TRANSPORTATION DEREGULATION AND SAFETY

Conference Proceedings

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Transportation Deregulation and Safety

An investigation into the linkages between economic deregulation and safety performance in the U.S. aviation and motor carrier industries

The Transportation Center
Northwestern University

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EXECUTIVE SUMMARY

1. On June 23, 1987 the Transportation Center of Northwestern University convened a three day conference on the implications for safety of the Airline Deregulation Act of 1978 and the Motor Carrier Act of 1980. These Acts were passed because it was felt that increased competition and freedom for carriers to quote individual rates would lead to lower real rates and benefits to consumers, while not denigrating the quality of service, particularly its safety component. It was commonly believed that the environment of strict economic controls by regulatory bodies, and the practice of legal collusion between carriers within rate bureaus had led to excessive reliance on some forms of costly quality competition. In addition, the tendency of the regulatory bodies to treat cost increases as pass throughs in granting rate increases had, it was believed, resulted in wage rates that were out of line with productivity. It is clear that changes in the regulatory situation have greatly slowed the rate of increase in real wages in the two industries.

2. There is still debate as to how large the benefits to consumers and shippers from increased competition and reduced rates have been, though few dispute the fact that they are positive and substantial. However, serious questions have been raised about the impact of regulatory reform on the quality of service in the two industries, safety being the major issue.

THE AIRLINE INDUSTRY

3. No one disputes the fact that increased rate competition in airlines has led to increased: travel delays; travel time for many travellers; and the incidence of lost baggage. Taken alone such disbenefits would not have been enough to create the growing sense that deregulation may have been permitted to go too far. Many travellers and members of Congress are uneasy because they believe that safety has been compromised.

4. Airline accident statistics for the commercial sector do not support the position that safety has been denigrated. The forty year downward trend in the number and rate of accidents, fatal accidents, and fatalities has not been reversed under deregulation. Supporters of regulatory reform rest their case that safety has not been compromised with these numbers. However, there is serious debate about what the future is likely to be in safety terms. Some serious scholars of the airline industry hold that the margin of safety, which they tend to think of as a type of stock, investments in safety built up in the days of economic regulation, is being worn away. Therefore, it is argued, past experience is not a good predictor of the future.

5. Adherents of the safety stock theory hold that increased competition and financial pressure on firms leads them to skimp on maintenance and training. Even some large firms have been found to fall below minimum Federal Aviation Administration standards. At the same time, the federal government has been involved in contradictory policies. The policy of deregulation held rates down and resulted in a significant increase in travel. However, the effective maximum capacity of the air traffic control system has been reduced. Physical facilities have not been expanded and improved. In addition, the number of Full Performance Level controllers is smaller than it was in the past. The result is increased congestion at major hub airports, and increases in runway incursions and near midair collisions.

6. It is not clear that such increases will necessarily result in a higher accident rate in the future. Nevertheless, prudence and a rational consideration of efficiency issues call for the adoption of a set of policies to deal with congestion and the quality and quantity of the infrastructure of the industry. The policies include: the adoption of a system of congestion prices at the major hub airports during peak times of travel; landing fees based on the usage of airport capacity rather than the weight of aircraft; mandatory use of altitude indicating transponders in private aircraft which use air space in the vicinity of major airports; a more rapid increase in the number of controllers, perhaps by the rehiring of those fired controllers who are willing to accept positions with loss of seniority; full utilization of the Aviation Trust Fund for purposes of more rapid adoption of advanced collision avoidance systems and the reequipping of the national airspace system; and increased number of airports. The latter will require more than funding, it will require that society cope with the environmental problems that airports involve.

THE MOTOR CARRIER INDUSTRY

7. Concerning the motor carrier industry, there is clear evidence that open entry and a reduction in the power of rate bureaus have led to rates that are lower than they would otherwise have been. Moreover, when it comes to the impact of regulatory reform on quality of service, there is a very clear difference between the airline and motor carrier industries. Complaints by shippers that the quality of service has deteriorated are largely absent. One can read as widely as one wishes in the professional literature on logistics, physical distribution and materials management and fail to find evidence of the kind of user unrest that characterizes airline passenger travel.

8. There is a commonly held belief that the motor carrier industry now poses a more serious threat to highway safety than it did in the era of economic regulation. There are many new entrants, and it has been found that their *initial* accident record is inferior to that of established carriers. Operating margins have been depressed by increased competition, and there is evidence, though it is weak, that financially stressed carriers invest less in safety measures. The quality of the labor force also appears to have declined somewhat, at least as a short run phenomenon, because of the significant increase in the number of operators as a result of deregulation.

9. Despite the evidence on new entrants and financially stressed firms, the index of truck accidents per truck mile fell by 12 percent between 1978 and 1985. The decline is 30 percent if obvious deficiencies in the index are eliminated. Much of the concern about the impact of trucks on safety comes from automobile drivers and their representatives. There is serious reason to question the perception of an increased risk to highway safety from trucks. Automobile fatalities in truck related accidents (per mile of auto travel) actually fell by 21 percent in the deregulated period. Of course no claim is made that all of this decline is the result of deregulation.

