Optimal Investment in Rail Infrastructure: The Divergence of Public and Private Interests

---

STB Vice Chairman
Francis P. Mulvey

Electric Utility Consultants Inc.
Mesa, Arizona
March 28, 2006

Introduction

- Transportation & the National Economy

- Drivers of Transportation Demand
  - Economic Activity
  - Population
  - Globalization

Transportation Supply

- Public Private Provision
  - Private: Rail, Pipelines
  - Public: Roads, Airports, Port facilities
- *Historic Pattern: Supply preceded and shaped demand*
- *Today: Respond to crises*

The Growing Capacity/ Congestion Problems

- Affect both shippers and passengers
- TTI annual studies document – the problem is getting worse?
- Congestion caused
  - 3.7 Billion hours of travel delay
  - 23 Billion gallons of wasted fuel consumption
- Travel during peak hours takes 40% longer than during off-peak
  - In 1982, it took 13% longer

Growing Capacity/ Congestion Problem

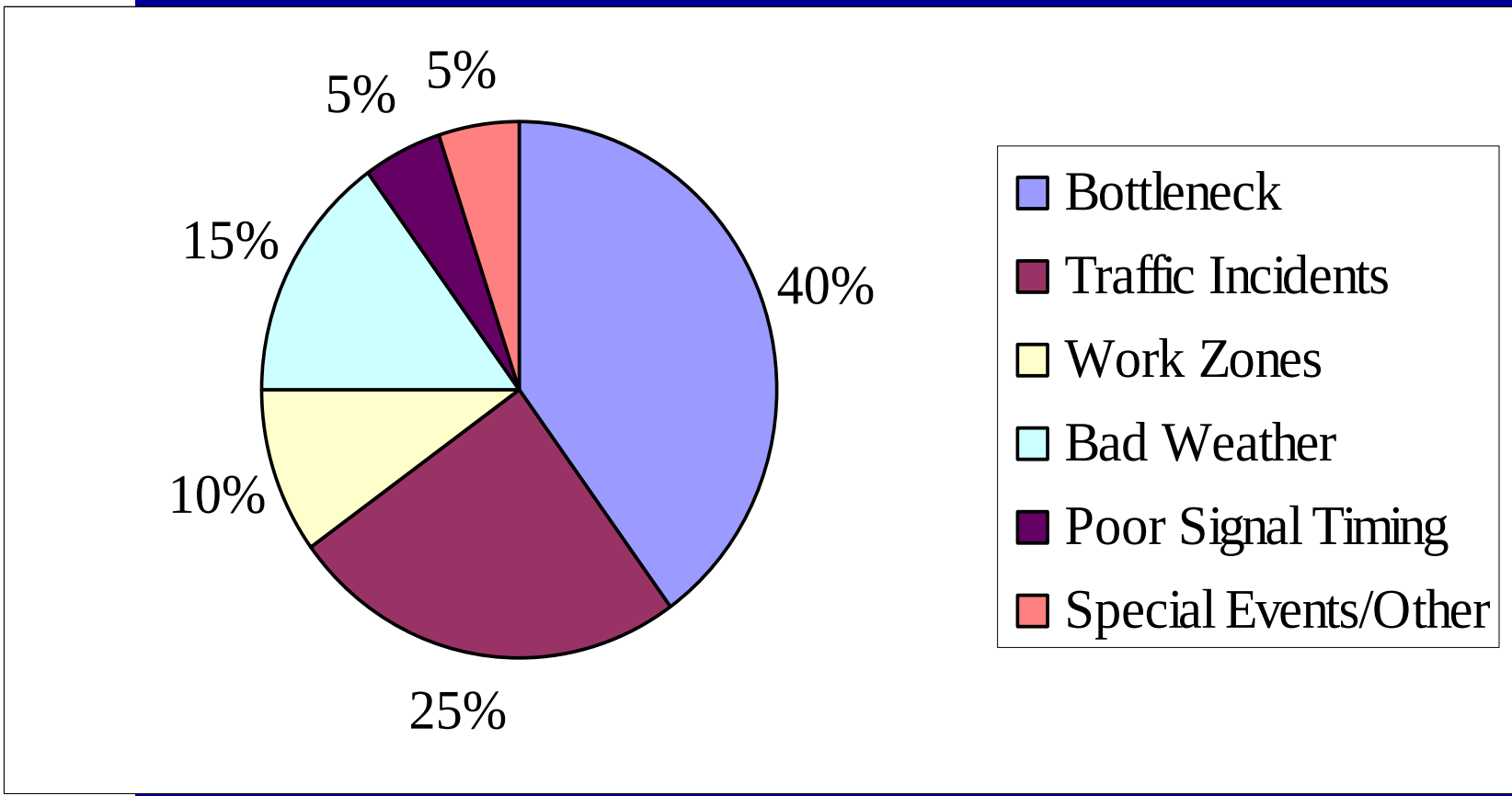
- More than 2/3rds of all travel during peak periods occurs in congested conditions
  - Compared to 1/3rd in 1982
- Roughly 60% of major roads are congested at peak times
- Length of congested period has grown from 4.5 to 7 hours
- Travel time reliability is greatly reduced
  - And it will get worse

