Transportation Deregulation and Safety

A Retrospective and Reflection after 25 Years
Regulatory Reform . . .

Airline Deregulation Act of 1978
Motor Carrier Regulatory Reform and Modernization Act of 1980
(Staggers Railroad Act of 1980)

1. Freedom to enter the industry
2. Freedom to enter or exit individual markets
3. Pricing Freedom
A few years later . . .

“Can we keep the Skies Safe?”
*Newsweek*
January 30, 1984

“The Scandal of Killer Trucks”
*Fortune*
March 30, 1987
On June 23-25, 1987 NU-TC organized a large conference involving a huge number of academics, industry leaders and government and Congressional figures.
Proceedings

- Size of a telephone book
- 54 papers
- Modal summary statements
  - Jovanis and Thompson for truck
  - Golbe and Lazarus for aviation
- Findings paper by Moses and Savage
- Executive summary
Book

- “Transportation Safety in an Age of Deregulation” edited by Leon Moses and Ian Savage, Oxford University Press, 1989
- 18 papers plus introductory, summary and concluding chapters
Our objectives today . . .

• Not an exercise in nostalgia, or even really in economic history

• Reflection - in the fullness of time - on the relationship between economic regulatory reform and firms’ actual choices on product quality (in the dimension of safety)

• Implications for transportation modes worldwide, or other sectors (e.g. nuclear power plants), where reform has yet to occur
Shortcomings of the 1987 conference . . .

- Deregulation had occurred (relatively) recently
- Not much “after” data – empirical work had data that – at best – was for up to 1985
- In trucking, not much “before” data either - FARS data as we know it today only started in the mid 1970s
- Now we have the benefits of hindsight
Our intended methodology . . .

• Want this to be an inclusive conversation between the speakers and the audience, and not a parade of talking heads

• We want you to be part of a process by which, hopefully, you will leave today having drawn informed inferences on a number of questions . . .
Potential questions to reflect on . . .

1. Were the concerns of the mid 1980s justified?

2. What public policy changes arose from the debate .. and were these changes justified or effective?

3. Were there other safety issues that did not become apparent until after the original conference?
Potential questions to reflect on . . .

4. To what extent are contemporary safety issues still tied up with the deregulation debate?

5. What was the nature and the magnitude of the effect (if any) of economic deregulation on long-run safety trends?

6. Other questions that I had not thought of
Our speakers today . . .

- Ian Savage (NU) – 1987 conference coordinator
- Paul P. Jovanis (Penn State, then at NU) – member of 1987 conference committee
- Thomas M. Corsi (Maryland) – speaker at 1987 conference on motor carriers
- Clinton V. Oster, Jr. (Indiana) – speaker at 1987 conference on aviation
Leon N. Moses . . .

- Had the original idea
- Rounded up the financing
- Chaired the conference committee
- Hired me
- Co-editor of the subsequent book
The Arguments Made and the Findings of the 1987 Conference
• This afternoon we will have the perspective from 2012
• This segment will provide background by presenting from the 1987 conference
  – Some theoretical observations
  – Issues
  – Empirical results
  – Policy prescriptions
Observation #1

• “Safety is the last refuge of scoundrels”
  – Some parties made worse off by deregulation, and wanted it reversed
  – But, overwhelmed by other parties (consumers) who were made better off
  – Safety is a convenient and effective weapon to use
    • Crashes are rare, so measuring safety changes is tough
    • Even without crashes, always argue that there is “an accident waiting to happen.” Hard to disprove.
    • Safety is an emotive subject, and Congress / Government is apt to act
Observation #2

• Safety is an *economic good*
  – One of the product attributes of transportation
  – Valued by consumers (but not necessarily equally by all consumers)
  – Costly to provide
  – Spill over (externality) effects especially in trucking
Observation #3

- Regarding safety as product quality, it would be surprising if pricing and cost changes resulting from economic regulatory reform did not result in some change in the safety choices of firms
- “...it would be remarkable if there was no effect”  
  
  Panzar and Savage
But before you draw the wrong conclusions . . .

