

Transportation Research Board Committee for the Study of Freight Rail Transportation and Regulation

Federal Railroad Administration

May 29, 2014



SAFETEA-LU Section 9007 Study

- Conduct a comprehensive study of the Nation's railroad transportation system since the enactment of the Staggers Rail Act of 1980. The study shall address and make recommendations on—
 1. the performance of the Nation's major railroads regarding service levels, service quality, and rates;
 2. the projected demand for freight transportation over the next two decades and the constraints limiting the railroads' ability to meet that demand;
 3. the effectiveness of public policy in balancing the need for railroads to earn adequate returns with those of shippers for reasonable rates and adequate service; and
 4. the future role of the Surface Transportation Board in regulating railroad rates, service levels, and the railroads' common carrier obligations, particularly as railroads may become revenue adequate.



Population and Freight Growth



Studies project dramatic growth in population which will drive increased passenger mobility needs

25 years

70 million more people

40 years

100 million more people



The freight transportation system must move **40 tons of freight per person per year** (including bulk commodities such as coal and grains as well as high-value consumer goods)

25 years

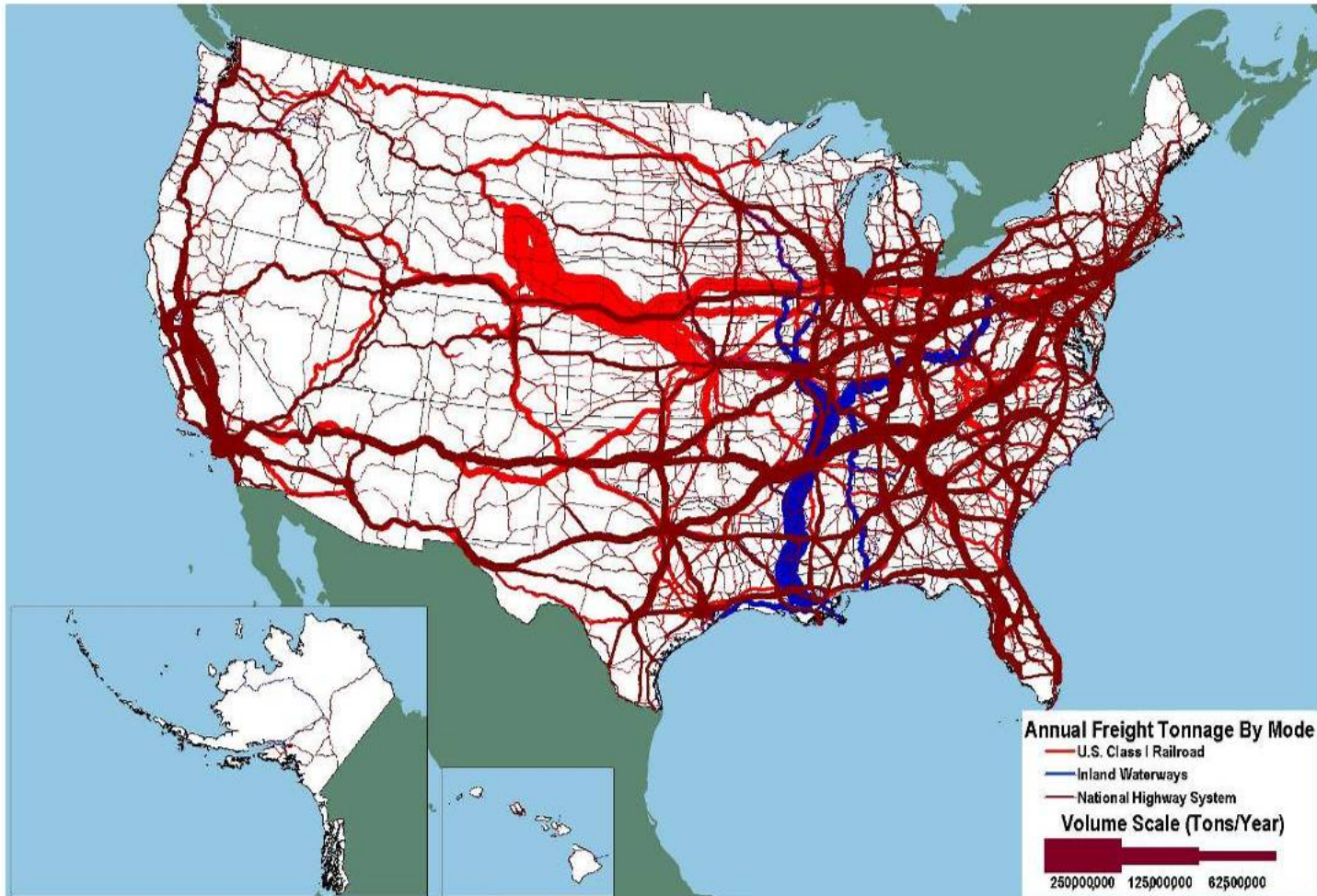
2.8 Billion tons more

40 years

4 Billion tons more



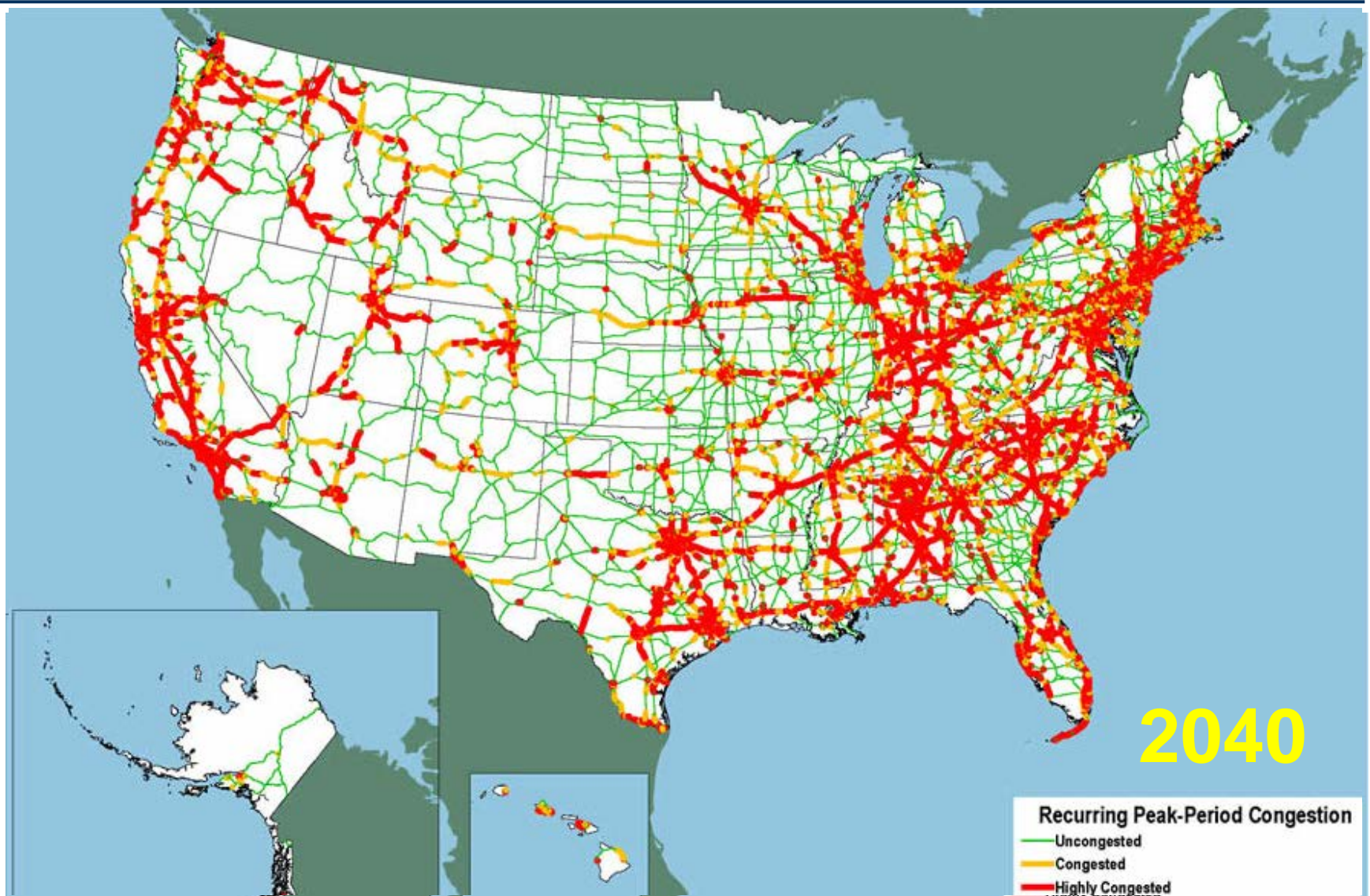
U.S. Freight Flows



Sources: Highways: U.S. Department of Transportation, Federal Highway Administration, Freight Analysis Framework, Version 2.2, 2007. Rail: Based on Surface Transportation Board, Annual Carload Waybill Sample and rail freight flow assignments done by Oak Ridge National Laboratory. Inland Waterways: U.S. Army Corps of Engineers (USACE), Annual Vessel Operating Activity and Lock Performance Monitoring System data, as processed for USACE by the Tennessee Valley Authority; and USACE, Institute for Water Resources, Waterborne Foreign Trade Data. Water flow assignments done by Oak Ridge National Laboratory.



Projected Highway Congestion



Rail's Role in Transportation Network: Freight Potential

The potential advantage of different modes with respect to weight and distance.

		Intercity Distance in Miles			
		0-250	250-500	500-2000	>2000
Weight	Retail Goods / Light	Truck	Truck	Truck Rail Intermodal	Truck Rail Intermodal
	Consumer Durables- Other Manufactured Goods / Moderate	Truck Rail	Truck Rail Intermodal Rail	Truck Rail Intermodal Rail	Truck Rail Intermodal Rail
	Bulk Goods / Heavy	Truck Rail Water	Truck Rail Water	Rail Water	Rail Water



*The various modes of transport are ranked in each of the cells by the comparative efficiency of each.

