## TABLE OF CONTENTS

### ARTICLES

- **Mandatory Random Drug-Testing in the United States Department of Transportation—A Fourth Amendment Analysis**  
  *Mark T. McDermott*  
  *Kyle A. Jones*  
  1

- **The Empirical Results of Deregulation: A Decade Later, and The Band Played On**  
  *Paul Stephen Dempsey*  
  31

- **Airport Perimeter Rules: An Exception to Federal Preemption**  
  *Jonathan Whitman Cross*  
  101

- **Regulation of Aircraft Noise at Major Airports: Past, Present, and Future**  
  *Donald V. Harper*  
  117

### BOOK REVIEWS

- **Free Wheeling? A Reference for Economic Deregulation in the Trucking Industry**  
  *Leonard A. Jaskiewicz and Edward J. Kiley*  
  *Paul Stephen Dempsey*  
  167

- **Encouraging Cooperation Among Competitors: The Case of Motor Carrier Deregulation and Collective Ratemaking**  
  *William B. Tye*  
  *John David Healy*  
  171

- **Law and Foreign Policy in International Aviation**  
  *Paul Stephen Dempsey*  
  *William E. Thoms*  
  175
TABLE OF CONTENTS

SYMPOSIUM ................................................................. i

REGULATION OF INTRASTATE MOTOR CARRIERS

Economic Regulation of Oregon Intrastate Trucking: A Policy Evaluation

Evan D. White ................. 179

Benefits of Economic Regulation of Oregon Intrastate Motor Carriers

Dick Dolan ................. 235

ARTICLES

Income Taxation of Interstate Motor Carriers: A Need for Equity and Uniformity

Benjamin N. Henszey ............. 281
John E. Tyworth

Anti-Competitive Aspects of Airline Ownership of Computerized Reservation Systems

Pam Fair ................. 321

HAROLD A. SHERTZ ESSAY

Air Service to Small Communities Since Deregulation

Celeste R. Gamache ............. 345
Mandatory Random Drug-Testing in the United States Department of Transportation—A Fourth Amendment Analysis

MARK T. McDERMOTT*
KYLE A. JONES**

TABLE OF CONTENTS

I. INTRODUCTION .................................................. 2
II. THE FOURTH AMENDMENT ...................................... 4
   A. TRADITIONAL ANALYSIS .................................. 4
III. DRUG TESTING .................................................. 12
   A. DRUG-TESTING BY URINALYSIS CONSTITUTES A SEARCH
      AND SEIZURE WITHIN THE MEANING OF THE FOURTH
      AMENDMENT .................................................. 13
   B. AN ANALYSIS OF RECENT CASE LAW .................. 14
      1. NATIONAL TREASURY EMPLOYEES UNION v. VON RAAB . 14

* A principal in the Washington D.C. law firm of Joseph, Gajarsa, McDermott & Reiner, P.C., Mark T. McDermott is engaged in general practice with an emphasis on litigation, aviation law, and pilot medical certification. He is a member of the Bars of California, the District of Columbia, Indiana, Maryland and Virginia. Prior to entering private practice, Mr. McDermott was an attorney with the Federal Aviation Administration and represented the agency in cases involving pilot medical certification, aircraft accidents, tort claims and contract claims. He received his J.D. degree cum laude in 1974 from Indiana University where he was a member of the Board of Editors of the INDIANA LAW REVIEW.

** An associate with the Law Firm of Carter & Leerkm in Indianapolis, Indiana. Mr. Jones received his J.D. degree in 1988 from Indiana University School of Law.
I. INTRODUCTION

Mandatory random drug-testing is one of the most controversial and perplexing issues facing the judicial system today. The advent of these drug-testing programs is due in part to the Reagan Administration’s “war on drugs.” Concern about drug use has now entered the American workplace where employers complain of decreased productivity, increased medical costs and the threat to employee safety as rationales for implementing mandatory random drug-testing programs.1 While the Fourth Amendment does not place limits on employer conduct within the private sector,2 when the employer is the government itself, the Fourth Amendment limits the employer’s actions and provides protections to the employees.3

Drug-testing has only recently pushed its way to the forefront of judicial consideration. The majority of drug-testing cases have been decided within the past two years.4 When the first series of cases were subjected

---


2. United States v. Jacobson, 466 U.S. 109, 130 (1984) (holding that the Fourth Amendment is wholly inapplicable to a search or seizure conducted by a private individual unless he acts as an agent of the government).

3. Id.

to judicial scrutiny, many were unable to pass constitutional examination.\textsuperscript{5} All courts addressing the issue have unanimously ruled that drug-testing by urinalysis constitutes a search and seizure within the meaning of the Fourth Amendment.\textsuperscript{6} However, the Fourth Amendment prohibits only unreasonable searches and seizures.\textsuperscript{7} So, the question then becomes: Does the mandatory random drug-testing by urinalysis constitute an "unreasonable" search and seizure?

This article does not doubt nor criticize the laudable goal which the "war on drugs" seeks to attain. Rather, it is the means through which that goal is pursued that is the subject of much concern. The traditional methodology utilized in analyzing the reasonableness of a search or seizure is currently in a state of flux. A majority of the Supreme Court has implicitly if not explicitly announced a new approach in the analysis of the Fourth Amendment.\textsuperscript{8} This changing analysis of Fourth Amendment issues and how that change has affected or will affect mandatory random drug-testing programs is the primary focus of this article. In particular, this article will examine the program implemented by the United States Department of Transportation and the Federal Aviation Administration.\textsuperscript{9}

\begin{itemize}
  \item 6. \textit{See supra} note 4.
  \item 9. The Department of Transportation has implemented its own Drug-Testing Program covering certain agency employees. \textit{See infra} note 154.
\end{itemize}

Additionally, on March 15, 1988, the FAA published a proposed rule requiring airlines to test certain employees. In November of 1988, the FAA unveiled its final rule (53 Fed. Reg. 47023 Nov. 21, 1988) which covers approximately 538,000 employees in the aviation industry. The rule deals with random drug-testing of commercial pilots, flight navigators, aircraft dispatchers, mechanics, repairmen, flight engineers, ground instructors, flight attendants, non-governmental controllers, security screening personnel and ground security coordinators. Non-commercial general aviation pilots are not subject to the regulation. \textit{See Aviation Daily}, November 15, 1988 at 233.

This article addresses random drug-testing programs which, by definition, call for the testing of individuals in the absence of individualized suspicion. This article will examine some of the most recent urinalysis testing cases and the variety of approaches courts have taken to address the issue.
II. THE FOURTH AMENDMENT

A. TRADITIONAL ANALYSIS

The Fourth Amendment was adopted in order to safeguard the privacy and security interest of the individual against the arbitrary intervention of government.\(^\text{10}\) The Fourth Amendment specifically provides:

The right of people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and persons or things to be seized.\(^\text{11}\)

This Amendment can be broken down into two clauses. The first guarantees the right to be free from unreasonable searches and seizures while the second provides that no warrant shall be issued without probable cause. These two clauses are intertwined with the second phrase modifying the first thus giving content to the word "unreasonable."\(^\text{12}\) Absent any authorized exceptions, a search and seizure conducted without either a warrant or probable cause is per se unreasonable.\(^\text{13}\) The Framers of the Amendment themselves previously balanced the opposing interests of the state and individual and concluded that "reasonableness" would be measured by the presence of a warrant issued upon probable cause.\(^\text{14}\) This probable cause-warrant requirement provides the means by which the reasonableness of searches and seizures have traditionally been measured. As is evidenced, the application of this probable cause-warrant standard of reasonableness is explicitly mandated by the language of the Fourth Amendment.

In undertaking an analysis of a particular search and seizure, it must first be determined whether the individual searched is cloaked with Fourth Amendment protection.\(^\text{15}\) The guard against unreasonable searches and seizures applies in the civil as well as criminal arena.\(^\text{16}\) Thus, even though an individual is not subject to criminal prosecution, he is still protected against unreasonable governmental intrusions.

Additionally, a search within the meaning of the Fourth Amendment


\(^{11}\) U.S. Const., amend. IV.

\(^{12}\) T.L.O., 469 U.S. at 359 (Brennan, J., concurring in part and dissenting in part); see generally Jonson v. United States, 333 U.S. 10 (1948).

\(^{13}\) T.L.O., 469 U.S. at 354 (Brennan, J., concurring in part and dissenting in part); Katz v. United States, 389 U.S. 347, 357 (1967); McDonell, 809 F.2d at 1306.

\(^{14}\) T.L.O., 469 U.S. at 351 (Blackmun, J., concurring).

\(^{15}\) Terry, 392 U.S. at 9.

\(^{16}\) Camara v. Municipal Court, 387 U.S. 523, 530 (1967) (stating that "it is surely anomalous to say that the individual and his private property are fully protected by the Fourth Amendment only when the individual is suspected of criminal behavior"); see also McDonell, 612 F. Supp. at 1127, modified, 809 F.2d 1302.
takes place only when the government infringes on an expectation of privacy that society is prepared to recognize as reasonable.\textsuperscript{17} This expectation of privacy is measured by both an objective and subjective standard.\textsuperscript{18} Where an individual has a subjective expectation of privacy in his person, place, or the thing searched, which is not a privacy interest society is prepared to recognize as reasonable, then the Fourth Amendment affords no protection. However, when subjective and objective expectations co-exist, the Fourth Amendment then extends its protection to the individual.\textsuperscript{19}.

The intrusion into one's privacy must be justified not only at its inception, but also in its scope.\textsuperscript{20} Not only must there be a basis for subjecting the individual to the search in the first place, the methods used in the search must be reasonably related to the objective of the search and to the evidence it seeks to attain. It is the warrant requirement which limits the scope of the intrusion. A warrant is normally issued by a neutral and detached magistrate in an effort to prevent standardless intrusions into citizen privacy.\textsuperscript{21}

In keeping with the traditional standard requiring both probable cause and a warrant, the reasonableness of a full-scale search is contingent upon the presence of both requirements. Where the invasion is substantially less than a full-blown search, the intrusion may be legitimate even in the absence of probable cause or a warrant as long as the privacy interests are sufficiently protected.\textsuperscript{22} However, even in this situation the Fourth Amendment mandates that the limited search be reasonable.\textsuperscript{23} The "reasonableness" of a minimally intrusive search is determined by balancing the privacy interests of the individual against the state's interest in conducting the limited search,\textsuperscript{24} and the balance struck must give sufficient weight to the privacy interests of the individual.\textsuperscript{25}

\textsuperscript{17} \textit{Katz}, 389 U.S. at 361 (Harlan, J., concurring); \textit{Jacobsen}, 466 U.S. at 113; \textit{Von Raab}, 816 F.2d at 175.
\textsuperscript{18} \textit{Katz}, 389 U.S. at 361 (Harlan, J., concurring).
\textsuperscript{19} \textit{Id}.
\textsuperscript{20} \textit{Terry}, 392 U.S. at 19-20.
\textsuperscript{21} \textit{Johnson v. United States}, 333 U.S. 10, 13-14 (1948) (stating that "the point of the Fourth Amendment, which often is not grasped by zealous officers, is not that it denies law enforcement the support of the usual inferences which reasonable men draw from evidence. Its protection consists in requiring that those inferences be drawn by a neutral and detached magistrate instead of being judged by the officer engaged in the often competitive enterprise of ferreting out crime"); \textit{United States v. Lefkowitz}, 285 U.S. 452, 464 (1932).
\textsuperscript{22} \textit{T.L.O.}, 469 U.S. at 355 (Brennan, J., concurring in part and dissenting in part).
\textsuperscript{24} \textit{T.L.O.}, 469 U.S. at 355 (Brennan, J., concurring in part and dissenting in part) (Compare with majority opinion which balanced the interests even when the search was minimally intrusive).
\textsuperscript{25} \textit{Id}.
It is imperative to note that the probable cause-warrant standard is surrendered only when the intrusion is less than a full-scale search and the special needs of law enforcement make the probable cause-warrant model impractical in its application. Only then does a balancing of competing interests take place. In all Fourth Amendment situations, the probable cause-warrant standard is at least the starting point in the analysis.

The traditional model does have a few well recognized exceptions to the warrant requirement. Most of these exceptions occur where the exigency of the situation makes the obtaining of a warrant impractical due to time constraints. One of the more unique and perplexing issues concerning the warrant requirement is the warrantless administrative search exception, and its impact on mandatory random drug-testing. The rationales for its inception should first be examined generally.

The pioneering opinion in the administrative search area is *Camara v. Municipal Court.* The *Camara* court unequivocally held that an area search of a premises pursuant to the enforcement of a Housing Code requires a warrant and probable cause. The type of probable cause required is admittedly a somewhat modified version. As the court stated:

> Where considerations of health and safety are involved, the facts that would justify an inference of 'probable cause' to make an inspection are clearly different from those that would justify such an inference where a criminal investigation has been undertaken. Experience may show the need for periodic inspections of certain facilities without a further showing of cause to believe that substantial conditions dangerous to the public are being maintained. The passage of a certain period without inspection might of itself be sufficient in a given situation to justify the issuance of a warrant. The test of "probable cause" required by the Fourth Amendment can take into account the nature of the search that is being sought.

