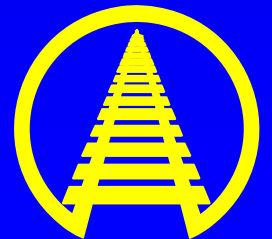
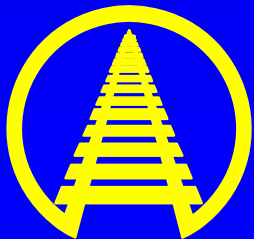


# **Goods Movement and North America's Freight Railroads**

**John Wetzel**  
**Vice President, Congressional Affairs**  
**Association of American Railroads**



# Railroads Move Just About Everything (Class I Originations in 2007)



**Intermodal:  
12.0 million  
trailers and  
containers**



**Coal:  
850 million tons**



**Farm products:  
152 million tons**



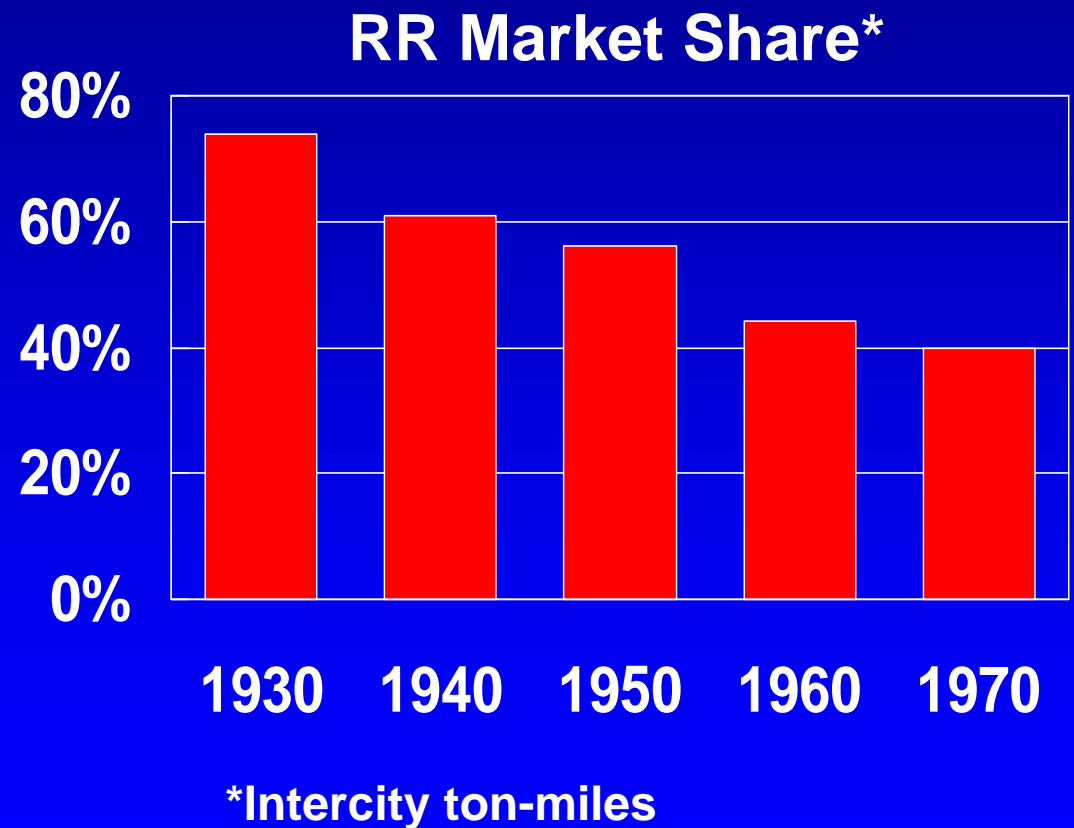
**Chemicals:  
176 million tons**

**Stone, sand,  
gravel:  
138 million tons**



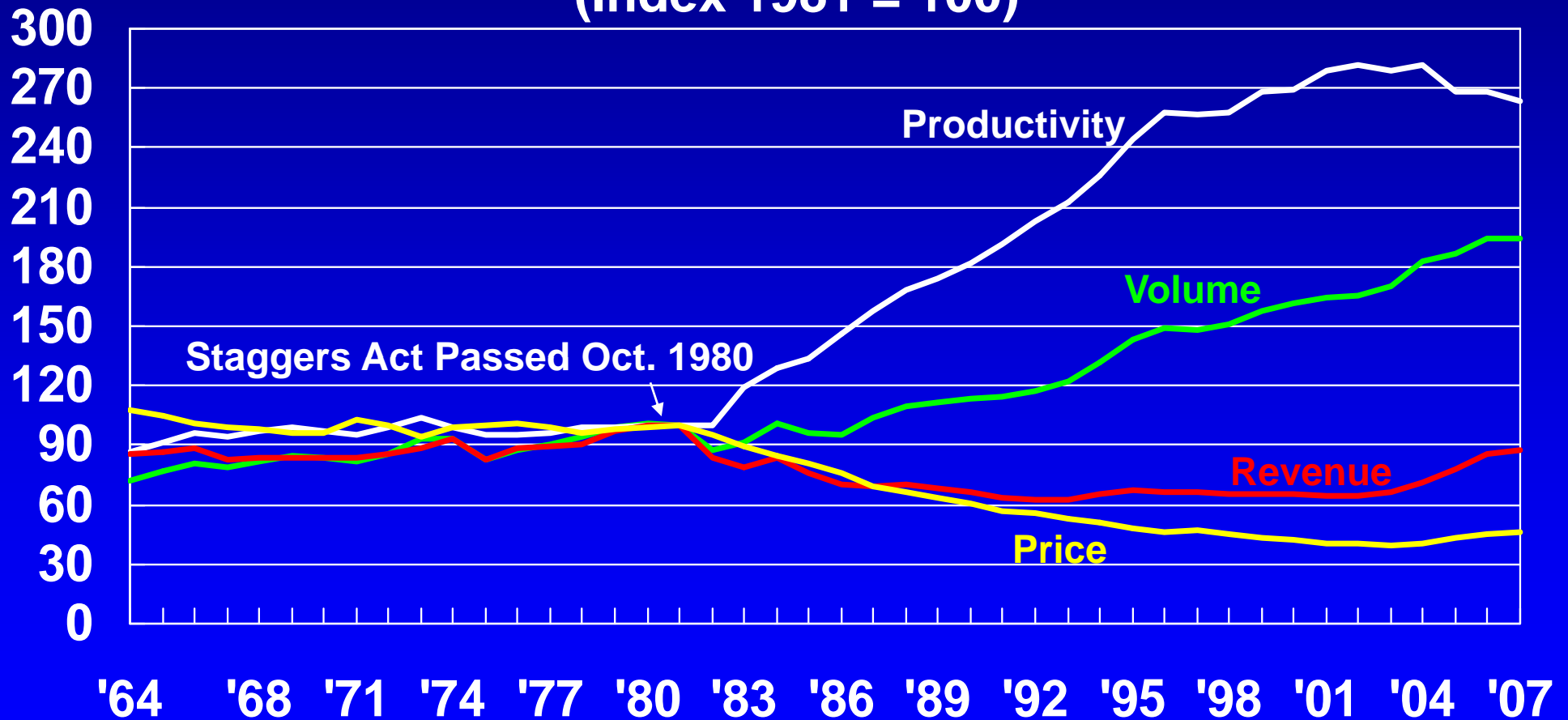
# Prior to 1980, the U.S. Rail Industry Was Near Collapse

