



# *Coal, Railroads & the Surface Transportation Board*

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STB Acting Chairman Francis P. Mulvey

National Coal Transportation Association

Nashville, Tennessee

April 15, 2009



# Coal, Railroads and the STB

“May you live in interesting  
times”

*--Reputed to be an Ancient Chinese Curse*

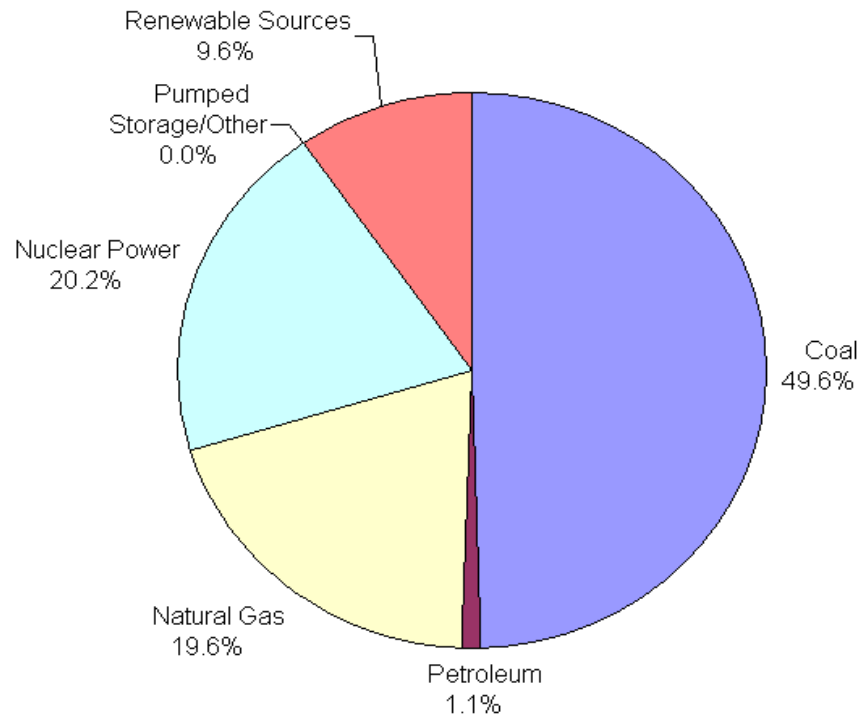


# Coal, Railroads and the STB

- **Much has changed over past two years**
- **Economy has declined and, despite some positive signs, it is not clear we have reached bottom**
- **Rail has gone from capacity constrained to excess capacity**
- **Long term future of coal is even less clear**



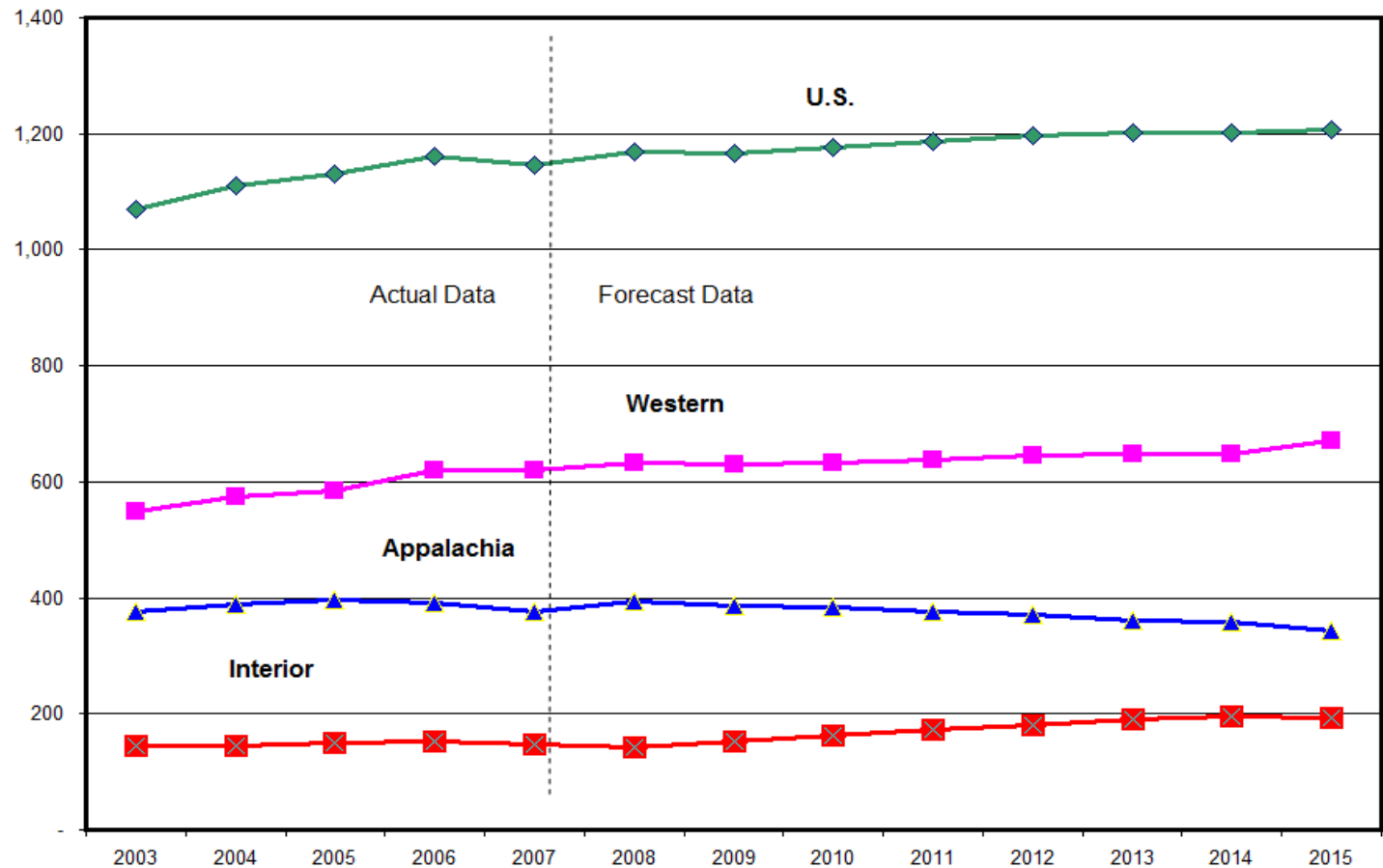
# U.S. Electric Power Industry Net Generation (2009)



