The Public Sector Takes a Fresh Look at Railroads

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US Department of Transportation
Federal Railroad Administration

Summary

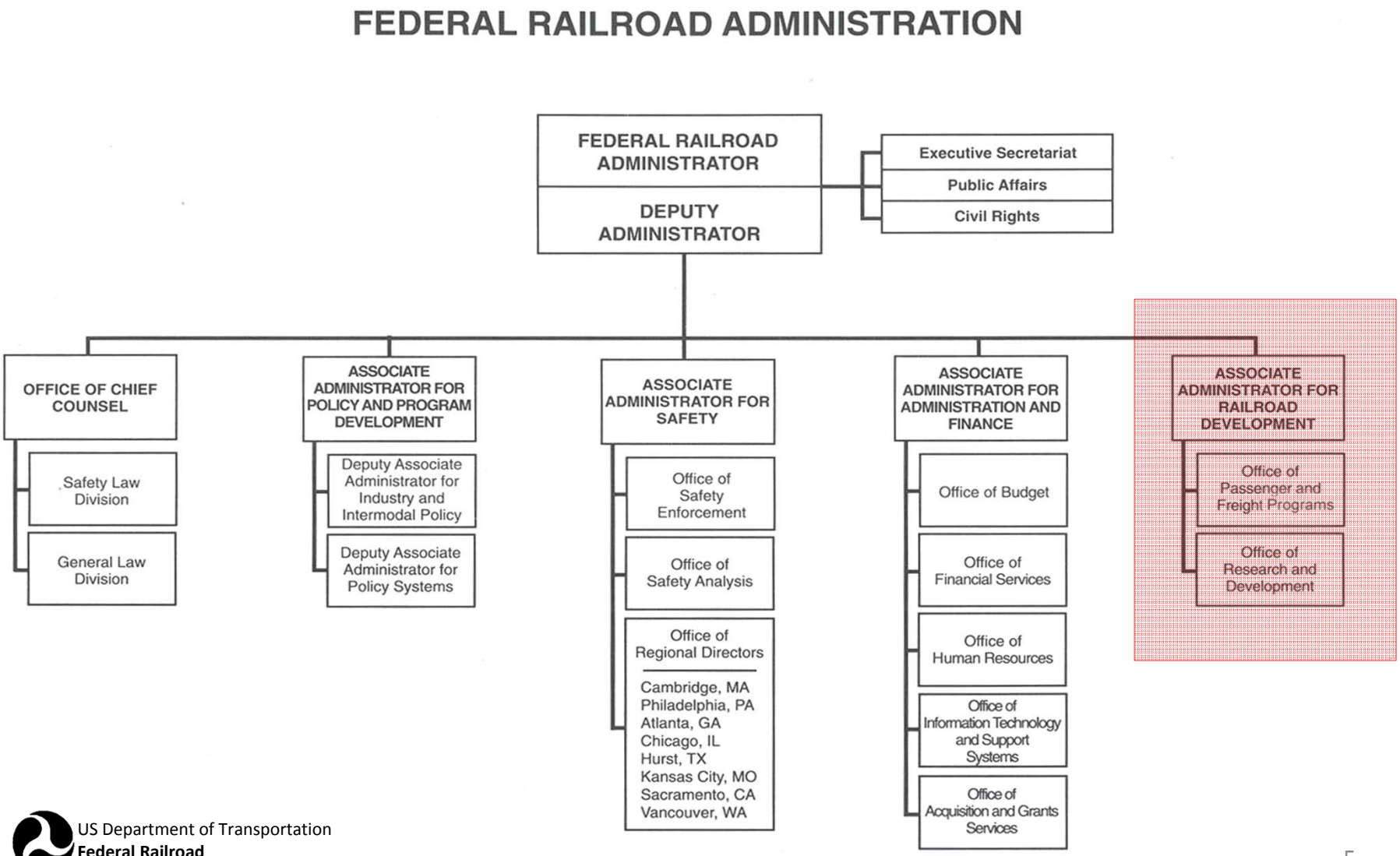
In the United States, the public sector, in particular the Federal and State governments, have generally treated railroads different from other forms of transportation. Highways, aviation, inland waterways and transit have been viewed from the perspective of public works deserving of public investment. Railroads on the other hand, have been viewed from a commerce perspective requiring public regulation, with limited exceptions in times of crisis, arrangements driven by political compromise, or in efforts to preserve some minimal level of service. The Obama Administration proposes a significant shift, with a stronger role for rail transportation supported by levels of public investment on a par with other forms of transportation. The seminar will review the background on this policy shift and discuss the strategic approach proposed by the President to expand the role of high-speed intercity passenger rail transportation in the U.S., and some of the challenges this proposal will face on the track to success.

Outline

- Introduction
- Some observations on changes in the rail industry
- Why rail interests public policy decision makers today
- Obama Administration's approach to rail transportation
- Challenges
- Questions

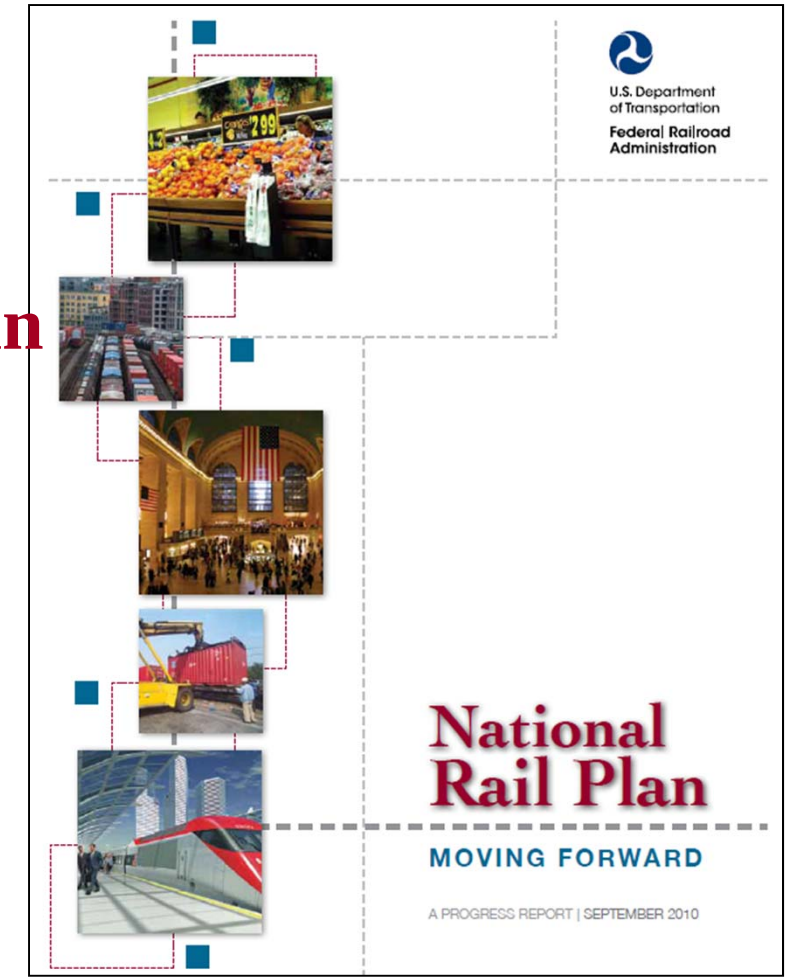
Introduction

FRA Overview



Office of Passenger and Freight Programs

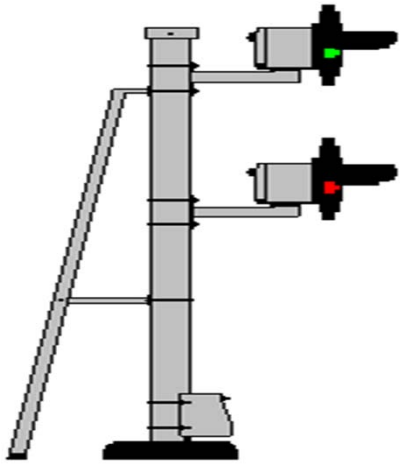
National Rail Plan
A Progress Report



Office of Research and Development - Disciplines

Track & Rail Infrastructure

Human Factors



Signal & Train Control

Vehicle/Track Interaction

Motive Power & Equipment

Hazardous Materials

Observations on Changes in the Rail Industry

What is Meant By Commerce vs. Public Works

Rail Industry and Regulation Before 1980

1. **Rate Regulation**
   - Regulatory lag
   - Difficult to cover inflation
   - Marketing innovations discouraged
   - No flexible pricing to meet competition