One of the fundamental reasons for allowing a modified version of the

---

26. *Id.*
27. *Id.* at 351 (Blackmun, J., concurring); see also O'Connor, — U.S. at —, 107 S. Ct. at 1511, 94 L. Ed. 2d 1492 (Blackmun, J., dissenting).
32. *Id.* at 540.
33. *Id.* at 538 (quoting Douglas, J., dissent in Frank v. Maryland, 359 U.S. at 383).
probable cause standard is that the inspections themselves are not personal in nature.34 Additionally, the Camara court emphasized the need for a warrant even for an administrative search. The Fourth Amendment mandates a warrant unless to require one would frustrate the purpose behind the search.35 As evidenced by Camara, administrative searches must comply with the traditional probable cause—warrant model. Notwithstanding this traditional model, the Supreme Court has provided a few narrowly tailored exceptions to the warrant requirement in administrative inspection schemes.36 The rationale for these exceptions was clearly addressed in Donovan v. Dewey.37 Justice Marshall, writing for the majority, opined:

[Un]like searches of private homes, which generally must be conducted pursuant to a warrant in order to be reasonable under the Fourth Amendment, legislative schemes authorizing warrant-less administrative searches of commercial property do not necessarily violate the Fourth Amendment.38

The court specifically limits this exception to the search of commercial property conducted pursuant to a legislative scheme in a highly regulated industry. This reasoning reflects the notion that an individual’s expectation of privacy in his home and personal effects is substantially different and higher than the privacy interest in commercial property.39 This is not to say that all warrantless inspections of commercial property are reasonable. A warrant is required where the inspections occur in a random, infrequent or unpredictable manner, to the extent that the property owner has no real notice that his property is subject to such inspections.40 The duty of a warrant is to protect against the unbridled discretion of the inspecting agent.41 Where the regularity, predictability and standards of inspections are assured through legislative regulations and the search is not subject to the discretion of field officers, however, a warrant is not necessarily required.42 Such is the case in the pervasively regulated industries of guns,43 liquor,44 coal mining,45 and vehicle dismantling.46 In order to avoid the warrant requirement, it is imperative that the search of the commercial premise be exercised pursuant to set stan-

34. Id. at 537.
35. Terry, 392 U.S. at 10-12; T.L.O., 469 U.S. at 351 (Blackmun, J., concurring).
36. See supra note 28 and accompanying text.
37. 452 U.S. 594.
38. Id. at 598.
39. Id. at 598-99.
40. Id. at 599; Barlow’s, Inc., 436 U.S. at 314-15.
41. Dewey, 452 U.S. at 599; Barlow’s, Inc., 436 U.S. at 312.
42. Dewey, 452 U.S. at 599, 603.
44. Colonade Catering Corp., 397 U.S. 72.
dards which establish the scope and frequency of the inspections. Similarly, the standards should guide the field inspectors in the selection of the premises to be searched.\textsuperscript{47} The \textit{Dewey} court emphasized that the statutory schemes not requiring a warrant were addressed to industries notorious for serious accidents and unhealthy working conditions.\textsuperscript{48}

These exceptions to the \textit{Camara} warrant requirement are narrow in scope and limited to the search of commercial premises in the liquor, gun, mining, and vehicle dismantling industries and have, until now, extended no further.

The Supreme Court is currently in the process of altering its analysis of Fourth Amendment issues and has shifted away from the traditional probable cause-warrant standard. The balancing of interests which has traditionally been performed only where the intrusion was significantly less than a full-scale search is becoming the rule rather than exception. The Court has begun to immediately engage in a balancing of privacy and security interests to determine the reasonableness of the intrusions.\textsuperscript{49} Where the court engages in a balancing of interests, it necessarily substitutes its determination of reasonableness for that of the Framers.\textsuperscript{50} The second clause of the Fourth Amendment then has no bearing on the "reasonableness" of the search and the probable cause-warrant standard is given no effect.

Yet, this balancing is traditionally employed only when the search is minimally intrusive\textsuperscript{51} and where the special need for law enforcement makes the warrant requirement impractical.\textsuperscript{52} When the Court chooses to engage in a balancing approach, it weighs the individual's privacy and security interests against the government's need to conduct a particular

\textsuperscript{47} As long as the legislatively imposed standards provide certainty and regularity to the search process, the field officer has only limited discretion and consequently, the rationale for a warrant no longer exists. See, e.g., \textit{Dewey}, 452 U.S. 594; \textit{Biswell}, 406 U.S. 311; \textit{Colonade Catering Corp.}, 397 U.S. 72, \textit{Burger}, — U.S. —, 107 S. Ct. 2636 (1987). These cases are extensively cited herein because they are the only warrantless administrative search exceptions which the United States Supreme Court has recognized thus far.

\textsuperscript{48} \textit{Dewey}, 452 U.S. at 603-04.


\textsuperscript{50} \textit{T.L.O.}, 469 U.S. at 351 (Blackmun, J., concurring). \textit{But compare}, \textit{O'Connor}, — U.S. at —, 107 S. Ct. at 1497 (plurality opinion) (The Court takes into consideration the intention of the Framers of the Fourth Amendment when balancing competing interests to determine what constitutes a "reasonable" search).

\textsuperscript{51} \textit{T.L.O.}, 469 U.S. at 355 (Brennan, J., concurring in part and dissenting in part); see also \textit{Terry}, 392 U.S. 1 (A stop and frisk, while it is a search and seizure, it is minimally intrusive and may be conducted in the absence of a warrant as long as there is reasonable suspicion to believe the criminal activity is afoot).

\textsuperscript{52} \textit{O'Connor}, — U.S. at —, 107 S. Ct. at 1511 (Blackmun, J., dissenting). \textit{See also T.L.O.}, 469 U.S. at 351-53 (Blackmun, J., concurring).
In so doing, the Court considers the scope of the particular intrusion, the manner in which it is conducted, the justification for initiating it, and the place in which the invasion takes place.\footnote{54}

In two recent cases,\footnote{55} a divided Supreme Court exemplifies the clash between the traditional probable cause-warrant standard and the new balancing standard. \textit{New Jersey v. T.L.O.} \footnote{56} involves the search of a student's purse by school officials in the absence of probable cause. As with all Fourth Amendment issues, the question was whether the search was "reasonable." Justice White, writing for the majority, clearly evidences that there is a new approach to measuring the reasonableness of a particular intrusion. "The determination of the standard of reasonableness governing any specific class of searches requires 'balancing the need to search against the invasion which the search entails.'"\footnote{57} The competing interests involved in \textit{T.L.O.} were the student's legitimate expectation of privacy and the state's interest in maintaining classroom discipline.\footnote{58}

Justice Brennan, with whom Justice Marshall joined, agreed with the majority that a warrant was not mandated by the circumstances of the case. The "exigency" of the circumstances made the warrant impractical.\footnote{59} The real debate centered on the standard of individualized suspicion required before the school officials could conduct a search of the student's purse. The Majority, by immediately engaging in a balancing of interests, opined that public interest is best served by adopting a standard

\footnotesize{53. U.S. v. Place, 462 U.S. 696, 703 (1983); O'Connor, — U.S. at —, 107 S. Ct. at 1499, 94 L. Ed. 2d at 724 (plurality opinion); Camara, 387 U.S. at 536-537; Bell, 441 U.S. at 559.

54. Bell, 441 U.S. at 599; Von Raab, 816 F.2d at 176; O'Connor, — U.S. at —, 107 S. Ct. at 1512-13, n.8, 94 L. Ed. 2d at 740 (Blackmun, J., concurring) ("This part of the analysis is related to the 'special need' step. Courts turn to the balancing test only when they conclude that the traditional warrant and probable-cause requirements are not a practical alternative. Through the balancing test, they then try to identify a standard of reasonableness, other than the traditional one, suitable for the circumstances. The warrant and probable-cause requirements, however, continue to serve as a model in the formation of the new standard. It is conceivable, moreover, that a court, having initially decided that it is faced with a situation of 'special need' that calls for balancing, may conclude after application of the balancing test that the traditional standard is a suitable one for the context after all.")


56. 469 U.S. 325.

57. T.L.O., 469 U.S. at 337 (quoting Camara, 387 U.S. at 536-37).

58. Id. at 339.

59. Id. at 355-56 (Brennan, J., concurring in part and dissenting in part).}
of reasonableness that stops short of probable cause. 60 The Court proceeds even further and suggests that the search of an individual might sustain constitutional attack even when conducted in the complete absence of individualized suspicion. 61

In rebuttal, Justice Brennan wrote a separate opinion emphatically rejecting the Court's new found "balancing test." 62 Justice Brennan explained:

[F]ull-scale searches—whether conducted in accordance with the warrant requirement or pursuant to one of its exceptions—are 'reasonable' in Fourth Amendment terms only on a showing of probable cause to believe that a crime has been committed and that evidence of the crime will be found in the place to be searched. 63

Furthermore:

The Court's decision jettisons the probable-cause standard—the only standard that finds support in the text of the Fourth Amendment—on the basis of its Rorschach-like 'balancing test.' Use of such a 'balancing test' to determine the standard for evaluating the validity of a full-scale search represents a sizable innovation in Fourth Amendment analysis. This innovation finds support neither in precedent nor policy and portends a dangerous weakening of the purpose of the Fourth Amendment to protect the privacy and security of our citizens. 64

Justice Brennan stoutly adheres to the proposition that balancing competing interests is justifiable only where the intrusion itself is substantially less than a full-scale search and the balancing approach adequately protects the interests infringed upon. 65 In order to correct the majority's error, Justice Brennan addresses three basic principles underlying Fourth Amendment jurisprudence. First, subject to some specifically delineated exceptions, warrantless searches are per se unreasonable. Secondly, where there is a full-scale search, probable cause is mandated. Thirdly, only where the search is significantly less than full-scale, may a balancing test be used to determine reasonableness. 66

60, Id. at 343.

61, Id. at 342, n.8 ("We do not decide whether individualized suspicion is an essential element of the reasonableness standard we adopt for searches by school authorities. In other contexts, however, we have held that although 'some quantum of individualized suspicion is usually a prerequisite to a constitutional search or seizure [,] . . . the Fourth Amendment imposes no irreducible requirement of such suspicion.' United States v. Martinez-Fuerte, 428 U.S. 543, 560-61, 96 S. Ct. 3074, 3084, 49 L. Ed. 2d 1116 (1976).")

62, The phrase "balancing test" is itself a misnomer. The test under the Fourth Amendment is whether a search or seizure is "reasonable." "Balancing test" refers to the shifting majority's new approach in determining what is "reasonable." Contrast this with the traditional method of determining "reasonableness," i.e. the probable cause-warrant model.

63, T.L.O., 469 U.S. at 354-55 (Brennan, J., concurring in part and dissenting in part).

64, Id. at 357-58.

65, Id. at 355.

66, Id. at 354-55.
In *O'Connor v. Ortega*, a plurality of the Court once again subscribed to the new balancing approach as the method of analyzing the reasonableness of a search. In *O'Connor*, the Court held that a public employer's search of an employee's office, desk and file cabinets in the absence of probable cause or a warrant could be reasonable. The plurality, reiterating its holding in *T.L.O.*, adopted the "balancing test." Again, the Court refrained from passing judgment on whether individualized suspicion is an essential element in the new standard of reasonableness. The Court announced in dicta:

Because the petitioners had an 'individualized suspicion' of misconduct by Dr. Ortega, we need not decide whether individualized suspicion is an essential element of the standard of reasonableness that we adopt today.

Additionally, the Court limited its decision to the search of workplace premises, and expressly refrained from passing judgment on the appropriate standard for evaluating the reasonableness of a search of personal items.

Justice Blackmun, dissenting, attempts to battle back the onslaught of the new approach to "reasonableness." Borrowing from his concurring opinion in *T.L.O.*, Justice Blackmun expounded:

Under traditional Fourth Amendment jurisprudence, however, courts abandon the warrant and probable cause requirements, which constitute the standard of reasonableness for a government search that the Framers established, only in those exceptional circumstances in which special needs, beyond the normal need for law enforcement, make the warrant and probable cause requirement impractical.

He emphatically rejects the majority’s flawed analysis.

The plurality repeats here the *T.L.O.* court's error in analysis. Although the plurality mentions the 'special need' step [citations omitted], it turns immediately to a balancing test to formulate its standard of reasonableness. This error is significant because, given the facts of this case, no 'special need' exists here to justify dispensing with the warrant and probable cause requirements.

By immediately balancing competing interests without first applying the traditional standard, the Court supplants the Framers' intent and effectively eradicates any predictability which the traditional standard lent to the determination of reasonableness. If this new approach to the law of search and seizure should continue, not only will the language of the

---

68. *id.* at —, 107 S. Ct. at 1504, 49 L. Ed. 2d at 730-31 (The Court remanded to the District Court to evaluate the reasonableness of the search at its inception and in its scope based on the guidelines enumerated in the opinion).
69. *id.* at —, 107 S. Ct. at 1503, 94 L. Ed. 2d at 729.
70. *id.* at —, 107 S. Ct. at 1504, 94 L. Ed. 2d at 730-31.
71. *id.* at —, 107 S. Ct. at 1510-11, 94 L. Ed. 2d at 738 (Blackmun, J., dissenting).
72. *id.* at —, 107 S. Ct. at 1511, 94 L. Ed. 2d at 739 (Blackmun, J., dissenting).
Fourth Amendment requiring probable cause and a warrant become obsolete, but the courts will be flooded with cases asking it to "balance" the interests and rule that a particular search is reasonable in the absence of probable cause. In O'Connor, Justice Blackmun explicitly warned a plurality of the Court that the new method of analysis would present problems in dealing with such issues as drug-testing.\footnote{Id. at —, 107 S. Ct. at 1514, n.15, 94 L. Ed. 2d at 742 (Blackmun, J., dissenting).}

III. DRUG TESTING

President Reagan has called on all executive agencies to develop a plan for the purpose of attaining a drug-free workplace.\footnote{Exec. Order No. 12564, 51 Fed. Reg. 32889 (1986).} The Presidential directive seeks to test those employees in "sensitive" positions which affect public health and safety or national security.\footnote{See supra note 74 at 32890. Mandatory random testing is not mandated by the Order. See generally M. Payson and P. Rosen, Substance Abuse: A Crisis in the Workplace, Trial at 25 (July 1987); But compare, American Federation of Gov. Employees v. Weinberger, 651 F. Supp. at 731, n.4 (S.D. Ga. 1986).} The drug-testing programs are to be conducted in accordance with the procedures outlined by the Secretary of Health and Human Services.\footnote{Scientific and Technical Guidelines for Drug Testing Programs, Alcohol, Drug Abuse and Mental Health Administration, Department of Health and Human Services, February 14, 1987 (changed language July 20, 1987) 52 Fed. Reg. 30638 (1987).}

On June 29, 1987, the United States Department of Transportation became the first executive agency to implement President Reagan’s Executive Order.\footnote{Drug-Free Departmental Workplace, U.S. Dep't of Transportation, June 29, 1987; see also Aviation Daily, June 30, 1987 at 506.} To more fully analyze the constitutional validity of the Department’s program, a look at some of the recent drug-testing cases will be helpful. The most vital portion of this analysis will concern itself with the type of Fourth Amendment analysis the courts employ in measuring the "reasonableness" of an intrusive search.