- 20% of mileage in bankruptcy
- 2% return on investment
- 50,000 miles under slow orders
- Up to \$20 billion in deferred maintenance
- Declining service and market share



# The Staggers Act Led to the Rail Industry's Transformation

(Index 1981 = 100)



Source: AAR

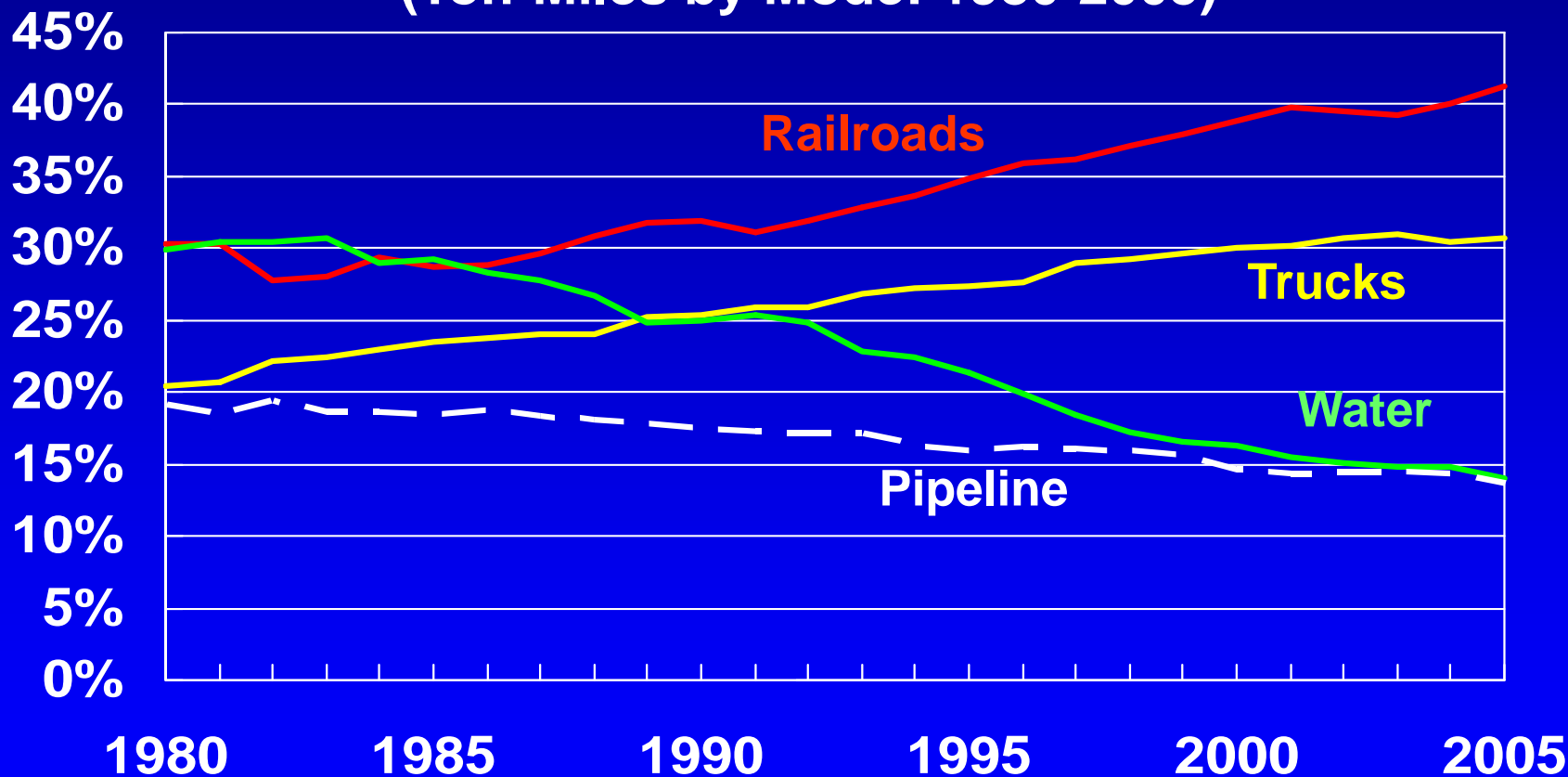
# Overview of U.S. Freight RRs in 2006

Type of Railroad	Number	Miles Operated*	Employees	Freight Revenue (\$ billions)
Class I	7	94,801	167,581	\$50.3
Non-Class I	552	45,128	19,376	3.7
Regional	33	16,713	7,742	1.7
Local Linehaul	323	21,960	5,449	1.2
S&T	196	6,455	6,185	0.8
Canadian	2	561	n/a	n/a
<b>Total</b>	<b>561</b>	<b>140,490</b>	<b>186,957</b>	<b>\$54.0</b>

\*Excludes trackage rights. \*\*Includes CN and CP operations that are not part of a CN- or CP-owned Class I carrier. Source: AAR

# Railroads Have Higher Freight Volume Than Any Other Mode

(Ton-Miles by Mode: 1980-2005)



Pipeline does not include natural gas. Source: U.S. DOT – Bureau of Transportation Statistics