Truck Rail Intermodal Market Share

Truck and Rail Intermodal in Markets 500 Miles and Greater

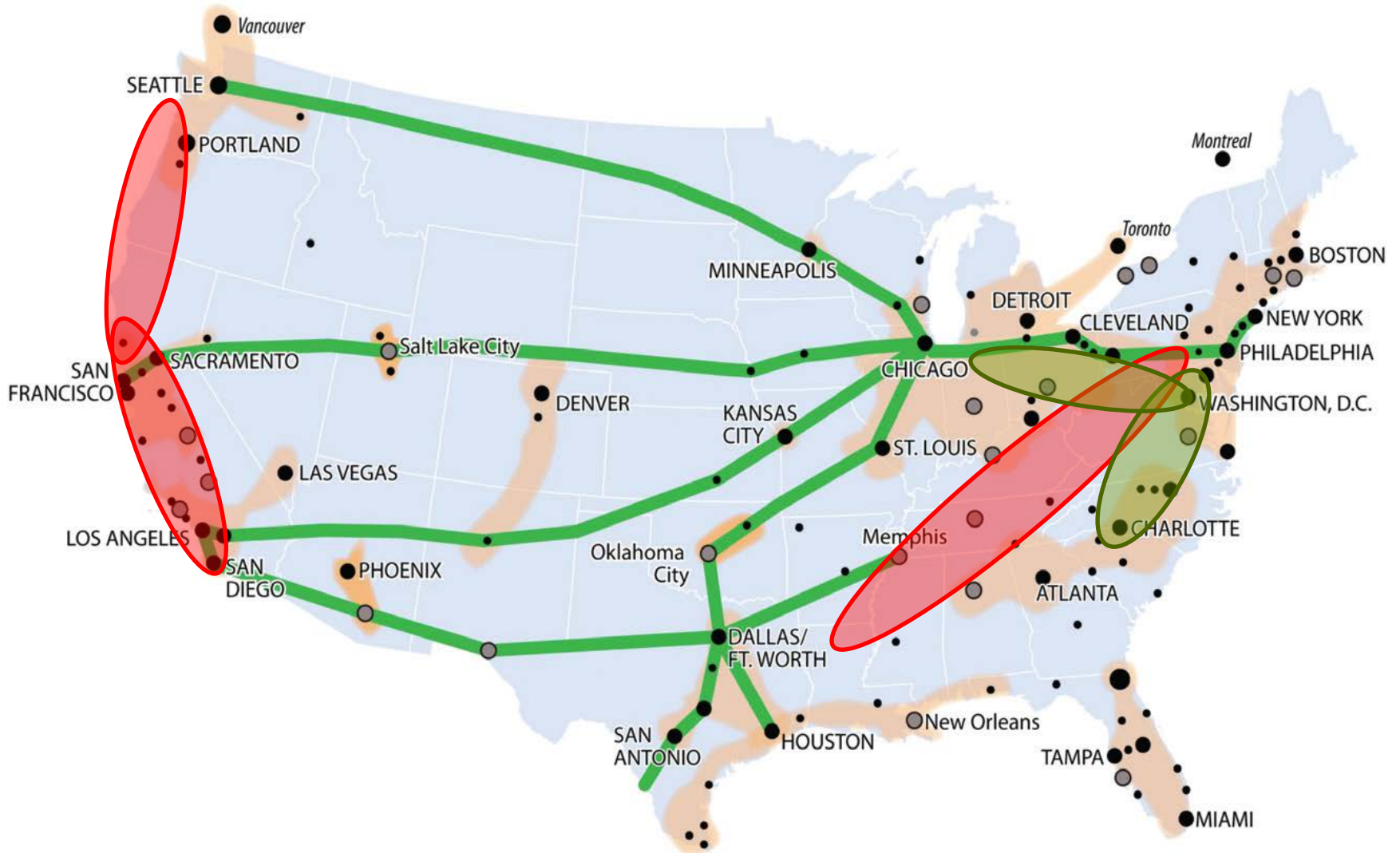
Mileage Blocks	Truck	Rail Intermodal	Total Market	Truck Share	Rail Share
500 to 749	17.8	1.2	19.0	94%	6%
750 to 999	10.1	2.3	12.4	82%	18%
1000 to 1499	7.7	2.0	9.7	79%	21%
1500 to 2000	3.7	2.1	5.8	63%	37%
>2000	2.8	4.9	7.7	36%	64%
Total	42.1	12.5	54.6	77%	23%

Millions of units

Source: Assessment of 2007 Commodity Flow Survey and 2007 Rail Carload Waybill Sample