With a changing majority of the Supreme Court placing less emphasis on the traditional probable cause-warrant standard, the lower courts have also begun to ignore the traditional standard and engage in a "balancing" approach to "reasonableness." This is particularly true in the drug-testing area where T.L.O. and O'Connor are extensively cited as authority for using the "balancing" standard.\footnote{See generally Lovorn, 647 F. Supp. at 882; American Federation of Gov. Employees v. Weinberger, 651 F. Supp. at 733 (S.D. Ga. 1986); Nat. Federation of Fed. Employees v. Weinberger, 818 F.2d at 942 (D.C. Cir. 1987); Capua, 643 F. Supp. at 1513, National Treasury Employees Union v. Van Raab, 816 F.2d at 175-180 (5th Cir. 1987); McDonell, 809 F.2d at 1305.} As will be seen, the traditional probable cause-warrant model is a perishing standard.
A. **DRUG-TESTING BY URINALYSIS CONSTITUTES A SEARCH AND SEIZURE WITHIN THE MEANING OF THE FOURTH AMENDMENT**

Courts faced with the issue of drug-testing have unanimously held that drug-testing through urinalysis by a governmental entity constitutes a search and seizure within the meaning of the Fourth Amendment.\(^\text{79}\) Since the Fourth Amendment protects only against *unreasonable* search and seizures,\(^\text{80}\) we must determine whether a particular drug-testing program is in fact *unreasonable*.

Many types of privacy interests are intruded upon when an individual is required to undergo urinalysis testing. Individual employees enjoy a legitimate expectation of privacy not only in the act of passing urine,\(^\text{81}\) but also in the information that urine contains.\(^\text{82}\) Many drug-testing programs call for direct observation of the individual submitting to the test.\(^\text{83}\) One might be required to perform a private bodily function in the presence of others. But even if a program calls for indirect observation and allows the individual to provide a sample in private, the program remains highly intrusive.\(^\text{84}\) An examination of one’s urine may disclose numerous private medical facts other than whether the individual has ingested drugs, such as whether an individual is under treatment for depression or is epileptic or diabetic,\(^\text{85}\) or has a venereal disease, sickle cell anemia or schizophrenia,\(^\text{86}\) or in the case of a female, whether she is pregnant.

The testing of one’s urine constitutes a full-scale search warranting the protection afforded by the probable cause-warrant standard of reasonableness.\(^\text{87}\) However, where the court engages in the T.L.O. type balancing approach, the probable cause-warrant standard is never given

---

\(^{79}\) See supra note 4 and accompanying text.

\(^{80}\) See supra note 11 and accompanying text.

\(^{81}\) National Treasury Employees Union v. Von Raab, 816 F.2d at 175 (5th Cir. 1987).

\(^{82}\) McDonnell, 809 F.2d at 1307; Jones v. McKinzie, 628 F. Supp. 1500, 1508 (D.D.C. 1986); Capua, 643 F. Supp. at 1515; Fraternal Order of Police, Lodge 5, 812 F.2d 105, 113 (Medical information is generally entitled to privacy protection).

\(^{83}\) Capua, 643 F. Supp. at 1514 (“Bodily surveillance is considered essential and standard operating procedure in the administration of urine drug tests, . . . thus heightening the intrusiveness of these searches”) (footnote omitted).


\(^{85}\) National Treasury Employees Union v. Von Raab, 816 F.2d at 175-76.


\(^{87}\) See generally Schmerber v. California, 384 U.S. 757 (1966) (holding that blood testing for presence of alcohol constitutes a search and seizure and cannot be conducted in the absence of probable cause). See also Rwy. Labor Executives Assoc. v. Burale, 839 F.2d 575 (9th Cir. 1988) (where court equated testing by urinalysis with body cavity searches in terms of invasion of privacy).
B. AN ANALYSIS OF RECENT CASE LAW

1. NATIONAL TREASURY EMPLOYEES UNION v. VON RAAB

National Treasury Employees Union v. Von Raab provides a fundamental illustration of how the recent change in Fourth Amendment analysis has had a detrimental impact on individual rights guaranteed by the traditional probable cause-warrant standard of reasonableness.

In 1986, the United States Customs Service implemented a drug-testing program which required employees who sought promotion into certain identified "covered positions" to submit to a drug test through urinalysis. Those who failed the test were denied promotion and subject to discharge. This program is slightly different from mandatory random testing in that the only individuals tested are those seeking promotion to a "covered position."

In determining whether the drug-testing constituted a full-scale search meriting application of the traditional standard, the District Court specifically found:

Drug testing of Customs workers' bodily wastes is even more intrusive than a search of a home. When analyzing urine specimens, the defendant is searching for evidence of illicit drug usage. The drug testing plan is no minor frisk or pat-down. It is rather a full-scale search that triggers application of Fourth Amendment protections.

The Court applied the traditional standard measuring reasonableness and held that the testing of employees absent probable cause or reasonable suspicion was "repugnant to the United States Constitution." On appeal however, the Fifth Circuit inexplicably ignored the traditional method of analysis and immediately engaged in a balancing of interests reminiscent of T.L.O. The Court of Appeals failed to give effect to the District

88. T.L.O., 469 U.S. at 352 (Blackmun, J., concurring).
89. 816 F.2d 170.
90. Id. at 172.
91. The test covers only those who seek transfer into one of three types of positions: (1) positions that either directly involve the interdiction of illicit drugs, (2) positions which require the carrying of a firearm, or (3) positions which involve access to classified information. Id. at 173.
93. Id. at 386.
94. Id. at 387.
95. NTEU, 816 F.2d at 176.
Court's finding that the drug-testing was a highly intrusive full-scale search and seizure which triggered the probable cause-warrant standard of reasonableness.

In balancing the interests, the Fifth Circuit took into consideration (1) the scope of the intrusion, (2) the manner in which it was conducted, (3) the justification for the intrusion and (4) the place where the intrusion occurred.96 After balancing the interests, the court held that an employee may be subjected to a urinalysis test despite the absence of any type of individualized suspicion. The Court offered no explanation of why the warrant-probable cause standard was not utilized, nor why this case presents a situation where absolutely no individualized suspicion is required.97 The Fifth Circuit's approach is in direct contradiction to the explicit language of the Fourth Amendment. The Court succeeded in substituting its judgment of what constitutes "reasonable" within Fourth Amendment context for that of the Framers. The U.S. Supreme Court has granted certiorai in this case and will thus take up the matter of whether mandatory drug testing of federal employees violates the Fourth Amendment.98

2. SHOEMAKER v. HANDEL

When the New Jersey Racing Commission implemented regulations calling for officials, jockeys, and trainers to submit to random urinalysis testing, the jockeys brought their challenge to court, arguing that the regulations violated the Fourth and Fourteenth Amendments to the Constitution.99 Specifically, they argued that the random selection method for testing was inconsistent with the requirements of the Fourth Amendment.100

The Shoemaker v. Handel101 Court takes a unique and unprecedented approach to the issue of random drug testing in the horse-racing industry. Unlike most drug-testing cases, the Shoemaker Court recognized that the Fourth Amendment traditionally requires a warrant based upon probable cause.102 But in a remarkable leap in reasoning, the Court attempts to extend the warrantless administrative search exception103 to a situation where it has never before been applied. As the Court explains:

Although it it [sic] clear that the New Jersey horseracing industry is closely

96. Id. (quoting Wolfish, 441 U.S. at 559).
97. Id. at 183, n.1 (Hill, J., dissenting).
99. Shoemaker, 795 F.2d 1136.
100. Id. at 1138-40. The plaintiffs additionally challenged the testing program on Due Process and Equal Protection claims.
101. 795 F.2d 1136.
102. Id. at 1142.
103. See supra note 47 and accompanying text.
regulated, the question that arises in this case is whether the administrative 
search exception extends to the warrantless testing of persons engaged in 
the regulated activity.\textsuperscript{104}

Prior to this case, the warrantless administrative search was strictly lim-
ited to the inspection of commercial property in highly regulated industries 
such as liquor, guns, and coal mining,\textsuperscript{105} and where such inspections 
were conducted pursuant to some legislative scheme which specifically 
defined the standards and limits of the inspection.\textsuperscript{106} Never had the ex-
ception been applied to the search of an individual. To do so undermines 
the rationale of the exception which is in part based upon the fact that the 
search of commercial property is in no way similar to the search of an 
individual or his home.\textsuperscript{107}

The Shoemaker Court extended the exception to the urinalysis test-
ing of jockeys engaged in the regulated industry of horse-racing. The 
Third Circuit held that there were only two interrelated requirements which 
needed to be met in order to extend the exception to the drug-testing of 
jockeys in the horse-racing industry. First, the state must have a strong 
interest in conducting an unannounced search.\textsuperscript{108} Secondly, “the perva-
sive regulation of the industry must have reduced the justifiable privacy 
expectation of the subject of the search.”\textsuperscript{109}

The state’s interest in horse-racing is of a financial nature due to pari-
mutuel betting. The state receives revenue from such wagering. The ex-
tent of wagering is dependent upon the public perception of the integrity 
of the horse-racing industry.\textsuperscript{110} One way to assure the public of the hon-
esty of the sport is to institute a random drug-testing program. The Court 
states:

It is the public’s perception, not the known suspicion, that triggers the state’s 
strong interest in conducting warrantless testing.\textsuperscript{111}

According to the Court, this financial interest is sufficient to allow the state 
to conduct an unannounced search.\textsuperscript{112} Additionally, the Shoemaker 
Court found that in the horse-racing industry, the search of a jockey’s 
urine was not that different than the search of commercial property:

While there are distinctions between searches of premises and searches of 
persons, in the intensely regulated field of horse racing, where the persons 
engaged in the regulated activity are the principal regulatory concern, the

\textsuperscript{104} Shoemaker, 795 F.2d at 1142.
\textsuperscript{105} See supra notes 43-46 and accompanying text.
\textsuperscript{106} See supra note 47 and accompanying text.
\textsuperscript{107} Dewey, 452 U.S. at 598-99.
\textsuperscript{108} Shoemaker, 795 F.2d at 1142.
\textsuperscript{109} Id.
\textsuperscript{110} Id. at 1138.
\textsuperscript{111} Id. at 1142.
\textsuperscript{112} Id.
distinctions are not so significant that warrantless testing for alcohol and
drug use can be said to be constitutionally unreasonable.\textsuperscript{113}

Shoemaker's rationale for extending the warrantless administrative
search exception is premised on the finding that the jockeys themselves
are the principal regulatory concern. The Shoemaker conclusion is truly a
unique and unprecedented extension of the warrantless administrative
search exception.

3. \textit{Railway Labor Executives' Association v. Burnley}

The United States Court of Appeals for the Ninth Circuit recently ana-
lyzed the misapplication of the warrantless administrative search excep-
tion in the area of drug-testing. The Court in \textit{Railway Labor Executives' 
Association v. Burnley}\textsuperscript{114} reversed the District Court for the Northern Dis-
trict of California which had granted summary judgment for the govern-
ment. At issue were Federal Railroad Administration (FRA) regulations
mandating blood and urine tests after major train accidents and fatal
incidents.\textsuperscript{115}

The Ninth Circuit, Justice Tang writing for the majority, addressed the
warrantless administrative search exception:

The most recent articulation of this exception to the warrant requirement em-
phasizes that warrant and probable cause requirements which fulfill the tradi-
tional [F]ourth Amendment Standard of reasonableness have lessened
application in the context of a closely regulated industry because the owner
or operator of commercial premises in such an industry has a reduced
expectation of privacy.\textsuperscript{116}

Unlike the Shoemaker Court, Justice Tang explicitly declined to ex-
tend the exception to the search of one's person or his urine. The Court
specifically noted that all cases prior to Shoemaker which had upheld a
warrantless administrative search applied to the search of property and
not of persons.\textsuperscript{117}

Justice Tang then addressed the District Court's conclusion that due
to the pervasive regulation of the railroad industry, the employees within
that industry have a reduced expectation of privacy. Justice Tang viewed
the District Court's analysis as seriously flawed.\textsuperscript{118} The highly regulated
nature of the industry has "diminished the owners' and managers' expecta-
tion of privacy in railroad premises"\textsuperscript{119} but it certainly has not dimin-
ished the employees' expectation of privacy in personal information

\textsuperscript{113} Id.
\textsuperscript{114} 839 F.2d 575 (9th Cir. 1988).
\textsuperscript{116} Railway Labor Executives' Ass'n at 584.
\textsuperscript{117} Id.
\textsuperscript{118} Id. at 585-86.
\textsuperscript{119} Id.
contained within his urine. The Appellate Court particularly observed that the vast majority of safety regulations were directed at the owners and managers of the railroads and not their employees. This is to be compared with Shoemaker where the jockeys themselves were principal objects of industry regulation because of the state’s interest in assuring public confidence in the integrity of racing. The Court finally sets out what it perceives to be the general rule of law:

Thus we conclude that the administrative inspection standard, which allows warrantless searches of the premises of pervasively regulated industries, is not applicable to searches of persons even when they are employed in those industries, unless the employees are the principal concern of the industry regulation.

After the Court rejected the warrantless administrative inspection exception, it addressed the “reasonableness” of the drug testing program under the Fourth Amendment. In so doing, the new “balancing” standard was once again applied. The Court made brief reference to the probable cause requirement but refused to follow it, once again citing T.L.O. However, some degree of individualized suspicion was required and the District Court was reversed. Had the traditional standard been applied, probable cause would have been required due to the Court’s finding that urinalysis is equivalent in degree to a body cavity search. Such a full-scale search mandates probable cause.

4. MCDONELL V. HUNTER

McDonell v. Hunter exemplifies the inevitable effect of applying a “balancing test” rather than the traditional probable cause-warrant standard in the area of urinalysis testing. The Iowa Department of Corrections implemented a policy authorizing urinalysis testing. Both the District Court and the Court of Appeals, presented with the same exact factual setting, applied the “balancing test” and came to vastly different conclusions.