# Moving More Freight by Rail Would Yield Huge Public Benefits

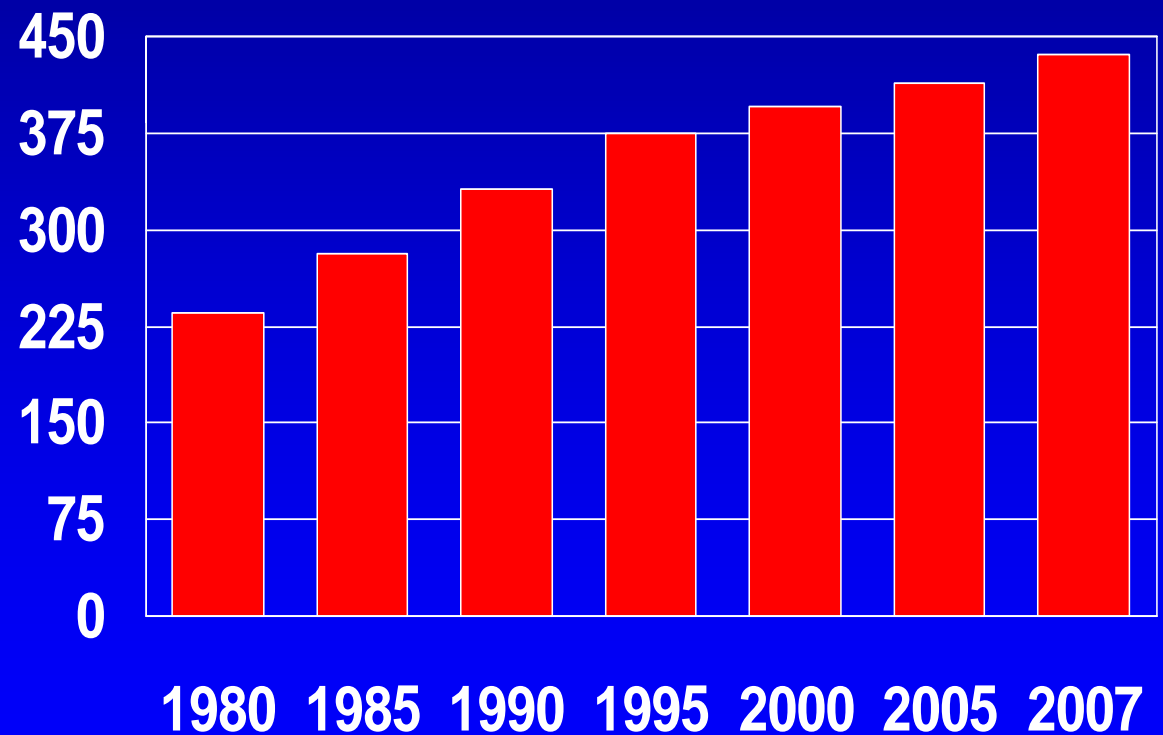
- Reduced highway gridlock and need for costly new highways
- Less pollution
- Higher fuel efficiency, lower greenhouse gas emissions
- Safety



# Freight Rail Saves Fuel

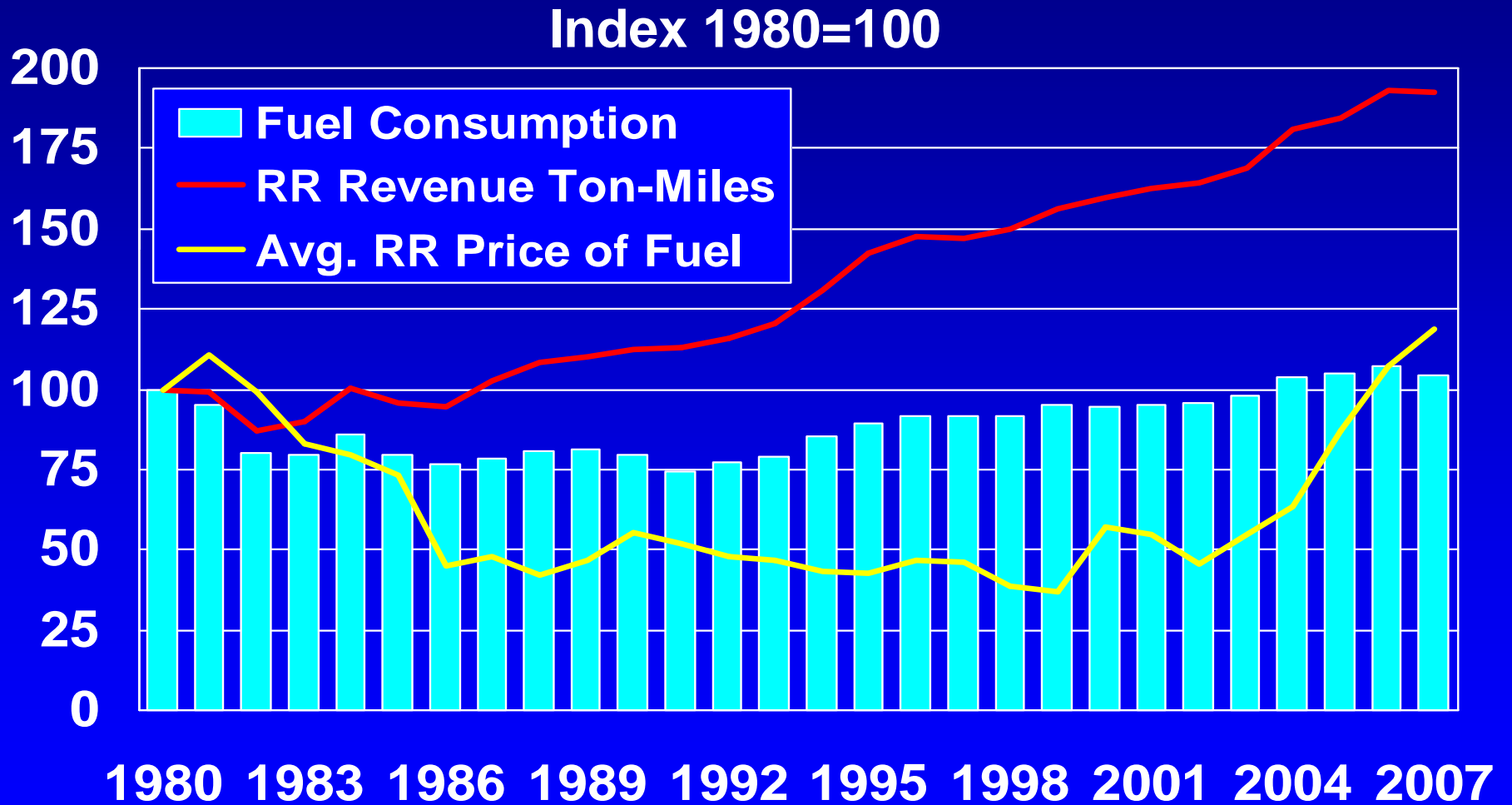
- On average, a train moves a ton of freight 436 miles per gallon of fuel.
- Trains are three or more times more fuel efficient than trucks.
- That means lower greenhouse gas emissions.