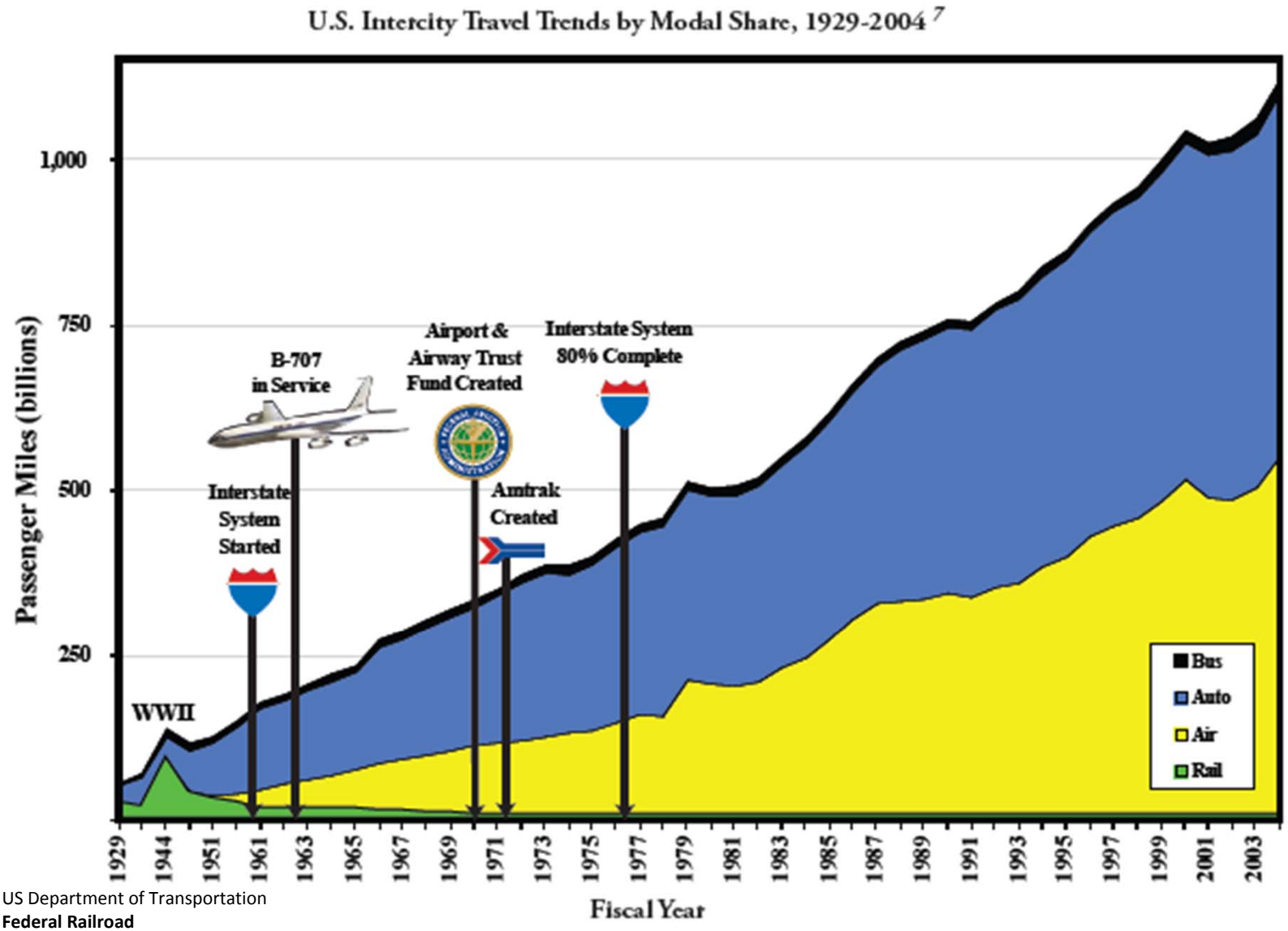
2. **Abandonment**
   - "Public interest" outweighed cost of service
   - Restructuring very difficult

3. **Collective Ratemaking**
   - Rate bureau structure prevented independent action
   - Rate competition discouraged
   - Joint rate revenue shares often non-compensatory

Rail Industry and Regulation Before 1980

- Nine major carriers bankrupt
- Low industry return on investment
- Falling market share
- Rising rates

Rail Travel Decline



Rail Crisis and Congress' Reaction(s)

1. Rail Passenger Service Act of 1970
2. Emergency Rail Services Act of 1970
3. Regional Rail Reorganization (3R) Act of 1973
4. Railroad Revitalization and Regulatory Reform (4R) Act of 1976
5. Milwaukee Road Restructuring Act of 1979
6. Rock Island Railroad Transition and Employee Assistance Act of 1980
7. Staggers Rail Act of 1980
8. Northeast Rail Services Act of 1981

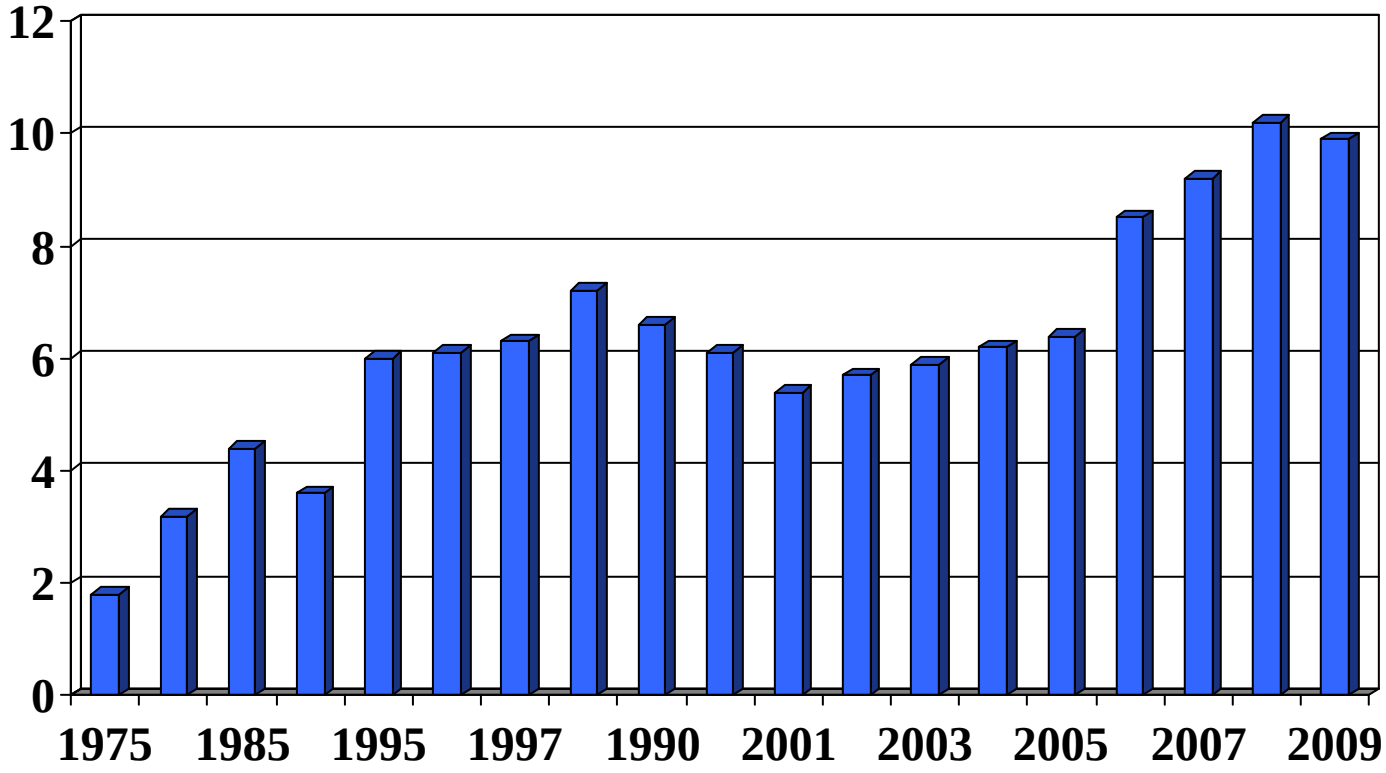
Railroad Crisis Issues In Retrospect

1. Over Built
2. Over Reliant on Out-of-Date Business Model
3. Over Regulated

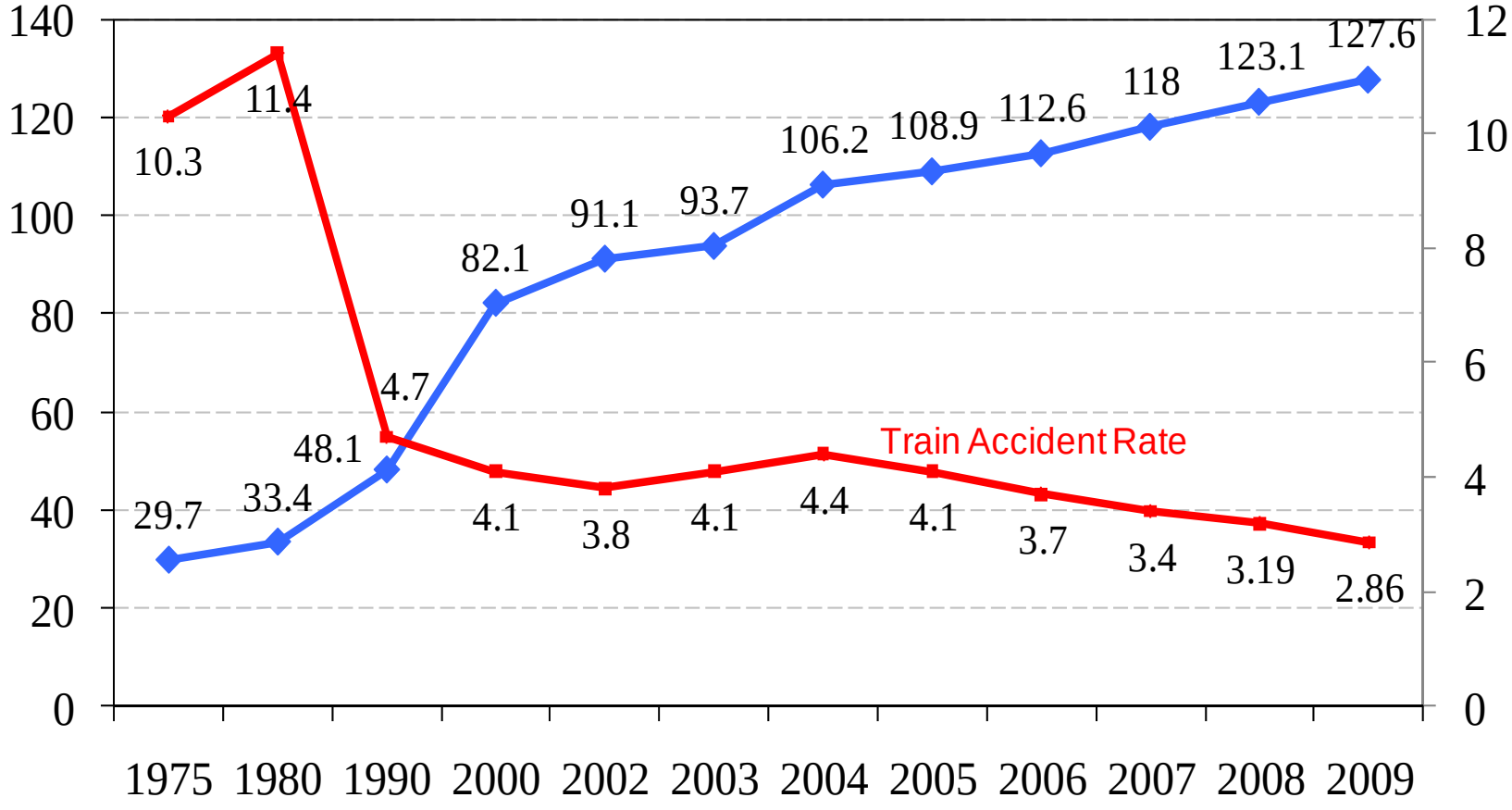
Rail Industry Before and After Staggers

1. Class I number of employees was reduced from 488,000 in 1975 to 164,000 in 2008
2. Class I capital expenditures rose dramatically from $1.8 billion in 1975 to $10.2 billion in 2008
3. Class I return on investment climbed significantly from 1.2% in 1975 to 10.7% in 2008
4. Class I miles of track declined from 311,000 in 1975 to 161,000 in 2008