Source: EIA



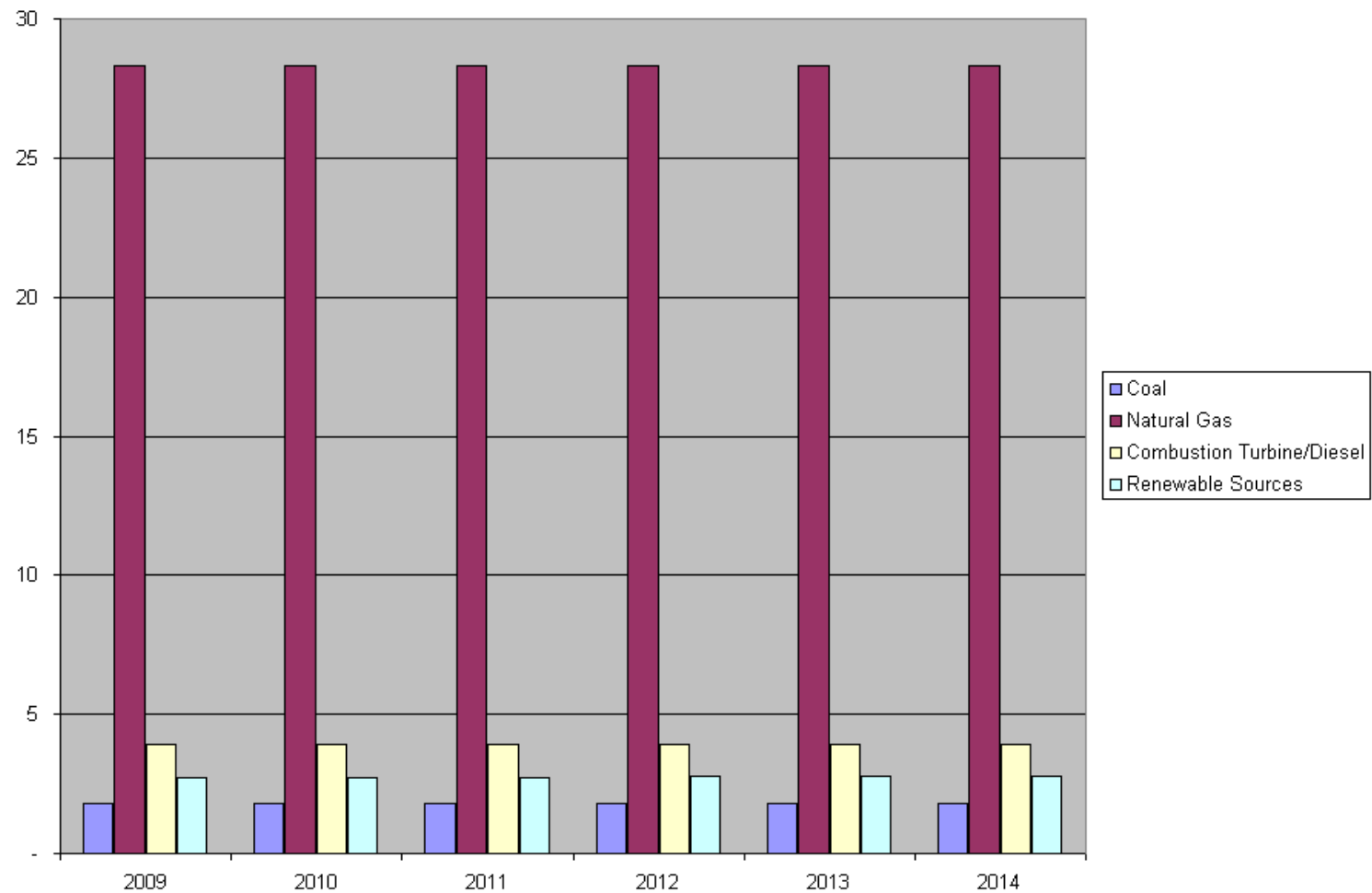
# Coal Production by Region Millions of Tons



