

Performance Management and Measurement

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Maryland Freight Summit



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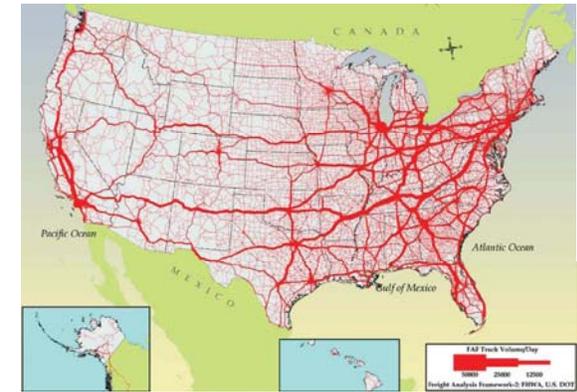


FIGURE 2-5. VALUE OF MERCHANDISE TRADE BY GROUPS OF CUSTOMS DISTRICTS 1951-2005 (QUINDED \$2000)

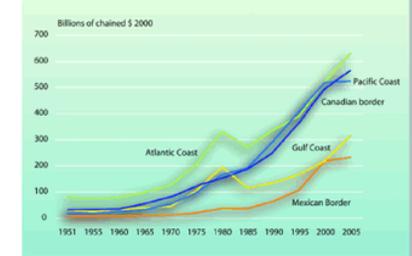
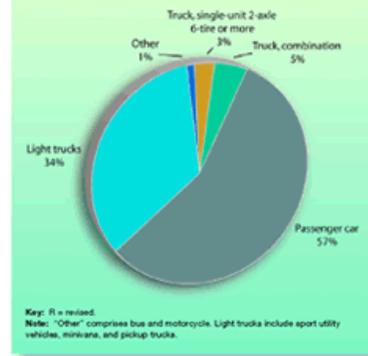


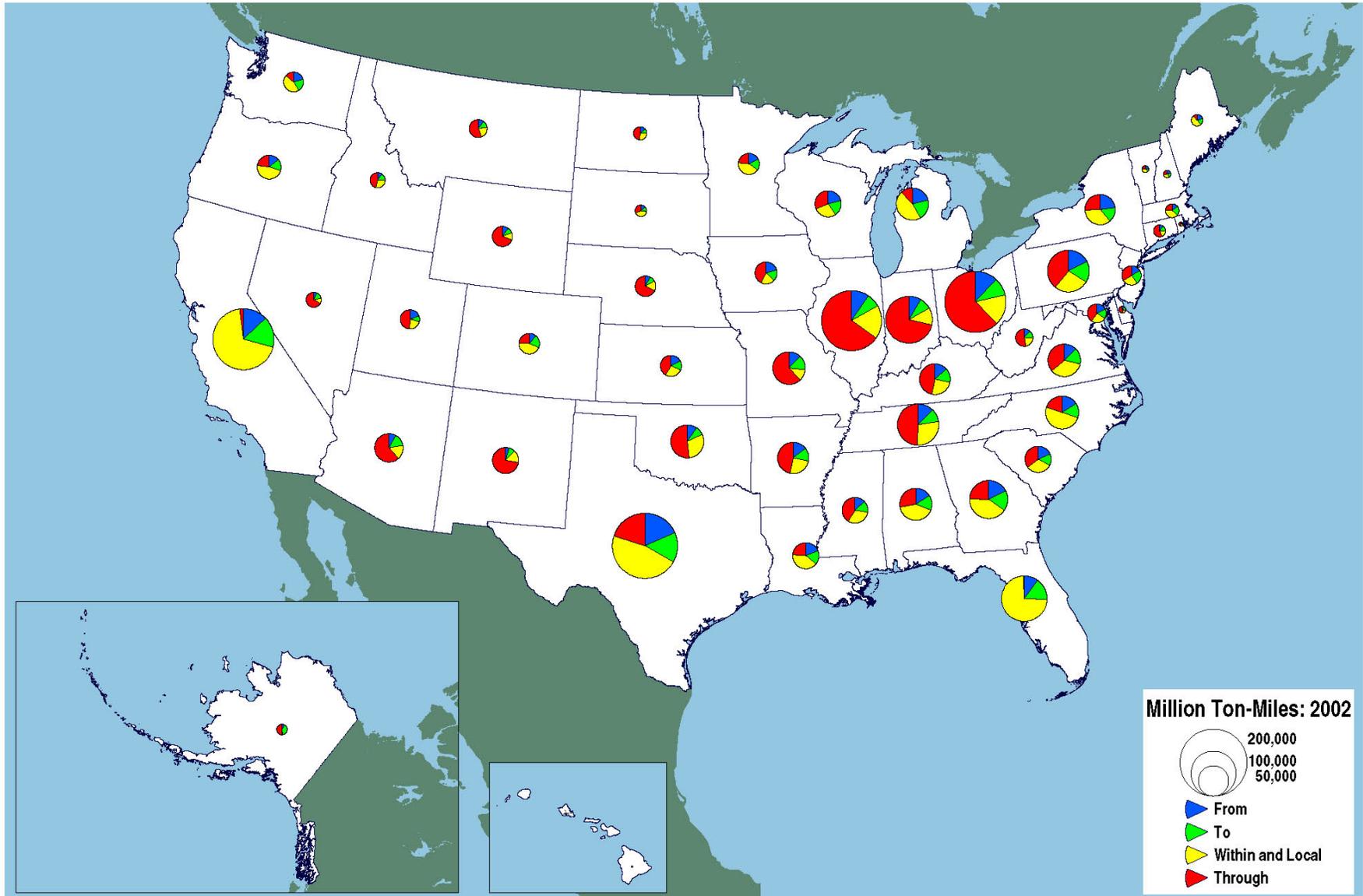
FIGURE 2-2: HIGHWAY VEHICLE MILES OF TRAVEL BY VEHICLE TYPE: 2004