Growing Capacity/ Congestion Problem

By 2025…

- Population will increase by 26%
- GDP will approximately double
- Total passenger travel will rise 72%
- Truck tonnage will grow 75% by 2020

Sources of Congestion



Growing Capacity/ Congestion Problem

- Investment in urban transport infrastructure inadequate to meet demand
- To maintain current levels, 5000 additional lane miles of roads required
- Major trans projects take 10-15 years from conception to completion

Growing Capacity/ Congestion Problem

- Some progress being made – under TEA-21 highway spending grew and more roads were improved
- However, >50% of spending went to system preservation

Growing Capacity/ Congestion Problem

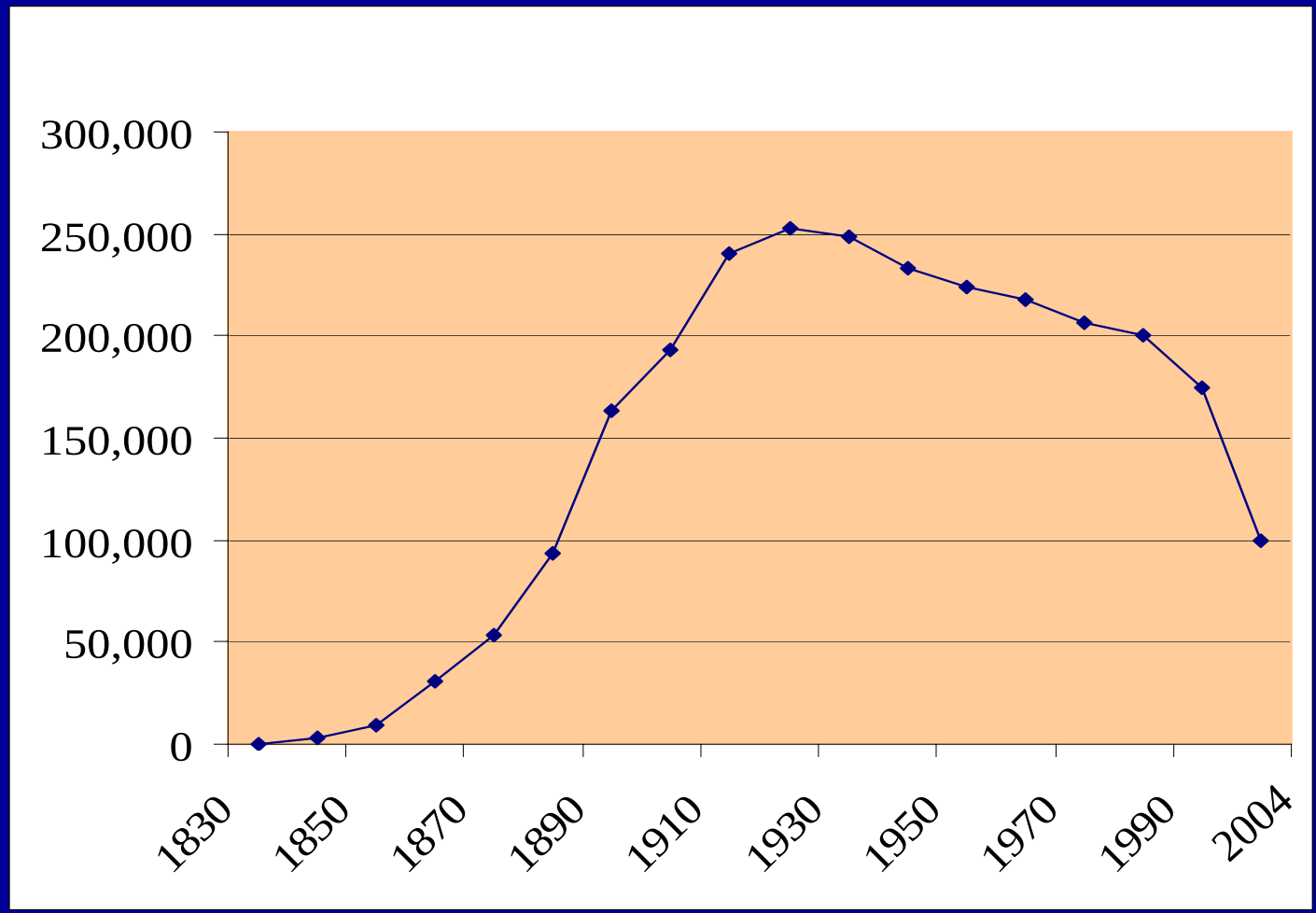
- Problem not limited to highways
- Ports dealing with larger vessels and rapidly expanding international trade
- Rail capacity problem is of more recent vintage
- Economic regulation fostered excess capacity, especially for railroads

