

AASHTO Freight Transportation Bottom Line



presented to

“A Meeting of the Modes”

Florida Transportation Commission

presented by

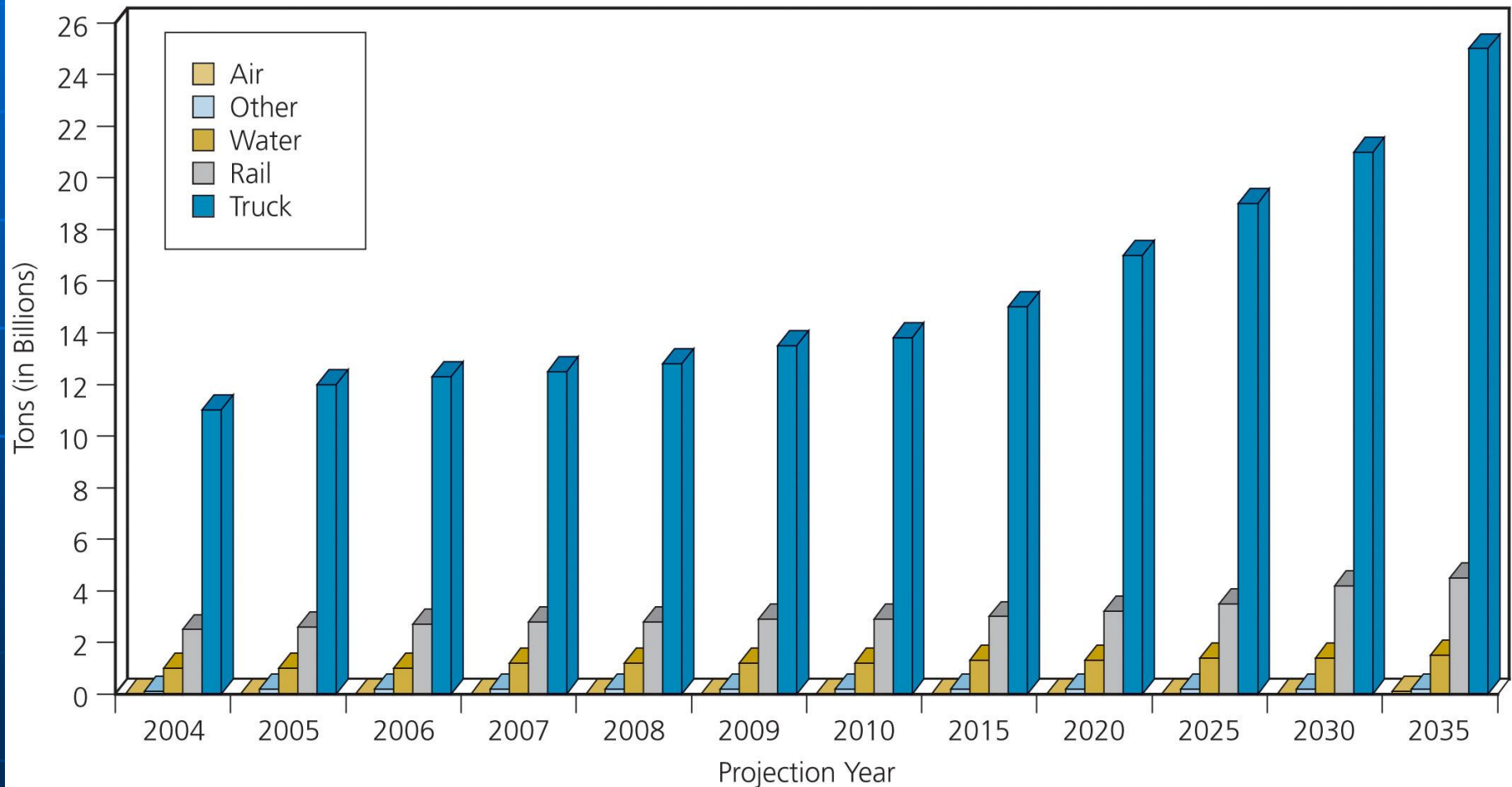
John Horsley

February 13, 2007

Projected Freight Ton Growth by Mode

2004-2035

Projected Freight Ton Growth by Mode, 2004-2035



Freight Demand

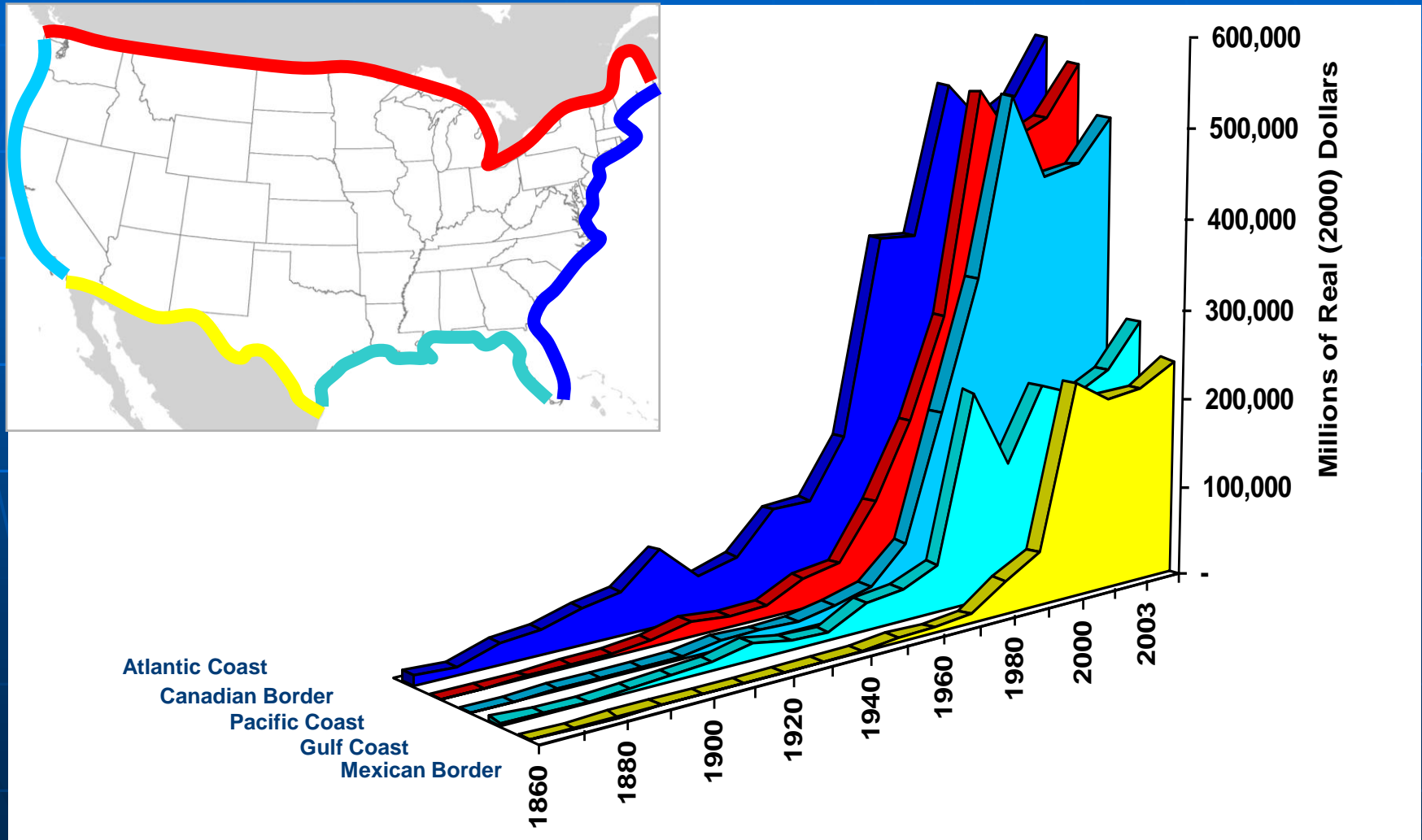
The four major drivers behind the increasing freight demand are –

- Consumption
 - Population growth
- Production
 - Expanding durable and non-durable goods manufacturing
- Trade
 - Import and export growth
- Supply Chain Practices
 - Changing logistics strategies