• A. Michael Spence (1975) “Monopoly, Quality and Regulation” *Bell Journal of Economics* 6:417-429 indicated that economists could not definitively say whether profit-maximizing monopoly (MC=MR) provision or first best (P=MC) provision results in greater product quality
Observation #4

- Consequently, the relationship between pricing freedom and market structure changes and the level of safety provided is an empirical not a theoretical matter.
Observation #5

• There usually is not one “level of safety”
• Pricing freedom might lead to differential safety offerings if
  – Consumers vary in their safety preferences
  – Consumers can differentiate between firms
• “Vertical differentiation”
• Economists regard this as a good thing
Observation #6

• Under price regulation, firms may compete using excessive quality (e.g. service frequency for airlines)

• If this was also true for safety then safety may decline after deregulation

• Safety disbenefits would be weighted against the (many) benefits
Observation #7

• Firms do not decide their safety offerings in isolation
  – Their competitors’ offerings
  – The inherent safety of the quantity and quality of shared infrastructure
  – Government policy
    • Minimum standards
    • Enforcement effort (probability of detection, size of penalty)
What was the empirical focus?

1. Safety of the many new entrants
2. Safety of existing firms, especially those in financial distress and close to exit
3. Expansion of demand leading to congestion and safety concerns regarding the infrastructure
4. “Modal shifts”
5. Adjustment of safety regulations and enforcement efforts to the new market conditions
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Truck Regulation Changes

- 1982 Surface Transportation Assistance Act – Motor Carrier Safety Assistance Program (MCSAP)
- 1984 Motor Carrier Safety Act – uniform national standards for drivers and equipment
- 1986 Commercial Motor Vehicle Safety Act – MCSAP funding expanded, expanded national standards including uniform national Commercial Drivers’ License (CDL)
- Setting up of the Commercial Vehicle Safety Alliance (CVSA)
- Early pre-Internet safety databases for shippers and enforcement agencies
Conclusions: Aviation

• “The decline in the nonsafety aspects of service has been extensively documented.”
• “The forecasts of some deregulation critics that price competition would cause an absolute decline in safety have proven incorrect.”
• “Adherents of the safety stock-congestion theory hold that the record of accidents is insufficient to the task of predicting where the system is likely to go in terms of safety.”
• “the federal government has not mounted a major campaign to significantly relieve congestion at major hub airports and in the airspace in their vicinity.”
Recommendations: Aviation

- Mode C transporters (TCAS compatible) on private aircraft within 50 miles of main hub airports
- Move away from weight-based landing fees and charge higher prices at peak times
- Reporting of near mid-air collisions
- Release funds in the ticket tax trust fund for
  - expanding number of safety inspectors
  - speeding up National Airspace System Plan
  - increase number of air traffic controllers
Conclusions: Trucking

• “fail to find evidence of the kind of consumer unrest that characterizes airline travel.”
• “The adjusted index of [property damage] accidents per truck-mile fell from 100 in 1978 to 69 in 1985 – a 30% reduction.”
• “The index of auto fatalities in truck-related accidents per mile of automobile usage fell by 21% from 1978 to 1985.”
• “Economic deregulation has not led to an increase in the fatality rate. Neither has it increased the rate of industrial injuries and illnesses of trucking industry employees.”
• “the trucking industry feels strongly that safety difficulties that are identified should be addressed by safety measures, not economic regulation.”
Recommendations: Trucking

- Identify “black spot” locations and times
- Publicly available “central computer file” on individual firm safety
- Better data collection on non-fatal crashes
- Concerns about increasing speed limits
- Elimination of “commercial zones”
- Enhanced monitoring of new entrants, but not as a barrier to entry
- Support expansion of roadside inspections through MCSAP, the CVSA, and development of a uniform national CDL