Class I Railroad Capital Expenditures
($ billions)



U.S. Railroad Net Investment & Train Accident Rate Before and After Staggers



--net investment cumulative in billions of $

--accident rate per million train miles

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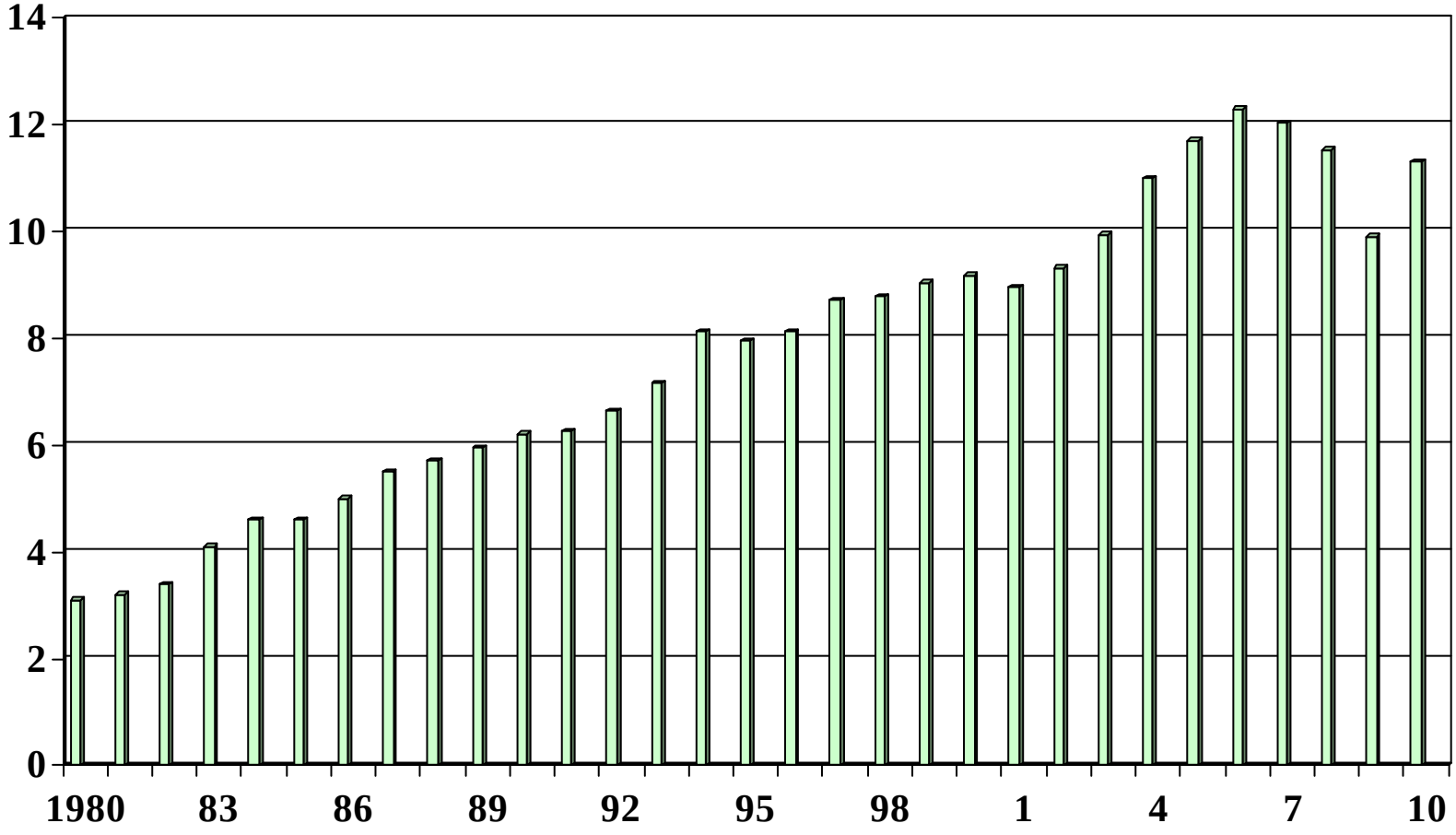
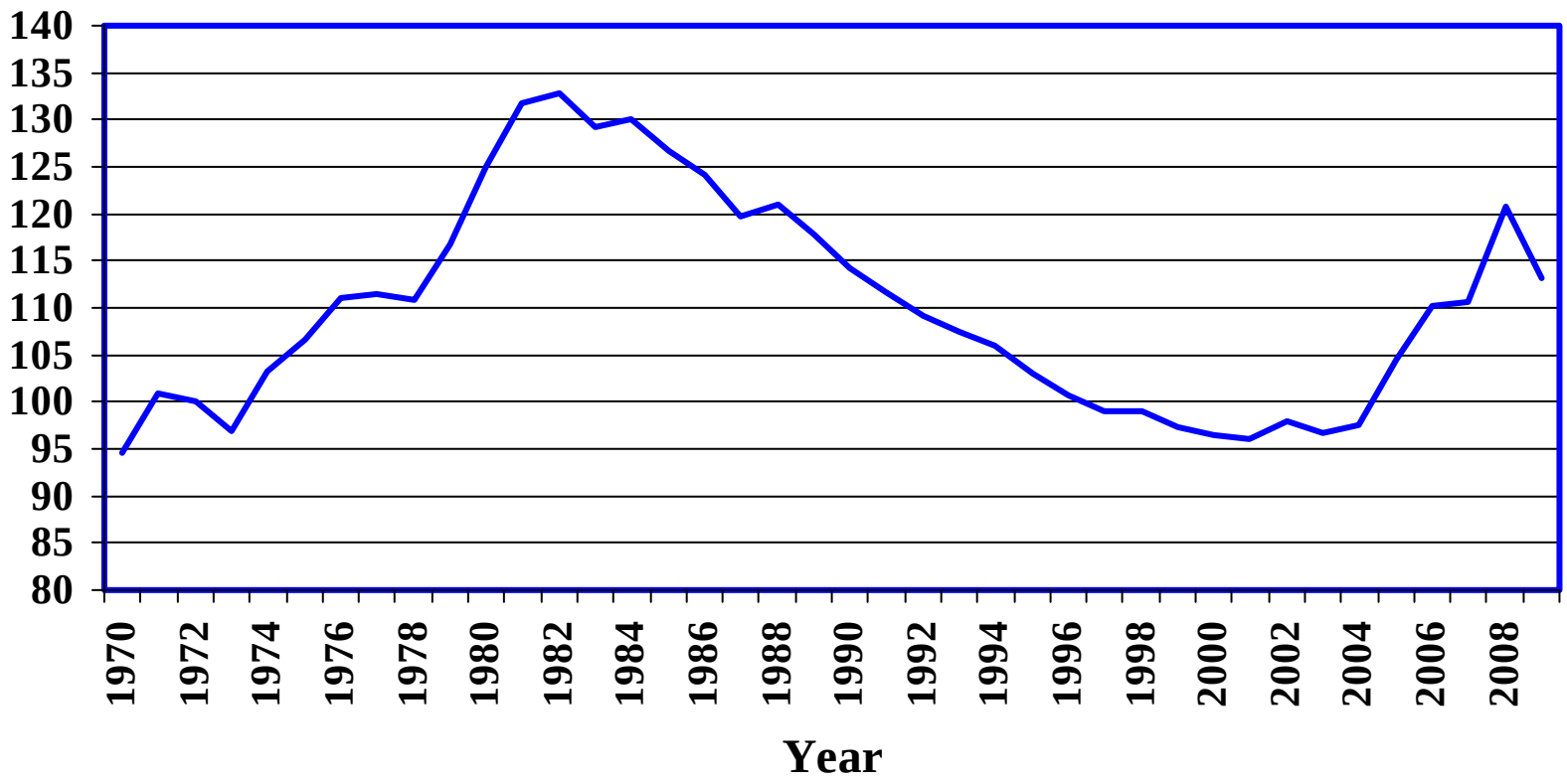
Intermodal Growth: TOFC/COFC



Association of American Railroads "Railroad Facts"
(2010 preliminary from AAR "Weekly Railroad Traffic, 2010 Annual Summary"

Index of Railroad Rates After Inflation

Base Year 1972=100



Sources: U.S. Dept. of Labor, Bureau of Labor Statistics, Producer Price Index of Line-Haul Operating Railroads; U.S. Dept. of Commerce, Bureau of Economic Analysis, Implicit Price Deflator for Gross Domestic Product