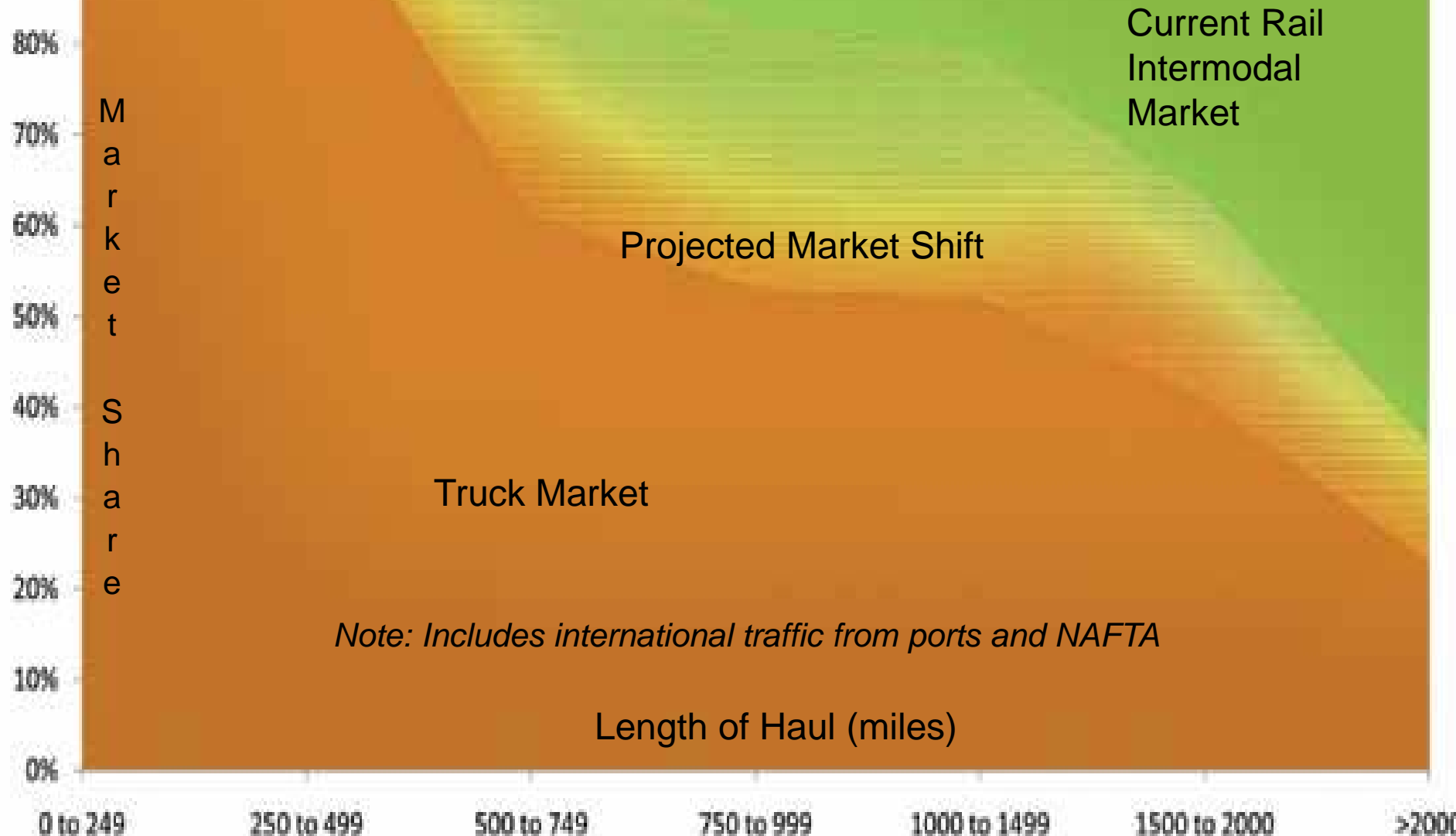


Top Intermodal Corridors



■ % truck ■ % intermodal conversions ■ % rail

Projected Market-Share by Mileage Block with Rail Intermodal at 50 Percent (Year 2035)



Current Rail
Intermodal
Market

Projected Market Shift

Truck Market

Note: Includes international traffic from ports and NAFTA

Length of Haul (miles)

