail
Overall Conclusions

- Freight transportation is growing and transforming the global market
- Freight capacity improvements are necessary to ensure reliable product deliveries
- Intermodal and rail movements will reduce freight congestion on U.S. highways
- New funding mechanisms such as public-private partnerships should be embraced to fund large projects that will improve freight capacity
- Government policies should be based on sound economic principles