In 1983, three employees at the Iowa Department of Corrections were asked to sign search consent forms. Two of the three plaintiffs refused to sign and no official action was taken at that time. Then, in January of 1984, McDonell was asked by his supervisor to undergo urinalysis based on the fact that he had been seen the week before with

120. Id. at 586.
121. Id. at 585.
122. Shoemaker, 795 F.2d at 1142.
123. Railway Labor Executives’ Association, 839 F.2d at 585.
124. Id. at 587.
125. Id. at 586.
126. 612 F. Supp. 1122, modified 809 F.2d 1302.
127. Id. at 1126.
two individuals being investigated for drug related activities. When McDonell refused, he was automatically discharged.\textsuperscript{128} While there was a department policy concerning urinalysis, the policy was deficient of standards concerning the manner in which the testing was to be implemented.\textsuperscript{129} While this case does not involve a mandatory random drug-testing program, the appellate court decision did address the issue.\textsuperscript{130} The District Court and Court of Appeals chose to substitute their own opinion of what constituted "reasonableness" for that of the Framers of the Fourth Amendment. Both came to drastically different conclusions. Upon balancing the interests, the District Court concluded that drug-testing by urinalysis could only be conducted on the basis of reasonable suspicion that the employee was presently intoxicated with alcohol or under the influence of some controlled substance.\textsuperscript{131} The demand on McDonell that he submit to urinalysis testing was not based on reasonable suspicion and therefore it violated the Fourth Amendment.\textsuperscript{132} The District Court's opinion is the foundation upon which a number of drug-testing cases have been decided.\textsuperscript{133}

On appeal, the Eighth Circuit modified the District Court's decision, and, in balancing the interests itself, held that urinalysis may be performed uniformly or by systematic random selection of employees who have regular contact with the prisoners as long as selection is not arbitrary or discriminatory.\textsuperscript{134} In so ruling, the Eighth Circuit approved the Shoemaker rationale concerning the warrantless administration search exception\textsuperscript{135} and held that the state's interest in the security of the correctional facility was at least as strong as New Jersey's interest in safeguarding the integrity of the horse-racing industry.\textsuperscript{136}

A significant aspect of the Court's decision is based on the finding

\textsuperscript{128} Id.
\textsuperscript{129} Id. at 1128, n.4, modified 809 F.2d 1302.
\textsuperscript{130} McDonell, 809 F.2d at 1307-08.
\textsuperscript{131} McDonell, 612 F. Supp. at 1131, modified 809 F.2d 1302.
\textsuperscript{132} Id.
\textsuperscript{133} See generally D. Miller, Mandatory Urinalysis Testing and the Privacy Rights of Subject Employees: Toward a General Rule of Legality Under the Fourth Amendment, 48 U. Pitt. L. Rev. 201, 221-25 (1986).
\textsuperscript{134} McDonell, 809 F.2d 1308. In a sense, there are four standards upon which a search may take place: (1) Probable cause, (2) Reasonable suspicion, (3) Mere suspicion, and (4) Where safeguards and predetermined standards ensure that an intrusion into one's privacy is not subject to the unbridled discretion of field officers. See D. Miller, supra note 133, at 215. Of course, the primary distinction is that the first three require at least some type of individualized suspicion while the fourth does not. Additionally, it seems logical that the fourth standard is more of a reason to abdicate the warrant requirement rather than the individualized suspicion requirement since the rationale for a warrant is that the magistrate issue it so as to guard against a field officer's unbridled discretion.
\textsuperscript{135} McDonell, 809 F.2d at 1308.
\textsuperscript{136} Id.
that urinalysis testing is not as intrusive as a strip search or a blood test. The only explanation for the apparent conflict is that a blood test involves the actual intrusion of a needle into one's body. But such an explanation plainly ignores the fact that the chemical analysis of one's bodily fluids is the privacy interest which is invaded.

What the Circuit Court accomplished was to create two levels upon which urinalysis testing could take place. First, as long as random selection of employees to be tested was pursuant to set standards and not subject to the arbitrary discretion of field officers, then the testing could be conducted in the absence of individualized suspicion. Secondly, absent a systematic random or uniform selection, testing could be conducted only on the basis of reasonable suspicion. The Court again modified the District Court's decision and announced that the reasonable suspicion standard was not limited to the testing of those suspected of being under the influence, but was extended to include those reasonably suspected to have used a controlled substance within a twenty-four hour period prior to the required test. The effect of this modification is that an employee may be required to take the test even though he is not presently impaired.

The overriding significance of McDonell is that it is illustrative of the problems encountered when a court does not comply with the probable cause-warrant standard. When using the "balancing test," different courts will reach opposing conclusions when presented with the same set of facts. The traditional model lent at least some predictability to Fourth Amendment analysis. The balancing approach has replaced predictability and brought chaos to the law of search and seizure. While it is true that the "test of reasonableness under the Fourth Amendment is not capable of precise definition or mechanical application," the traditional standard provides some stability and guidance to the analysis.

5. AMERICAN FEDERATION OF GOVERNMENT EMPLOYEES V. WEINBERGER

In American Federation of Government Employees v. Weinberger the Department of Defense ("DOD") directive called for the mandatory

137. Id.
138. Id. at 1307.
139. Id. at 1308.
140. Id.
141. Id. at 1309.
142. Wolfish, 441 U.S. at 559.
periodic drug-testing of civilian DOD employees positioned in "critical" jobs.\textsuperscript{144} Choosing not to follow the Shoemaker lead, the District Court for the Southern District of Georgia held the reasonable suspicion standard governed urinalysis testing:

[[It generally has been accepted that an employee does have an expectation of privacy upon taking a position with the government that is diminished in comparison with that reasonably held by members of the public at large. Thus, where a governmental employee's position is such that the employee's drug use could endanger the public safety or welfare, it has been held that it is not necessary to adhere to the probable cause standard, and the employee may be subject to mandatory testing upon a showing or reasonable suspicion that he has used drugs.\textsuperscript{145}}

Where an individual accepts government employment affecting public safety, his justifiable expectation of privacy is diminished and a reasonable suspicion rather than probable cause will suffice. The only way the Court was able to reach the "reasonable suspicion" standard was by immediately balancing the competing interests. Had it applied the traditional standard, since the intrusion was a full-scale search, probable cause would have been required. However, if the Court meant to imply by accepting government employment the intrusion itself is substantially less than a full-scale search, then the requisite balancing test would apply whether the traditional model was used or not. But even then, some type of individualized suspicion is required.

IV. MANDATORY RANDOM DRUG-TESTING BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION

On December 9, 1986, less than three months after president Reagan issued his Executive Order,\textsuperscript{146} the Department of Transportation ("DOT") issued an Advanced Notice of Proposed Rulemaking ("ANPRM") seeking public comment as to what type of considerations should be addressed in comprising a Drug Abuse Program.\textsuperscript{147} As envisioned by DOT, and in particular by the Federal Aviation Administration ("FAA"), a basic program would include the testing of all pilots and flight personnel, including flight attendants, flight engineers, navigators, dispatchers, mechanics, repairmen and ground instructors who are employed by any Part 121 or Part 135 certificate holders.\textsuperscript{148}

In March of 1988, the FAA published a proposed rule requiring commercial airlines to test employees in safety or security-related jobs for

\textsuperscript{144} Id. at 728.
\textsuperscript{145} Id. at 733.
\textsuperscript{146} See supra note 74 and accompanying text.
\textsuperscript{147} Control of Drug and Alcohol Use for Personnel Engaged in Commercial and General Aviation Activities, ANPRM No. 86-20, 51 Fed. Reg. 44432 (Dec. 9, 1986).
\textsuperscript{148} Id. at 44434.
drug use. The Final rule was announced in November of 1988 and will include random testing of pilots, flight engineers, flight navigators, aircraft dispatchers, mechanics and repair personnel, flight attendants, non-governmental controllers, ground security coordinators, and aviation security screeners. Employers must conduct pre-employment, periodic, post-accident, reasonable cause and random testing for amphetamines, cocaine, marijuana, opiates and PCP. Prior to the enactment of the new rule, pilots, flight attendants, flight engineers and flight navigators could be tested only when there was a reasonable basis to suspect that they were under the influence of drugs or alcohol. At the present time, flight service specialists and other designated employees in critical safety positions are tested during their annual physical examinations. If the test proves positive, that employee will be offered the opportunity for drug rehabilitation and will also be reassigned to a non-safety-related job. Additionally, the employee who tests positive is subject to random testing for one year.

The DOT instituted a random drug-testing program which is limited to civilian employees within the agency working in positions affecting safety and security. The group includes aviation inspectors, flight test pilots, aviation security specialists, railroad safety inspectors, Coast Guard drug enforcement officers, fire fighters, air traffic controllers and DOT employees with top secret security clearance.

The Department wasted no time in implementing its program. On August 6, 1987, approximately 30,000 DOT employees were notified that they were subject to the possible random selection of the test procedure. Ninety-four percent of those notified were involved in some aspect of the aviation industry. The program itself is not a part of any promulgated regulations and in fact was not subject to any formal rule-making proceedings because the program relates to matters concerning agency management and personnel.

Those selected to participate who choose not to comply are subject to immediate discharge. Similarly, those who test positive and are ac-

152. AVIATION DAILY, March 19, 1987 at 411.
153. AVIATION DAILY, April 1, 1987 at 2.
155. AVIATION DAILY, August 12, 1987 at 235.
156. AVIATION DAILY, June 30, 1987 at 506.
158. Id. at 447, n.7; see 5 U.S.C. § 553(a)(2) (1982).
159. AVIATION DAILY, August 12, 1987 at 235.
tively impaired at the time of testing may also be discharged.\textsuperscript{160} Those who test positive but are not actively impaired may be reassigned to a non-safety related position pending completion of a rehabilitation program.\textsuperscript{161} However, prior to any official action, an employee who tests positive is provided an opportunity to explain the test results.\textsuperscript{162} If a satisfactory explanation is forthcoming, no official action is taken.\textsuperscript{163} In any case, evidence of drug use which is obtained through the testing procedure is not required to be reported to the Attorney General for investigation or prosecution.\textsuperscript{164}

The program was met with adamant resistance. Only eight days after the DOT program was implemented, the American Federation of Government Employees ("AFGE") brought suit against DOT Secretary Dole challenging the program in the United States District Court for the District of Columbia.\textsuperscript{165} The DOT moved for summary judgment and AFGE moved for a preliminary injunction. After hearing oral argument, the court ordered DOT's motion granted.\textsuperscript{166} In the brief opinion written by Judge Gesell, the program was adjudged reasonable on its face\textsuperscript{167} and justified at its inception. However, the Court expressly left open the opportunity for a more specific challenge at a later date directed at any particular job category or at the ineffective nature of the testing program.\textsuperscript{168}

The opinion ignores completely the traditional analysis mandated by the Fourth Amendment and proceeds to immediately "balance factors bearing on reasonableness."\textsuperscript{169} Thus, the District Court joined those cases which forego the traditional analysis in favor of the \textit{T.L.O.} approach. Had the traditional approach been used, the outcome would have differed significantly.

\section{Analysis of Dole}

Under the new "balancing of interests" test enunciated in \textit{T.L.O.} and \textit{O'Connor}, "[to] hold that the Fourth Amendment applies to searches conducted by [public employers] is only to begin the inquiry into the standards governing such searches."\textsuperscript{170} To determine the standard of

\begin{itemize}
\item \textsuperscript{160} Id.
\item \textsuperscript{161} Id.
\item \textsuperscript{162} AFGE, 670 F. Supp. at 447.
\item \textsuperscript{163} Id.
\item \textsuperscript{164} See supra note 74 at 32892.
\item \textsuperscript{165} AFGE, 670 F. Supp. 445.
\item \textsuperscript{166} Id. at 449.
\item \textsuperscript{167} Id. The Court seemingly admonished AFGE for the "premature nature of the attack," citing the "sparse record" as a factor in its decision. Id.
\item \textsuperscript{168} Id.
\item \textsuperscript{169} Id. at 447.
\item \textsuperscript{170} O'Connor, --- U.S. at ---, 107 S. Ct. at 1499 (quoting \textit{T.L.O.}, 469 U.S. at 337).
\end{itemize}
reasonableness applicable to a particular search, the Framers’ intent is
cast aside and the nature and quality of the intrusion into one’s privacy is
balanced against the importance of the governmental interest which the
search seeks to fulfill. 171

Such an approach does not comport with the long-standing tradition
and recognition that the Fourth Amendment mandates the application of
the probable cause-warrant analysis. Only where the intrusion is signifi-
cantly less than a full-scale search and the special needs beyond the nor-
mal need for law enforcement are present is a “balancing of interests”
test utilized. 172 In the words of Justice Brennan,

For me, the finding that the Fourth Amendment applies, coupled with the
observation that what is at issue is a full-scale search, is the end of the
inquiry. 173

1. Traditional Approach: Probable Cause Required

In AFGE, the District Court’s failure to provide the traditional protec-
tions required by the Fourth Amendment proved fatal to AFGE’s claim.
Had the Court applied the traditional analysis, the court would have been
required to apply the probable cause-warrant standard first as long as the
intrusion constituted a full-scale search.

While there are those who would suggest that a urinalysis test is mini-
mally intrusive and less than a full-scale search, 174 the better reasoned
approach is that such a test constitutes a substantial invasion into one’s
privacy. 175 There are two privacy interests which are subject to intrusion
by urinalysis testing. First, the individual has a privacy interest in the act
of urination. As found by one court:

There are few activities in our society more personal or private than the pass-
ing of urine. Most people describe it by euphemisms if they talk about it at
all. It is a function traditionally performed without public observation; indeed,
its performance in public is generally prohibited by law as well as by social
custom. 176

The second privacy interest is the interest one possesses in the informa-
tion contained in his bodily fluids. 177 The urine sample is subjected to
close chemical analysis by the employer and numerous private physi-
ological details other than mere drug use may be detected. Even the Fed-
eral Rules of Civil Procedure recognize the high level of privacy in one’s

171. T.L.O., 469 U.S. at 351 (Blackmun, J., concurring).
172. Id.
173. Id. at 362 (Brennan, J., concurring in part and dissenting in part).
174. McDonnell, 809 F.2d at 1308; NTEU, 816 F.2d at 177 (holding that chemical analysis of
one’s urine is not as intrusive as an invasion into one’s home.)
176. NTEU, 816 F.2d at 175.
177. Id.
medical information.\textsuperscript{178}

DOT's program sufficiently minimizes the intrusion into the former privacy interest. The program allows the employee to provide the urine sample without direct observation. But such a provision does nothing to limit the intrusion into the privacy interest regarding the "information" contained within the sample. The sample is still subjected to close scrutiny.