The challenge

- Meeting the logistical needs of businesses and households is a key part of economically sustainable communities, and the movement of freight is a growing share of congestion, carbon footprint, and other planning challenges.
- Understanding performance of the freight system requires both national and local perspectives since significant freight moves to, from, or through states and localities.

Ton-Miles of Truck Shipments by State: 2002



Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations; Ton-miles over 50 miles - Freight Analysis Framework network data files, version 2.2; less than 50 miles - Freight Analysis Framework, version 2.2 and 2002 Commodity Flow Survey.
Note: International truck movements across land borders are treated as originating or terminating in Canada or Mexico. All other international movements are treated as originating or terminating at the international gateway

The challenge

- Maryland's highways carried 21 billion ton miles of shipments by truck in 2002.
 - 26 percent within Maryland or local moves just across the border
 - 18 percent from Maryland to other states
 - 16 percent from other states to Maryland
 - 40 percent passing through Maryland from other states to other states

The challenge

- A renewed focus on accountability, transparency, and performance management.
 - “We have an obligation to the taxpayers of this nation to make sure their money is being used wisely, to make it accountable and transparent.” Vice President Biden, 2009
- Performance measures are a major part of this focus
 - “If you cannot measure it, you cannot improve it.” Lord Kelvin (1824-1907)

Evolving perspectives

● Accountability

- Traditional question: were public funds spent on the intended purposes using proper procedures?
- Emerging additional question: are public investments, regulations, and services making a difference?

● Transparency

- Traditional requirement: government meets open to the public and recorded
- New requirement: all public transactions and their consequences should be posted to the Internet

Evolving perspectives

● Performance management

- Traditional approach: rewards and penalties
- Proposed approach: learning and improvement

“The country needs, and unless I mistake its temper, the country demands bold, persistent experimentation. It is common sense to take a method and try it. If it fails, admit it frankly and try another. But above all, try something.” Franklin Delano Roosevelt, 1932

Implications

- Going beyond “what-if” to “so-what”
 - What does the system deliver: the volume and value of goods moved
 - How well does the system work: coverage and condition of freight connections; speed and reliability of major corridors; the direct costs of moving freight
 - How does system performance translate into safety, environmental and economic sustainability, and community livability?

Implications

- Every investment program, regulatory program, project, or service is a chance to learn and improve
 - Are the things we care about getting better or worse?
 - Can we show that the program or service is contributing to the better or worse?
 - Does the evidence of causality indicate ways to improve the program or service?

Implications

- Establishing targets that matter
 - Trends plus adjustment
 - Engineering, public health, other standards
 - Peer comparisons and best practice
 - Benefit-cost calculations
 - Justifications for the original action
 - Other approaches to be identified in NCHRP 8-70

Freight Performance Measures

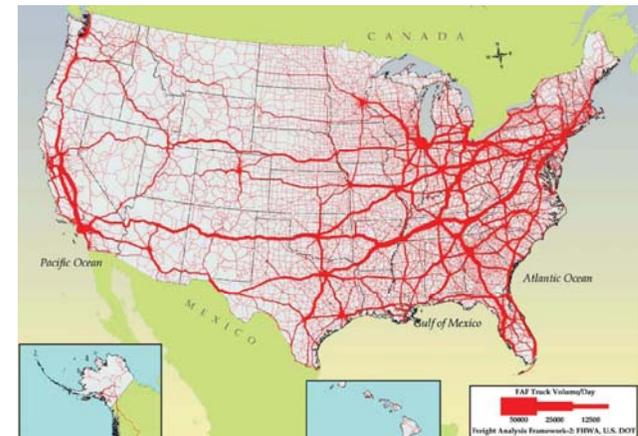
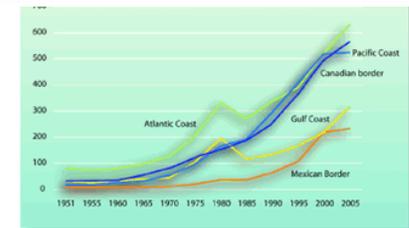
Freight Analysis Framework