M
a
r
k
e
t

S
h
a
r
e

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

0 to 249 250 to 499 500 to 749 750 to 999 1000 to 1499 1500 to 2000 >2000

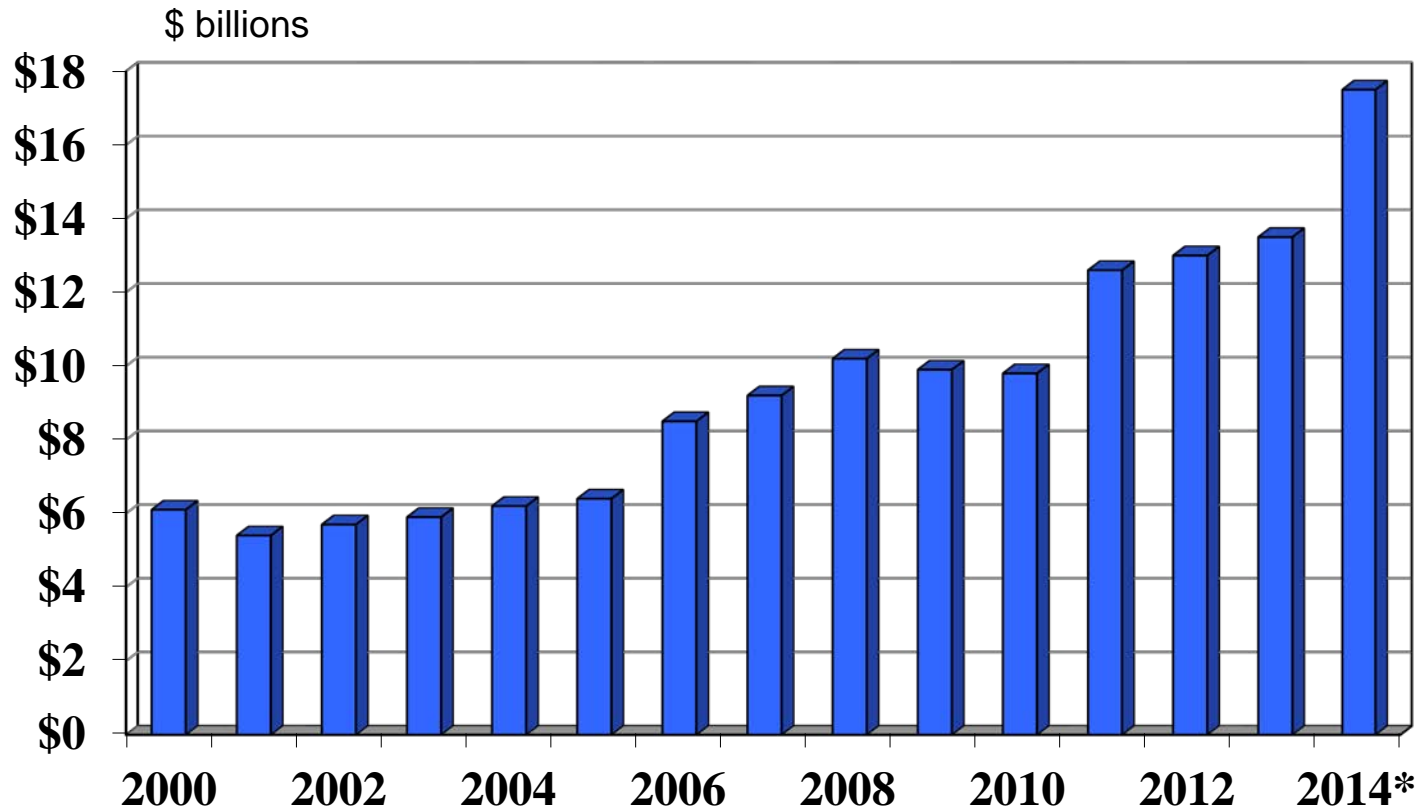
Who Will Make Infrastructure Investments for the Future?

Highways

- **U.S. has 63,000 bridges that need significant repair; local governments turn to Congress (Washington Post—April 24, 2014)**
- **Based on current spending and revenue trends, the U.S. Department of Transportation estimates that the Highway Account of the Highway Trust Fund will encounter a shortfall before the end of this fiscal year (FY)**



Class I Railroad Capital Expenditures



Source: Association of American Railroads

*2014 Preliminary (Trade Press)



Rail Transportation Benefits

Safety

Accidents/Injuries/Fatalities - That Can Be Avoided

Economic Competitiveness

Energy, Infrastructure, and Shipper Savings - Passed on to the Public

Sustainability

Huge Fuel Savings and CO₂ Emissions Avoided

Livability

Reduced Congestion, Reduced Interaction with the Public

State of Good Repair

Reduced Wear & Tear and Need for Public Costs to Repair/Replace