Even if the employer (DOT) is notified only when the results are positive, the degree of intrusion has not been limited in the traditional sense. An example may aid the analysis. Suppose a police officer approaches a citizen and without probable cause or even reasonable suspicion, reaches inside the citizen's shirt or pants pockets and finds a piece of paper on which is written numerous private physiological facts concerning the citizen. The police officer reads the note and then proceeds on his way, never telling anyone what was contained in the note. Would anyone argue that such an intrusion fell short of a full-scale search? Surely not.\textsuperscript{179}

This is the precise situation faced in analyzing random drug-testing cases. The results of the search are irrelevant. It is the testing which constitutes a full-scale search.

How the privacy interest is defined weighs heavily in the determination of whether urinalysis testing constitutes a full-scale search. Where the privacy interest is defined as the interest in the information contained in one's urine, a urinalysis test constitutes a full-scale search. Under the traditional analysis, this ends the inquiry and probable cause is required.\textsuperscript{180}

Some courts, such as the one in \textit{American Federation of Government Employees v. Weinberger},\textsuperscript{181} accept the argument that an employee, by accepting government employment, has a reduced expectation of privacy in the information contained in his bodily fluid. While such an argument may have merit where the court conducts its own "balancing test," in that government employment may weigh in the balance of what constitutes a "reasonable" search, it has no application in the traditional analysis. Under the traditional standard, once the court finds that the Fourth Amendment applies and the search at issue is a full-scale one, this ends the inquiry. If a government employee had less protection from the Fourth Amendment than an ordinary citizen simply because he accepted govern-

\textsuperscript{178} Fed. R. Civ. P. 35; See also, Fraternal Order of Police, Lodge 5, 812 F.2d at 113.

\textsuperscript{179} In fact, in \textit{Railway Labor Executives Assoc. v. Burnley}, 839 F.2d 575 (9th Cir. 1988) the court equated the intrusion into one's privacy by means of urinalysis with that of a body cavity search.

\textsuperscript{180} See \textit{T.L.O.}, 469 U.S. 325.

\textsuperscript{181} 651 F. Supp. 726, 733.
ment employment, the situation would be analogous to conditioning a government benefit on a waiver of one's constitutional rights. Such an approach has been expressly rejected.\textsuperscript{182}

2. Balancing Approach: Probable Cause Not Required

Contrary to the above conclusion that probable cause is required, many courts have allowed testing on a "reasonable suspicion" standard.\textsuperscript{183} However, this determination can be made only when the traditional standard of reasonableness is bypassed and the court immediately engages in a balancing of interests. This is the approach which the District Court in AFGE chose to follow. Judge Gesell particularly found:

However, the Amendment only prohibits 'unreasonable' searches, and accordingly the focus of the drug testing case, like other Fourth Amendment testing cases, is factual, requiring the Court to balance factors bearing on reasonableness.\textsuperscript{184}

The Court, looking to guidance from National Federation of Federal Employees v. Weinberger,\textsuperscript{185} balanced the employee's reasonable expectation of privacy against the government's interest in the efficient operation of the workplace.\textsuperscript{186} In balancing the interests, the Court came to the conclusion that individualized suspicion was not required, thus supplanting the Framers' determination of where the proper balance should stand. Many courts which also use the balancing approach have come to a different conclusion and found that testing could be conducted on the basis of reasonable suspicion.\textsuperscript{187} In fact, while AFGE cited and relied on the opinion of the United States Court of Appeals for the District of Columbia in NFFE v. Weinberger, the District Court in Weinberger, on remand, refused to follow AFGE.\textsuperscript{188} The District Court issued a preliminary injunction against the random testing of civilian employees by the Department of the Army.\textsuperscript{189} Reasonable suspicion was required.\textsuperscript{190}

\textsuperscript{182} Connnick v. Myers, 461 U.S. 138, 142 (1983); AFGE v. Weinberger, 651 F. Supp. at 736 (S.D. Ga. 1986); But compare, W. LaFane, Search and Seizure: A Treatise on the Fourth Amendment § 10.2(c) (2d ed. 1987); see also O'Connor, — U.S. —, 107 S. Ct. at 1498 (plurality opinion) ("The operational realities of the work place, however, may make some employees' expectation of privacy unreasonable when an intrusion is by a supervisor rather than a law enforcement official").


\textsuperscript{184} AFGE, 670 F. Supp. at 447.

\textsuperscript{185} 818 F.2d 935 (D.C. Cir. 1987).

\textsuperscript{186} AFGE, 670 F. Supp. at 447.

\textsuperscript{187} See supra note 183 and accompanying text.

\textsuperscript{188} National Fed. of Fed. Employees v. Carlucci, 680 F. Supp. 416 (D.C. Cir. 1988) (This case involves the consolidation of three cases, all of which concern random drug-testing. NFFE v. Weinberger was renamed NFFE v. Carlucci on remand).

\textsuperscript{189} Id. at 436.
Due to the substantial importance of the case, Judge Hogan made a special appeal:

The Court invites the defendants to appeal this decision pursuant to 28 U.S.C. § 1292(a)(1) (1982); additionally, the Court respectfully suggests that the Court of Appeals consolidate the appeal in this action with that in [AFGE] and consider scheduling the cases for en banc hearing as presenting a question of exceptional importance.\textsuperscript{191}

The AFGE Court, without explanation, determined that, upon balance, drug testing by DOT could be conducted in the complete absence of individual suspicion.\textsuperscript{192} This occurred in spite of the fact the Court found there must be "reasonable grounds to suspect work related drug use will be uncovered."\textsuperscript{193} Under the Court's analysis, "reasonable grounds to suspect" is not directed at a particular individual, but rather, at the "group" to be tested. In fact, the FAA proposed rules specifically state that the FAA has no evidence to suggest that the aviation community differs significantly from the overall population in terms of drug abuse.\textsuperscript{194} Dole, like some other court's addressing the issue, used the "balancing test" to abdicate the requirement of individualized suspicion. Traditionally, this has only been done in the context of border searches\textsuperscript{195} and in limited administrative searches.\textsuperscript{196} But an analysis of these two situations evidences that the rationales supporting the abrogation of the individualized suspicion requirement in those cases do not support its extension to mandatory random drug testing.

\begin{enumerate}
\item \textbf{BORDER SEARCHES}

Some drug-testing cases rely upon United States v. Martinez-Fuerte\textsuperscript{197} for the proposition that individualized suspicion is not required.\textsuperscript{198} However, that case is not applicable outside the context of border patrol searches and should be limited to that extent. The case involved the practice of stopping vehicles at fixed check points near the border in the absence of individualized suspicion. One year after that decision was handed down, the Supreme Court, in United States v. Ramsey\textsuperscript{199} ana-

\begin{itemize}
\item 190. \textit{Id.}
\item 191. \textit{Id. at 418.}
\item 192. AFGE, 670 F. Supp. at 448-449.
\item 193. \textit{Id. at 448.}
\item 196. \textit{See supra} note 47. \textit{But compare}, Bell v. Wolfish, 441 U.S. 520 (2nd Cir. 1979); \textit{(A search of prison inmates may be conducted without individualized suspicion).}
\item 197. 428 U.S. 543 (1976).
\item 198. NTEU, 816 F.2d at 176-177. \textit{See also T.L.O.}, 469 U.S. 325 for a general discussion of the lessening of the traditional individualized suspicion standard.
\item 199. 431 U.S. 606.
\end{itemize}
alyzed the nature of border searches. The Court announced:
That searches made at the border pursuant to the long standing right of the
sovereign to protect itself by stopping and examining persons and property
crossing into this country, are reasonable simply by virtue of the fact that
they occur at the border, should, by now, require no extended
demonstration.200

The conclusion that the probable cause-warrant model is inapplica-
table to border searches is premised on the fact that the same Congress
which proposed the Fourth Amendment also passed the first customs
statute providing for searches in the absence of individualized suspicion:
As this act was passed by the same Congress which proposed for adoption
the original amendments to the Constitution, it is clear that members of that
body did not regard searches and seizures of this kind as "unreasonable,"
and they are not embraced within the prohibition of the amendment.201

b. APPLICABILITY OF THE WARRANTLESS ADMINISTRATIVE SEARCH
The Shoemaker Court took an unprecedented and unwarranted jump
in reasoning when it extended the warrantless administrative search excep-
tion to a situation where it had never before been applied. That excep-
tion allows an inspection to be conducted in the absence of a warrant
or individualized suspicion only when (1) it is conducted pursuant to a
legislative scheme which sets the standards, frequency, scope and pro-
cedures of the inspection and leaves nothing to the discretion of the en-
forcing officer, (2) it is a highly regulated industry, and (3) it is the
inspection of commercial property.202 Until now the exception was lim-
ited to the liquor, gun, coal mining and vehicle dismantling industries.203

The DOT and FAA programs comply with only the second of these
requirements. The DOT & FAA certainly deal with highly regulated indus-
tries but that fact alone is not sufficient to support random drug-testing.
With regard to the first requirement, neither the DOT or FAA drug-testing
program is part of any legislative scheme. There are no promulgated reg-
ulations governing the "inspection" process. There are only "rules"
which govern internal policy. As a matter of fact, calls for random testing
have been met with tremendous resistance in Congress.204

Additionally, there is a vast difference between the inspection of com-
mercial property and the chemical analysis of an employee's urine. The
Camara case, which is the authority on administrative searches, specifi-
cally drew a distinction between a search which is personal in nature and

200. Id. at 616.
201. Id. at 617; see also M. Herman, Recent Developments in the Law of Border Searches, 9
202. See supra note 47 and accompanying text.
203. See supra notes 43-46 and accompanying text.
204. AVIATION DAILY, December 7, 1987, at 345.
one which is of commercial property.\textsuperscript{205}

The rationales of the warrantless administrative search exception unequivocally reject its extension to the issue of mandatory random drug-testing. Now that the Supreme Court has accepted certiorari in \textit{NTEU v. Van Raab}, a definitive ruling dealing with random drug testing of employees absent individualized suspicion where conducted in accordance with standards which limit the discretion of the enforcing officer may be forthcoming.

Since \textit{AFGE} failed to follow the traditional analysis of the Fourth Amendment, the Court concluded that drug-testing could be conducted without probable cause and without individualized suspicion. By engaging in a \textit{T.L.O.} balancing approach, \textit{AFGE}, like other courts addressing the issue, failed to follow the explicit language of the Fourth Amendment. When each court decides for itself where the balance lies, the predictability which the traditional standard lends to the analysis is destroyed. Drug-testing decisions range from requiring individualized suspicion of the probable cause nature to allowing an agency to randomly select its targets as long as target selection is in accord with \textit{Dewey} standards. Until the Supreme Court rules on the issue of random drug-testing, courts will continue to render decisions which differ on the issue of where the balance should lie. Such decisions will have to be made on a case-by-case determination. The false analogy to the warrantless administrative search exceptions should be recognized and urine testing should at the very least be conducted only in the presence of individualized suspicion.

V. SUMMARY

The goal which the “war on drugs” seeks to attain is a laudable one indeed. But let us not fight the battle by means which decrease the protections traditionally afforded by the Fourth Amendment. The traditional standard has served the Constitution well thus far and it can continue to do so.

\footnote{205. Camara, 387 U.S. at 537. See also Railway Labor Executives’ Assoc. v. Burnly, 839 F.2d 575, (9th Cir. 1988), cert. granted, ___ U.S. ___, 108 S. Ct. 2033 (1988).}
The Empirical Results of Deregulation: A Decade Later, and The Band Played On*

PAUL STEPHEN DEMPSEY**

TABLE OF CONTENTS

I. INTRODUCTION .................................................. 32

II. THE EMPIRICAL RESULTS OF INTERSTATE TRANSPORTATION DEREGULATION .................................................. 34

A. ECONOMIC EFFICIENCY ........................................... 34
   1. ALLOCATIVE EFFICIENCY AND PERFECT COMPETITION .... 34
   2. PUBLIC POLICY ................................................. 36
   3. CARRIER PRODUCTIVITY UNDER DEREGULATION ......... 38
   4. BANKRUPTCIES .................................................. 40
   5. SUBHAULERS UNDER DEREGULATION ....................... 43
   6. INDUSTRY CONCENTRATION .................................. 43
      A. MOTOR CARRIERS .......................................... 44
      B. RAILROADS .................................................. 46
      C. AIRLINES ................................................... 48
      D. EMERGING Oligopolies .................................... 55

---

* Copyright © 1989 by Paul Stephen Dempsey
For the past decade, America has basked in the sunshine of deregulation—deregulation of telecommunications, broadcasting, banking, oil and gas, and transportation. Transportation was the nation's first industry to be regulated by government, and a century later, the first to enjoy significant deregulation. We have now had a decade to evaluate the social and economic impacts of that experiment. This article assesses that experience.

Market failure gave birth to economic regulation. In the late 19th Century, pricing discrimination and destructive competition in the transportation industry prompted Congress to establish our nation's first independent regulatory agency, the Interstate Commerce Commission, in 1887.¹

Beginning in the late 1970s, regulatory failure became the catalyst for deregulation. Various forms of de jure and de facto interstate deregulation resulted both from legislation passed by Congress in the mid-1970s and early-1980s, and from the appointment by Presidents Carter and Reagan of individuals to the federal regulatory commissions fervently

¹ P. DEMPSEY & W. THOMS, LAW & ECONOMIC REGULATION IN TRANSPORTATION 7-17 (1986) [hereinafter P. DEMPSEY].
dedicated to deregulation. The federal statutes partially deregulating various aspects of the transportation industry include the following:

- The Railroad Revitalization and Regulatory Reform Act of 1976
- The Air Cargo Act of 1977
- The Airline Deregulation Act of 1978
- The International Air Transportation Competition Act of 1979
- The Motor Carrier Act of 1980
- The Staggers Rail Act of 1980
- The Household Goods Transportation Act of 1980
- The Bus Regulatory Reform Act of 1982
- The Shipping Act of 1984
- The Civil Aeronautics Board Sunset Act of 1984
- The Freight Forwarder Deregulation Act of 1986

The high water mark of deregulation as a blossoming political movement seems to be behind us, having peaked late in the Carter and early in the Reagan Administrations. As the American people have had more experience with the grand experiment in deregulation, they have become less enamored with it. Congress has not passed a major deregulation bill in recent years, and is now considering various reregulation proposals for those modes which have experienced the most comprehensive deregulation—airlines and railroads. And while a few states jumped on the bandwagon and adopted intrastate trucking deregulation in the early 1980s, that momentum seems to have died too, for no state has opted for intrastate deregulation since 1984. Today, the overwhelming majority of states continue to regulate intrastate motor carriage.