**Railroad Fuel Efficiency  
(Ton-Miles Per Gallon Consumed)**



Source: AAR

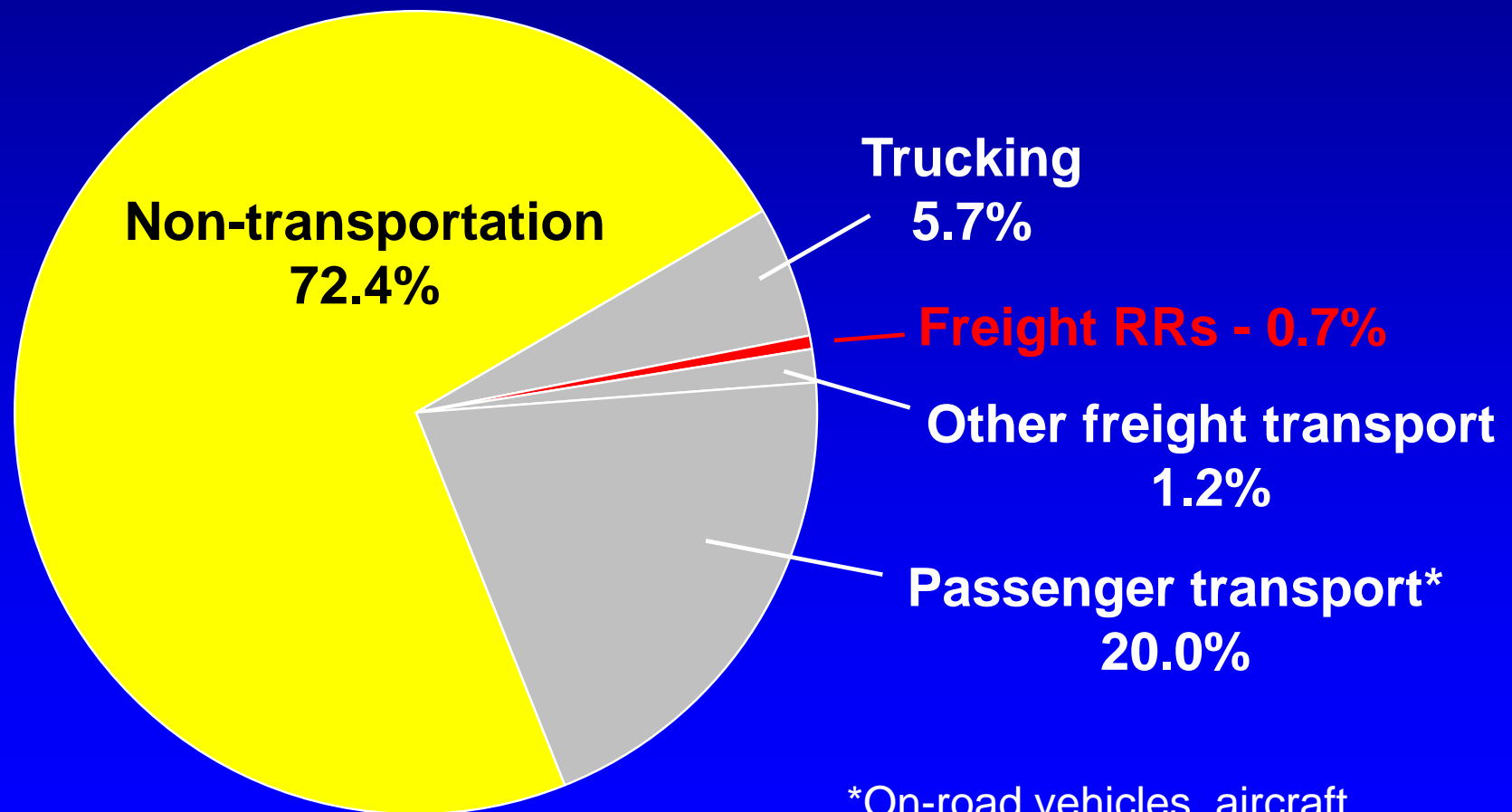
# Since 1980, Rail Freight Volume Has Nearly Doubled But Rail Fuel Use Has Barely Budged