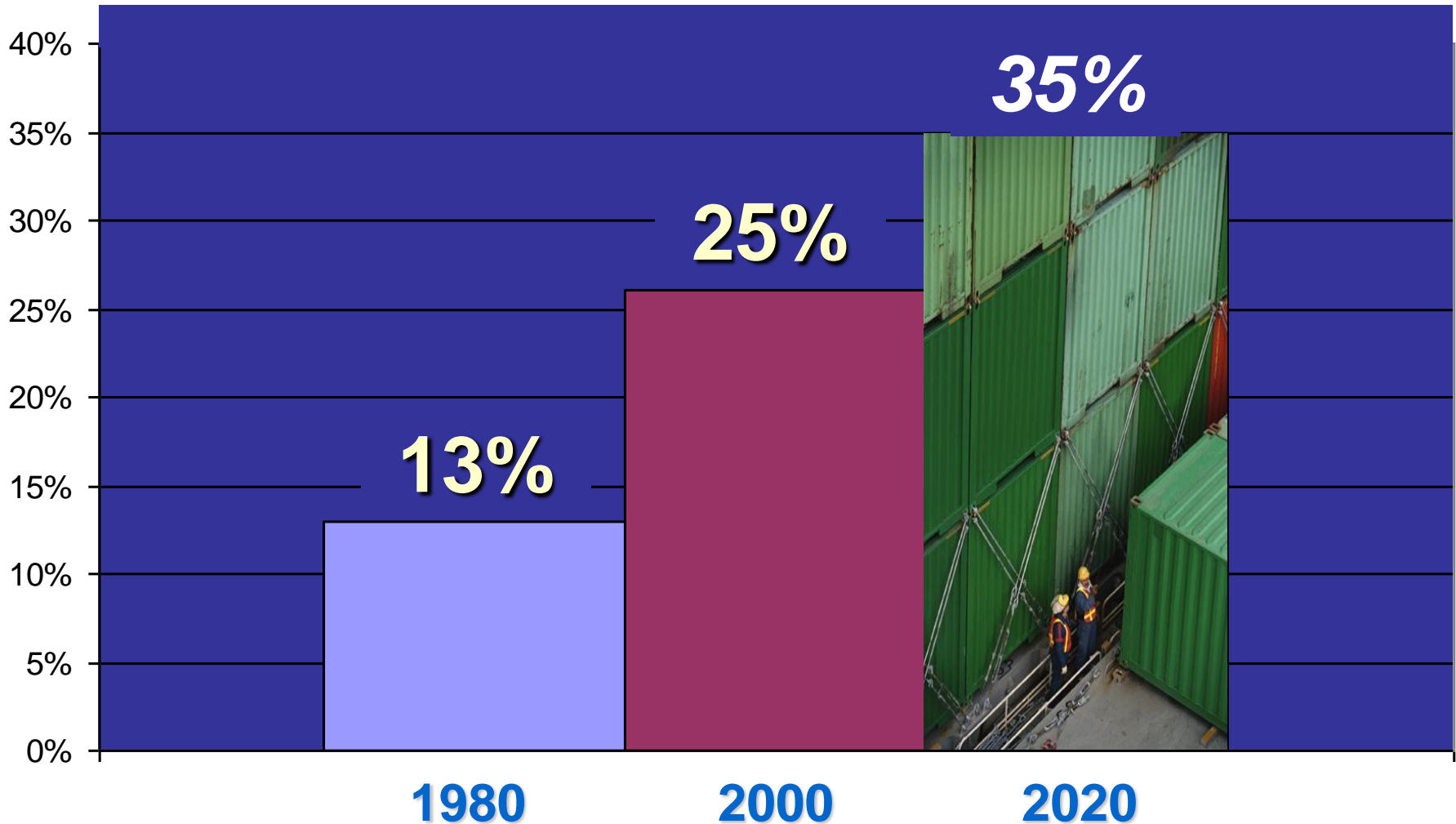
Trade Growth, 1860 to 2005

The value of U.S. trade—measured in constant dollars by coast and land border—has grown rapidly over the last 30 years



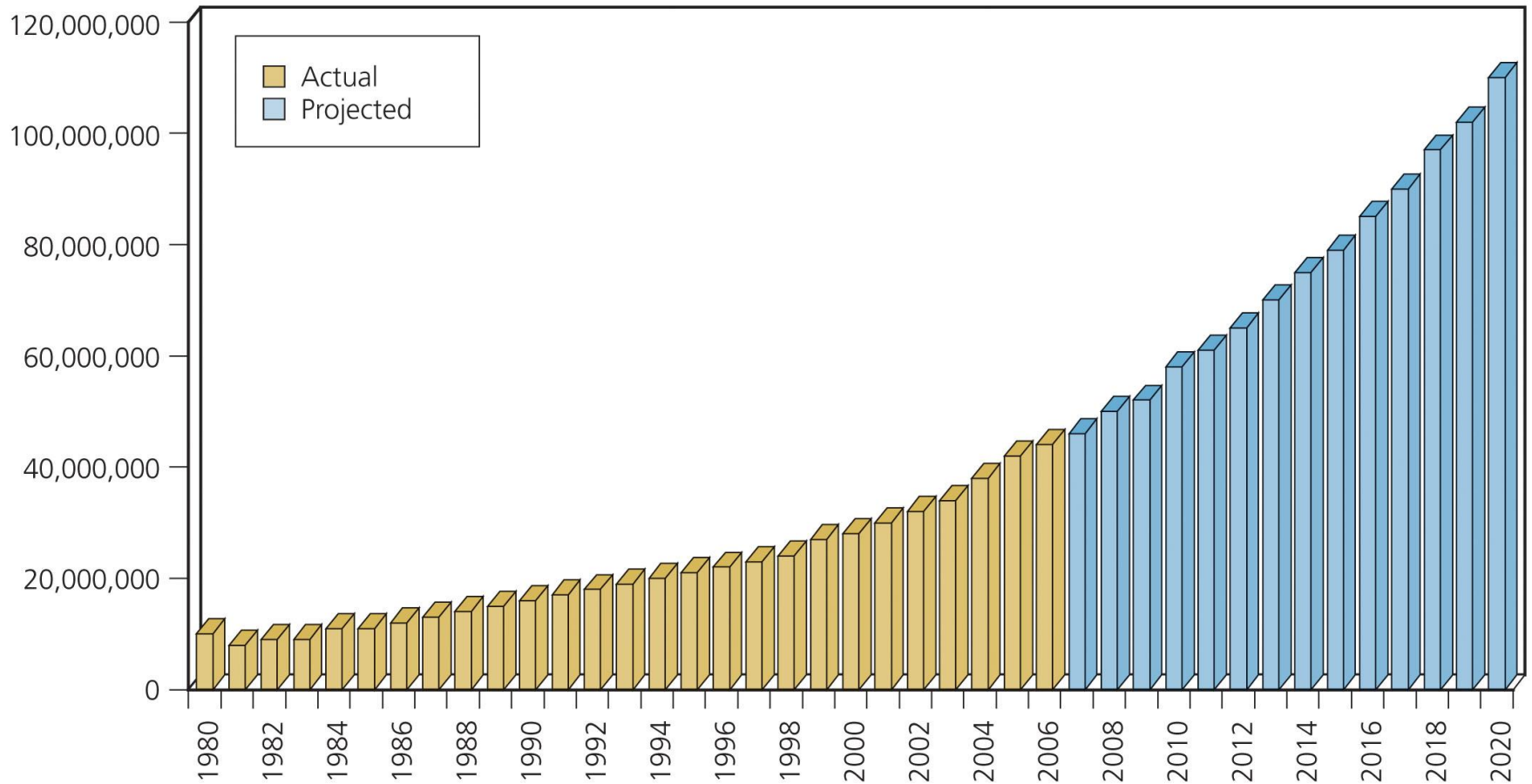
Trade Growth

Growth in Trade as a Percentage of US GDP



Historic and Projected U.S. Container Traffic (TEUs)

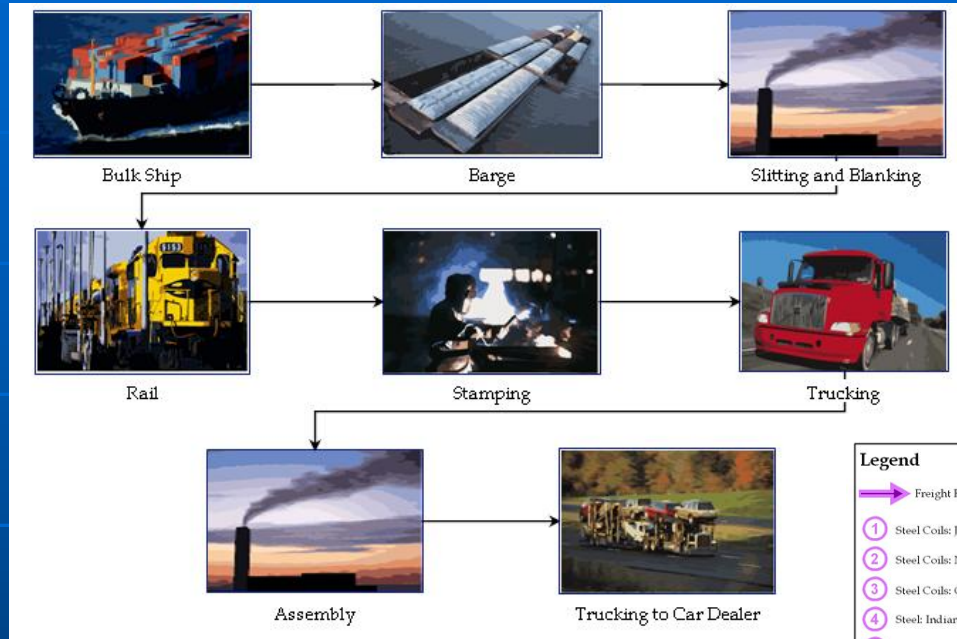
Historic and Projected U.S. Container Traffic (TEUs)



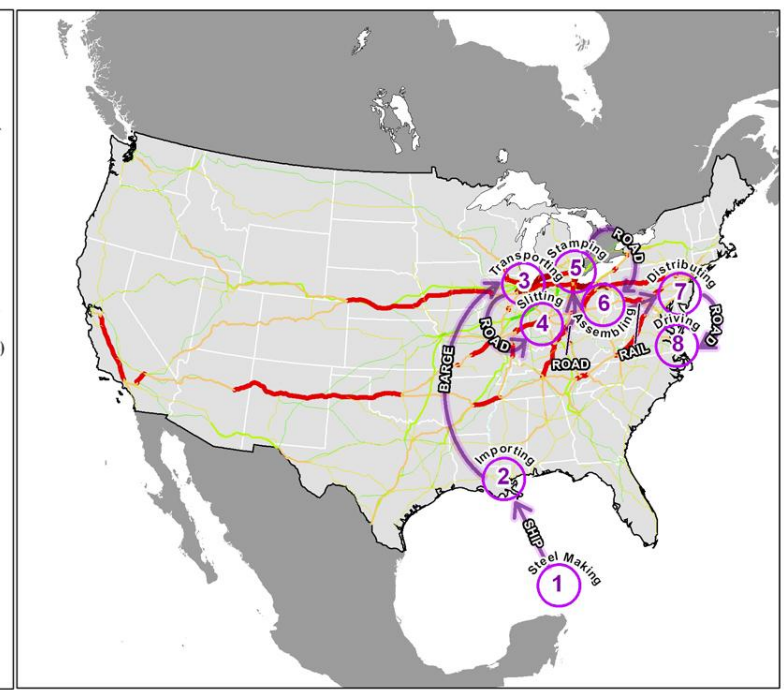
Source: Cambridge Systematics.