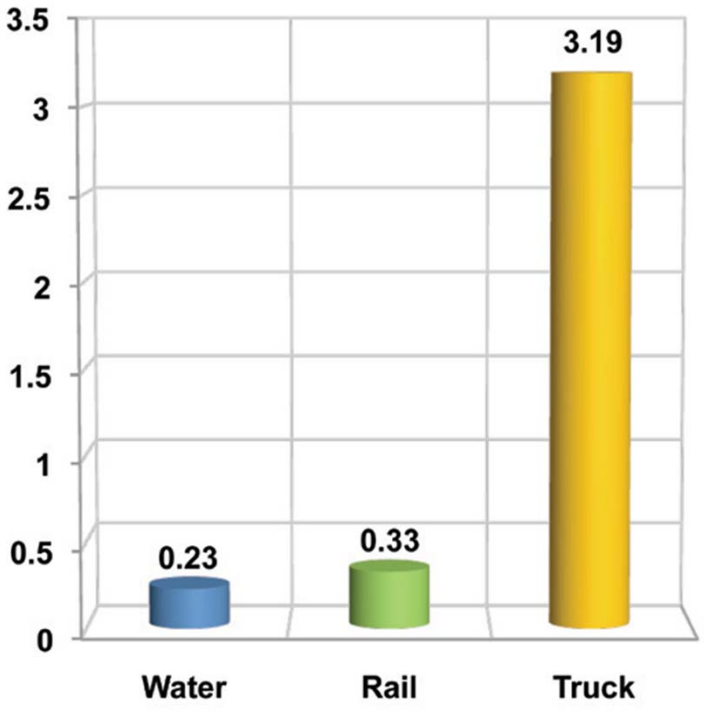
Rail Industry Today

Why Rail Interests Public Policy Decision Makers

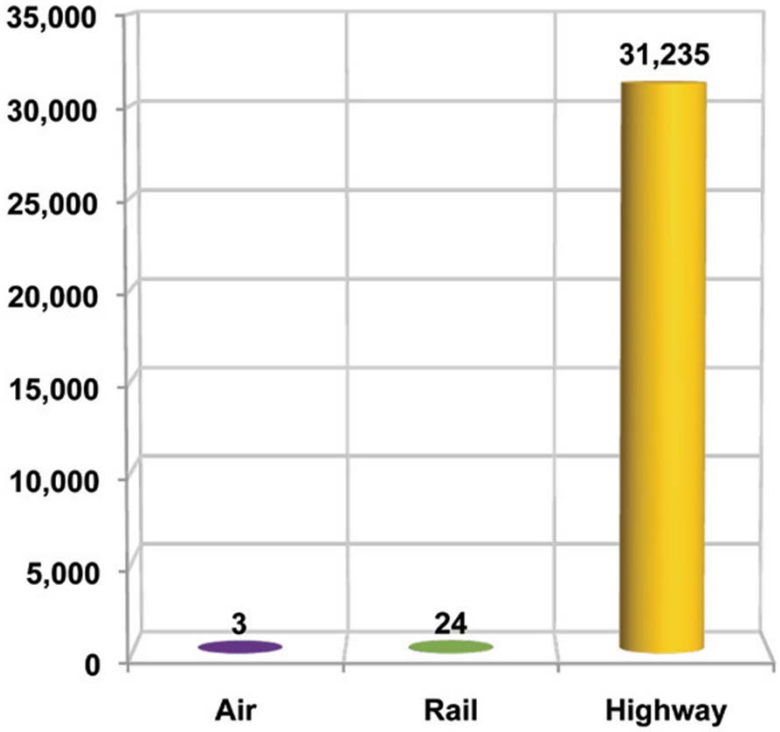
Safety

2008 fatality comparison between modes.

Fatalities (per billion ton-miles)



Total Fatalities



Energy Efficiency

Oil Consumption

Americans consume twice as much oil per capita as E.U. citizens

Source: U.S. Energy Information Administration; CIA World Factbook

Oil Dependency

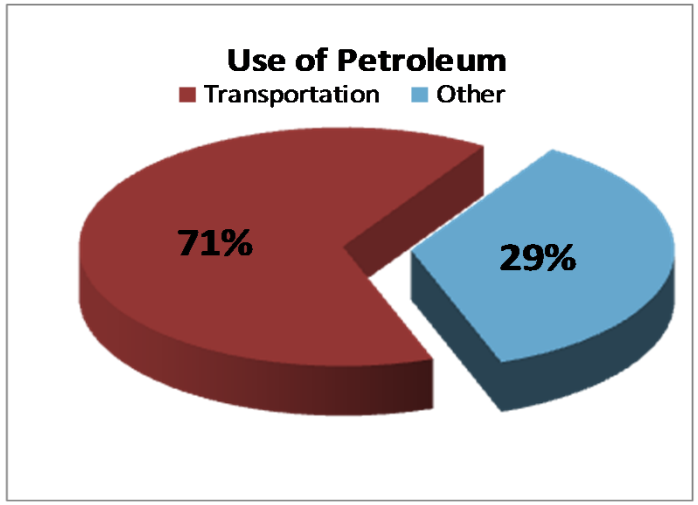
13.8m barrels/day for transportation alone

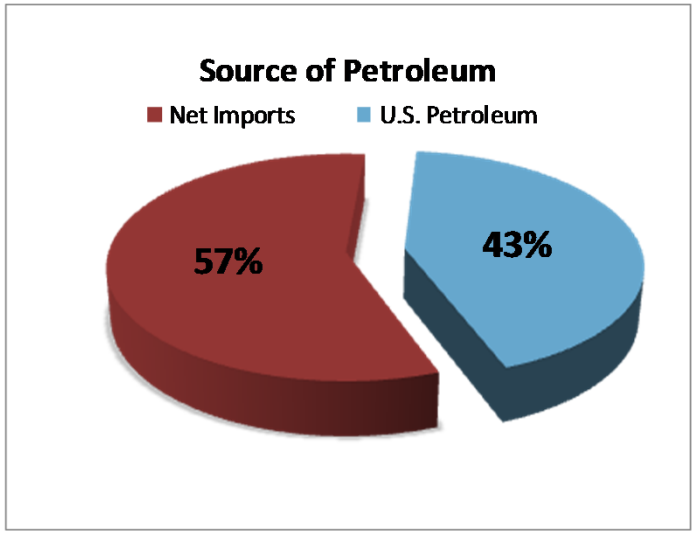
Source: U.S. Energy Information Administration

Climate Change

+14% GHG emissions (1990-2008)

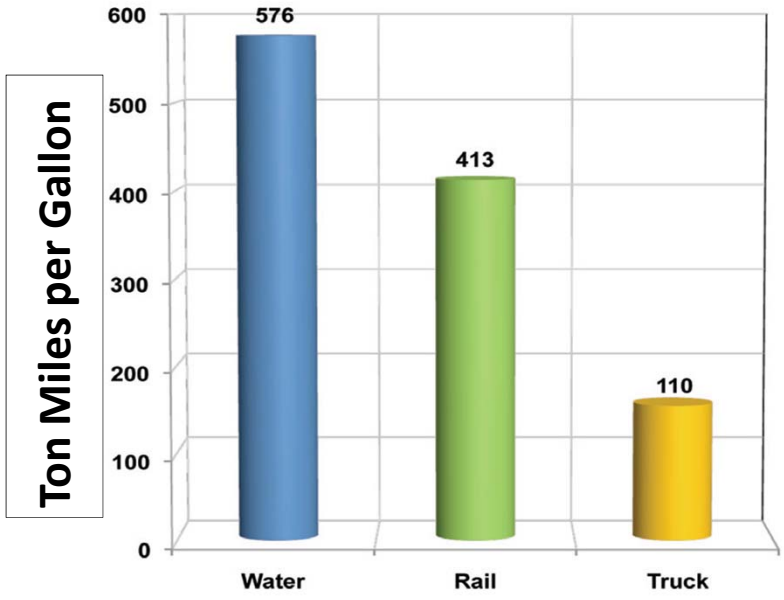
Source: U.S. Environmental Protection Agency