This article will examine the experience of interstate transportation deregulation,\(^2\) and the likely impact that additional deregulation would have. It will focus on several of the areas in which there has been a significant adverse impact: (1) economic efficiency; (2) pricing; (3) service; and (4) safety. In addition, the question of federal preemption of intrastate transportation, and the experience of intrastate deregulation in the few states which have followed the federal lead will be briefly explored. The article will also examine the question of whether more deregulation is in the public interest, and if economic regulation is to be retained, what form it should take. It will conclude with an analysis of the public interest in transportation—the policy objectives essential to accomplish social and economic goals beyond allocative efficiency.

We will examine the empirical evidence surrounding deregulation of all the major domestic transport modes—airlines, railroads, and bus and trucking companies. While these industries have somewhat different economic characteristics, they are strikingly similar as well, and in many markets compete for the same traffic. They all involve the movement of something or other from here to there. Moreover, their experience is particularly interesting in that airlines, railroads, and bus companies have undergone far more comprehensive deregulation at both the interstate and (by virtue of federal preemption) intrastate levels than have motor carriers. Hence, they provide something of a barometer as to what the public can expect from additional motor carrier deregulation.

Today, transportation is among the nation’s most important industries. In 1987, the total cost of moving the nation’s goods and people totaled $792 billion, or 17.6% of the gross national product. Hence, the role government plays has profound economic and social consequences.

Federal deregulation has had nearly a decade to prove its superiority to the system it replaced. The time has come to evaluate the empirical evidence and determine whether to follow the lead of the federal government toward comprehensive deregulation, or to chart a more prudent course.

II. THE EMPIRICAL RESULTS OF INTERSTATE TRANSPORTATION Deregulation

A. ECONOMIC EFFICIENCY

1. ALLOCATIVE EFFICIENCY AND PERFECT COMPETITION

In a purely competitive market in which no single producer has market power, consumers purchase goods and services closely approximat-

3. A decade ago, America deregulated its airline industry. With the promulgation of the Airline Deregulation Act of 1978, Congress fully deregulated entry and pricing, preempted the states, and (effective December 31, 1984) abolished the Civil Aeronautics Board. For ten years, airlines have been subjected to a more intensive and comprehensive scheme of deregulation, and over a longer period, than any other formerly regulated industry.

Alfred Kahn, the Godfather of this revolution in American public policy, assured us that deregulation would result in more competition (not less), better service (not worse), a healthier airline industry (not one chronically ill), and that neither safety nor service to small communities would suffer. A decade later, we see how wrong he was:
- The industry has become a national oligopoly and, in many markets, a monopoly;
- The industry has suffered the worst economic losses in its history;
- Pricing is highly discriminatory;
- Small communities pay more for poorer service;
- Labor relations have deteriorated;
- Airline service has gone to hell; and
- The margin of safety has narrowed.

4. Gridlock!, TIME (Sept. 12, 1988) at 52, 55 [hereinafter Gridlock!].
ing their marginal costs of production. In an ideal competitive
marketplace, there is no input waste, excess capacity, or "monopoly"
profits. In theory, the most efficient producers provide the commodity or
service, and the public enjoys an efficient allocation of resources.

Prior to deregulation, the consensus among many economists was
that removal of governmental barriers to entry and pricing, particularly for
airlines and motor carriers, would result in a healthy competitive envi-
ronment, one perhaps approaching that of perfect competition. Destructive
competition, whose purported existence gave birth to regulation of these
two industries in the 1930s, was deemed unlikely to occur. A 1978 Sen-
ate Committee report on federal regulation provided a fairly typical sum-
mary of those attributes of destructive competition deemed not likely to
occur in a deregulated air and motor carrier industry:

A . . . justification sometimes offered for regulation is that in the absence
of regulation competition would be "destructive." In other words, without
regulation, an industry might operate at a loss for long periods . . . . When
there is excess capacity in a competitive industry . . . prices can fall far below
average cost. This is because individual producers minimize their losses by
continuing to produce so long as their variable (avoidable) costs are cov-
ered, since they would incur their fixed (overhead) costs whether they pro-
duced or not . . . . Similarly, if resources are mobile [as they are in the
trucking and airline industries] depressed conditions in an industry or a re-

gion would result in the shift of resources to other employments . . .

What is "destructive" about large and long-lasting losses? Some econ-
omists have suggested that they would result in long periods of inadequate
investment and slow technical progress which in turn might lead to poor ser-
vice and periodic shortages . . . .

Another scenario that has sometimes been suggested is that periods of
large losses will result in wholesale bankruptcies and the shakeout of many
small producers with the result that the industry in question becomes highly
concentrated in a few large firms . . . .

A third and related notion is the possibility that powerful firms might en-
gage in predation . . . . "Destructive competition" seems . . . unlikely in the
cases of airlines and trucks.\(^5\)

The trouble is, transportation is simply not the ideal model of perfect
competition that many proponents of deregulation insisted it was. There
appear to be significant economies of scale and scope, and economic
barriers to entry in the railroad, airline, and less-than-truckload [LTL] mo-
tor carrier industries. Widespread bankruptcies and mergers have re-
duced the number of competitors in each mode to the point that major
oligopolies now exist. The theory of contestable markets, which posits
that if a monopolist or oligopolist begins to earn supracompetitive profits,
new competitive entry, or the threat thereof, will restore pricing competi-

---

tion, appears not to be sustained by the empirical evidence. Hence, many carriers are now able to exert market power. In a situation where market power exists, prices rise and/or the level of service deteriorates, excessive wealth is transferred from consumers to producers, and society's resources are misallocated, as consumers purchase alternative products or services that cost society more to produce. In the long run, the pricing competition enjoyed by many users of the transportation network may be lost as a handful of giants come to dominate the industry. These consequences will be addressed more fully below.

2. Public Policy

But first, a word about policy objectives beyond allocative efficiency is in order. Regulation has traditionally been employed to facilitate a number of public policy objectives which might not find a high priority in the free market, or are necessary to avoid the problems surrounding the existence of imperfect competition. As was said by Vermont Royster, editor emeritus of the Wall Street Journal:

[Regulation to protect consumers is almost as old as civilization itself. Tourists to the ruins of Pompeii see an early version of the bureau of weights and measures, a place where the townsfolk could go to be sure they weren't cheated by the local tradesmen. Unfortunately a little larceny is too common in the human species.

So regulation in some form or other is one of the prices we pay for our complex civilization. And the more complicated society becomes, the more need for some watching over its many parts. We shouldn't forget that a great deal of regulation we encounter today in business or in our personal lives arose from a recognized need in the past.]

Indeed, it was the rate abuses of the monopoly railroads that gave birth to the Granger movement of the 19th Century, and in 1887, inspired the creation of the nation's first independent federal regulatory agency—the Interstate Commerce Commission (ICC). The ICC was vested with jurisdiction to prohibit discrimination in rail rates, and to require carriers to offer rates which were just and reasonable. The economic problems of destructive competition during the Great Depression led to the expansion of the jurisdiction of the ICC in 1935 to embrace motor carriage, and the creation of the Civil Aeronautics Board in 1938 to regulate the airlines. Historical experience with market imperfection was the catalyst for economic regulation at both the federal and state levels.

In the United States, private ownership of the means of production has been deemed to provide the optimum incentives for efficiency in our

7. P. Dempsey, supra note 1, at 7-21.
8. Dempsey, The Rise and Fall of the Civil Aeronautics Board—Opening the Floodgates of Entry, 11 TRANSP. L.J. 91 (1979) [hereinafter The Rise and Fall].
economy. Nonetheless, the need for government to facilitate the market’s ability to accomplish desirable social and economic objectives has long been recognized:

America’s economic system is based on the belief that a competitive, free enterprise system is the best means of achieving national economic goals. Among these goals are minimum unemployment, a low rate of inflation, adequate supplies of goods and services, and an increasing standard of living.

In some industries, the operation of the competitive, free enterprise system does not result in attaining these economic goals. This is because these goals sometimes conflict with the principal goal of private business, which is to maximize profits. For example, it may be more profitable for businesses to limit the supply of a product, thereby raising its price, than to produce a large enough supply to satisfy demand for the product. Limiting supply, however, may reduce the number of jobs in the industry, cause inflation, and negatively impact the standard of living. . . . To prevent this from occurring, government regulation may be used as a means of altering the existing market (i.e. economic environment) to achieve economic goals.

Government regulation is also used to achieve political and social goals when the economic system is unable to achieve these goals. These include such goals as national defense, regional development, and social equity. Like economic goals, political and social goals sometimes cannot be achieved through the economic system because they conflict with businesses’ goal to maximize profits.9

To achieve societal ends other than those resulting from man’s pursuit of wealth, the regulatory mechanism provides broad parameters for production and pricing of privately owned firms. Regulation provides an equitable balance of public interest objectives with market imperatives.

For example, regulatory prohibitions against rate discrimination are essential to rectify the problems of imperfect competition. By requiring carriers to charge both small and large shippers the same rate for equivalent shipments, economic regulation prohibits large shippers from using their monopsony power to exact a lower rate, which would give them superior access to the market for the sale of their products. Regulation thereby reduces the economic advantages attributable to size which a large shipper would otherwise enjoy over its smaller rivals. Both small and large shippers thereby enjoy nondiscriminatory access to the transportation infrastructure, and an equal opportunity to get their goods to market and to compete fairly in that market for the sale of their goods. Hence, the distortions of imperfect competition are mollified by a requirement that there be no rate or service discrimination.

But even if perfect competition existed in transportation (and it does not), society frequently views the achievement of objectives other than

---

allocative efficiency as more important than fidelity to the ideology of laissez faire. For example, one public policy objective that may be enhanced by economic regulation is wealth distribution, or stated differently, a spreading of the opportunity to participate in economic growth to a more diverse group of participants. For example, prohibitions against rate discrimination require carriers to price their services to small communities at or just below marginal cost, facilitating economic growth in all geographic regions. Small towns and rural communities are served by fewer competitors than urban centers, and in the absence of regulation are more prone to the extraction of higher, non-competitive rates by monopoly or oligopoly carriers flexing their muscles of market power.

The transportation infrastructure is the foundation upon which the rest of commerce is built. Without adequate and reasonably priced transportation services, small towns and rural communities cannot sustain economic growth. The social and economic costs to a town or rural community of poor or highly priced service can also be devastating. They can impede growth, and thereby cause an outmigration of employment opportunities and population.

An additional public policy objective encouraged by economic regulation is the forced internalization of the costs of personal injury and property damage caused by poor levels of safety attributable to overworked, exhausted labor and deteriorated equipment. Regulation is superior to judicially-ordained tort damage awards for injuries, in that however well money can ease the pain of injury, economic compensation for injury frequently cannot restore health, and can never restore life. In contrast, regulation attempts to prevent injuries before they occur, thereby protecting the innocent from harm. Safety, too, will be discussed in greater detail below.

In an analogous sense, regulation protects smaller competitors from the predatory practices of larger rivals trying to drive them out of business. Judicial antitrust remedies ordinarily only award economic compensation to those injured by such anticompetitive conduct, and do not restore the lost competitor to the market. Thus, regulation can keep the market flush with small and medium size competitors engaged in a healthy competitive battle, providing consumers with a high level of service, and just and reasonable rates.

But before focusing on these policy objectives, let us examine the empirical evidence of industry concentration occurring since deregulation, which reveals that perfect competition does not exist in the unregulated marketplace.

3. Carrier Productivity Under Deregulation

Although deregulation proponents confidently predicted substantial
improvements in carrier productivity from deregulation, their predictions do not appear to have been realized. In fact, productivity of interstate motor carriers has actually declined since federal deregulation began—this despite the introduction of larger and more efficient equipment.\textsuperscript{10} Tremendous overcapacity stimulated both by unlimited entry and the predatory struggle for market share has decreased average load factors for general freight motor carriers.\textsuperscript{11}

De facto federal deregulation of the motor carrier industry began under ICC Chairman A. Daniel O’Neal nearly three years prior to promulgation of the Motor Carrier Act of 1980. Although productivity for general freight carriers grew by an average of 0.29% annually after 1969, it has declined by 0.21% per year since 1978. In contrast, productivity levels of all manufacturers have increased an average of 2.4 percent per year since 1975.\textsuperscript{12} As a consequence, thousands of motor carriers have gone bankrupt or ceased operations in the post-deregulation era.\textsuperscript{13}

Since transportation is an industry particularly susceptible to overcapacity, unconstrained entry must necessarily lead to distress sale pricing in those markets where competition is excessive, at least until waves of bankruptcies wipe out the smaller and weaker rivals.\textsuperscript{14} Since deregulation began, motor carrier profits, as measured by return on equity, have consistently fallen below the rate of all manufacturers.

\textsuperscript{10} Oversight of the Motor Carrier Act of 1980, Hearings Before the Subcomm. on Surface Transportation of the Senate Comm. on Commerce, Science and Transportation, 99th Cong., 1st Sess. 96 (statement of Dean Stanley J. Hille) [hereinafter 1985 Senate Hearings on MCA].