New Automobile Supply Chain

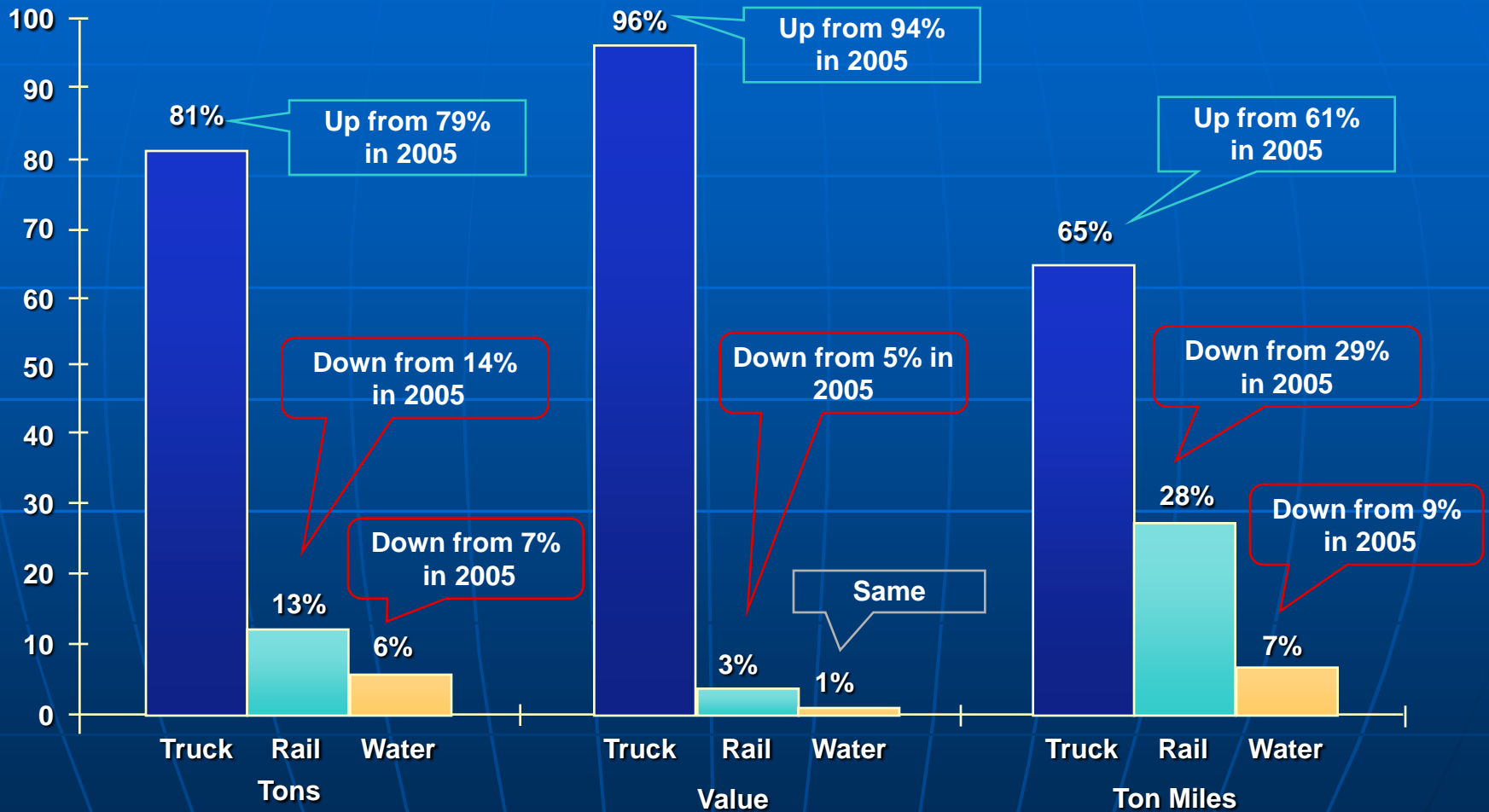
Many supply chains depend on tightly integrated international and domestic freight moves to keep inventory and product costs down



Source: Boston Logistics Group and Cambridge Systematics, Inc



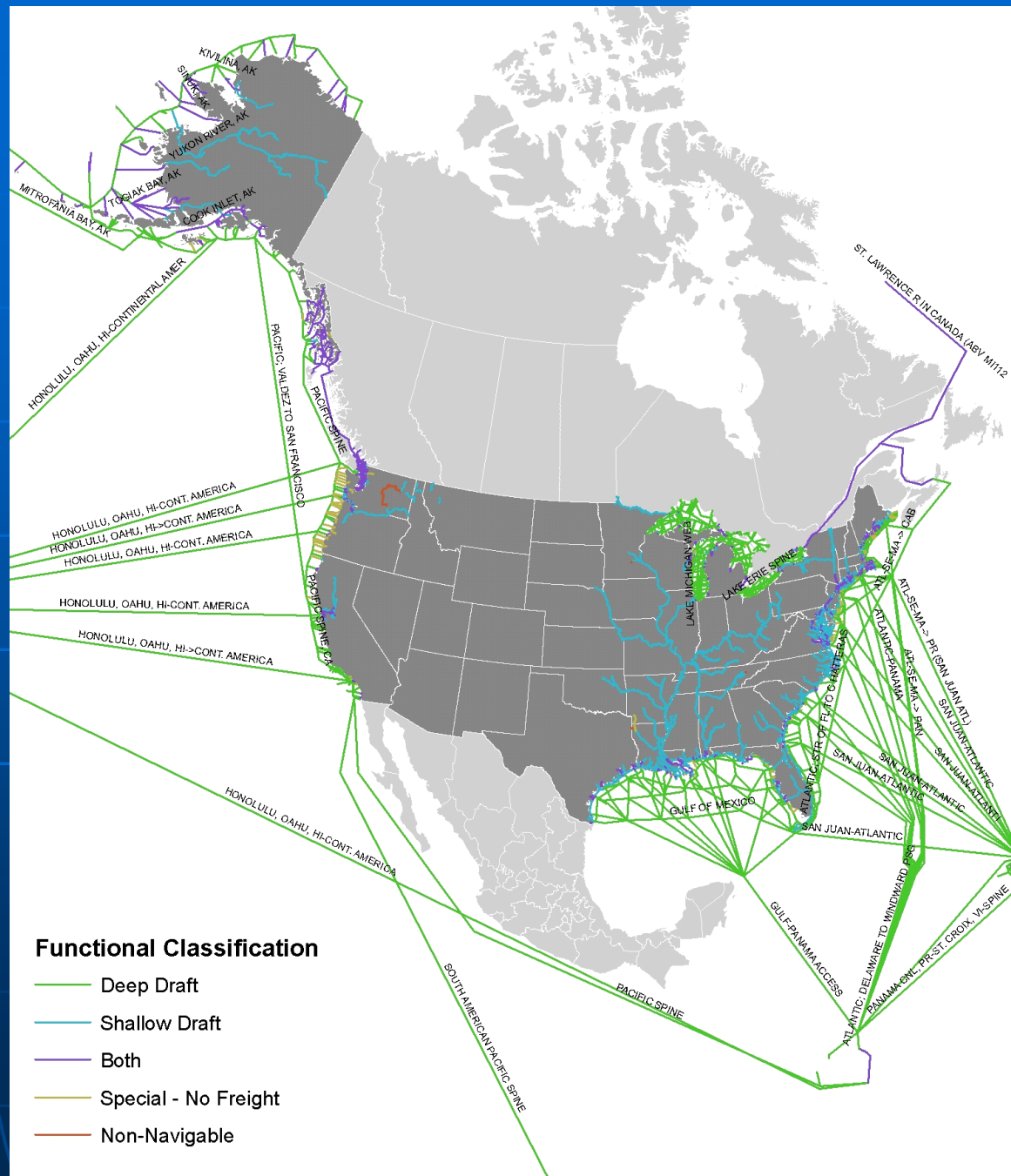
Freight Tons, Value, Ton-Miles by Mode, 2035