Source: AAR

# Freight RRs Account for <1% of Greenhouse Gas Emissions

U.S. Greenhouse Gas Emissions by Source: 2006



Source: EPA

\*On-road vehicles, aircraft, recreational boats, passenger rail

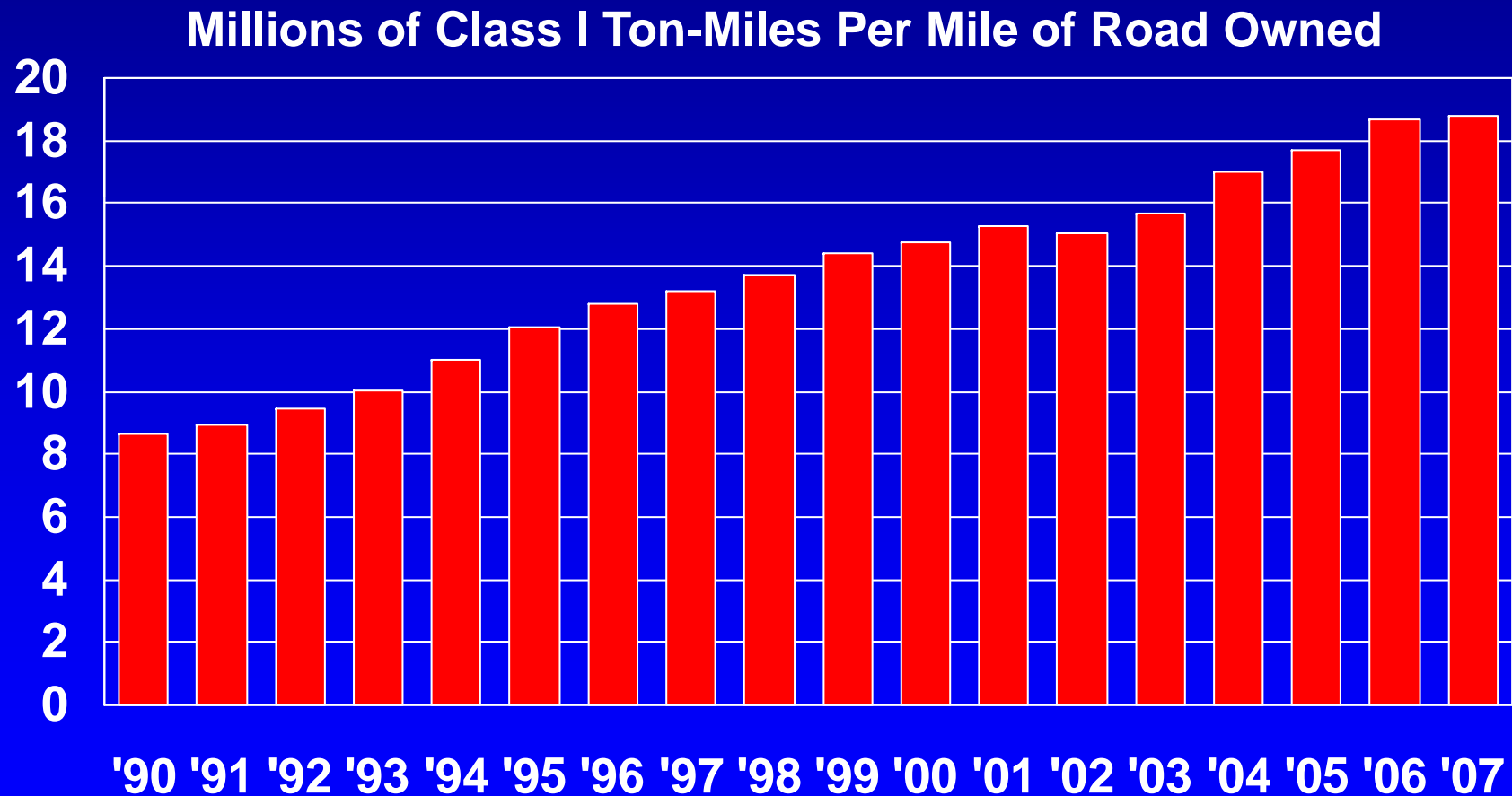
# Freight Rail Means Less Pollution

**Railroads: The Best Choice for the Environment  
(Emissions Per Ton-Mile)**

Rank (1= Most Desirable)	Oxides of Nitrogen	Volatile Organic Compounds	Particulate Matter	Carbon Monoxide	Carbon Dioxide
1	<b>Rail</b>	<b>Rail</b>	Air	<b>Rail</b>	<b>Rail</b>
2	Water	Water	<b>Rail</b>	Water	Water
3	Truck	Air	Water	Air	Truck
4	Air	Truck	Truck	Truck	Air

Source: Envirotrans

# One Result of Traffic Growth: Tight Capacity on Parts of the Rail Network



Source: AAR

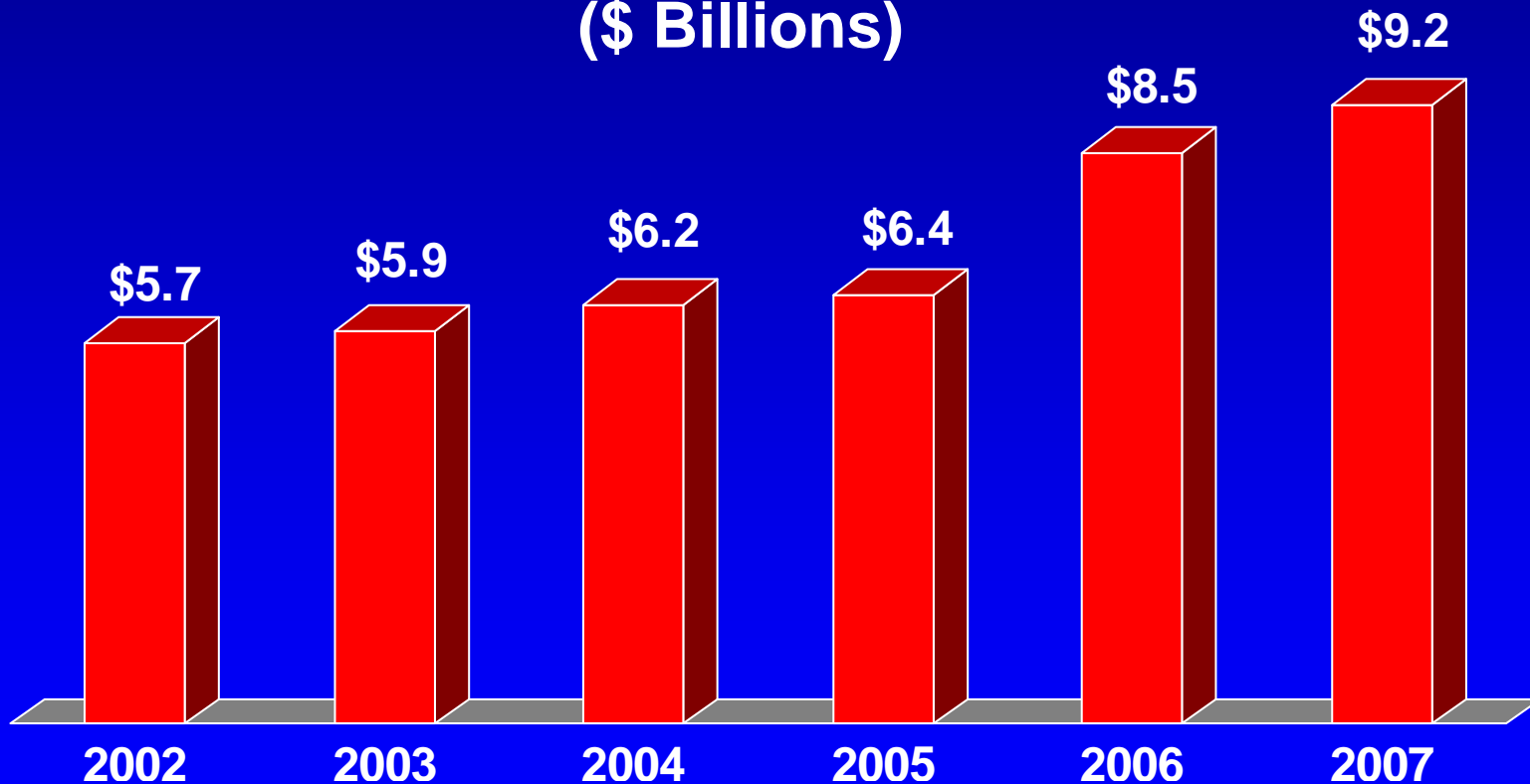
# What Are Railroads Doing to Increase Capacity?

- Massive equipment and infrastructure investment
- New hires
- New operating plans
- Cooperative alliances
- Working with customers
- Technology