10. The essential conclusion is that there is no objective evidence to support a position that economic deregulation has so far caused a degradation in highway safety. Participants at the Northwestern University Conference strongly supported the position that where safety difficulties are identified they should be be addressed by safety measures not economic regulation. There was general agreement that the program of road inspection and safety audits should be expanded; that there should be continued emphasis on driver licensing and training; and that there should be an expanded system of data gathering on accidents and violations, including those of

intrastate and commercial zone operators, which would be available to enforcement personnel. To the writers of this report it seems that the availability of such data to shippers would also serve to put pressure on some carriers to operate more safely. Additionally, the commercial zones of cities no longer appear to serve the function for which they were created. They should be done away with and the firms who operate within them granted regular certificates.

CONCLUSION

11. In conclusion, up to this point in time, there is no evidence that regulatory reform has denigrated safety in the motor carrier and airline industries. However, it is clear, and broadly understood by economic and other experts, that changes in economic, including regulatory, conditions can lead to decisions that change safety conditions. The role of the government, the amount and nature of safety surveillance, and the quality and quantity of physical infrastructure should adjust accordingly. An important lesson learned from the United States' experience is that changes in the environment of economic regulation that achieve their economic goals also require that there be a careful and timely reevaluation of the role of government in overseeing safety and providing infrastructure.

Table of Contents

C. Infrastructure

D. Surveillance

E. Summary

Part IV. Motor Carriers

A. Setting the Scene

B. Evidence

INTRODUCTION

In the fall of 1985 a group of the faculty at the Transportation Center at Northwestern University perceived mounting public concern about transportation safety. Some commentators contended that the root cause of this concern was the competition that emerged following the economic deregulation of the air and motor carrier industries.

The rationale of the people who argued that way goes as follows. The regulatory environment in which industries function, and changes in that environment can have very important impacts on the economic structure, performance and competititve strategies adopted by the firms in these industries. Thus in the case of the airline and motor carrier industries, significant reductions in barriers to entry and exit, and the loosening of controls on price adjustments have led to such changes as: (1) expansion in the number of firms in each of the industries; (2) reduction in the average size of firm; and (3) a significant relative shift from service to price competition. The changes in industry structure, performance, and competitive posture that result from regulatory changes may in turn have very important implications for the safety policies adopted by firms. Government safety regulations and oversight policies may also have to be modified to achieve whatever levels of safety that society decides it is appropriate to have in the different transportation industries.

The Transportation Center therefore decided to sponsor a scientific conference to explore these inter-relationships and linkages between economic regulation, industry structure, and safety. The goal that was set for the Conference was to identify the linkages and clarify their implications for the kinds and amounts of resources that society must devote to safety regulation.

In the suceeding eighteen months up to the Conference the public disquiet over the issue did not abate. This level of concern was reflected by the wide interest in the Conference. Not only were we able to assemble over 50 speakers representing government, industry, academia, labor and consumer groups; but additionally we were financially supported by government, labor, and industry. The wide spectrum of support indicating the determination by all sections of the transportation community to exchange information, ideas and experiences in order to access current knowledge on the subject.

Over 300 delegates from the United States, Canada, Europe and Australia attended the two-and-a-half day Conference held in Evanston on June 23-25, 1987. Additionally, over 25 representatives of the media were in attendence and news of the Conference was carried across the wires and in papers and trade journals around the country.

A pre-determined feature of the Conference was that all shades of informed opinion were represented on the podium. Full papers from each of our speakers are included in this volume. The Conference organizers, ably assisted by Devra Golbe and Monte Lazarus in the aviation sessions and Paul Jovanis and Kenneth Thompson in the motor carrier sessions, had the difficult job of summarizing the main findings, and the areas of agreement and disagreement. Their reports are found at the end of the volume, and at the end of the papers on aviation and motor carriers respectively.

A second pre-determined feature was the wide dissemination of our deliberations. We received extensive media coverage at the time of the Conference. In addition to the distribution of these proceedings, we have produced a small booklet containing the executive summary and concluding papers which we will circulate to those in key positions to influence policy discussion. Finally, a scholarly book is in the process of preparation and will contain the "edited highlights" of the Conference. This will be handled by a major publishing house with an anticipated press date of late 1988.

In conclusion we would like to thank our speakers for the not inconsiderable time and effort put into their papers, and also our sponsors (who you will find listed on a preceeding page) whose generosity and public spiritedness enabled the Conference to take place. Last but not least our colleagues and staff of the Transportation Center. While it is usually invidious to mention names, we would like especially to thank Diana Marek who took care of the practicalities, and Stephen Texeira who organized the publicity, the bookings, and the media contacts.

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