The Developing Rail Capacity Crisis

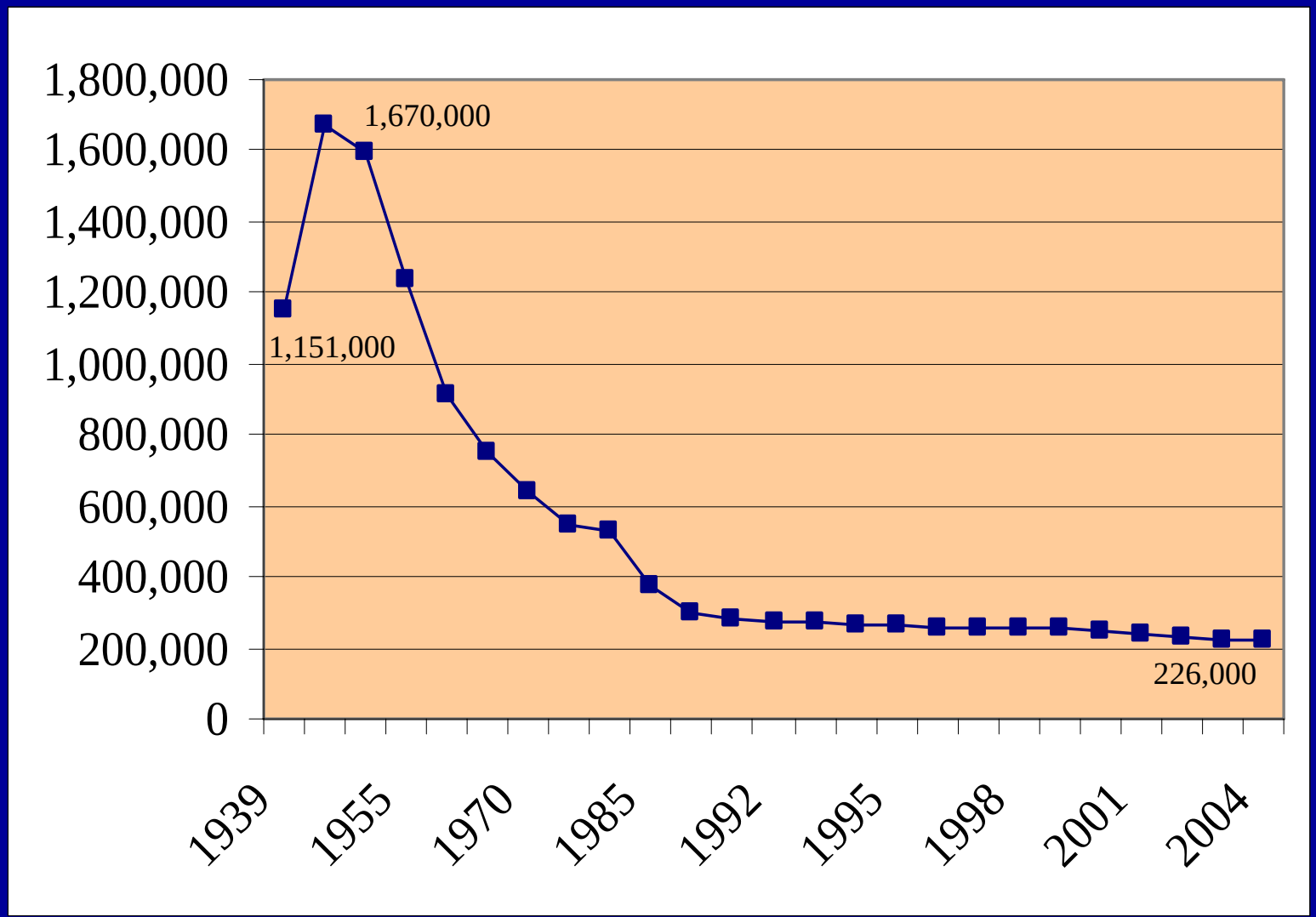
Shrinking workforce and infrastructure partially offset by productivity improvement but… continuous increase in traffic begins to absorb "excess capacity"