# Record Capital Spending

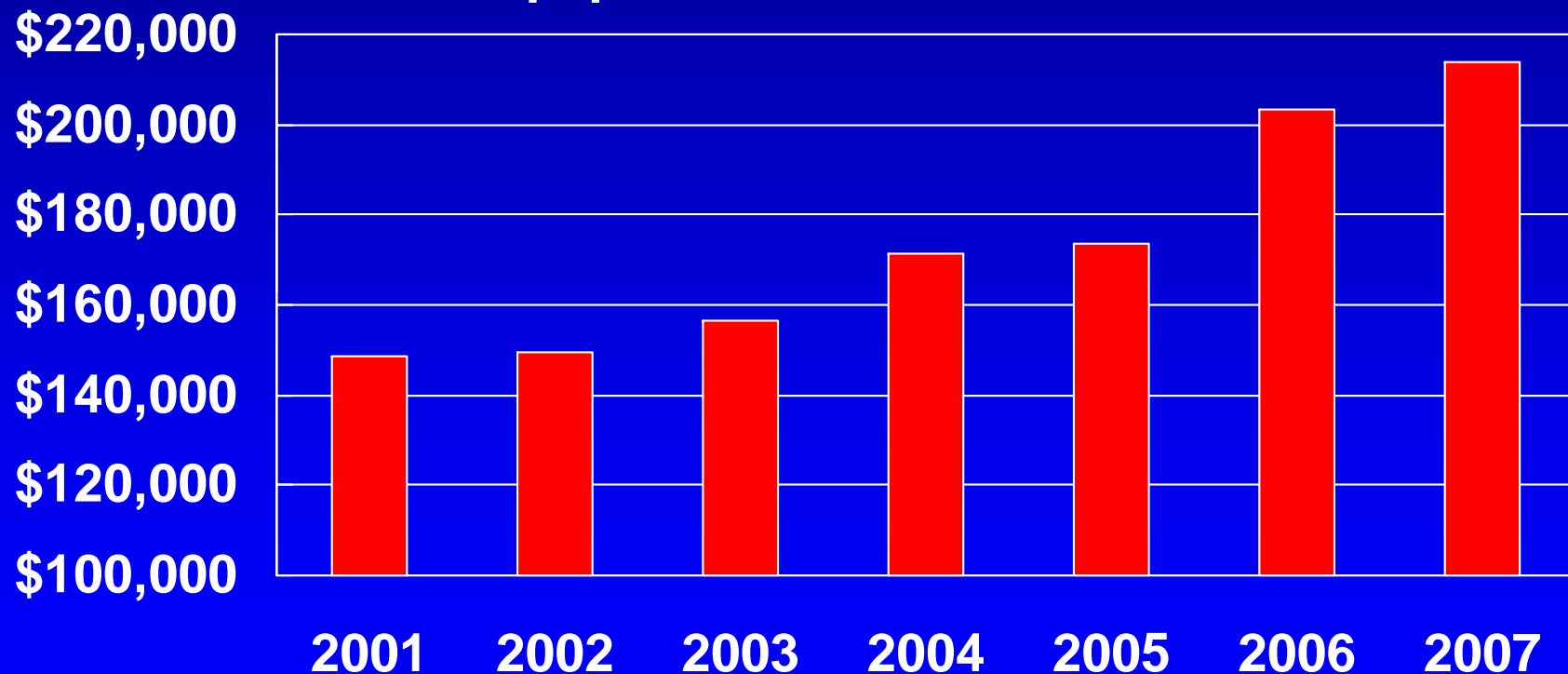
## Class I RR Capital Spending (\$ Billions)



Source: AAR

# Massive Investments Increase Capacity and Capability

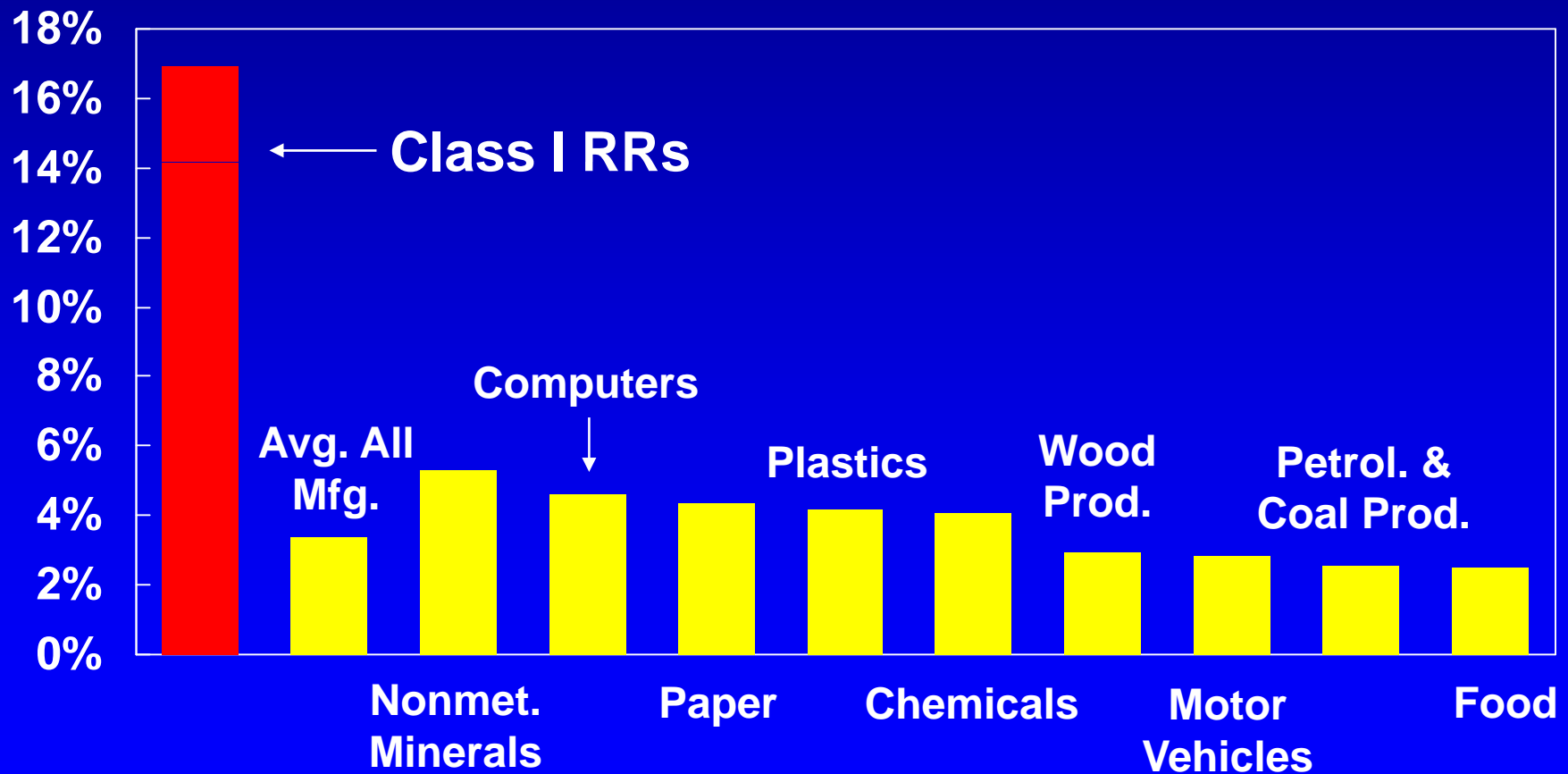
Class I RR Spending on Infrastructure and Equipment Per Mile of Road Owned



Source: AAR

# RRs Have Far Higher Capital Intensity Than Most Other Industries

Capital Expenditures as a % of Revenue: Avg. 1997-2006



Sources: U.S. Census Bureau, AAR

# Freight Railroad Investment Challenge

- Rail investment must grow sharply over the next 20 years just to maintain the current rail share of freight traffic.
- AASHTO, the Transportation Research Board, and others report that freight railroads are unlikely to be able to make the necessary investments on their own.