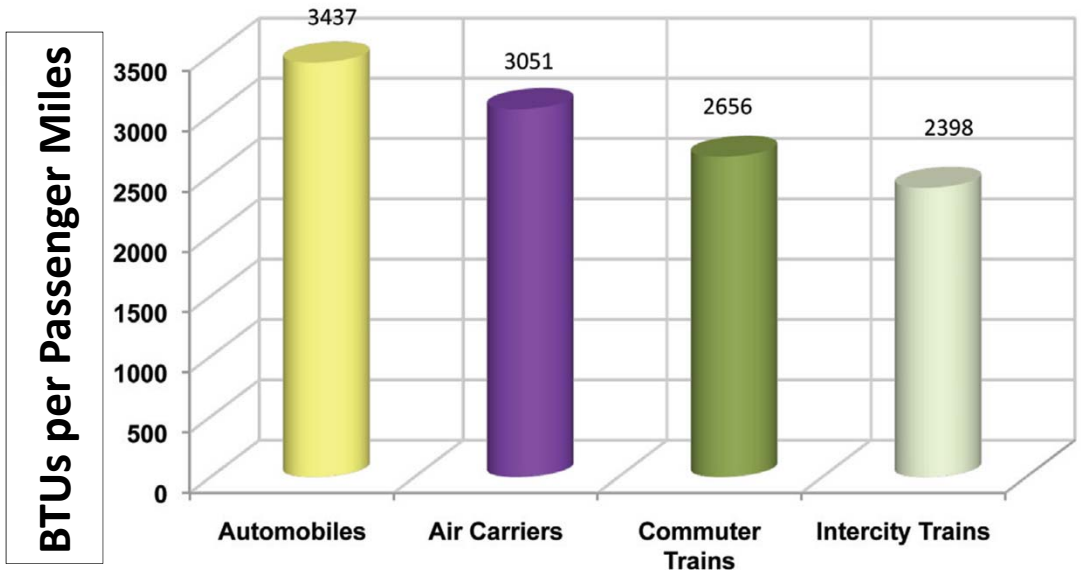


Source: U.S. Energy Information Administration

Fuel Consumption

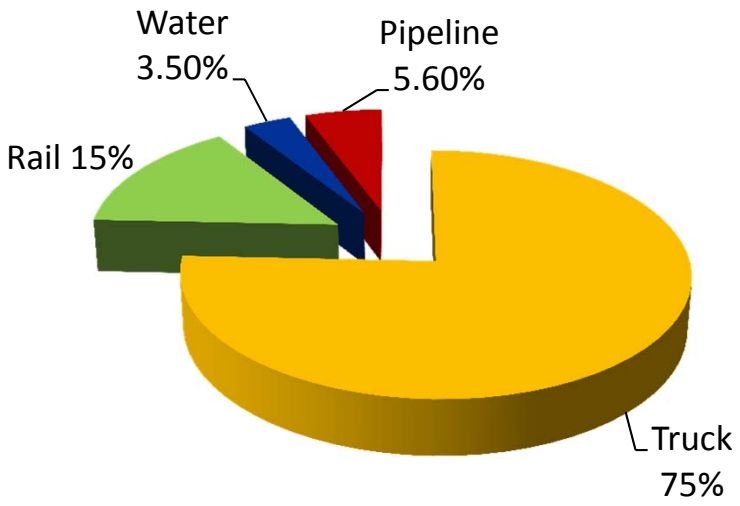


More efficient methods of transportation will reduce greenhouse gas (GHG) and other harmful emissions.



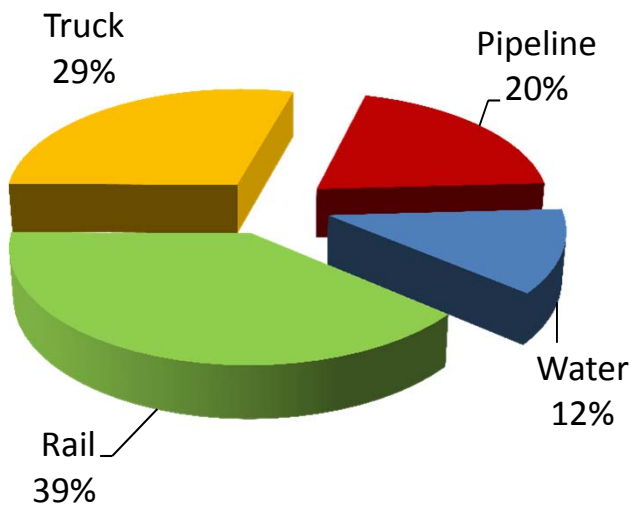
Freight Transportation Mode Share

Tons



Trucks move more tons (mostly over short distances)

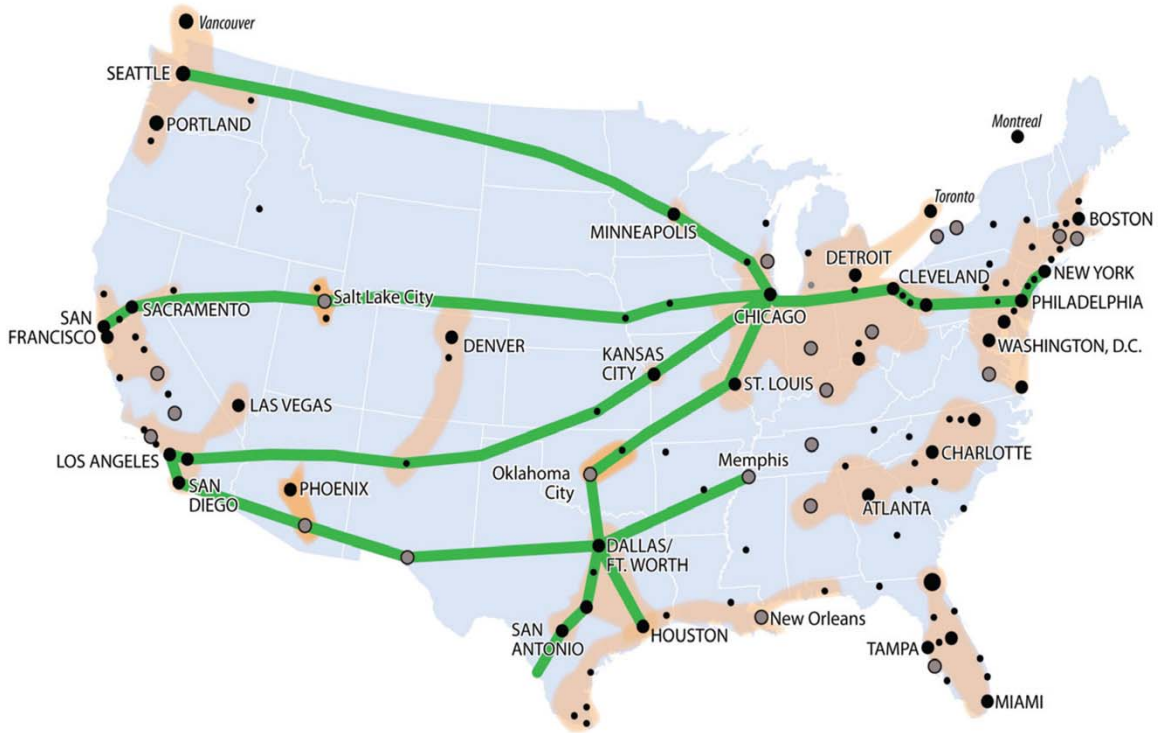
Ton-miles



Freight Rail has the largest share of freight per ton-mile

Top Intermodal Corridors

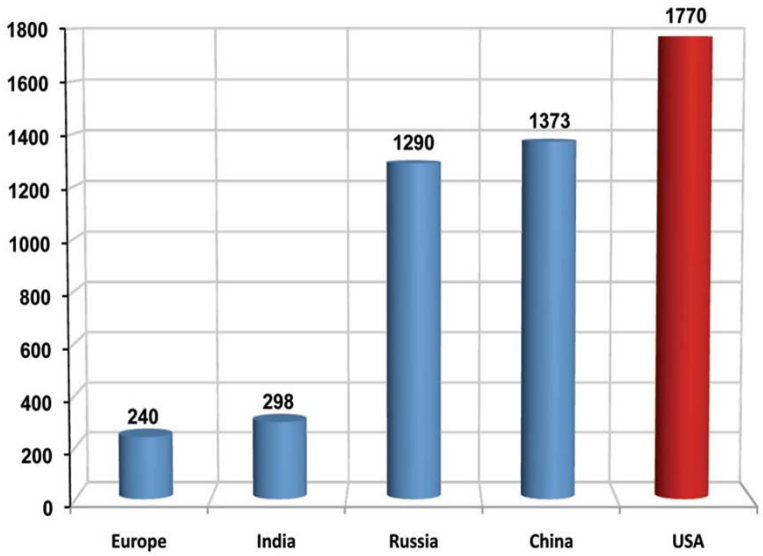
Top 10 State-to-State Bi-Directional Intermodal Flows		
California	➢	Illinois
California	➢	Texas
Washington	➢	Illinois
New Jersey	➢	Illinois
Pennsylvania	➢	Illinois
Ohio	➢	Illinois
Texas	➢	Illinois
California	➢	Tennessee
California	➢	Kansas
California	➢	Arkansas



***This map depicts linkages between mega regions to show intermodal rail movement, not the actual routes.*

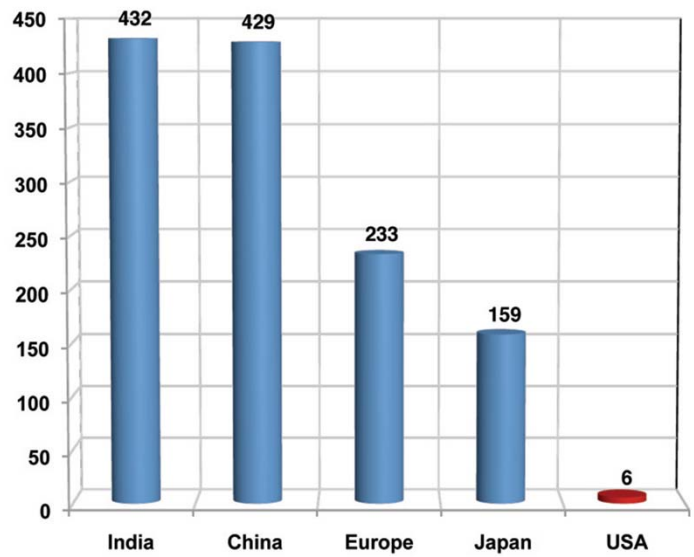
Rail's Potential

The US Leads in freight tonnage.