- Network becomes more vulnerable to stochastic events
- A "perfect storm" or the rail version of global warming

Growth & Decline of Class I Railroad Mileage



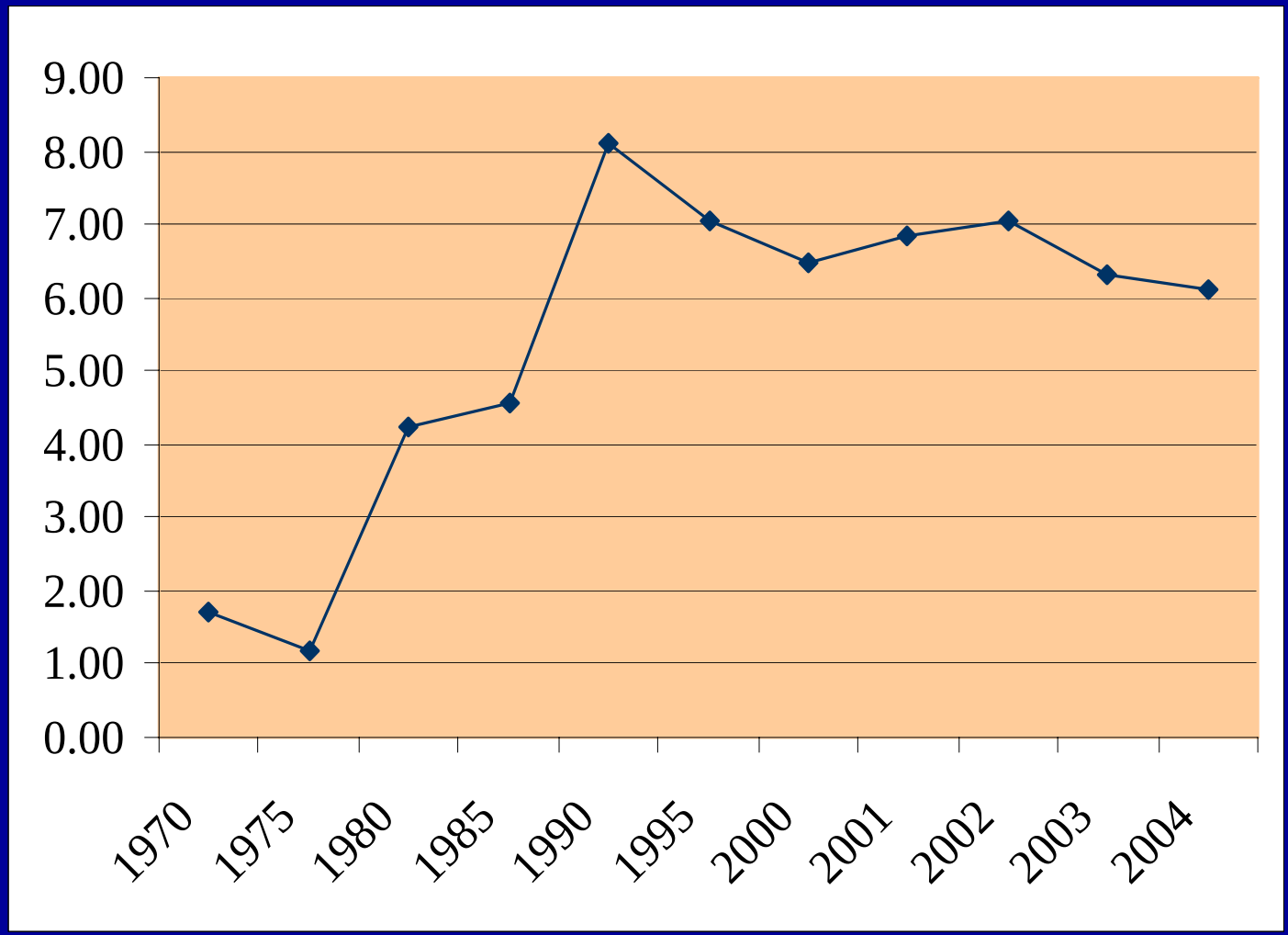
Railroad Employment 1939-2004



The Genesis of the Railroad Capacity Problem

- Improved earnings yet not revenue adequate
- RR's 'punished' by Wall Street for making capital investments
- RR's often found that infrastructure investments failed to generate sufficient income
- L/T strategy to reduce size of workforce
- Added rail infrastructure is long-lived while demand increases can be short-lived