- Tons and value for all modes among metropolitan areas and balances of states by commodity and mode
- Truckloads of freight on the network among places at least 50 miles apart
- Annual provisional estimates each spring
- 2007 benchmark by July, 2010
- Forecasts through 2040 by September, 2010

Table 2-1. Weight of Shipments by Transportation Mode: 2002, 2007, and 2035 (millions of tons)

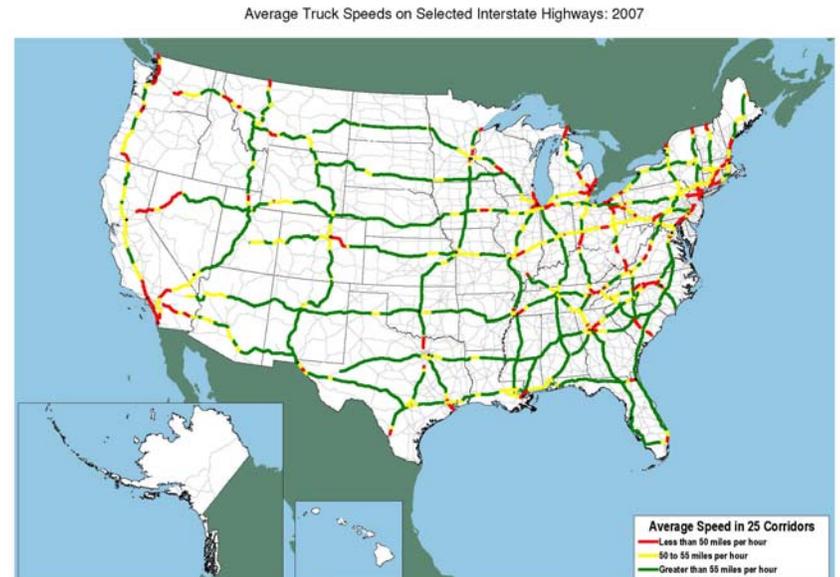
	2002		2007		2035	
	Total Domestic Exports	Imports	Total Domestic Exports	Imports	Total Domestic Exports	Imports
Total	19,328	17,670	21,225	19,268	37,218 ^(R)	33,667 ^(R)
Truck	11,539	11,336	12,896	12,691	22,818 ^(R)	22,230
Rail	1,879	1,769	2,030	1,872	3,525	3,292
Water	701	589	689	578	1,041	874
Air, air & truck	11	3	14	4	6	10
Intermodal	1,292	195	1,505	191	2,598	334
Pipeline & unknown	905	3,772	4,991	3,934	7,172	6,936

Key: R = revised.
Intermodal includes U.S. Postal Service and courier shipments and all intermodal combinations, except air and truck. Intermodal also includes outgoing exports and imports that move between ports and interior domestic locations by modes other than water.
Pipelines and unknown shipments are combined because data on region-to-region flows by pipeline are statistically uncertain.
Data do not include inbound and outbound shipments that pass through the United States from a foreign origin to a foreign destination by any mode.
Notes: The 2007 data are provisional estimates, which are based on selected modal and economic trend data. Methods used to develop these estimates have improved over time, and as a consequence, previously released annual provisional estimates are superseded by the 2007 estimates in this table. Numbers may not add to totals due to rounding.



Freight Performance Measures

- Speed and reliability of truck movements
 - 500,000 trucks as probes on Interstate Highways and at major border crossings
 - Web tool for state DOTs and MPO's in 2009
- Other freight performance measures being developed through the NCFRP



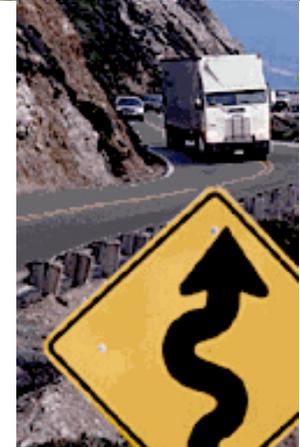
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Performance Measurement Program, 2008.

Freight Performance Measures

“... that which is produced in one place to be consumed in another; the capacity of each locality for producing a greater surplus; the natural means of transportation, and their susceptibility for improvement; the hindrances, delays, and losses of life and property during transportation, and the causes of each ...”

A. Lincoln, *speech in favor of public improvements to transportation*, 1848

Thank you.



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