Freight (billion ton-miles)

… but has limited passenger service



Passenger (billion passenger-miles)

Population and Freight Growth

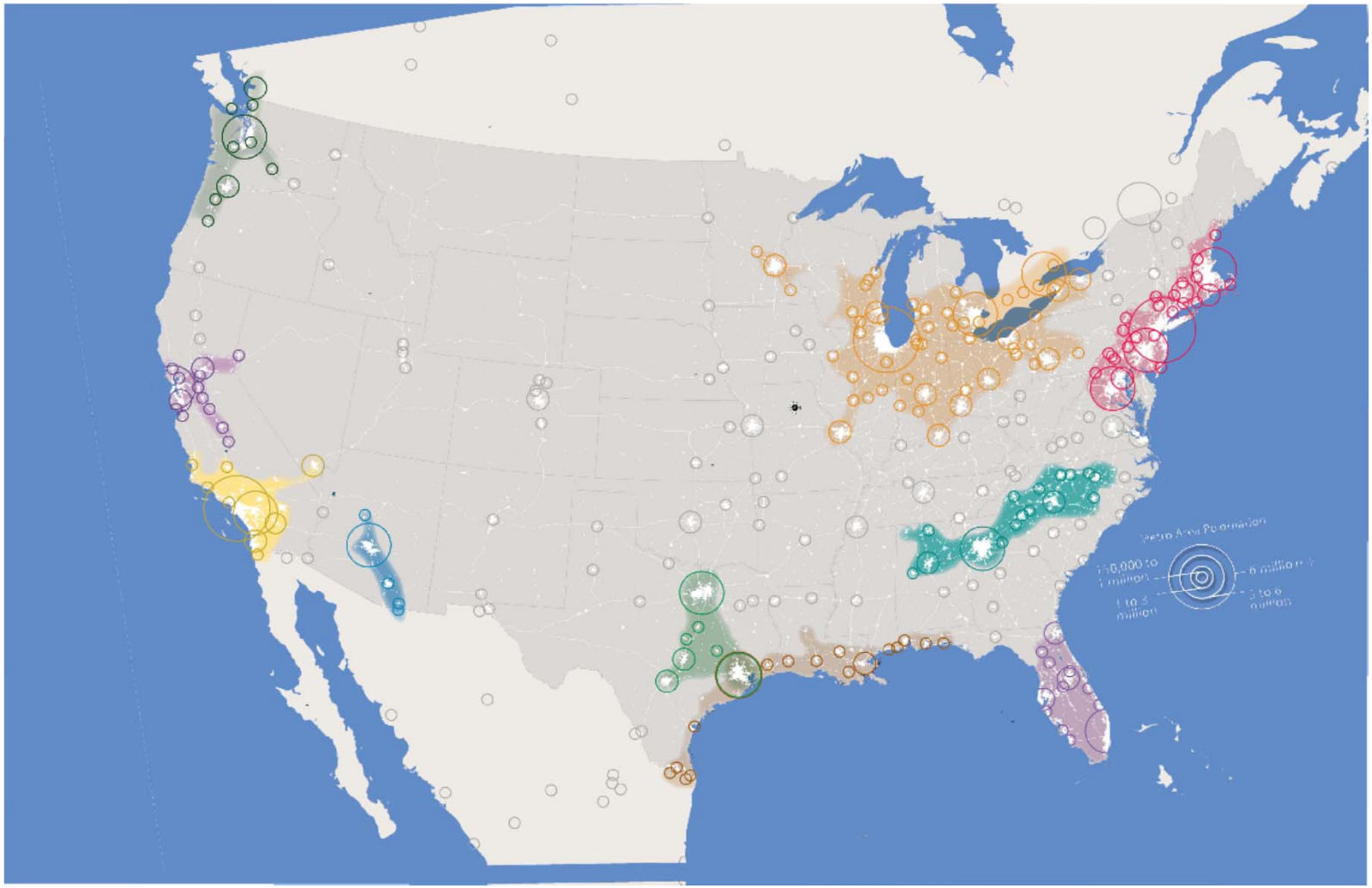
Studies project dramatic growth in population which will drive increased passenger mobility needs

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. Mega Regions



Mega - Regions

*By 2050, population projected to grow by **158 million** people; **86%** of new residents will live in one of mega-regions below.*

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DOT Strategic Goals

- Safety
- State of Good Repair
- Economic Competitiveness
- Livable Communities
- Environmental Sustainability

The Administration's Vision

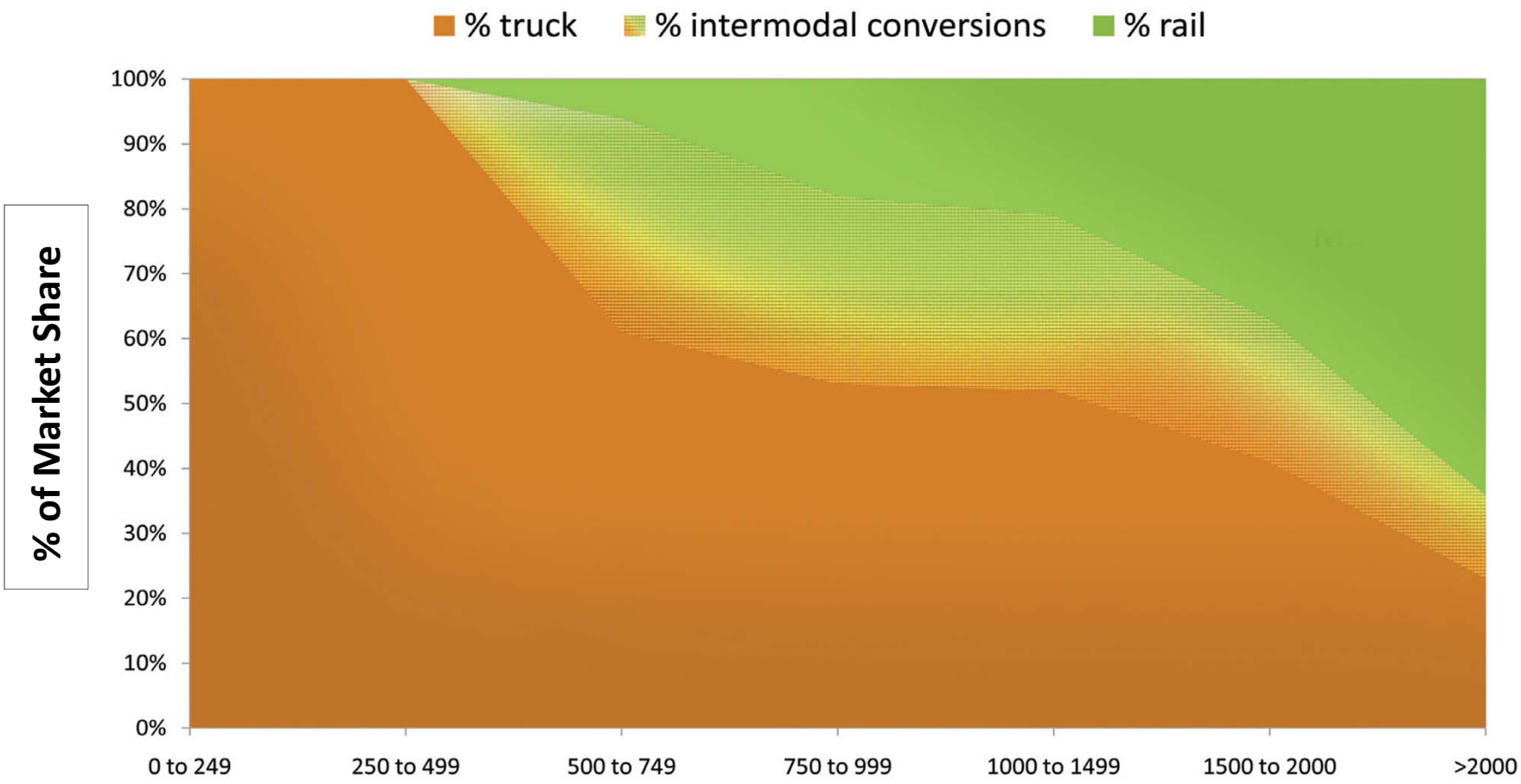
Vision for Freight Rail

GOALS

Support the current freight rail market share and growth.

Develop strategies to allow railroads to attract a greater share of freight traffic to intermodal rail.

Modal Shift Projection



Vision for High Speed Rail

GOALS

Provide at least 80% of Americans convenient access to high-speed rail network in 25 years

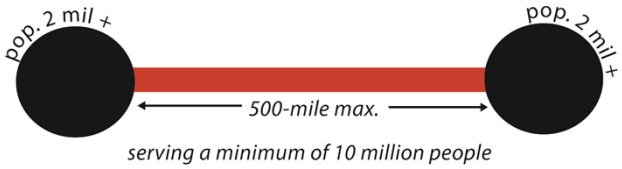
Connect large urban areas up to 500 miles apart with 2-3 hour, electric-powered rail service

Balance the transportation network and provide complementary service between modes.

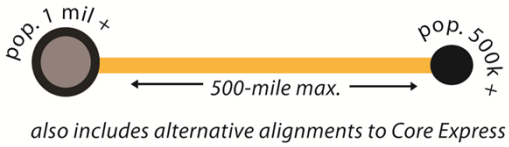
Boost manufacturing and economic activity.

Maximize the identified HSR corridors and stations as centers for new or revitalized economic and community development.

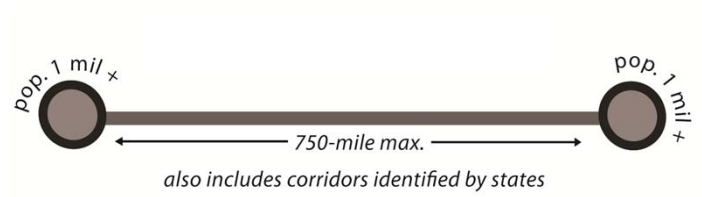
Three Tiers of Passenger Rail Service



Core Express – Connect large urban areas up to 500 miles apart within 2-3 hours on electrified, dedicated track (125-250+ mph)



Regional – Connect mid-sized urban areas up to 500 miles apart with service on dedicated and shared track (90-125mph)



Emerging – Connect smaller communities with service on shared track (up to 90mph)

Community Connections – Connect the passenger rail system to communities by building intermodal stations linked to transit and other modes