# National Rail Freight Infrastructure Capacity and Investment Study



## National Rail Freight Infrastructure Capacity and Investment Study

prepared for  
Association of American Railroads  
by  
Cambridge Systematics, Inc.

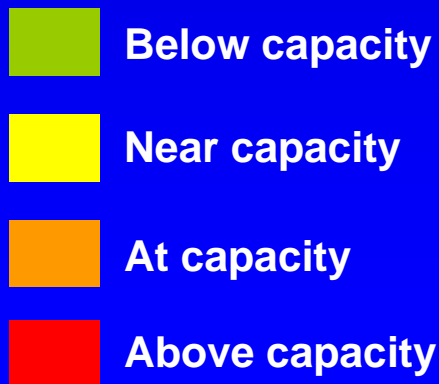
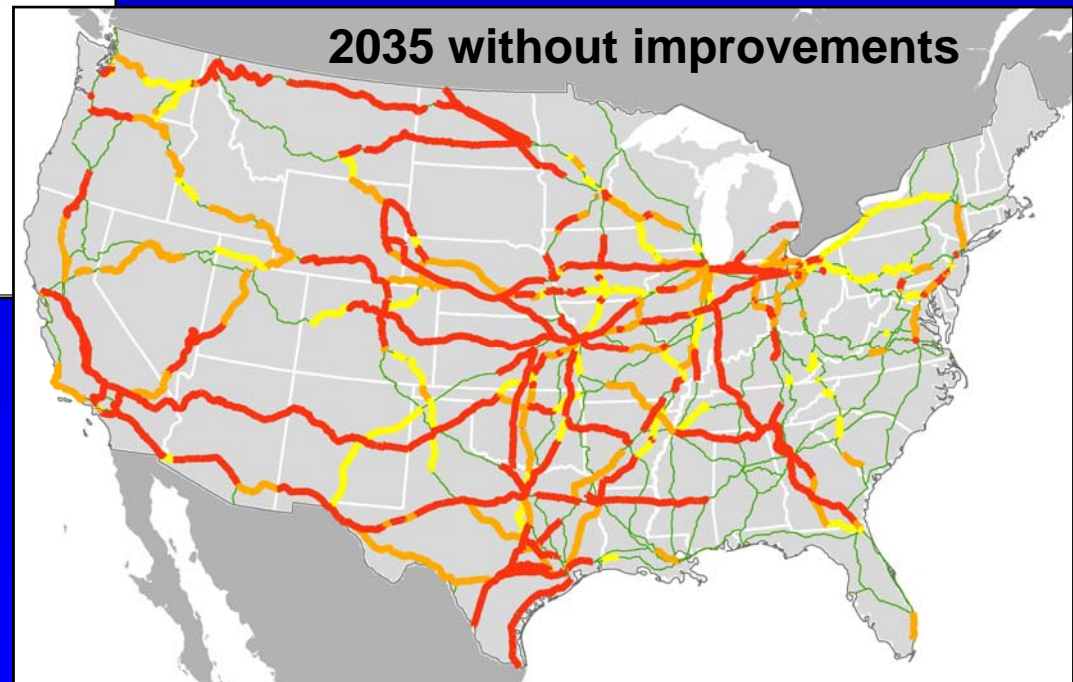
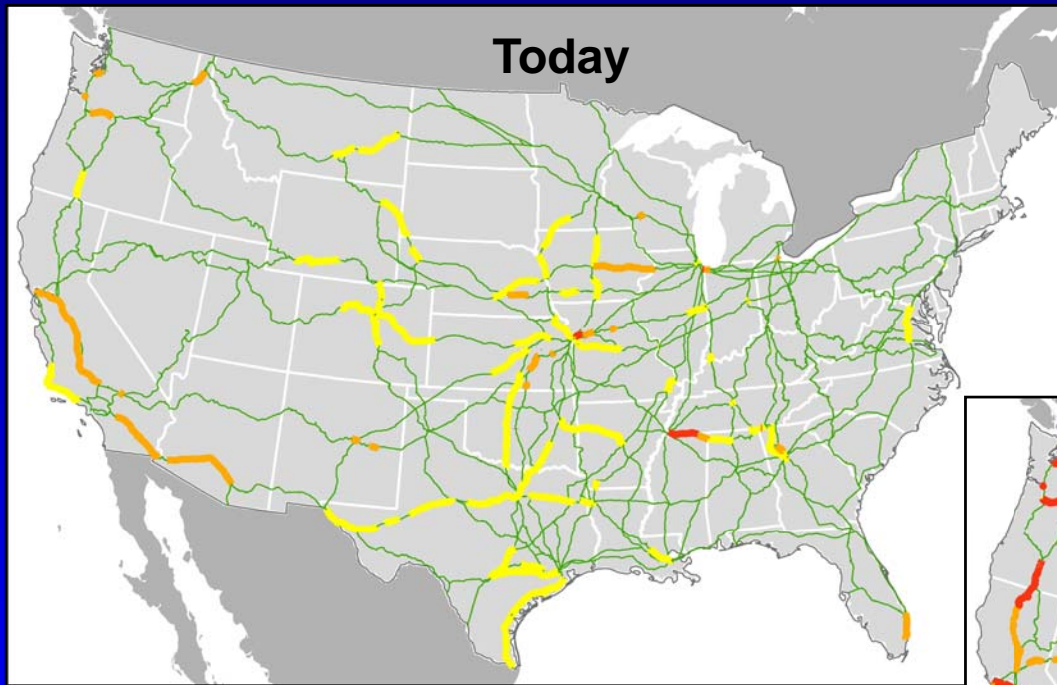
September 2007

[www.camsys.com](http://www.camsys.com)