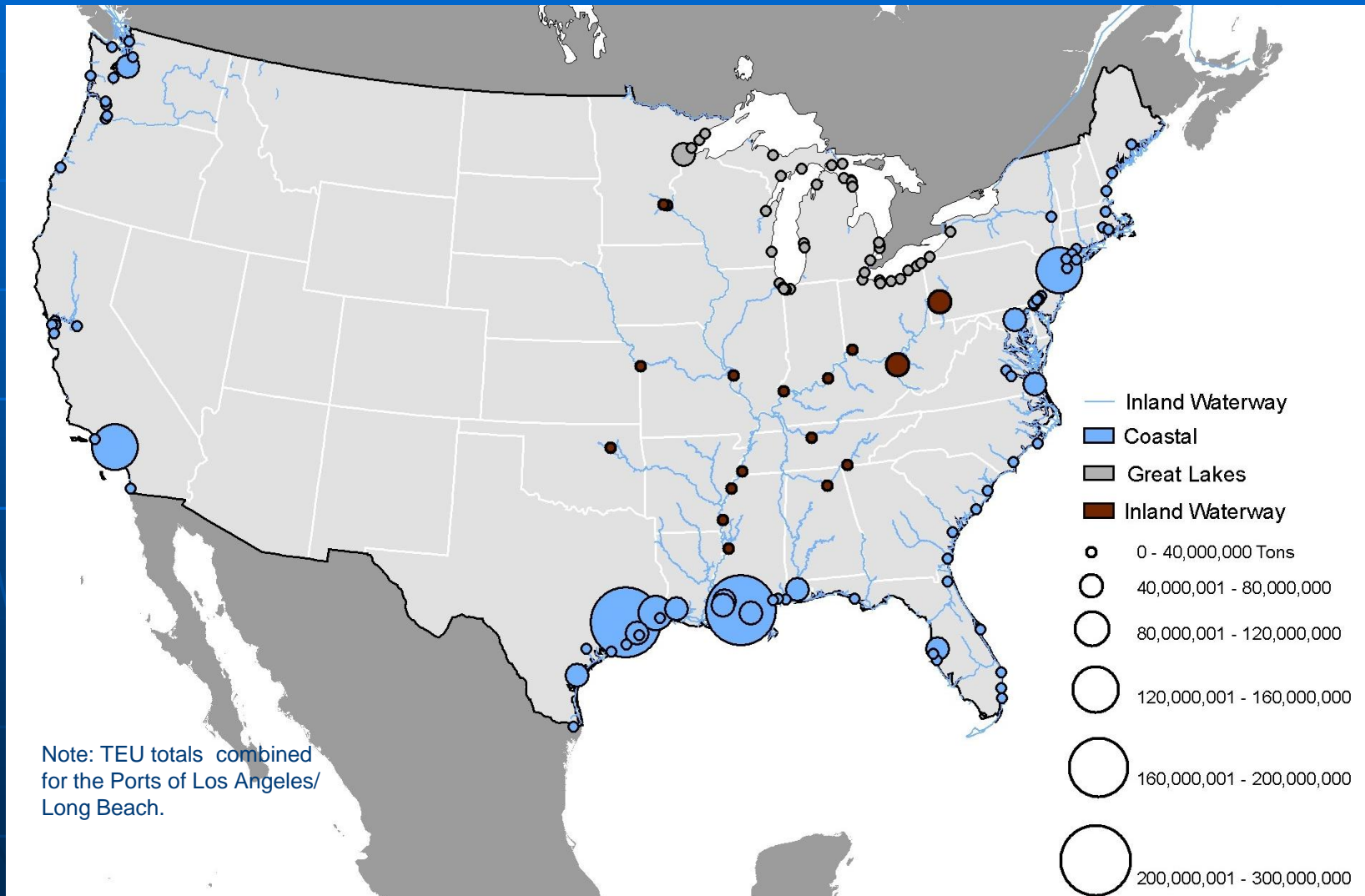
Source: Global Insight, Inc, TRANSEARCH 2004 data and economic forecasts

Waterborne Freight Network

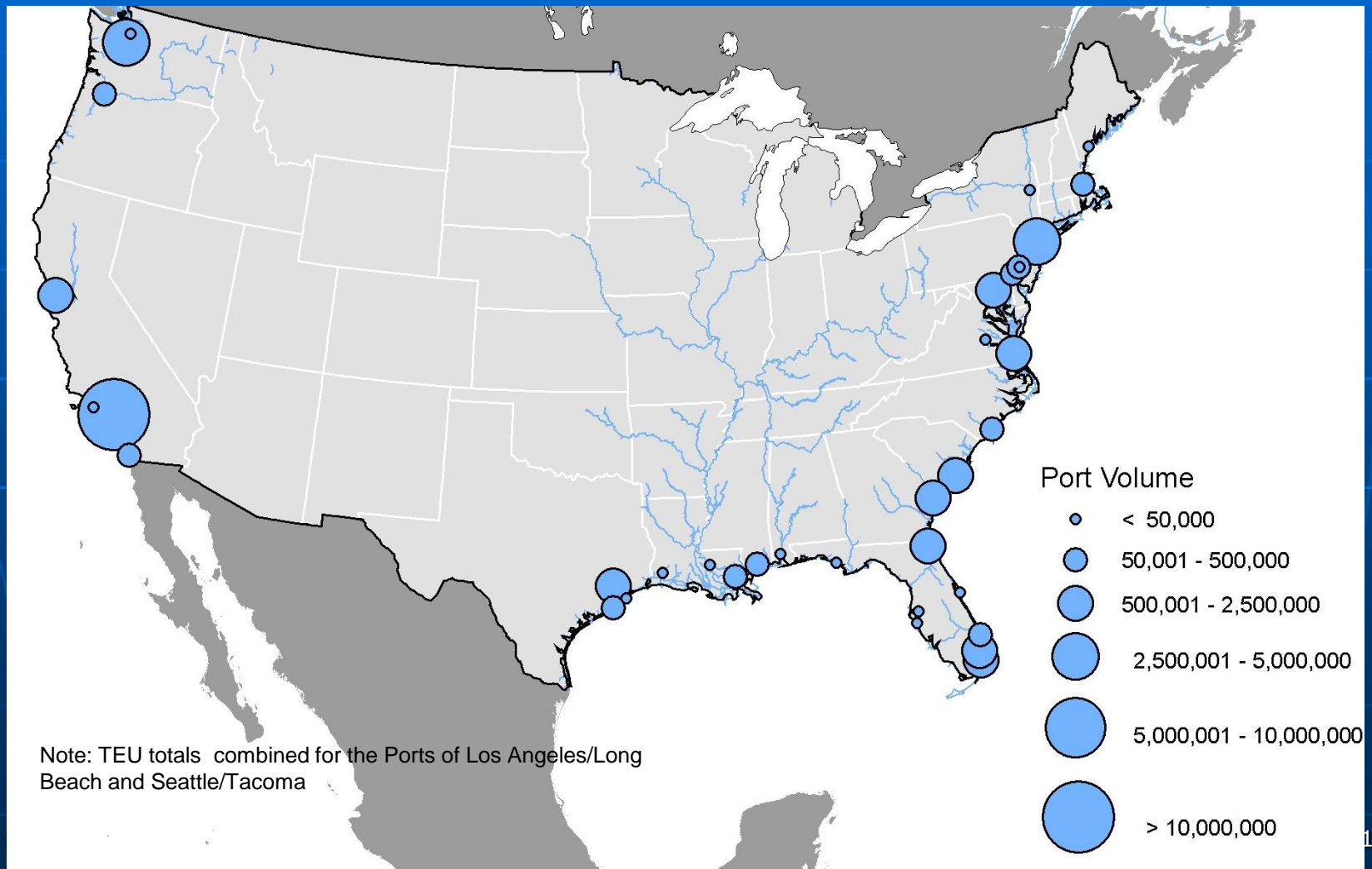
- Coastal System
- Great Lakes and St. Lawrence System
- Inland System



U.S. Ports by Tonnage, 2004



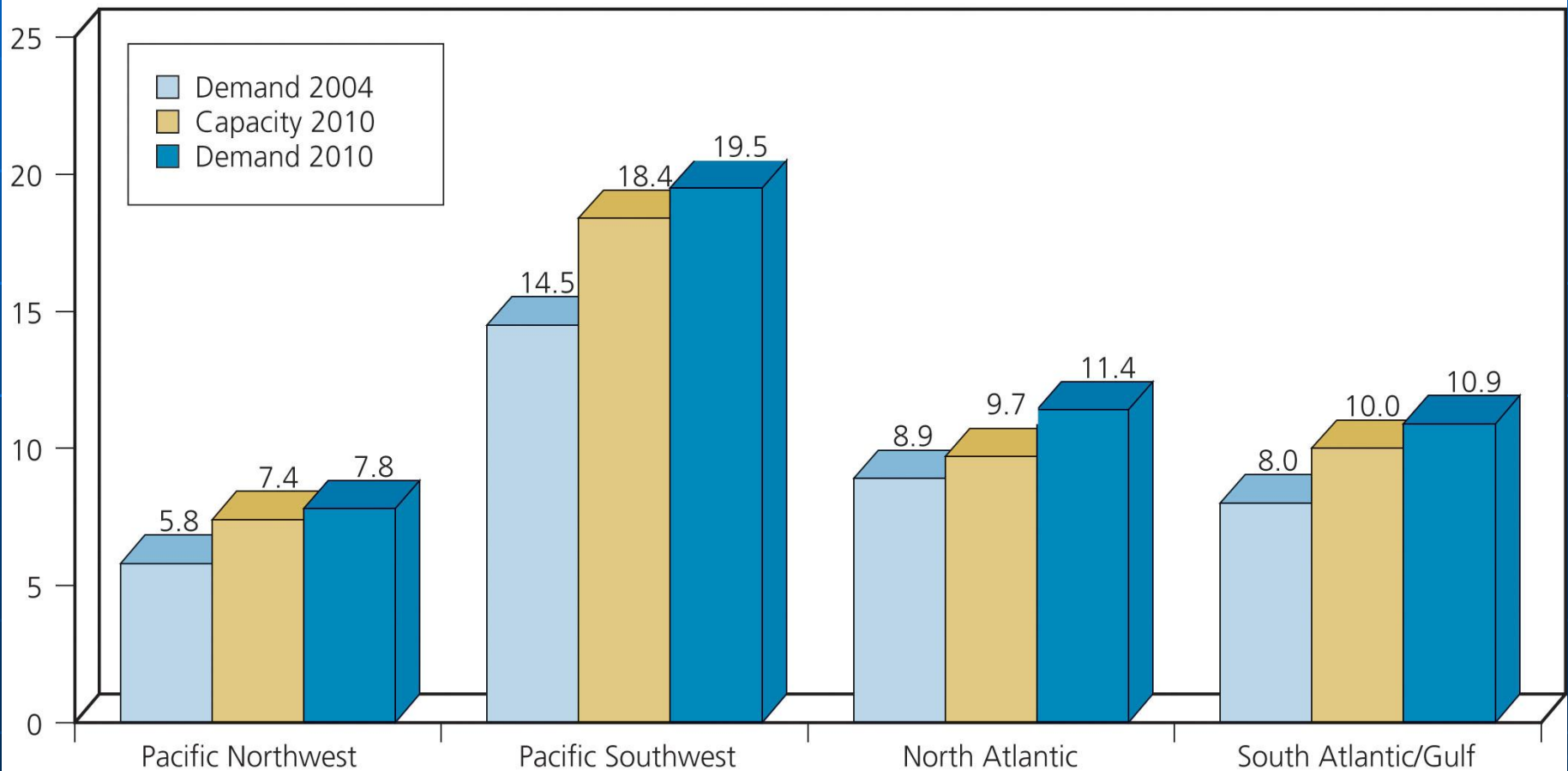
U.S. Ports by Container (TEU) Volume, 2005



Source: Cambridge Systematics based on American Association of Port Authorities data.