Source: EIA



# U.S. Planned Generating Capacity Additions 2009-2014 (Gigawatts)



Source: EIA



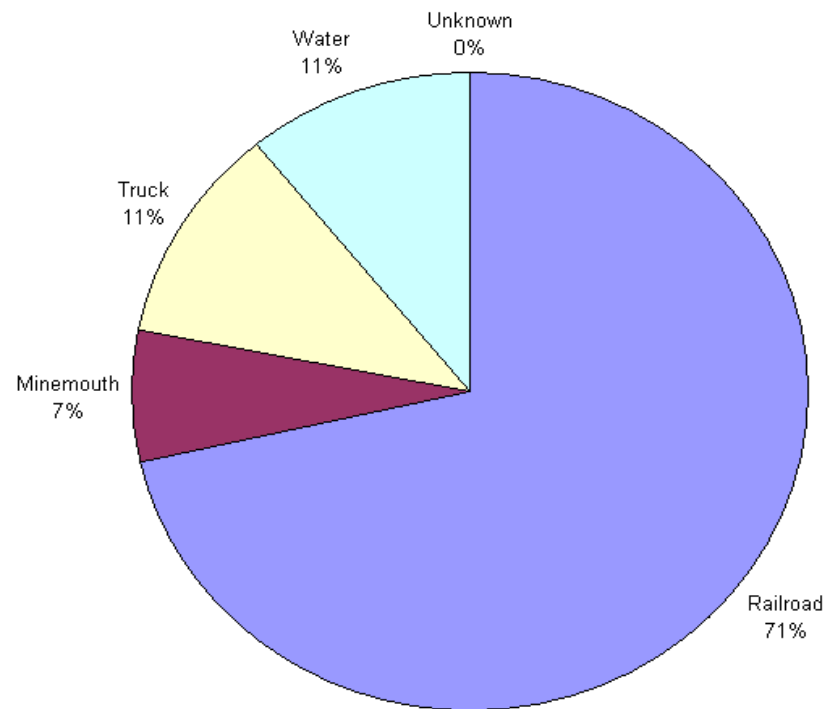
# Coal Shipments by Rail

- Coal is the railroads' single largest commodity by tonnage and by revenue
- In 2007 coal represented:
  - 44% of total tonnage moving by rail
  - 24% of Total Rail Carloads
  - 21% Gross Revenue for Class I railroads
- 95% of coal transported by railroads moves in unit trains
- 2007 Average coal rail car carried 113.6 tons
  - Up 16% from 98.2 tons in 1990

Source: AAR



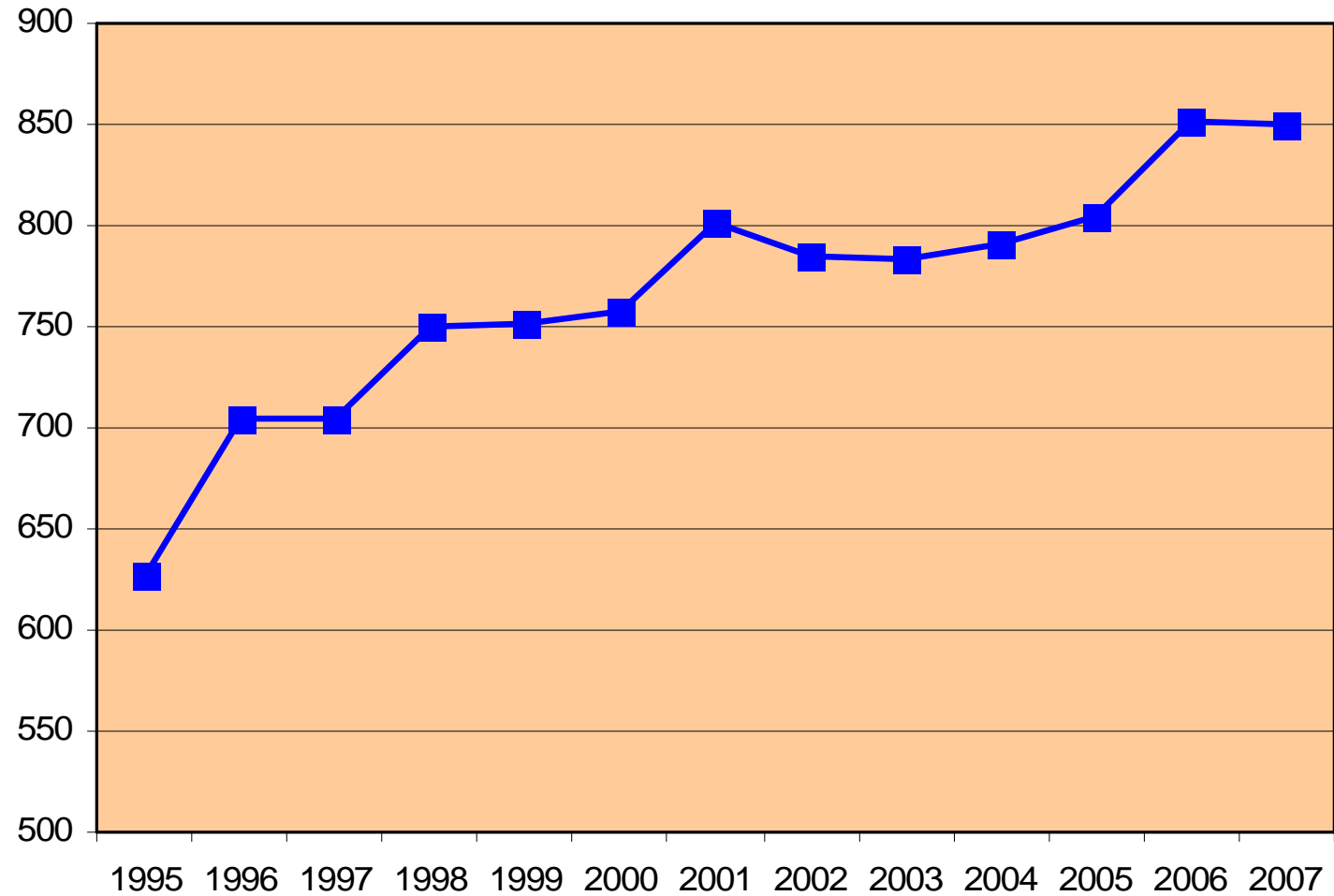
# U.S. Coal Shipments to Final Destination by Mode 2007