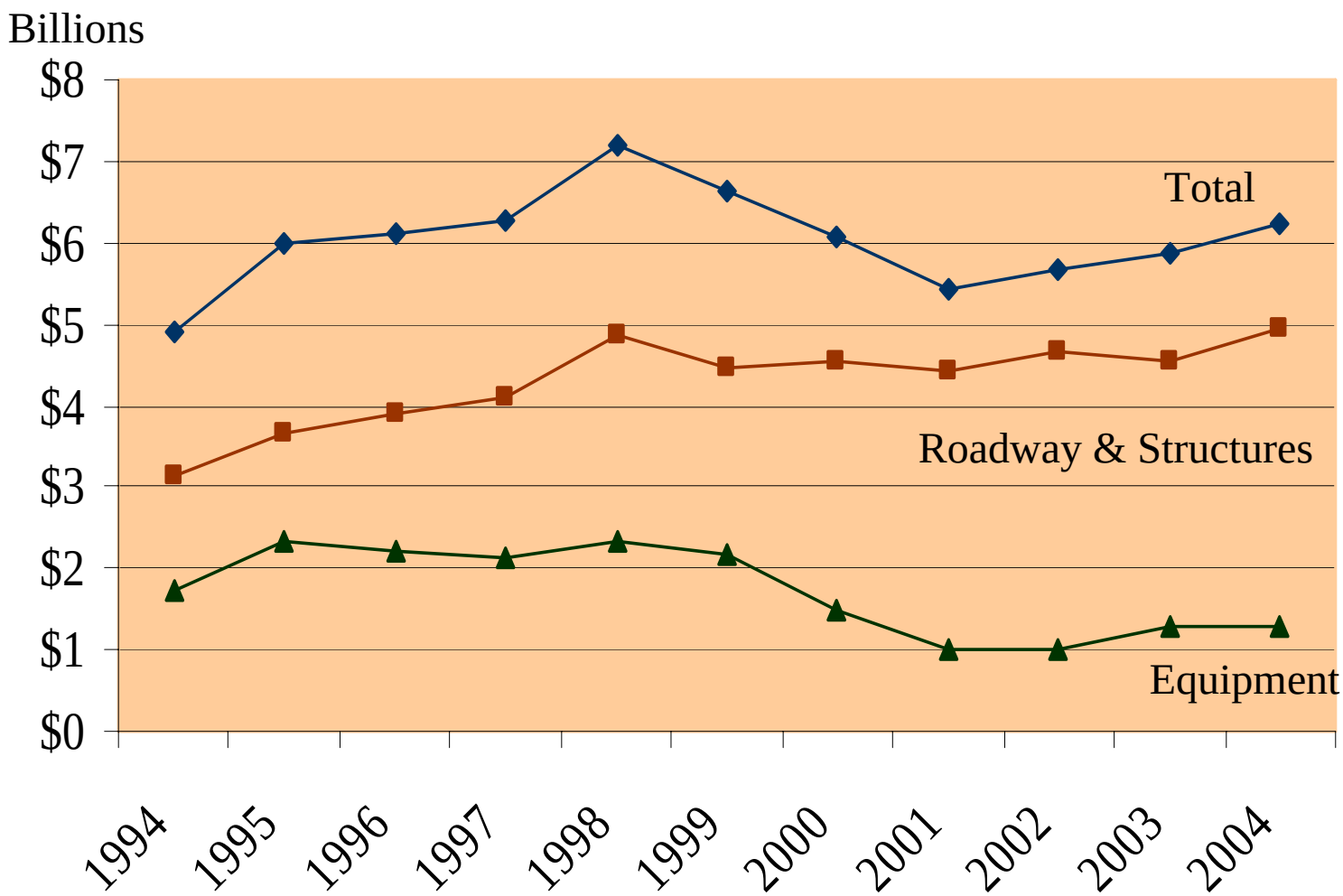
Railroad ROI 1970-2003



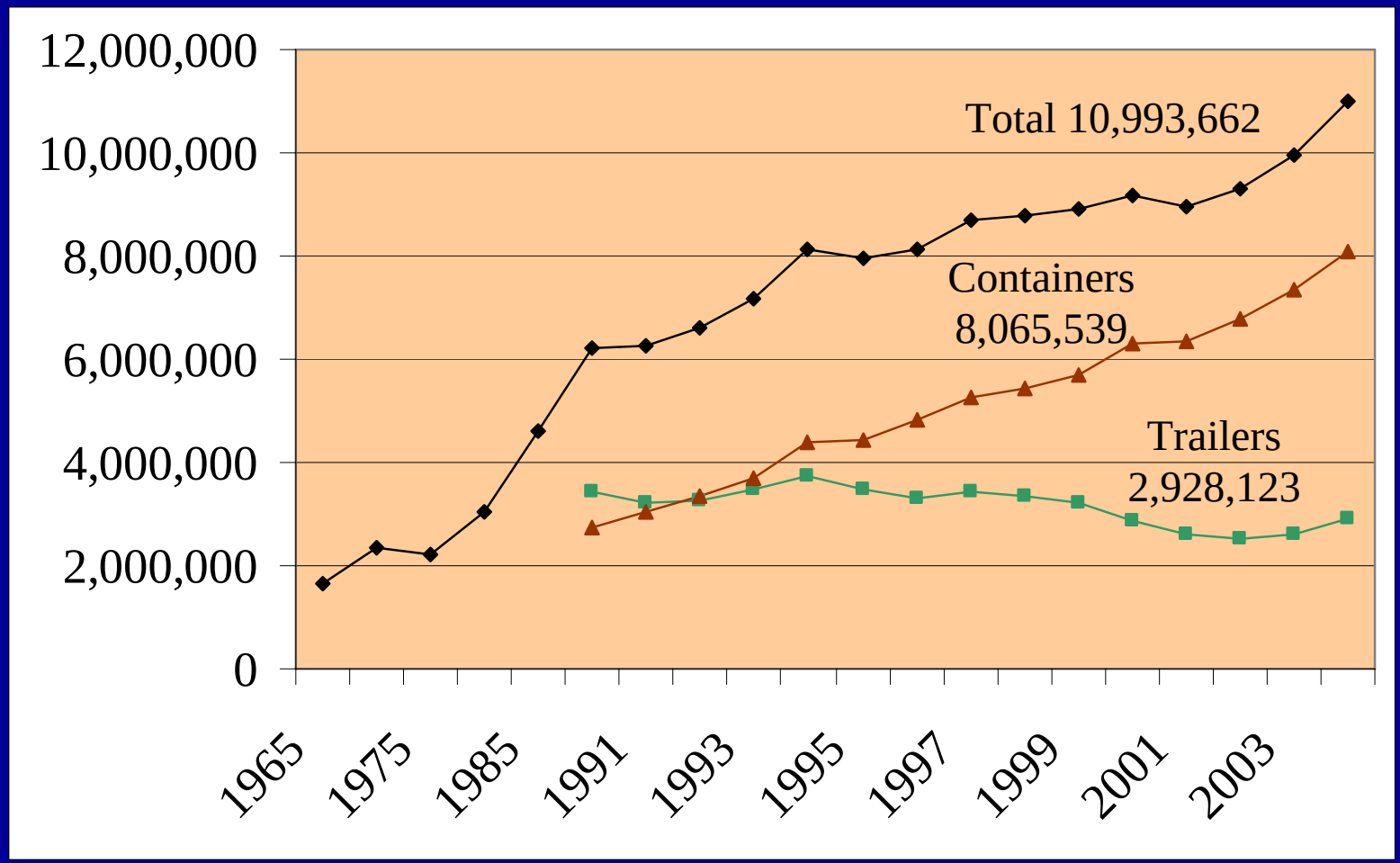
Short-term Capacity Problems

- Expanding economy lead to surge in imports
- Large grain harvests in 2003-2004
- Growth in export coal market
- Crew shortages due to wave of retirements
- Equipment shortages due to reduced purchases
- Cutbacks in capital spending programs
- Tight capacity in trucking industry

Class I Capital Expenditures 1994 - 2004



Intermodal Shipments Beginning 1965



Carrier Responses to Recent Capacity Problem

- More railcars and locomotives purchased and leased
- Accelerated hiring and training of crews
- Some infrastructure expansion efforts
- Price rationing of available capacity
- RR's choosing who they will serve and the common carrier obligation

Common Carrier Obligation

49 USC § 11101. Common carrier transportation, service, and rates

(a) A rail carrier providing transportation or service subject to the jurisdiction of the Board under this par shall provide the transportation or service on reasonable request.