\textsuperscript{11} Professor Martin Farris prophetically predicted that this would be the result of deregulation prior to the promulgation of the federal Motor Carrier Act of 1980:

The concern over efficiency in the regulated sector is a real paradox. Critics of [economic regulation allege that it produces inefficiencies which are exemplified by] . . . low load factors in air transportation, empty back-hauls in trucking, energy waste, excess capacity, and idle capital all around. To the critics it is obvious that these "wastes of regulation" could be avoided if regulation were abolished and the natural forces of supply and demand were allowed a free hand. The paradox arises in that the solution to these "inefficiencies caused by regulation" is more excess capacity, more duplication, more wasted energy, more idle capital, more empty back-hauls, and low load factors caused by allowing more competition in entry and price. As more firms entered these markets and competed on a price basis, excess capacity and waste would increase, not decrease.

Farris, The Case Against Deregulation In Transportation, Power, and Communications, 45 ICC PRAC. J. 306, 329 (1978) [emphasis in the original].

\textsuperscript{12} Panelists Deplore Truck Deregulation, Rate Discrimination at NARUC Confab, TRAFFIC WORLD (Dec. 1, 1986), at 68, 69 [hereinafter cited as Rate Discrimination].

\textsuperscript{13} Many more would likely join the ranks of the "belly up" were it not for the unfunded pension liability imposed by the Employer Retirement Income Security Act [ERISA]. Transportation Deregulation, supra note 2, at 346-49; and N. GLASKOWSKY, EFFECTS OF DEREGLULATION ON MOTOR CARRIERS 18-19 (1986) [hereinafter cited as N. GLASKOWSKY].

\textsuperscript{14} Transportation Deregulation, supra note 2, at 351.
4. **Bankruptcies**

Dean Stanley Hille has observed that "over-capacity [in the motor carrier industry] coupled with large discounts to powerful shippers have driven down the profitability of carriers to a point where rates of return in the industry are inadequate to attract new capital, and carrier bankruptcies are at the highest level in history."^{15}

One source indicates that between 1979 and the first half of 1986, more than 10,000 motor carriers went out of business.\textsuperscript{16} Another states that the number of LTL firms dropped from nearly 500 in 1973, to fewer than 150 in 1986.\textsuperscript{17} Between 1978 (the year that de facto deregulation of interstate trucking began) and 1986, more than 54\% of the LTL trucking companies went out of business, costing 120,000 employees their jobs.\textsuperscript{18} The trend of motor carrier bankruptcies and profit margins since deregulation began is noted in Chart I.

<table>
<thead>
<tr>
<th>Year</th>
<th>Motor Carrier Bankruptcies</th>
<th>Motor Carrier Profit Margins</th>
<th>All Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>162</td>
<td>2.92%</td>
<td>5.4%</td>
</tr>
<tr>
<td>1979</td>
<td>186</td>
<td>1.97</td>
<td>5.7</td>
</tr>
<tr>
<td>1980</td>
<td>382</td>
<td>1.73</td>
<td>4.8</td>
</tr>
<tr>
<td>1981</td>
<td>610</td>
<td>1.58</td>
<td>4.7</td>
</tr>
<tr>
<td>1982</td>
<td>960</td>
<td>0.77</td>
<td>3.5</td>
</tr>
<tr>
<td>1983</td>
<td>1,228</td>
<td>2.37</td>
<td>4.1</td>
</tr>
<tr>
<td>1984</td>
<td>1,416</td>
<td>2.24</td>
<td>4.6</td>
</tr>
<tr>
<td>1985</td>
<td>1,543</td>
<td>1.74</td>
<td>3.9</td>
</tr>
<tr>
<td>1986</td>
<td>1,564</td>
<td>2.64</td>
<td>3.8</td>
</tr>
<tr>
<td>1987</td>
<td>1,351</td>
<td>1.57</td>
<td>4.9</td>
</tr>
</tbody>
</table>

---

18. Comments of Martin E. Foley, *California PUC En Banc Hearing on Regulation of the State's For-Hire Trucking Industry*, at 34 (Feb. 12, 1988) [hereinafter M. FOLEY].
19. These statistics were compiled by Ron Roth, Director of Statistical Analysis of the American Trucking Associations (Jan. 1988). Profit margins are measured in terms of after tax earnings as a percentage of gross revenues.
Note that carrier failures have exceeded 1,000 each year since 1983.\textsuperscript{20} This is all the more remarkable in light of the fact that by 1984, the national economic recession had abated, and in 1986, fuel prices had declined significantly. As we shall see below, these waves of carrier bankruptcies have created service and pricing instability, and a deteriorating margin of safety.

Note also that the profit margins of all manufacturers have been consistently superior to those of interstate motor carriers since deregulation began. Although profit margins for all manufacturers fell during the recession of the early 1980s, the drop was not nearly as drastic as that experienced by the deregulated motor carriers. Today, the profit margin of interstate motor carriers is among the lowest of all American industries.\textsuperscript{21}

While manufacturers seem to have rebounded from the depths of the recession of the early 1980s, profit margins in the motor carrier industry began to plummet beforehand, and continued steadfastly after it. Further, despite the record number of bankruptcies which have absorbed some of the excess carrier capacity, the above chart reveals that the gap between motor carrier profits and those of all manufacturers grew sharply wider in 1987.

Airlines have also suffered severe losses since deregulation. Deregulation was largely premised on the theory of contestable markets—the notion that there are no significant economies of scale or barriers to entry in the airline industry. New competitors, it was argued, would spring up to challenge the entrenched incumbents, and the industry would become hotly competitive. In the long run, we see how wrong these predictions were.

In the Darwinian scramble for survival and market share unleashed by deregulation, hundreds of carriers have gone "belly up" in bankruptcy, including such darlings of deregulation as Air Florida and Freddie Laker's Skytrain. Like Sir Freddie Laker, Donald Burr's smiling face stared out from the cover of TIME, an expression of the overwhelming success of airline deregulation that the media initially perceived. But not long thereafter, his airline, People Express, like so many others, was standing on the precipice of bankruptcy and swallowed by one of the giant megacarriers. Alfred Kahn once pointed to these new upstart airlines as evidence that deregulation was a brilliant success. But they have all since dropped from the skies into the social Darwinist grave of bankruptcy. A rash of mergers and bankruptcies has turned the industry into a national oligopoly, and in many markets, a monopoly.\textsuperscript{22}

\textsuperscript{20} Truckers in Trouble, INSIGHT (Nov. 3, 1986), at 45.
\textsuperscript{22} As one careful observer of the airline industry, Melvin Brenner, noted:
Ten years after he implemented airline deregulation as President Carter’s Chairman of the Civil Aeronautics Board, Alfred Kahn admitted, "There is no denying that the profit record of the industry since 1978 has been dismal, that deregulation bears substantial responsibility, and that the proponents of deregulation did not anticipate such financial distress—either so intense or so long-continued."23

In one important sense, the economic characteristics of transportation differ from those of most other sectors of the economy, and make it inherently vulnerable to overcapacity. If a manufacturer or retailer suffers a period of slack demand, it can usually store unsold goods and sell them another day, when demand improves. In contrast, transportation firms sell what is, in essence, an instantly perishable commodity. Once the truck leaves its loading dock, once the trail pulls its boxcars down the track, and once an aircraft taxis down the runway, any unused capacity is lost forever. This inevitably leads to distress sale pricing during weak demand periods, or when excess capacity created by unlimited entry abounds. Hence, the vicissitudes of the market cycle are particularly brutal for transportation. It is as if a grocer was faced with spoilage of all its canned goods on a daily basis—as if they had the properties of open jars of unrefrigerated mayonnaise. He would be forced to have a fire sale every afternoon.

In trucking, things are worse still, for many small, unsophisticated companies know not what their marginal costs are. Their naivete, or the monopsony bullying tactics of large shippers, can result in underpricing of their services, and eventual bankruptcy. In the interim, shippers enjoy a windfall at the expense of motor carrier labor and investors, while trucking productivity and profitability decline. For while the small unsophisticated trucking companies are hemorrhaging dollars, they are taking traffic away from efficient firms, causing them to bleed as well.

The established, efficient firms respond to such overcapacity by pricing at marginal costs (or sometimes, it has been alleged, by engaging in predatory practices if they can afford it, to hasten the demise of the new


Brenner, Airline Deregulation—A Case Study in Public Policy Failure, 16 TRANSP. L.J. 179, 200-01 (1988) [emphasis in original] [hereinafter Brenner].
entrant). But a company can price at the margin for only so long. It must eventually recover its fixed costs, or it too is doomed. Thus, under deregulation, many small, unsophisticated entrepreneurs have dragged a number of established, efficient trucking companies with them into the Darwinian grave of bankruptcy.

5. **SUBHAULERS UNDER DEREGULATION**

Independent owner-operators are also taking an economic beating under deregulation, as the profit margins of the carriers with which they contract are squeezed. These are the small entrepreneurs, the rugged individualists, who own their own tractors and lease their services to common carriers. Of the 300,000 in existence in 1980, the *Wall Street Journal* has estimated that fewer than 100,000 are still on the highway.25

Their competitive presence once offered some promise for the notion of new competitive entry and contestability. But the disastrous results of excessive competition have absorbed much of this industry. As we shall see below, the struggle to survive on the brink of bankruptcy creates a momentum all its own of deferred maintenance and aged equipment, which in turn jeopardizes the safety of those with whom they share the highways.

Subhaulers, comprised mostly of owner-operators, serve as an important supplement to the common carrier system. They give the system needed flexibility and additional capacity, which is particularly valuable during periods of peak demand.

As the prime carriers have been driven against the wall by the overcapacity generated by unlimited entry, and by shippers with monopsony power, rates have been sent tumbling. The squeeze on prime carriers has, quite naturally, squeezed every aspect of their costs, including maintenance, vehicular replacement, labor, and subhaulers. Hence, the tragedy of subhaulers is merely one aspect of a broader picture in which deregulation assaults prime carriers, and the inevitable consequence is that every enterprise affiliated with prime haulers suffers too.

6. **INDUSTRY CONCENTRATION**

During the past decade, several major American industries have been subjected to federal deregulation. These include telecommunications, airlines, railroads, bus companies, and motor carriers. The overriding and unmistakable trend that cuts across each of these industries has

---


been an unambiguous movement toward hefty concentration in a remarkably short period of time. Indeed, the economic pressures placed upon carriers by the intensive competition unleashed by deregulation has reduced the number of major competitors through waves of bankruptcies and mergers to the point that several of these industries have become oligopolies.

By the end of 1986, AT&T retained an 82% share of the long-distance telecommunications market, and a near monopoly in the toll-free, big business, and international markets. The six largest airlines increased their passenger share from 73% in 1973, to 84% in 1986. The 13 largest freight railroads which competed in 1978 had merged into seven by 1986. The bus duopoly had evolved into a national monopoly, with the merger of Greyhound and Trailways. And the top 10 less-than-truckload [LTL] motor carriers accounted for almost 60% of shipments, and 90% of industry profits. Let us look more closely at each transport mode.

A. MOTOR CARRIERS

In 1978, the largest four LTL motor carriers enjoyed 20% of the industry’s shipments; the top ten accounted for 39%; and the top 20 for 43%. By early 1985, the top four had 35% (a 75% increase); the top ten had 60% (a 70% increase); and the top 20 enjoyed 67% of the market (a 56% increase since 1978).

By 1988, the four largest LTL carriers enjoyed 40% of the industry’s gross revenue, and 48% of its profits. All geographic regions in the nation have experienced increased concentration in the trucking industry since deregulation.

Entry into the LTL industry has proven difficult because of the high costs incurred in developing terminal operations geared to the movement of small shipments. Major LTL trucking companies utilize a network of hub-and-spoke systems which include hundreds of satellite terminals and dozens of large consolidation centers. There appear to be considera-

---


27. Id. In the short term, competition unleashed by deregulation reduced the dominance by the largest airlines. Thus, in January, 1986, the five largest airlines accounted for 54.3% of the domestic passenger market. But by July of 1987, after a series of unprecedented mergers, their share had soared to 72.2%. Dempsey, Antitrust Law and Policy in Transportation: Monopoly Is$ the Name of the Game, 21 GA. L. REV. 505, 543 (1987) [hereinafter cited as Monopoly Is$ the Name of the Game].


30. N. GLASKOWSKY, supra note 13, at 25.


ble economies of scale in the LTL industry. High barriers to entry have effectively prohibited a single major LTL carrier from emerging since 1978.

Poor levels of productivity, excessive capacity, numerous bankruptcies, significant economies of scale and scope, and economic barriers to entry have caused the number of major LTL carriers to dwindle since deregulation. As Professor Glaskowsky has observed, concentration flourishes:

The LTL for-hire carrier segment of the industry is not atomistic in any sense of the word. A small and still shrinking group of increasingly large firms dominates this traffic nationally. LTL operations do have significant operating economies of scale. The established large national LTL carriers are the beneficiaries of an almost insurmountable financial barrier to entry: their large and widespread terminal networks.

On the basis of indisputable hard evidence, it is clear that one of the most significant results of deregulation of the motor carrier industry is that large scale interstate LTL motor carriage has become a closed club with a dwindling number of members.

The rate of growth of interstate LTL traffic concentration since deregulation is without parallel in American business history. It is unquestionably a direct result of motor carrier deregulation, and the increasing concentration of LTL traffic in the hands of a shrinking number of carriers is continuing.

At the other end of the spectrum, smaller interstate trucking companies complain that the large LTL carriers are expanding into regional markets by engaging in predatory pricing; large carriers, it is alleged, use the profits they earn on less competitive long-haul routes to sustain the deep (and sometimes below-cost) discounts offered in short-haul markets. As a consequence, there has been a high failure rate among small and medium size motor carriers.

The insurance crisis is also contributing to the overwhelming number

33. A modern LTL operation of significant size involves an extensive network of terminals, a computerized management information system, a large number of employees, has a need for highly skilled management, and must be able to cope with the fact that most of its costs are fixed in the short run and at least semi-fixed in the longer run. For these reasons, the barriers to entry in the LTL sector of the motor carrier industry are high. Accordingly, it is in this sector of the motor carrier industry that there is considerable potential for economic concentration. That potential has been realized dramatically since the industry was deregulated.