Source: EIA

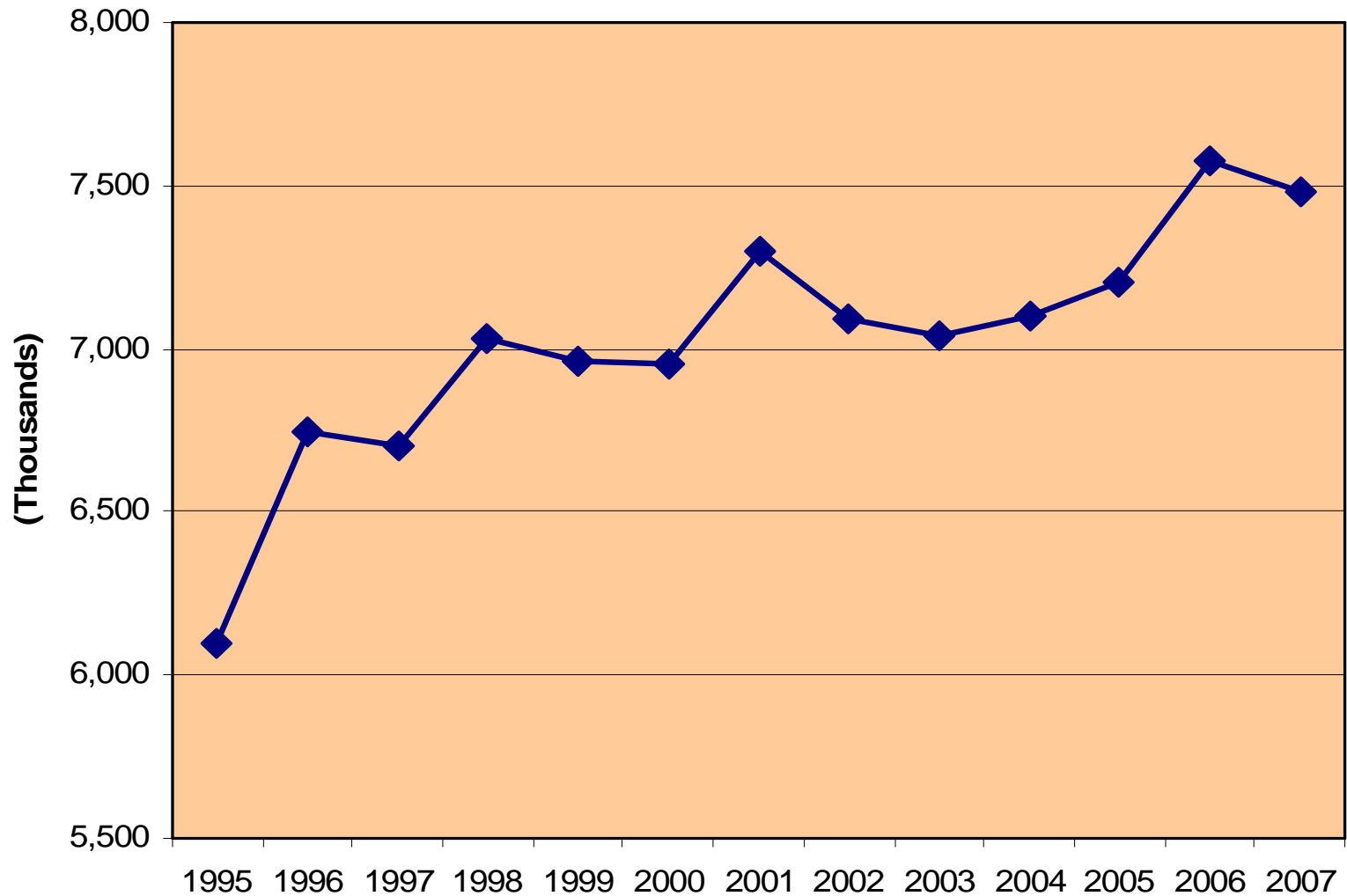


# Coal Tonnage Shipped 1995 – 2007



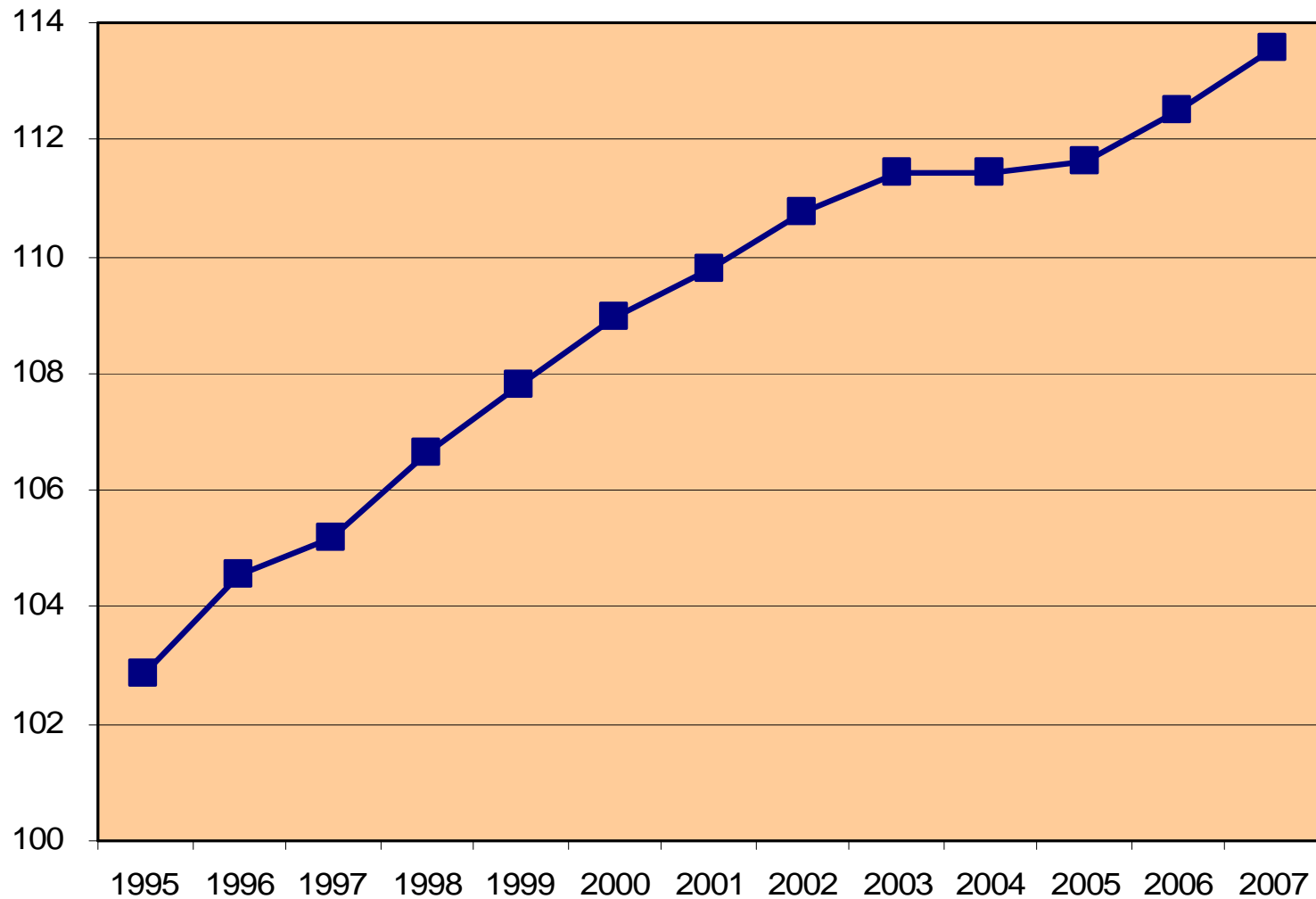


# Coal Shipments Rail Carloads Originated



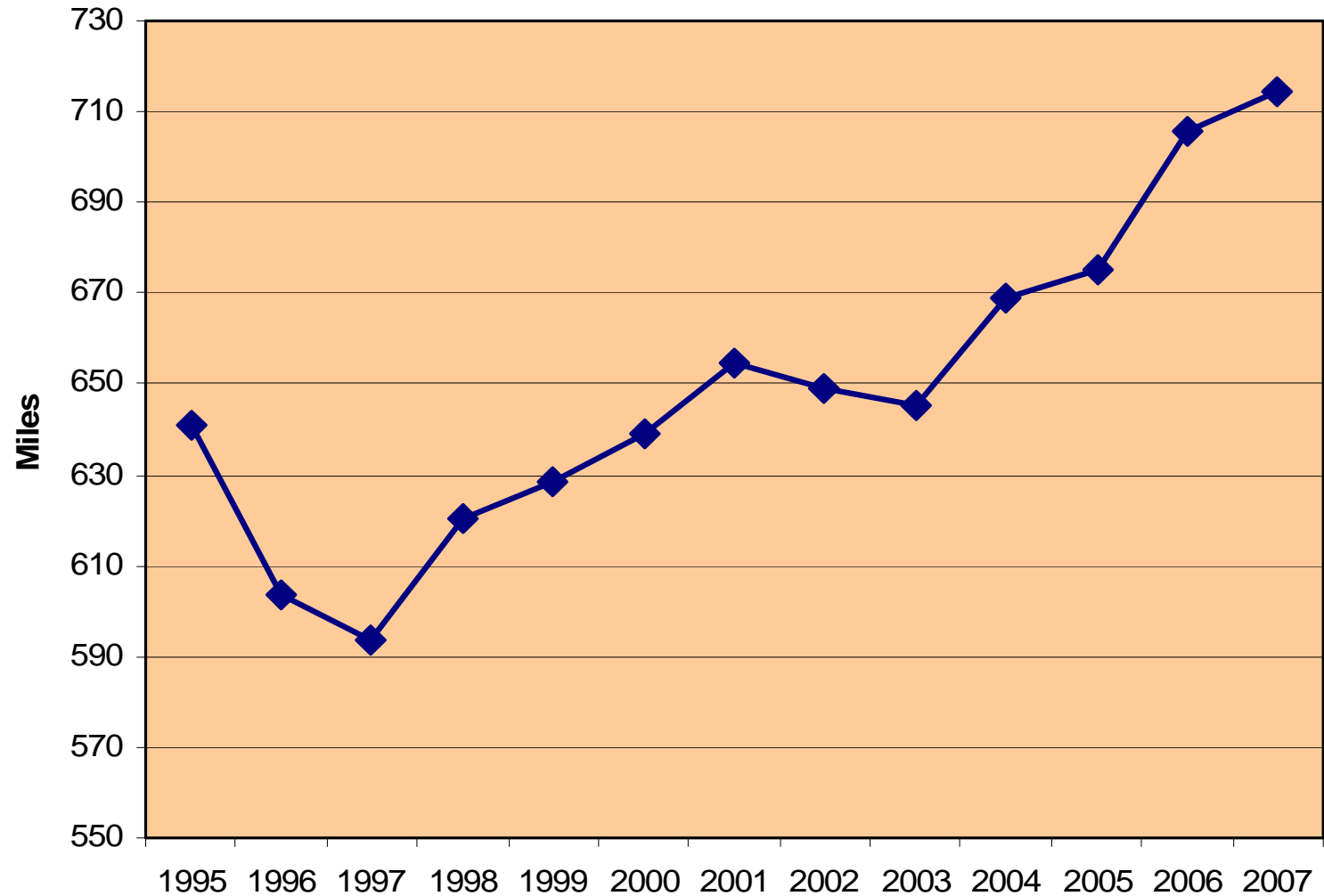


# Coal Shipments Tons Per Rail Car





# Coal Shipments Average Length of Haul





## 2007 Coal Rail Transport Data

- 7.48 million carloads shipped – a 1.2% decrease from 2006 which was highest ever, up 5% over 2005
- Class I's originated coal - 850 million tons, down 0.3% from 2006
- Class I gross revenue from coal - \$11.5 billion, up 6% from 2006

Source: AAR



## 2009 Estimated Coal Carloads for Class I Railroads

- Large Railroads on track to handle 6% fewer carloads than 2008
- Only KCS seems to be headed for an increase in carloads
- BNSF may handle about the same number of loads
- Rest of Class I's appear headed for a decrease – some by as much as 9%