(b) A rail carrier shall also provide to any person, on request, the carrier's rates and other service terms. The response by a rail carrier to a request for the carrier's rates and other terms shall be—

(1) in writing...prompt

(2) …made available in electronic form

Exempt Commodities

- 49 CFR §1039.10 Exemptions of agricultural commodities except grain, soybeans and sunflower seeds
  - Farm products
  - Fresh fish, meat, poultry
- 49 CFR §1039.11 Miscellaneous commodities exemptions
  - Many commodities included
  - Examples: Sand/Gravel, Rubber or Misc. plastics, motor vehicles, Rock salt, Scrap paper

Long-term Rail Capacity Constraint Factors

- Demand for freight rail projected to grow by 60-70% over next two decades
- RR's inability to earn cost of capital
- Pressure from Wall Street to reduce capital costs and improve ROI
- Long-term contracts limit RR pricing flexibility
- RR's tend to bid L/T contract rates down

Approaches to the Transportation Congestion Problem

- Build more physical infrastructure
- Adopt technological innovations
  - *Can RR's do this and maintain profitability?*
- Better utilize existing facilities
- Promote shipper/traveler behavioral changes
- Public/Private Partnerships

All have potential but all have limits

Infrastructure Capacity

- SAFETEA-LU – 2 years late, $90 Billion short
- $286.5 Billion over 6 years
  - 38% more than TEA-21 in 1998
  - Far short of $375 Billion estimated need
- Contains rail title but far from intermodal legislation
- Expands the RIFF program to $35 Billion, *makes shippers eligible*

Rail Capacity Investment

- RR's support limited public sector role
- Public/Private partnerships
  - Alameda Corridor
  - CREATE
- RR Trust Fund concept
- Investment Tax Credits
  - Short Lines 286K car issue
  - Class I access and limited fiscal capacity
- RIM and RIFF

Obstacles

- Dollar resources
- Resistance to change
- Labor contracts
- Ineffective lobbying efforts to address freight transportation needs

Need to Focus on Freight Issues & Intermodal Solutions

- Reauthorization of highway program is only 4 years away
- Increase visibility of freight issues
- Install a comprehensive evaluation process (i.e. c/b analysis) within in the planning process
- Address limitations on federal funding that dedicates $ to a single mode or non-freight purposes

Thank you. Questions?