Port and Terminal—Forecast Capacity/Demand

Port and Terminal—Forecast Capacity/Demand
(Millions of Twenty-Foot Equivalent Container Units)



Source: Modern Terminals Limited.

Highlights of Panama Canal Expansion

- \$5.2 Billion Construction cost
- Expansion will double current capacity
- Targeted completion date 2014

Current Lock Dimensions

110 feet wide
1,000 feet long



Expanded Lock Dimensions

189 feet wide
1,400 feet long

Current Limits

4,400-TEU vessels

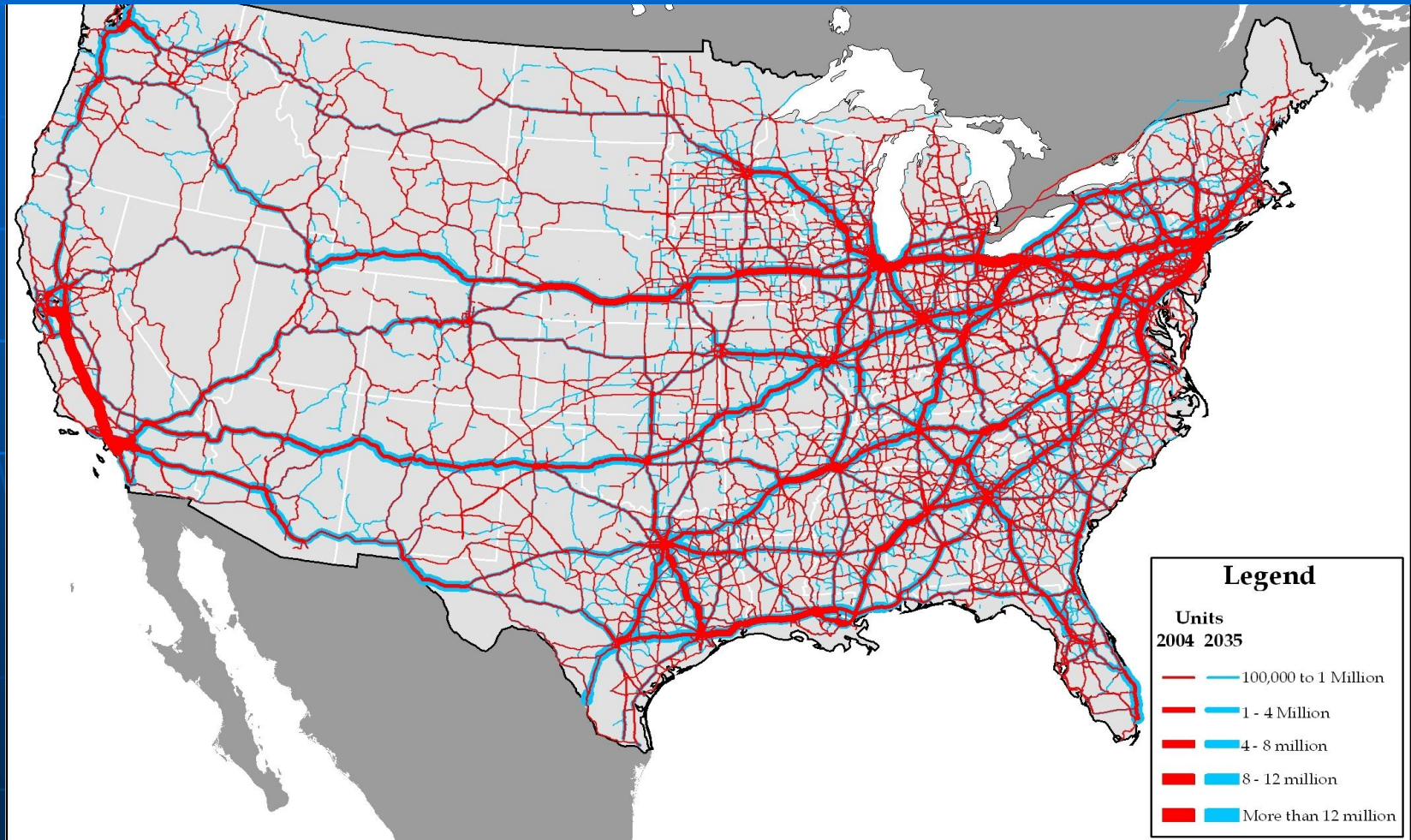