Key Milestones in the High Speed Rail Program

Substantial progress in just two years

2008 / 2009

Oct 2008: PRIIA passed

Feb: ARRA passed

Apr: High-Speed Rail Strategic Plan released

June: NOFA issued for ARRA funds

Aug/Oct: Applications received for ARRA funds

2010

Jan: ARRA selections announced

Apr: First ARRA funds distributed

Apr/July: NOFAs issued for FY10 funds

May/Aug: Applications received for FY10 funds

Oct: FY10 selections announced

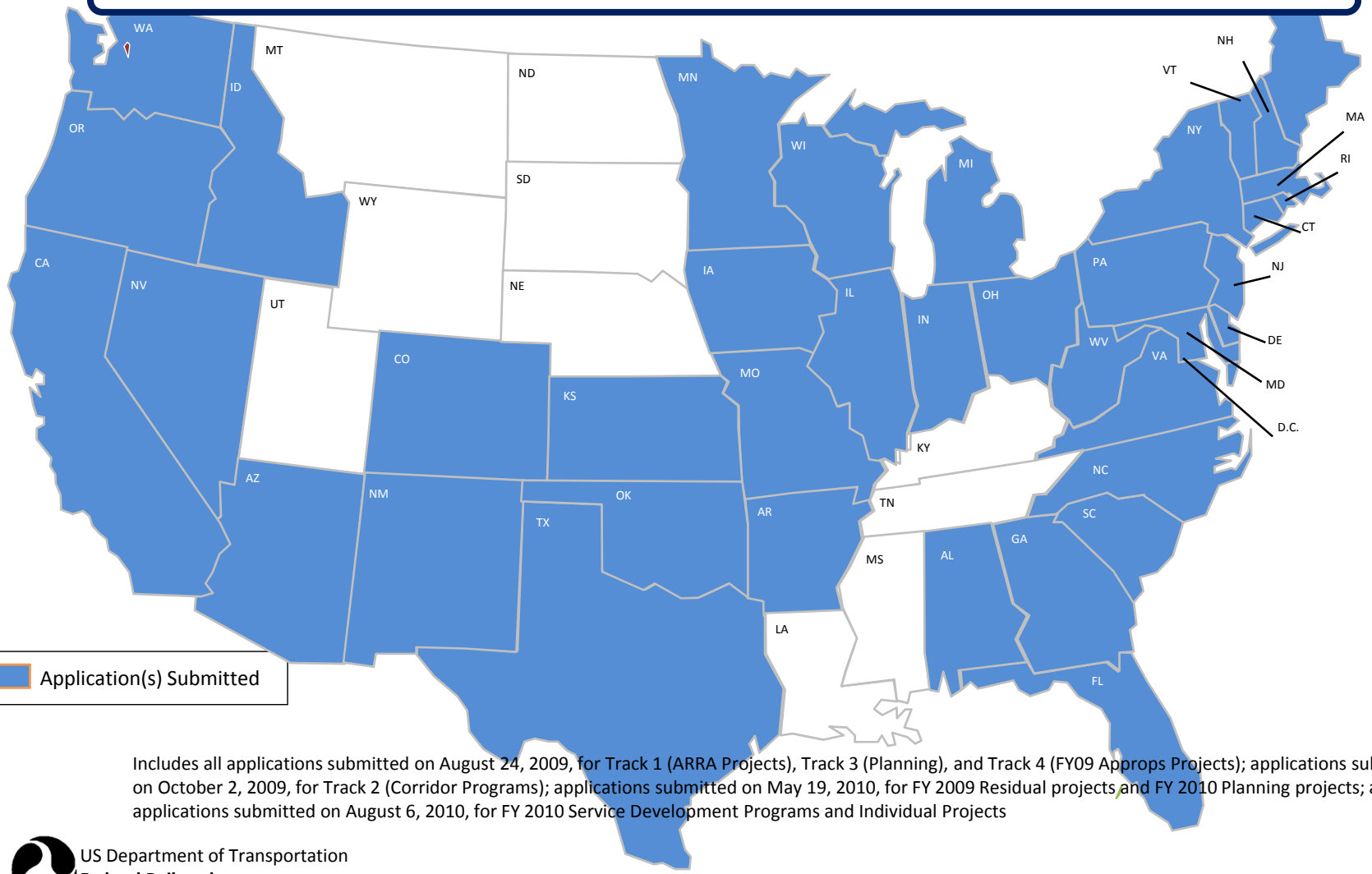
2011

Feb: President's FY12 budget released

Mar: NOFA issued for $2.4 billion in ARRA and FY10 funds

HSIPR Applications – Strong Interest Throughout the U.S.

391 applications submitted by 38 States and DC requesting $65 billion



Includes all applications submitted on August 24, 2009, for Track 1 (ARRA Projects), Track 3 (Planning), and Track 4 (FY09 Approps Projects); applications submitted on October 2, 2009, for Track 2 (Corridor Programs); applications submitted on May 19, 2010, for FY 2009 Residual projects and FY 2010 Planning projects; and applications submitted on August 6, 2010, for FY 2010 Service Development Programs and Individual Projects

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HSIPR Program Selections (all funding rounds)

$3.5 Billion for Core Express HSR (125 mph+)

$2.9 Billion for Regional HSR (90 – 125 mph)

$283 Million for Emerging HSR (up to 90 mph)

$1.2 Billion for Corridor Upgrades

$67 Million for Planning

136 Applications from 35 States + D.C.

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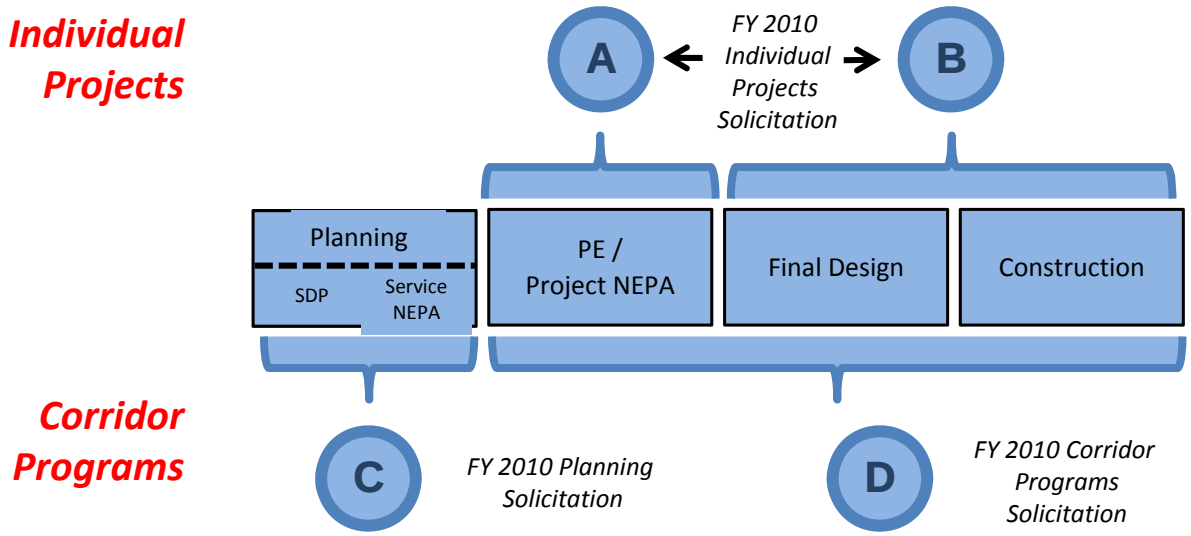
Project Development and Delivery

Development



Delivery

Agreements	Delivery	Financials
Host Railroads	Risk Management	Operating Forecast
Operator	Organizational Capacity	Capital Program
Others (States, Users, Property)	Implementation & Procurement	Financing Strategy
	Safety & Security	

Critical Success Factor: Railroad Stakeholder Agreements

Guiding principles for railroad agreements:

1. World-class **freight rail system** must be preserved & improved

2. Grants must benefit existing or future **intercity passenger rail** and fund the improvements needed to ensure a high-level of performance

3. Must achieve necessary **balance** to protect both private & public interests

4. Grants must **achieve and maintain quantifiable performance outcomes**, including:
   - Operating slots/frequencies
   - Trip times
   - Reliability (to the extent it is under a party's control)

A Comprehensive Approach to Winning the Future

National High Performance Rail System

Amtrak

Within 25 years, our goal is to give 80 percent of Americans access to high-speed rail.

–President Barack Obama, January 25, 2011

How We Plan to Implement the Program

Phase 1

"Down Payment"

ARRA, FY 2009-2011

Finalize national vision; seed corridor investments & pipeline of planning; build Federal & State capacity; conduct national environmental review; establish implementation policies & standards

Phase 2

"Launching the National Rail System"

FY 2012-2017

Develop initial backbone of network; establish U.S. Rail Equipment Pool; refine vision, standards, and policies; continue focus on capacity-building and R&D

Phase 3

"Development & Refinement"

FY 2018-2035

Develop remaining network; refine vision, standards, and policies

Phase 4

"SGR & Expansion"