Source: AAR April 2009 Annualized



# Recent Rail Carload Trends

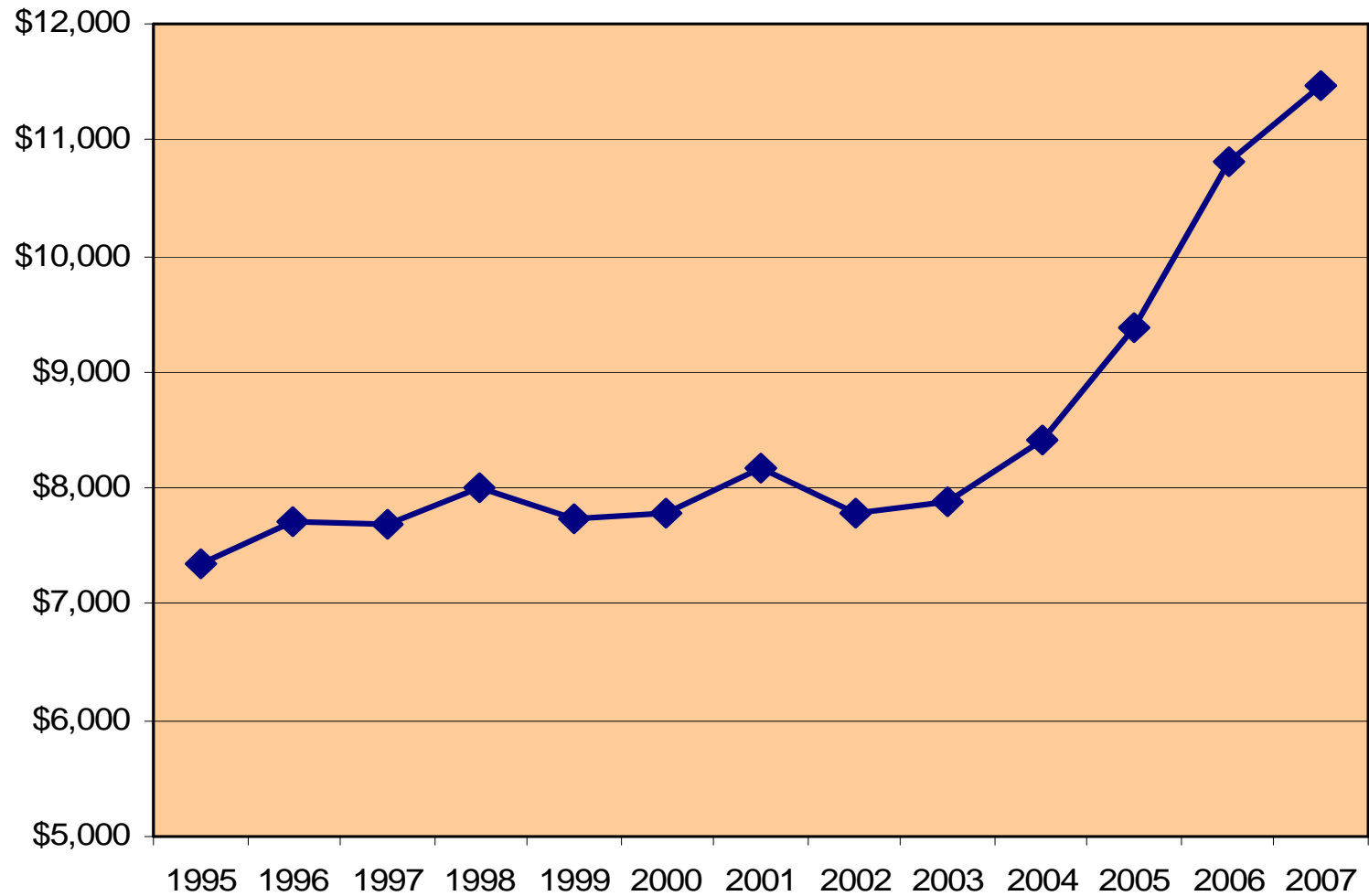
## Five Year Coal Carload Data for Class-one Carriers

	2005	2006	2007	2008	2009 est.
<b>CSX</b>	1 63 33 28	17 05 21 7	16 69 39 5	17 77 24 1	1 65 95 13
<b>NS</b>	1 66 18 34	16 88 18 3	16 33 89 2	16 88 57 4	1 50 69 93
<b>BNS F</b>	2 24 26 35	24 62 97 9	24 69 80 9	25 14 03 8	2 51 83 23
<b>KCS</b>	23 23 33	2 55 08 9	2 62 84 2	2 51 05 4	27 22 16
<b>UP</b>	2 12 89 77	22 47 27 5	22 59 46 3	23 03 25 9	2 08 06 20
<b>CN</b>	38 28 51	3 67 78 3	3 26 51 7	3 48 13 3	29 20 02
<b>CP</b>	34 08 73	2 65 84 0	2 55 75 1	2 63 55 2	26 05 31
<b>TOTAL</b>	8 62 28 31	89 92 36 6	88 77 66 9	91 45 85 1	8 59 01 99

