



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

# TRF 2005: Research Needs in Transportation Economics

Gerard McCullough

Department of Applied Economics

University of Minnesota

# Goal: Efficient Transportation Systems



# Classic Economic Analyses

- Beckman et al. (1956) – Equilibrium
- Meyer et al. (1958) – Statistical Costing
- Walters (1961) – Highway Costs
- Warner (1962) – Modal Split
- Vickery (1963) – Pricing and Investment
- Solow & Vickery (1971) – Land Use
- McFadden (1974) – Demand Estimates

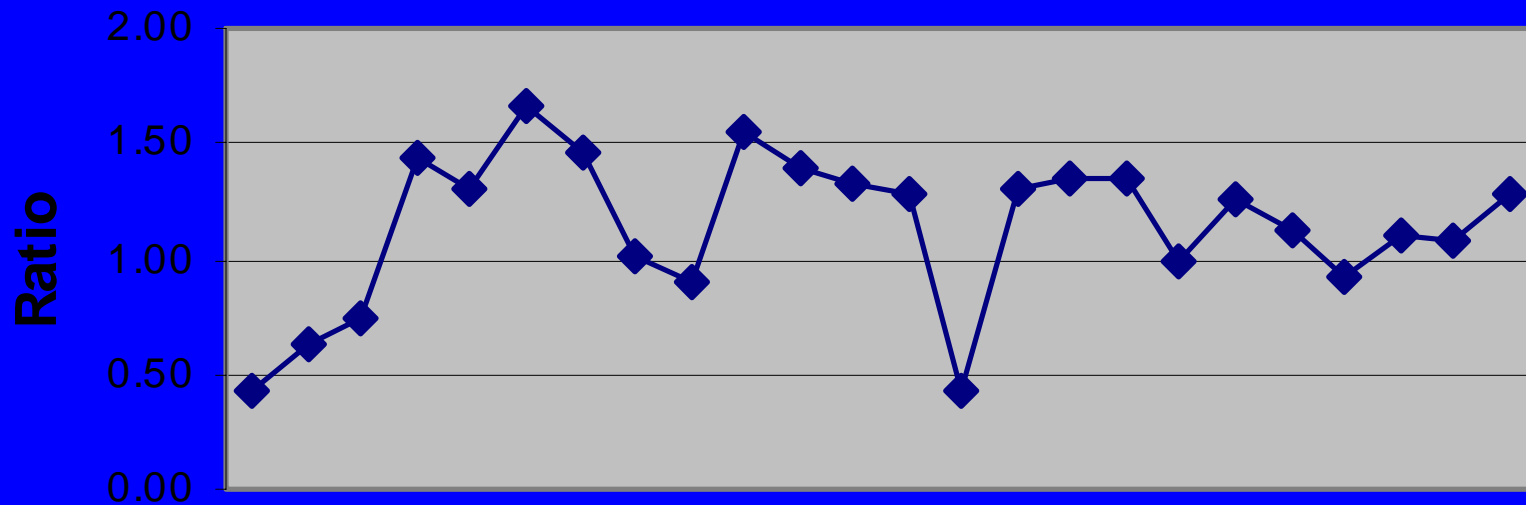
# Classic Legislation

- Airline Deregulation Act of 1978
- Motor Carrier Act of 1980
- Staggers Rail Act of 1980
- Intermodal Surface Transportation Efficiency Act of 1991

# What we knew in 1980

- Modal decisions are based on comparative internal costs to users.
- Autos and trucks have significant cost advantages in many markets—despite externalities.
- Excess regulation may have caused many problems in intercity freight and passenger.
- Eliminating all subsidies (including highway subsidies) is better than giving countervailing subsidies.

If deregulation and ISTEA were so good,  
why is there still a stone in my shoe?



**Example: Cash Flow/Capital Spending  
US RRs 78-01**

# What we did not know in 1980

- Extent to which railroads (and perhaps other modes) really were natural monopolies.
- Effect of contracts on rate and service levels in freight markets.
- Political economy of transport pricing and investment (especially highways).
- How exactly should government intervene in transportation markets –regulation, procurement, antitrust.



## What Is TRF Investigating in 2005?

- Oster and Strong – Evolution of U.S. Domestic Airline Route Networks
- Huneke – Game Theory Approach to Railroad-Shipper Negotiations
- Button & Thibault – Political Economy of Maritime Container Security
- Senguttuvan – Airport Regulation and Competition

# Summary of Needs

- Traditional Industrial Organization Studies
  - Demand Functions
  - Cost Functions
  - Pricing
  - Market Failure
- *New* Industrial Organization Studies
  - Contracting
  - Political Economy
  - Regulatory Design
  - Structural Merger Analysis

# There may be other issues...