Expanded Limits

12,000-TEU vessels

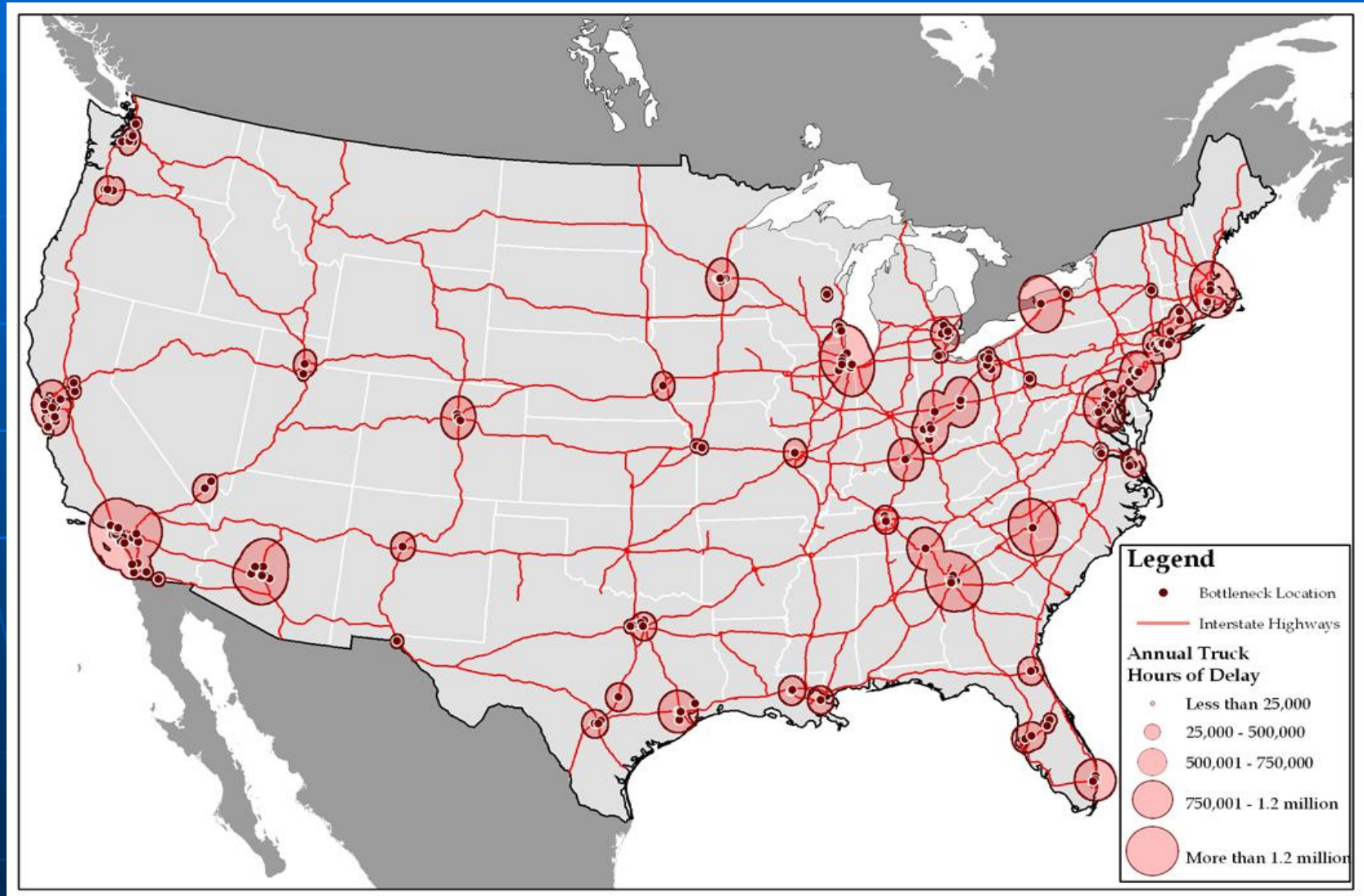


Freight-Truck Highway Flows in 2005 and 2035

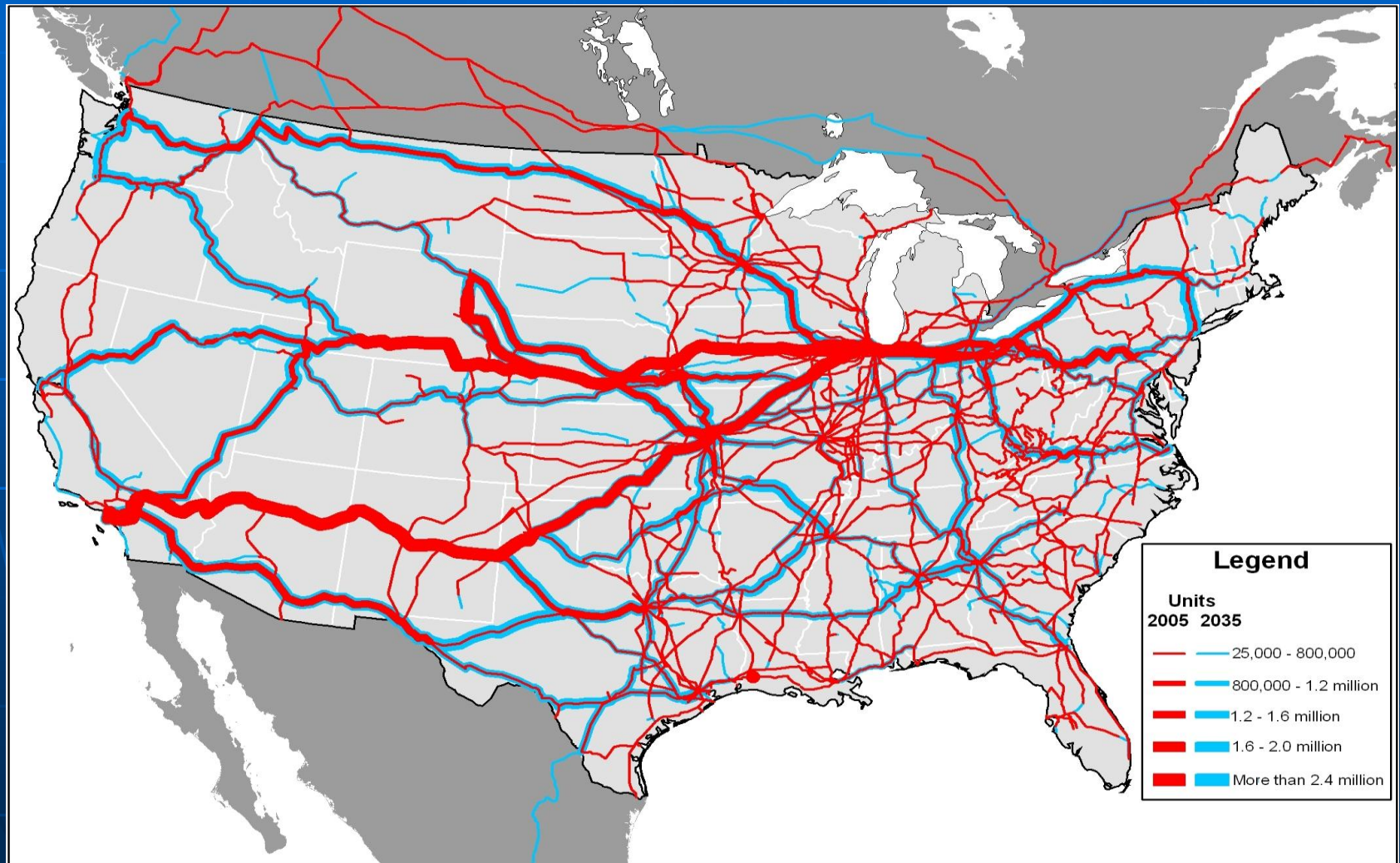


Source: Cambridge Systematics based on Global Insight, Inc TRANSEARCH 2004 data and economic forecasts

Major Freight-Truck Bottlenecks, 2004



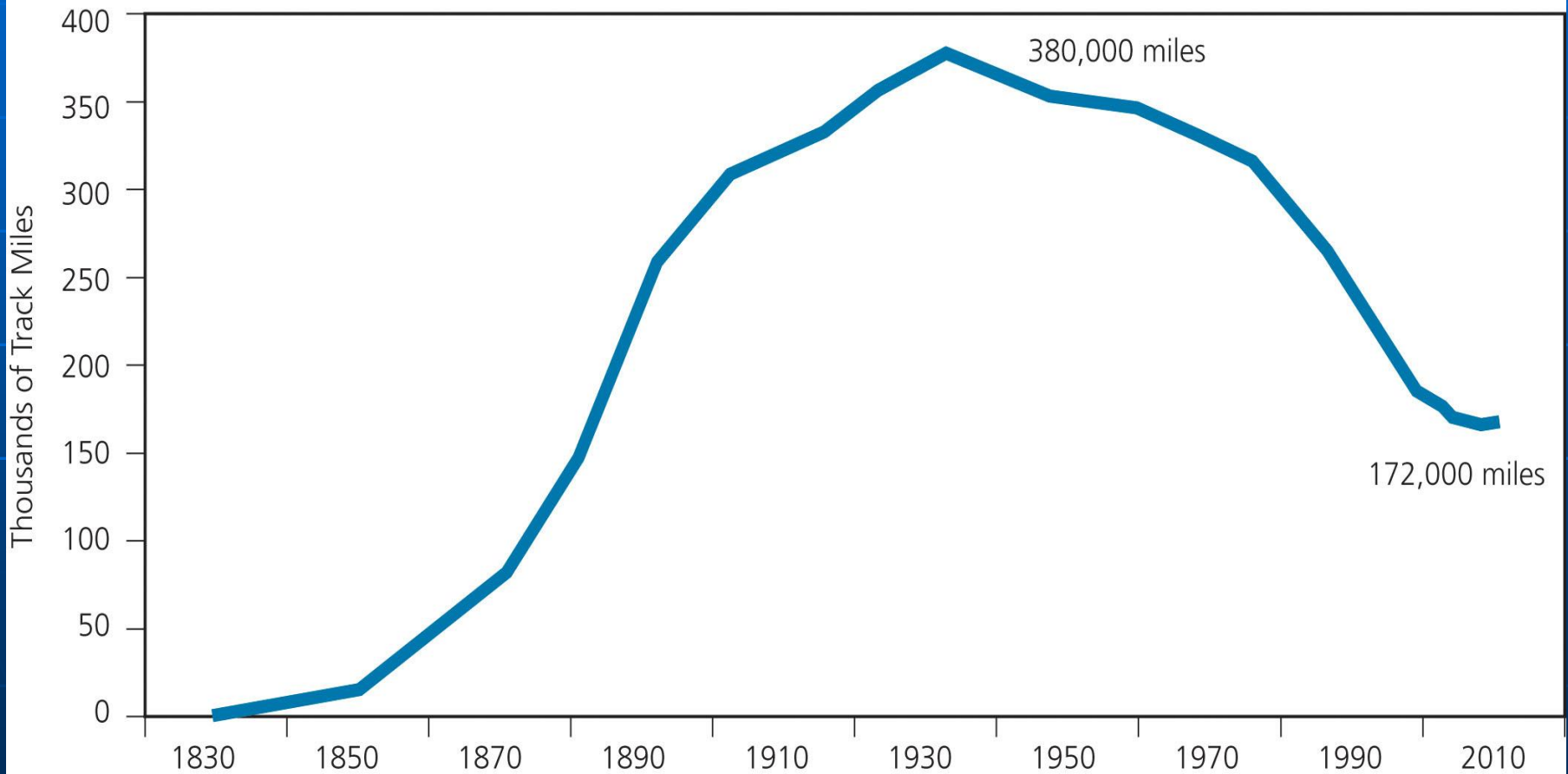
Rail Flows in 2005 and 2035



Source: Cambridge Systematics based on Global Insight, Inc TRANSEARCH 2004 data and economic forecasts