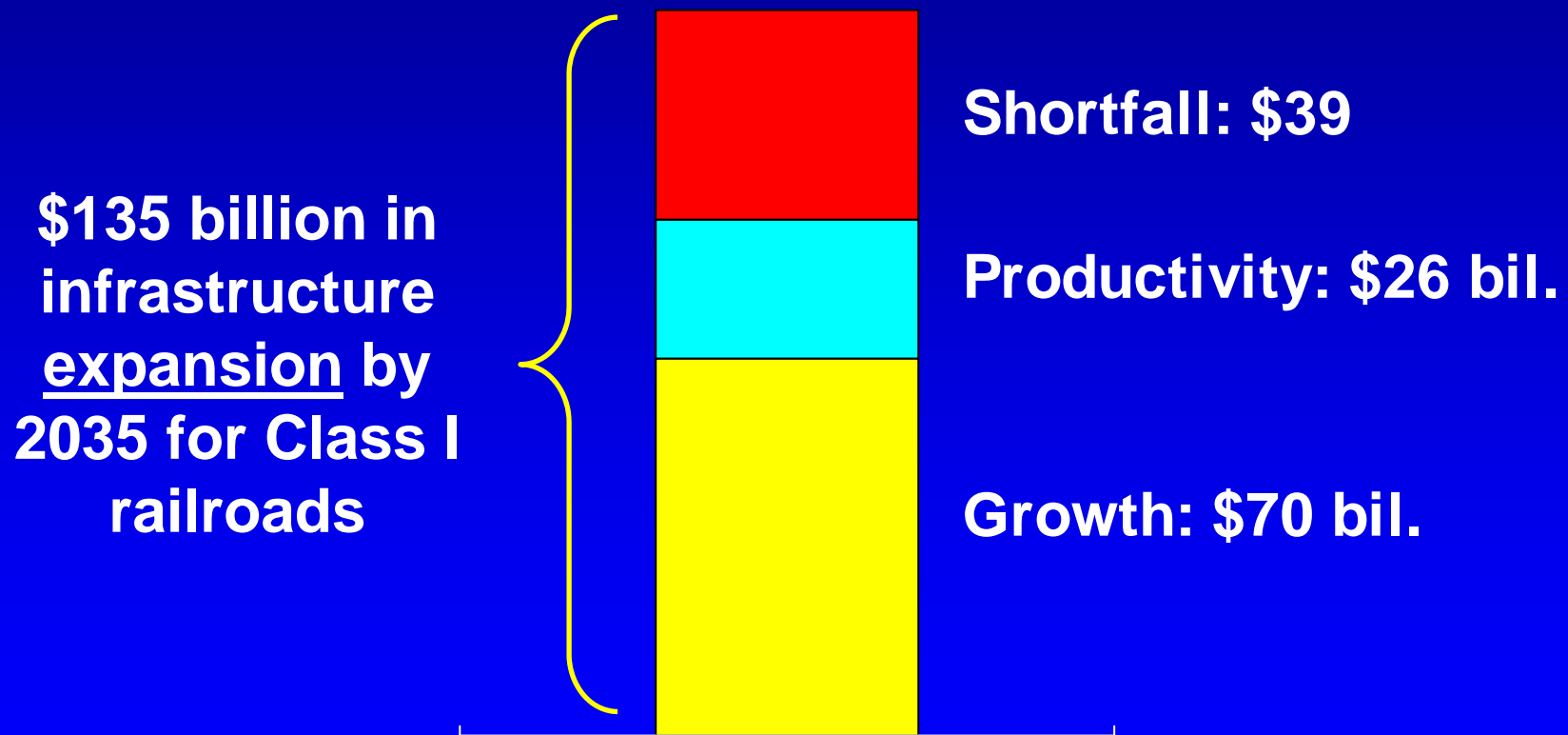
**CAMBRIDGE**  
SYSTEMATICS

- Prepared for the National Surface Transportation Policy and Revenue Study Commission.
- First effort of its kind involving the freight railroads.
- Objective: estimate cost to expand rail infrastructure to handle traffic forecast by DOT for 2035

# Future Rail Traffic Will Rise Substantially, Creating Severe Capacity Issues



# \$39 Billion Gap Between What RRs Can Afford and the Capacity We Need



Source: Cambridge Systematics

# Tax Incentives For Freight Rail Infrastructure Expansion

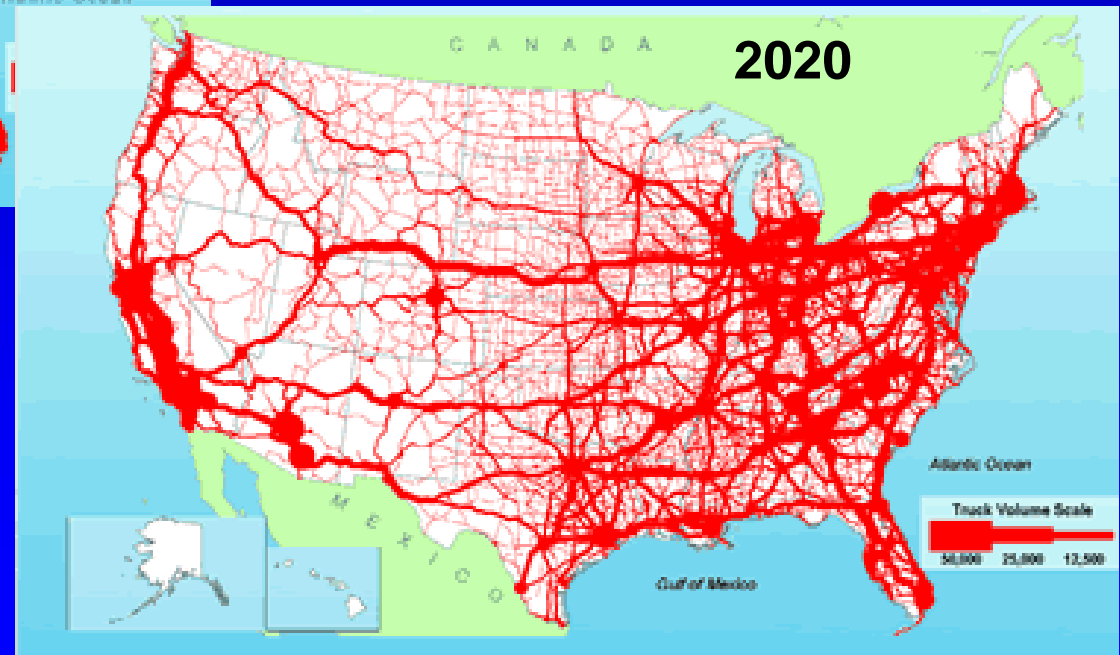


- 25% tax credit for projects that expand rail capacity
- Expense other infrastructure capital expenditures
- Leverage private investment
- Short line investment credit renewal

# More Highway Gridlock Is Coming



*Average daily truck traffic will rise sharply.*



# Freight Rail Means Less Gridlock

- A typical train takes the freight of several hundred trucks off our highways.
- That means fewer traffic jams and reduced need for costly new highways.



# Truck Sizes and Weights

Increased truck sizes and weights means:

- Diversion from rail to truck.
- Higher highway and bridge congestion, damage, and maintenance costs.
- Increased pollution, and higher truck subsidies.
- Lower rail revenue and investment; remaining rail shippers face higher rates and reduced service.