Source: AAR

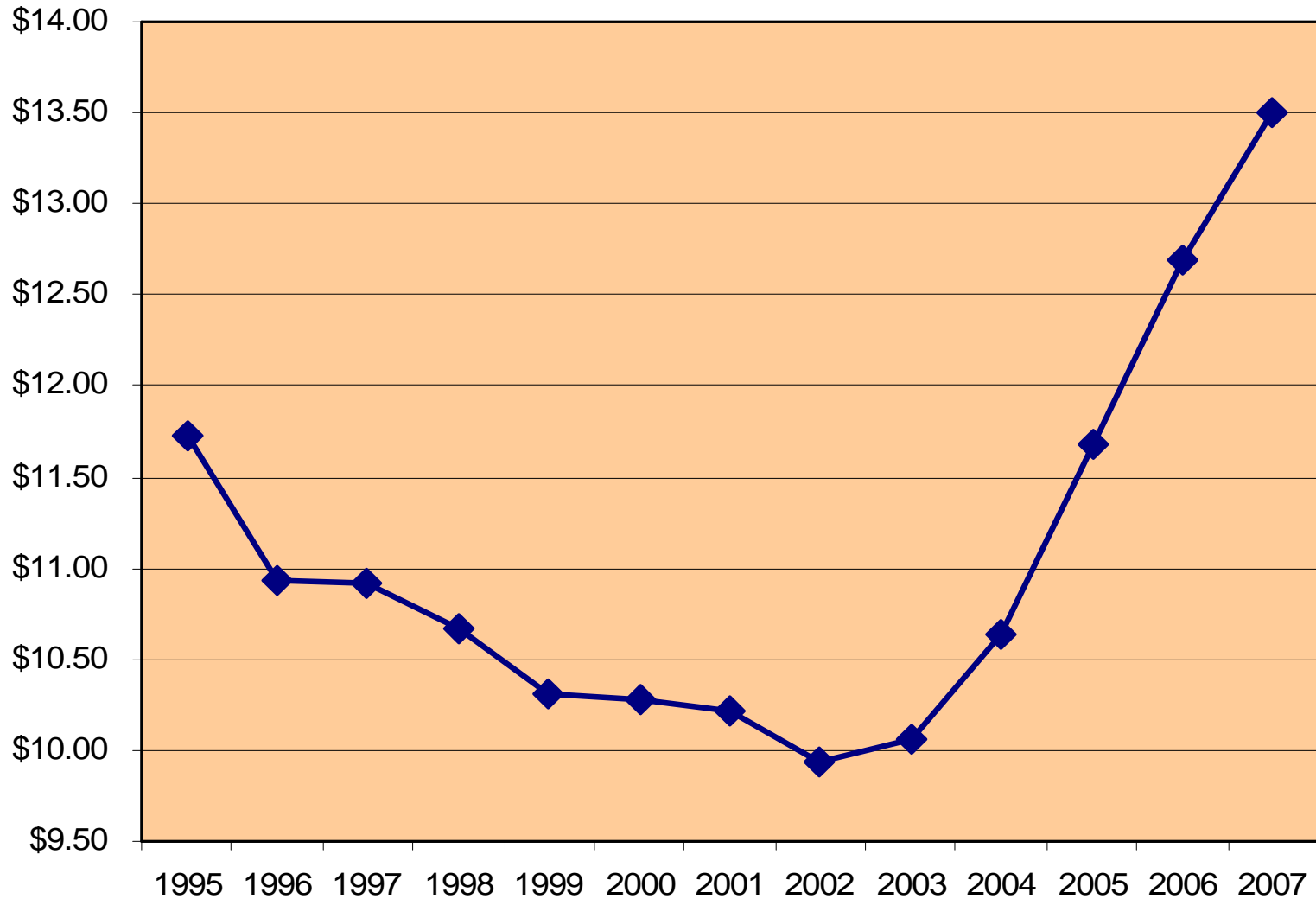


# Coal Revenue (Millions)



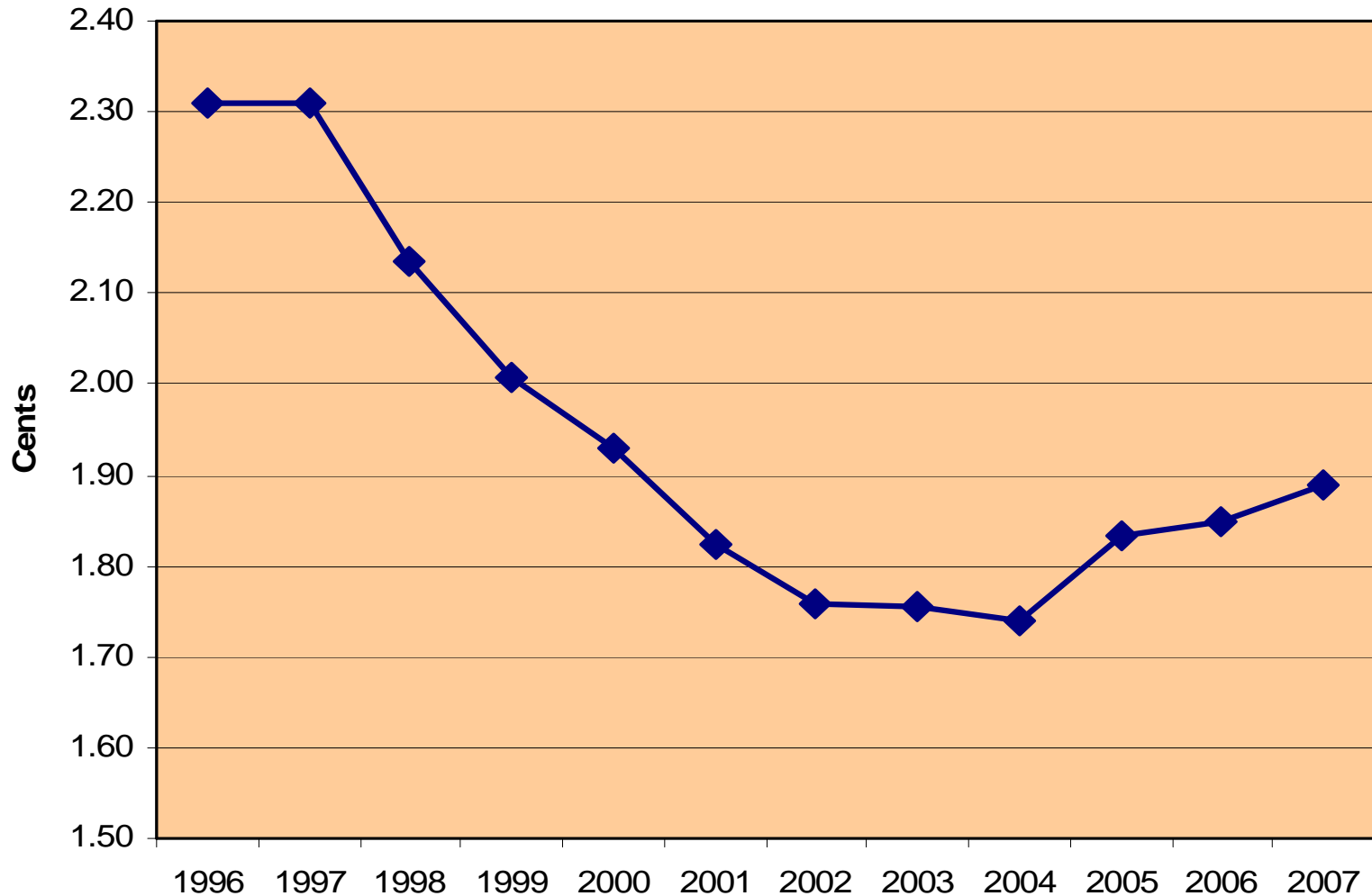


# Coal Revenue Per Ton





# Coal Revenue Per Ton Mile (Constant 2007 Dollars)





# Coal Transport Efficiency

- Coal capacity and efficiency have been increased by improvements in train operations, including
  - 24 hour shuttle trains
  - Longer trains
  - Reduction in crews
  - Larger cars
  - Distributed power
  - Improved signaling and dispatching
  - Faster loading and unloading
  - More double track
- Revenue per ton-mile for coal was 34% lower in 2007 than in 1990

Source: STB



# Coal Stockpiles YTD 2009

- As of the start of the winter 2008/2009 season, U.S. utilities had coal stockpiles approximately 8 percent larger than the same period 1 year earlier
- November 2008 stockpiles were at their highest level in over 20 years (since November 1987)

Source: Standard &  
Poor's



# The Future of Coal and Rail Transportation of Coal

- Prior analyses, such as Cambridge Systematics study and DOT's Freight Analysis Framework overstated potential growth of demand for freight rail service
- Earlier studies did not account for precipitous decline in the national economy; new analysis for STB by Christensen Associates revises forecast using more conservative and more up-to-date projections
- Moreover, earlier forecasts of rail demand inconsistent with more sophisticated projections in changes in commodity output
- E.g., FAF projects 78% increase in rail coal tonnage between 2002 and 2030, but EIA's Annual Energy Outlook projects only a 24% increase and that presumes: tax credits for solar and wind power will expire, and no increased restrictions on GHG emissions beyond required under 2009 law.

Source: Christensen Assoc



# The Railroad Capacity Problem

- 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
- *Will current traffic decline and concurrent relaxation of capacity constraints be short lived?*



# The Railroad Capacity Problem

- Improved earnings yet most not deemed “revenue adequate” as STB measures it
- Historically RRs ‘punished’ by Wall Street for making capital investments
- RRs often found that prior infrastructure investments failed to generate sufficient income
- Added rail infrastructure is long-lived while demand increases can be short-lived



# Carrier Responses to Recent Turndown in Traffic

- Tens of thousands of railcars and thousands of locomotives idled
- Many infrastructure expansion projects put on hold
- Thousands of workers furloughed
- Prices have tended to remain stable or even trend upward



# Approaches to Solving Long-term Rail Capacity Needs

- Build more physical infrastructure
- Adopt technological innovations
  - *Can RRs do this and maintain profitability?*
- Better utilize existing facilities
- Promote shipper/traveler behavioral changes
- Public/Private Partnerships
- Greater role for the Federal Government?



# Coal, Railroads and the STB

- Recent changes in STB's Processes