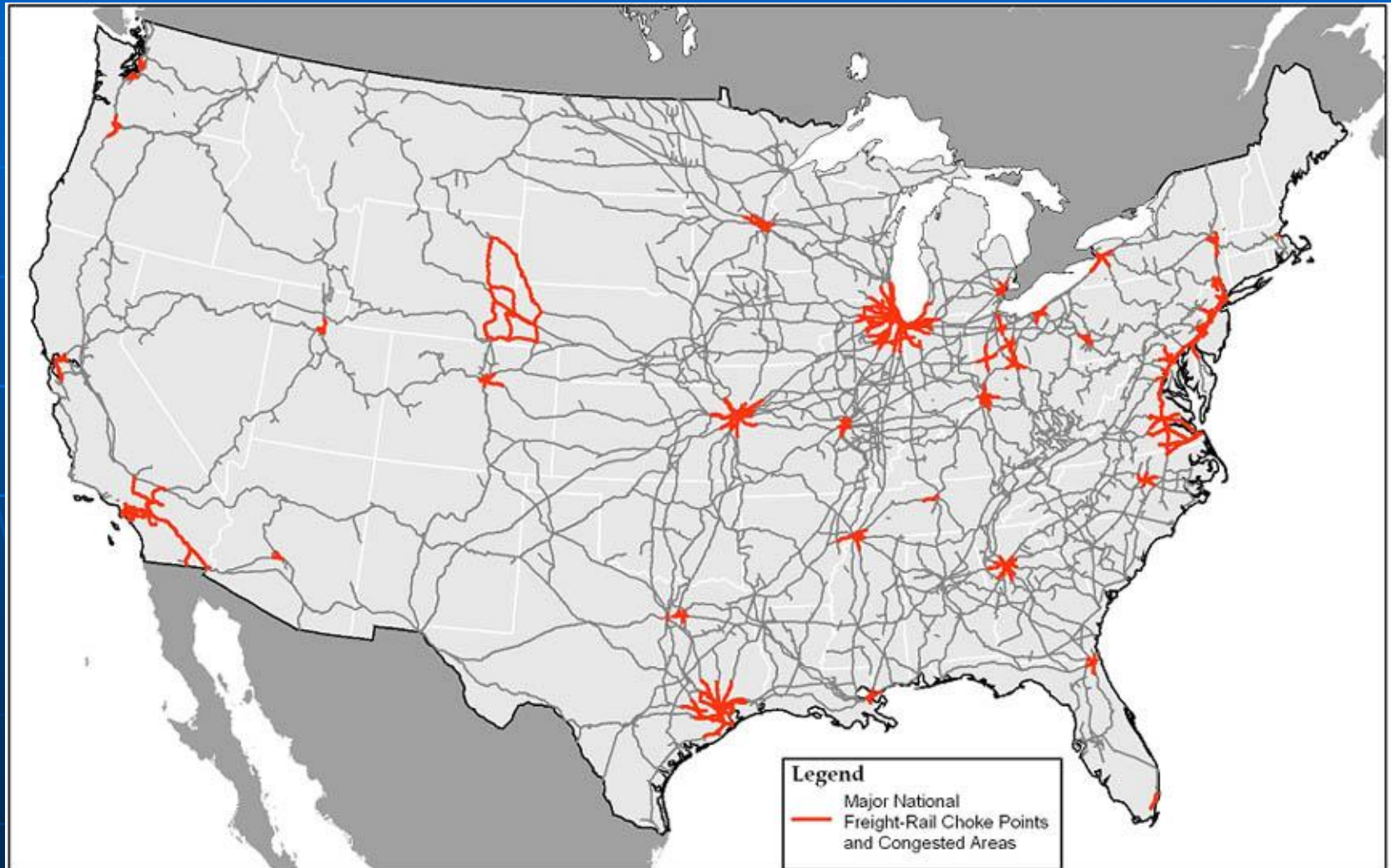
Rail Network TODAY

Rail Network Today



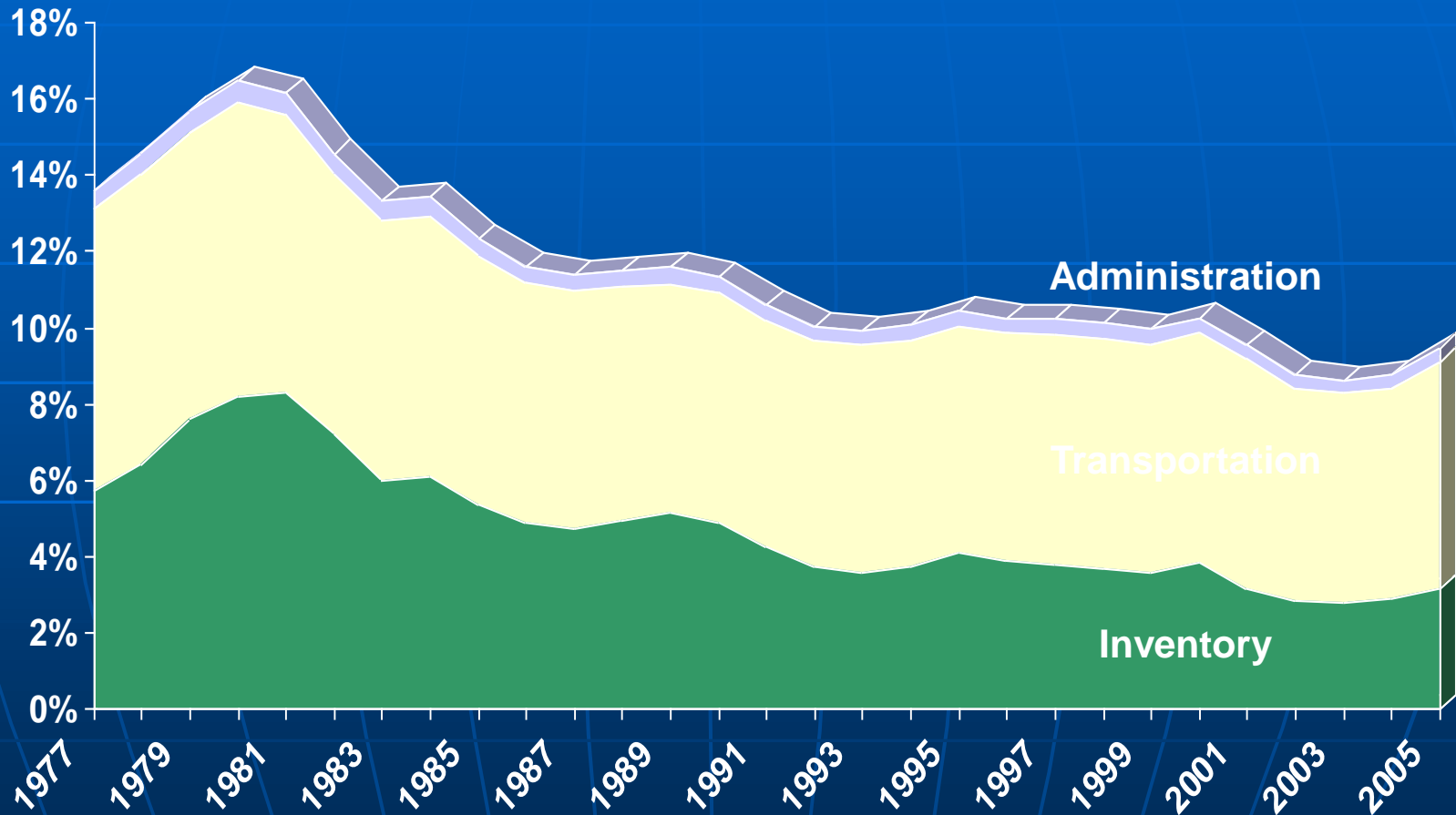
Major Freight-Rail Choke Points and Congested Areas, 2006 *(preliminary)*

Railroad choke points—locations with recurring congestion & delay



Total Logistics Cost

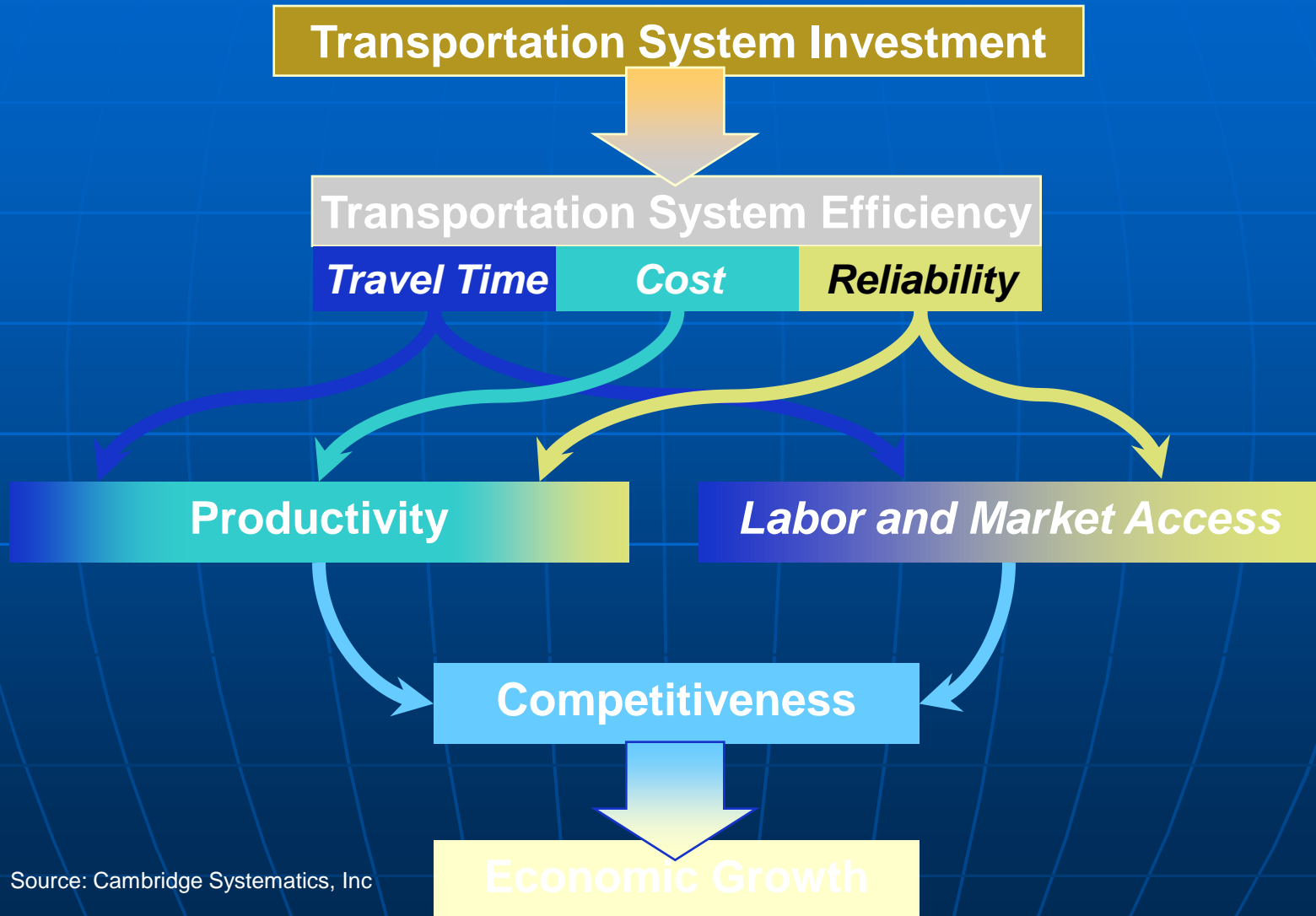
Percentage of U.S. Gross Domestic Product