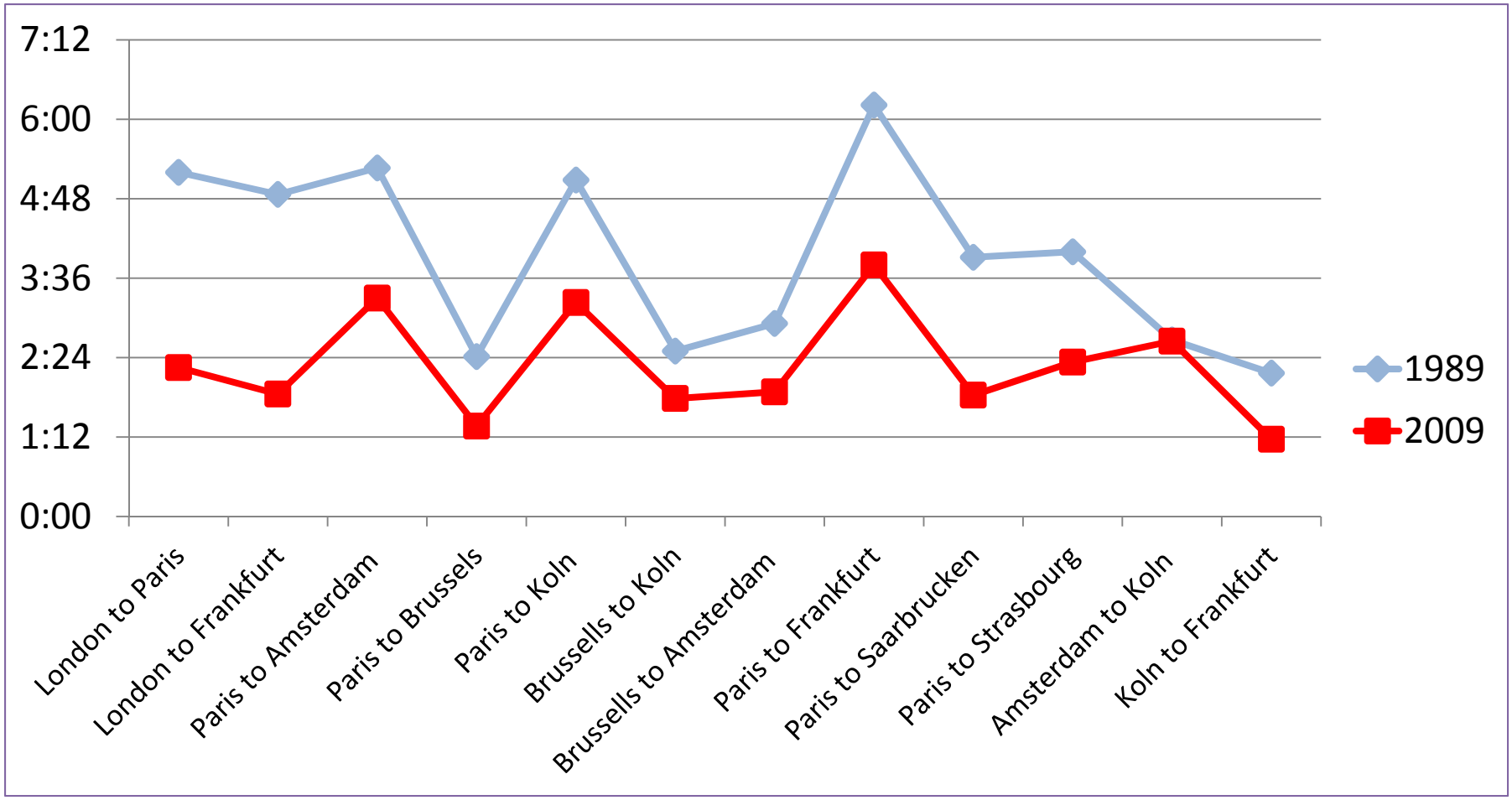
FY 2036 and beyond

State-of-good-repair activities; network extensions and corridor upgrades

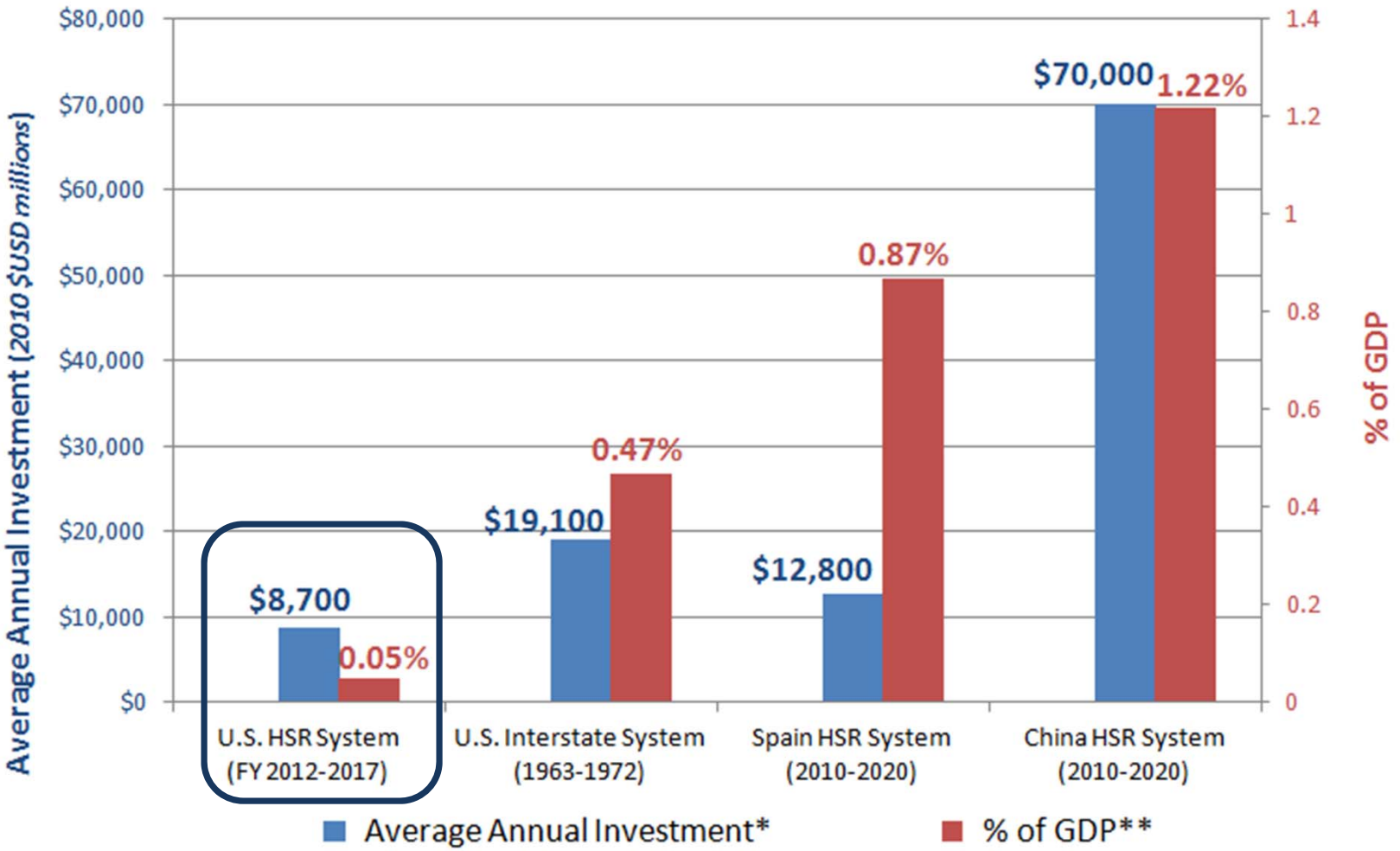
2009 2012 2018 2036

What can be Done in 20 Years…

***Trip times in Europe were reduced by an average of 1:38 in just 20 years according to the European Union ***



6-Year Investment Relatively Modest Versus our Competitors



FY 2012 Budget Proposal for Passenger Rail Programs

Category	FY 2010 Enacted ($M)	FY 2012 Request ($M)	Mission
Network Development	**$2,500**	**$4,000**	Develop infrastructure, stations, and equipment for new or upgraded corridors; build institutional capacity; provide transitional operating support
High-Speed Corridor Development	2,418	3,137	
Station Development	0	240	
U.S. Rail Equipment Development	2	245	
Capacity-Building & Transition Assistance	80	378	
System Preservation & Renewal	**$1,565**	**$4,046**	Maintain publicly-owned assets; eliminate SGR/ADA backlog; provide support for national service priorities (e.g. long-distance trains)
Amtrak Operating & Capital	1,280	0*	
Public Asset Backlog Retirement	285	2,982	
National Network Service	0	914	
State of Good Repair & Recapitalization	0	150	
TOTAL	**$4,065**	**$8,046**	

Network Development Program ($4B)

High-Speed Corridor Development

Core Express – Connect large urban areas up to 500 miles apart within 2-3 hours on electrified, dedicated track (125-250+ mph)

Regional – Connect mid-sized urban areas up to 500 miles apart with service on dedicated and shared track. (90-125mph)

Emerging – Connect smaller communities with service on shared track (up to 90mph)

Station Development

Link the passenger rail system and other transportation modes to communities through modern intermodal stations

U.S. Rail Equipment Development

Establish a standardized and interoperable rail fleet, which will lower costs and stimulate domestic manufacturing

Capacity-Building & Transition Assistance

Develop the rail industry's capacity and expertise, and assist new corridors and existing State-supported services with transitional operating support

System Preservation & Renewal Program ($4.046B)

Public Asset Backlog Retirement

Eliminate the backlog of maintenance needs on publicly-owned and controlled assets, including the vital Northeast Corridor, and bring all stations served by Amtrak into ADA compliance

National Network Service

Support the continued operations of long-distance services and maintain national passenger rail facilities and systems

State of Good Repair & Recapitalization

Ensure public assets are functioning as designed to provide safe and reliable passenger rail service, and replacing those assets at the end of their useful life

Next Steps

1 Short-Term: *Launch*

- Get ARRA and FY10 projects underway
- Recompete $2.4 billion in ARRA and FY10 funds

2 Mid-Term: *Refine*

- President's FY 2012 budget request
- Surface Transportation Reauthorization
- National, regional, and state planning process

3 Long-Term: *Sustain*

- Technical assistance
- Capacity building
- Long-range planning

Challenges

Challenges - Technical

1. Ability to provide high quality, reliable service on infrastructure shared with high axle load freight service
2. Safety
3. Capacity
4. Ride quality
5. Engineering a green field route
6. Accessing our urban cores
7. Translating overseas experience to North American conditions
8. Developing the technology that will support a U.S. manufacturing base

Challenges – Programmatic

1. Expectation Management.

   -What is high-speed rail anyway?

   -When will I see a high-speed train in my town?

   -Passenger rail not a priority of freight railroads

   -Are improving freight and improving passenger competing priorities?

2. New Relationships
3. Capacity Building
4. The dependability of the Federal Government as a partner

Challenges – Political

What is the role of the Federal Government in transportation and how are we going to pay for it?

Questions ?