# Railroad Cost of Capital

- STB has found that most carriers are not revenue adequate on a system basis
- STB combines cost of debt and cost of equity to estimate cost of capital
- WCTL petitioned to reexamine our method-- argued that STB overstated cost of equity capital by using Discounted Cash Flow (DCF)
- WCTL argued that most analysts use Capital Asset Pricing Model approach not DCF



## Revised Cost of Capital Methodology - STB EP 664 and EP 664 (Sub-1)

- STB EP 664 - Issued January 17, 2008
  - Changed calculation for cost of equity
  - Utilizes CAPM – Capital Asset Pricing Model instead of Discounted Cash Flow Method
- STB EP 664 (Sub-1) – Issued January 28, 2009
  - Board now utilizes both CAPM and Multi-Stage DCF for Cost of Capital determination



## Ex Parte 657 – Rulemaking to Streamline Major Coal Rate Cases

STB October 2006 Decision called for:

1. Replacing the percent reduction approach for calculating maximum lawful rates to eliminate gaming
2. Adopting an "average total cost" method to allocate revenue
3. Shortening the analysis period to 10 years
4. Changing the method of forecasting operating expenses to account for future productivity improvement
5. Eliminating most cost adjustment
6. Adopting new standards to govern when to reopen rate cases



## Simplified Standards for Rail Rate Cases STB Ex Parte No. 646 (Sub-No. 1)

- STB Decision – September 5, 2007
- Provides access to the rate reasonableness process for all sizes of rail rate disputes, and in particular, to the estimated 73% of challengeable rail traffic for which the large rate case process would be financially impracticable
- Requires, for all rail rate disputes, mandatory, nonbinding mediation—a mechanism that has been used successfully in previous cases to arrive at negotiated settlements



## Simplified Standards for Rail Rate Cases STB Ex Parte No. 646 (Sub-No. 1)

- Allows rail customers to choose the methodology that is most appropriate for consideration for their complaint:
  - A rail customer choosing the simplest approach, the “Three-Benchmark” methodology, is eligible to recover up to \$1 million over a 5-year period.
  - A rail customer choosing the “Simplified Stand-Alone Cost” methodology is eligible to recover up to \$5 million over a 5-year period



# Coal, Railroads and the STB

- First coal rate cases adjudicated under new “streamlined” guidelines
- Cases under appeal (WFA)
- First cases adjudicated under the new guidelines for small rate cases (DuPont/CSX back at STB)



# Legislative Proposals Affecting the Board



# Pending Legislation Involving the STB

- House and Senate drafting legislation that proposes to
- Reauthorize the STB
  - Change how the railroad industry is regulated
  - Removal of Railroad Antitrust Exemptions - Bill would:
    - Give DOJ shared authority over rail mergers and acquisitions
    - Remove railroad immunity from antitrust laws for anti-competitive actions
    - Allow states and private parties to sue for injunctive relief
  - Rail infrastructure tax credits



Thank you

Questions?