Source: Rosalyn A. Wilson, *State of Logistics Report*, Council of Logistics Management, 2006

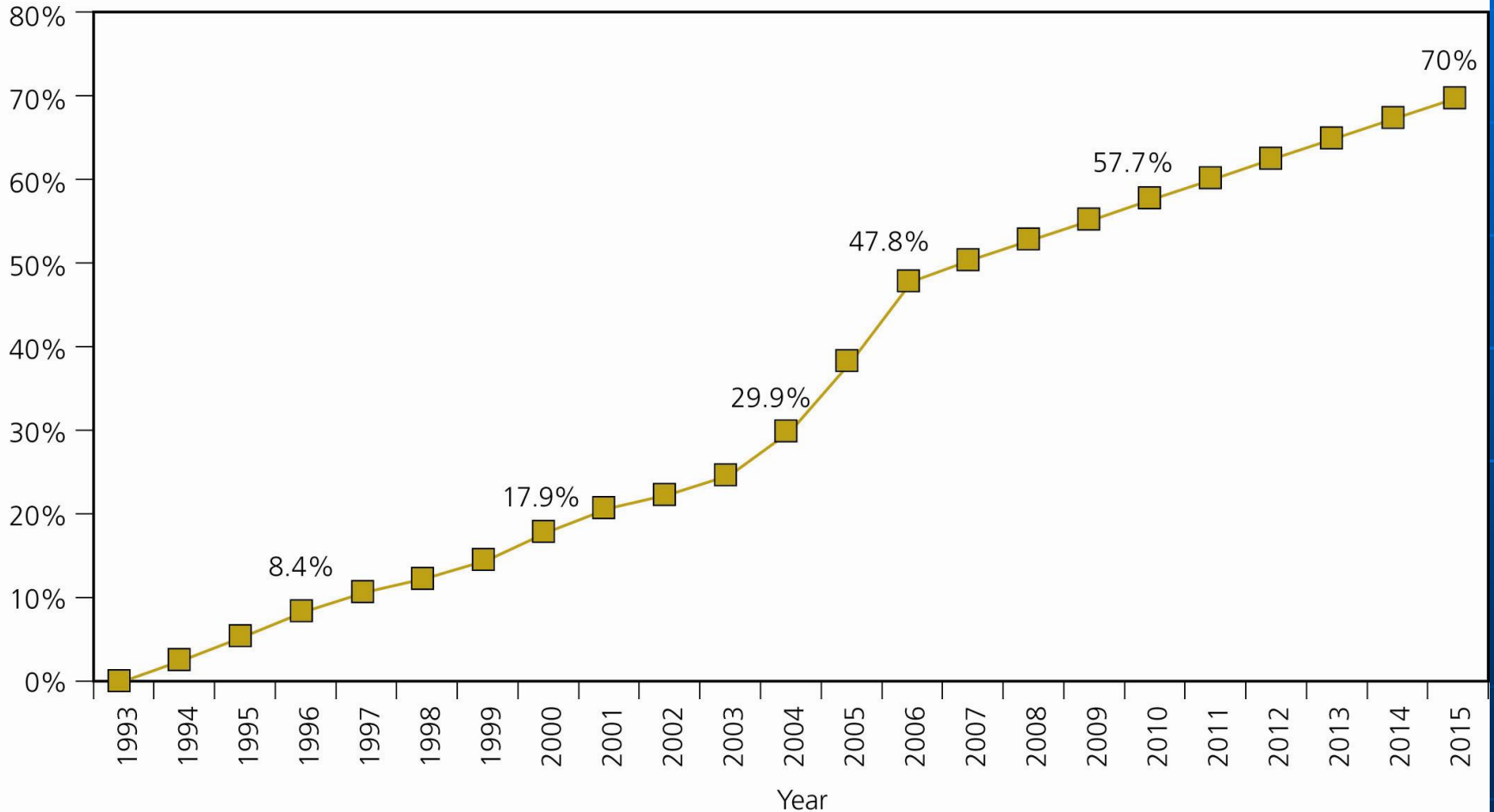
Economic Effects of Transportation

Transportation investments improve industry productivity and access to markets, resulting in greater competitiveness and growth



Percentage Increases in Construction Costs 1993-2015

Percentage Increases in Construction Costs 1993–2015

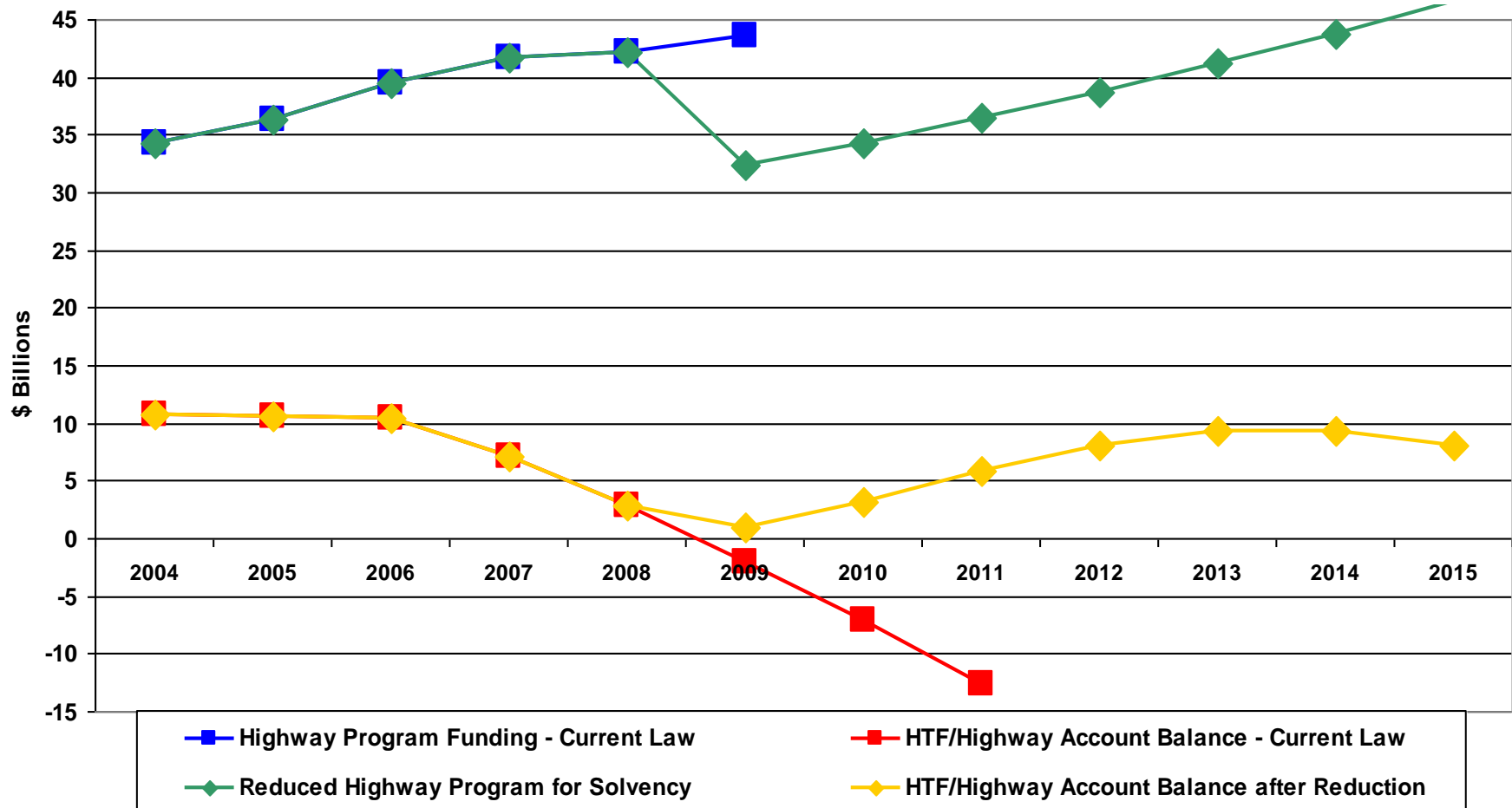


Note: Projected change from 2007 to 2015 based on the Consumer Price Index.
Data for 2004 to 2006 based on the Producer Price Index for highway construction.

Public Investment Bad News

The federal program may be in crisis by 2008.

Highway Program Funding Faces an Immediate Crisis



Restoring the Federal Program's Purchasing Power

This will require the program to be increased from \$43 billion to \$73 billion.

To do this will require a 10 cent increase in the federal fuel tax or its equivalent between 2010 and 2015.



Future Freight Financing Alternatives*

- % of Customs Fees for Port and Intermodal Investments
- Container or Freight Fee
- Transportation Finance Corporation
- Investment Tax Credit for New Rail Capacity
- Public-Private Partnerships

** In addition to traditional industry sources.*

Public Sector Freight Issues

- No clear and consistent description of the freight transportation system, its performance, and investment needs
- Insufficient public sector knowledge of freight transportation and supply chain management and their importance to businesses and economic growth
- Lack of coordinated public and private actions on freight transportation policies, programs, and finance, and
- Lack of public sector focus on transportation operations

AASHTO Freight Transportation Network



www.freight.transportation.org