N. GLASKOWSKY, supra note 13, at 25.

34. Is Deregulation Working?, supra note 26, at 53. The only major new entrant into the nationwide less-than-truckload industry since promulgation of the federal Motor Carrier Act of 1980 was Leaseway, which has since abandoned the costly effort. id. at 16. It is somewhat ironic that Leaseway, a vigorous advocate of the philosophy of deregulation, proved incapable of sustaining its presence once freed to compete. The same could be said of Sir Freddie Laker in the airline industry.

35. N. GLASKOWSKY, supra note 13, at 9 [emphasis in original].

36. id. at 26 [emphasis in original].

37. id.
of bankruptcies in this industry. Small entrepreneurs are encountering significant economic barriers to entry in the high cost (and, in some instances, unavailability) of insurance. Insurance rates appear to be skyrocketing, not only because of the national insurance crisis, but also because, in an era of intensive competition in which profits are inadequate, maintenance has been deferred, the margin of safety has deteriorated, and accident rates have increased.

Moreover, with the high failure rate, the capital markets for new trucking ventures are drying up. Hence, the industry may ultimately become even more concentrated and less competitive than it is now, as deregulation takes its toll on the small trucking competitors unable to survive the Darwinian economic process.38

B. RAILROADS

The trend toward concentration cuts across all of the deregulated industries. Since 1980, when Congress passed the Staggers Rail Act, we have witnessed tremendously large railroad mergers. East of the Mississippi there are today but three major railroads: in 1980, the Chessie and Family Lines System merged to become CSX; in 1981, the Norfolk & Western and Southern merged to become the Norfolk/Southern; and during the 1970s, eight railroads in the northeastern United States merged to form Conrail.39

West of the Mississippi, only four major railroads exist: in 1980, the Burlington Northern merged with the Frisco; in 1982, the Union Pacific, Missouri Pacific and Western Pacific merged; only the proposed Santa Fe/Southern Pacific merger was disapproved by the Interstate Commerce Commission.40 Chart II reveals the major mergers of the past three decades.

38. Professor Grant Davis put it this way:

Unlimited competition in trucking was envisioned to result in small units employing highly mobile capital. The growing concentration trend, the financial environment and carrier market strategy indicate that capital is not mobile, and a finite market is in the process of being dominated by a limited number of carriers. Small shippers dependent upon this segment of the industry for service are virtually "captive," and rates will continue to increase in certain segments of this market.


40. Id. at 548-49.
CHART II — MAJOR RAILROAD MERGERS, ACQUISITIONS & CONSOLIDATIONS SINCE 1960

Pennsylvania — Penn Central
New York Central
New Haven
Erie Lackawanna
Reading
Central of New Jersey
Lehigh & Hudson
Lehigh Valley
Norfolk & Western — Norfolk & Western
Virginian
Wabash
NY-Chicago & St. Louis
Akron, Canton & Youngstown
Southern
Central of Georgia
Chesapeake & Ohio — Chessie
Baltimore & Ohio
Western Maryland
Seaboard Air Line — SCL
Family Lines
Atlantic Coast Line
Louisville & Nashville
Georgia
Atlanta & West Point
Clinchfield
Western of Alabama
Richmond, Fredericksburg & Potomac
Great Northern
Northern Pacific
Chi., Burlington & Quincy
Spokane, Portland & Seattle
Colorado & Southern
Frisco
Union Pacific
Western Pacific
Missouri Pacific
KATY
Denver & Rio Grande Western
Missouri Pacific (trackage rts to K.C.)
Southern Pacific

CONRAIL
NORFOLK/SOUTHERN
CSX
BURLINGTON NORTHERN
UNION PACIFIC
D&RGW

HeinOnline -- 17 Transp. L.J. 47 1988-1989
The rail industry is today an oligopoly. Seven firms are responsible for 85% of the nation’s revenue ton miles.\footnote{\textit{Transportation Deregulation}, supra note 2, at 367.} Moreover, major members of the industry are beginning to purchase their competitors. They are thereby becoming origin-to-destination intermodal megacarriers. For example, the Burlington Northern Railroad is acquiring a half dozen motor carriers.\footnote{\textit{ICC Staff Report No. 10}, at 15 (1986). \textit{Trafﬁc World} (Aug. 4, 1986), at 36.} The Norfolk/Southern purchased the nation’s largest household goods carrier, North American Van Lines.\footnote{D. Sweeney, C. McCarthy, S. Kalish & J. Cutler, Jr., \textit{Transportation Deregulation: What’s Deregulated and What Isn’t 25-26 (1986)}.} The Union Pacific purchased the nation’s ﬁfth largest motor carrier, Overnite Transportation.\footnote{\textit{Union Paciﬁc to Buy Overnite for $1.2 Billion}, Wall St. J., Sept. 19, 1986, at 3.}

Railroads are also purchasing major pipelines, ocean shipping, and inland water companies. For example, in 1984 CSX Corporation, the nation’s second largest railroad, purchased American Commercial Lines, the parent of the nation’s largest barge company. CSX acquired SeaLand Corporation, the nation’s largest U.S. flag ocean carrier. It also bought Texas Gas, which has signiﬁcant pipeline interests. Burlington Northern also has gone into the pipeline business, purchasing El Paso Natural Gas. And Norfolk/Southern also announced its intention to go into the barge business.\footnote{\textit{Monopoly Is the Name of the Game}, supra note 27, at 551-52.} For the movement of large, bulk commodities, there are few competitive alternatives. And the railroads seem to be buying up most of them.

\section*{C. AIRLINES}

During the Reagan Administration, the U.S. Department of Transportation regularly reported misleading data about the impact of deregulation. For example, in testimony submitted to a Senate subcommittee, DOT Assistant Secretary Matthew Scocozza observed, "As you know, aviation operations were deregulated in 1978 and the changes brought by this policy shape today’s market. The results? Nine years ago approximately 39 commercial carriers were operating. A recent count esti-
mates that 131 are now in service.\footnote{46}

The numbers may be right, but the impression is grossly misleading. Since promulgation of the Airline Deregulation Act of 1978, the airline industry has also become an oligopoly, and in many major markets, a monopoly. While some small air carriers have entered, more than 150 airlines have fallen from the skies into bankruptcy.

In January 1986, the five largest airlines accounted for 54\% of the domestic passenger market; by 1987, the figure had grown to 72\%. Fifteen independent airlines operating at the beginning of 1986 had been merged into six megacarriers by the end of 1987.\footnote{47} The structural changes have been both comprehensive, and hastily implemented.\footnote{48}

Never before has the United States experienced the level of concentration in aviation that we have now. In several cities, a single airline enjoys virtual monopoly domination of landings, takeoffs, gates and passengers. These include the hubs of Charlotte, Detroit, Houston, Memphis, Minneapolis/St. Paul, Newark, Pittsburgh, Salt Lake City, and St. Louis.

Since deregulation, all major airlines have created hub-and-spoke systems, funnelling their arrivals and departures into and out of hub airports where they dominate the arrivals, departures, and infrastructure. Deregulation has freed them to leave competitive and smaller markets, and consolidate their strength into regional, hub and market monopolies and oligopolies. Today, only four airports in the nation are hub duopolies—Chicago, Atlanta, Dallas/Ft. Worth, and Denver.\footnote{49} The remaining hubs are virtual monopolies. The bottom line is, as the dust settles, we see a horizon devoid of meaningful competition.

Much criticism has been levied at the Department of Transportation

\footnote{46. The Effect of Airline Deregulation on the Rural Economy, Hearings Before the Subcomm. on Rural Economy and Family Farming of the Senate Comm. on Small Business, 100th Cong., 1st Sess. 145 (1987) (statement of Matthew V. Scocozza) [hereinafter 1987 Senate Hearings on Deregulation].}

\footnote{47. Brenner, \textit{supra} note 22, at 180.}

\footnote{48. One commentator summarized the structural changes in the industry which have occurred since promulgation of the Airline Deregulation Act of 1978:}

\footnote{49. Monopoly Is the Name of the Game, \textit{supra} note 27, at 592-93.}
for approving every merger submitted to it since it assumed the Civil Aeronautics Board's jurisdiction over mergers, acquisitions and consolidations (under section 408 of the Federal Aviation Act) upon the CAB's demise on December 31, 1984. The Airline Deregulation Act of 1978 insisted that the agency guard against "unfair, deceptive, predatory, or anticompetitive practices" and avoid "unreasonable industry concentration, excessive market domination" and similar occurrences which might enable "carriers unreasonably to increase prices, reduce services, or exclude competition. . . ." But these admonitions fell on deaf ears at DOT, which never met a merger it didn't like.

DOT approved them all. It approved Texas Air's (i.e., Continental and New York Air) acquisition of both People Express (which included Frontier) and Eastern Airlines (which included Braniff's Latin American routes); United's acquisition of Pan Am's transpacific routes; American's acquisition of Air Cal; Delta's acquisition of Western; Northwest's acquisition of Republic; TWA's acquisition of Ozark; and USAir's acquisition of PSA and Piedmont, to mention only a few. As is revealed by Chart III, this has sharply increased national levels of concentration. Concentration levels are even more pronounced when one recognizes that before deregulation, we had a healthy charter industry, that had significant market share. Under deregulation, it has virtually vanished.

The father of airline deregulation, Alfred Kahn, appeared dismayed by what he characterizes as an "uncomfortably tight oligopoly." He has been particularly critical of the Department of Transportation's permissive approach to airline mergers. Said he, "They have been permitted by a totally, and in my view indefensibly, complaisant Department of Transportation. It is absurd to blame deregulation for this abysmal dereliction." Certainly, DOT deserves some severe criticism for its abdication of antitrust responsibility to protect the public from excessive concentration.

Clearly, the merger of Northwest and Republic resulted in sharply increased levels of concentration at Minneapolis/St. Paul and Detroit; and equally clearly, the same happened at St. Louis when DOT approved the merger of TWA with Ozark Airlines. But as Chart IV reveals, massive hub concentration has occurred at a large number of cities where no merger had a significant impact.

51. DOT did require that some shuttle routes be sold off in the northeastern corridor, but otherwise the Eastern acquisition by Texas Air passed through unmolested. See Monopoly Is the Name of the Game, supra note 27, at 538.
52. Id.
53. See Brenner, supra note 22, at 184.
55. Monopoly Is the Name of the Game, supra note 27.
### CHART III — MAJOR AIR CARRIER MERGERS, ACQUISITIONS, PURCHASES AND CONSOLIDATIONS SINCE PROMULGATION OF THE AIRLINE DeregULATION ACT OF 1978

<table>
<thead>
<tr>
<th>Company</th>
<th>Market share*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas International</td>
<td>19.0%</td>
</tr>
<tr>
<td>Continental</td>
<td></td>
</tr>
<tr>
<td>New York Air</td>
<td></td>
</tr>
<tr>
<td>Frontier</td>
<td></td>
</tr>
<tr>
<td>People Express</td>
<td></td>
</tr>
<tr>
<td>Britt</td>
<td></td>
</tr>
<tr>
<td>PBA</td>
<td></td>
</tr>
<tr>
<td>Braniff (Latin American routes)</td>
<td></td>
</tr>
<tr>
<td>Eastern</td>
<td></td>
</tr>
<tr>
<td>Rocky Mountain</td>
<td></td>
</tr>
<tr>
<td>United</td>
<td>16.9%</td>
</tr>
<tr>
<td>Pan Am (transpacific routes)</td>
<td></td>
</tr>
<tr>
<td>American</td>
<td>13.8%</td>
</tr>
<tr>
<td>Air Cal</td>
<td></td>
</tr>
<tr>
<td>Delta</td>
<td>12.2%</td>
</tr>
<tr>
<td>Western</td>
<td></td>
</tr>
<tr>
<td>Northwest</td>
<td>10.3%</td>
</tr>
<tr>
<td>North Central Republic</td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td></td>
</tr>
<tr>
<td>Hughes Airwest</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>8.2%</td>
</tr>
<tr>
<td>Ozark</td>
<td></td>
</tr>
<tr>
<td>US Air</td>
<td>7.1%</td>
</tr>
<tr>
<td>PSA</td>
<td></td>
</tr>
<tr>
<td>Empire</td>
<td></td>
</tr>
<tr>
<td>Piedmont</td>
<td></td>
</tr>
<tr>
<td>Henson</td>
<td></td>
</tr>
<tr>
<td>Pan Am</td>
<td>6.3%</td>
</tr>
<tr>
<td>National</td>
<td></td>
</tr>
<tr>
<td>Ransome</td>
<td></td>
</tr>
</tbody>
</table>


Indeed, the explanation for concentration at all but Detroit, Minneapolis/St. Paul and St. Louis is not DOT’s generous approval of airline mergers, but simply the entry and exit opportunities unleashed by deregulation. Carriers adopting particular cities as hubs have increased frequencies and leased more gates, while incumbent airlines have quietly exited in favor of market dominance opportunities of their own in other hub airports. Kahn is therefore wrong. Freedom to enter and exit markets is the heart of deregulation, and it is responsible for concentration at more hub airports than is the DOT’s “abysmal dereliction,” abysmal though it
CHART IV — SINGLE CARRIER CONCENTRATION AT MAJOR AIRPORTS PRE AND POST DEREGULATION

<table>
<thead>
<tr>
<th>Airport</th>
<th>1977</th>
<th>1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore/Washington</td>
<td>24.5%</td>
<td>60.0% USAir*</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>35.0%</td>
<td>67.6% Delta</td>
</tr>
<tr>
<td>Detroit Metropolitan</td>
<td>21.2%</td>
<td>64.9% Northwest</td>
</tr>
<tr>
<td>Houston Intercontinental</td>
<td>20.4%</td>
<td>71.5% Continental</td>
</tr>
<tr>
<td>Memphis</td>
<td>40.2%</td>
<td>86.7% Northwest</td>
</tr>
<tr>
<td>Minneapolis/St. Paul</td>
<td>45.9%</td>
<td>81.6% Northwest</td>
</tr>
<tr>
<td>Nashville Metropolitan</td>
<td>28.2%</td>
<td>60.2% American</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>43.7%</td>
<td>82.8% USAir</td>
</tr>
<tr>
<td>St. Louis-Lambert</td>
<td>39.1%</td>
<td>82.3% TWA</td>
</tr>
<tr>
<td>Salt Lake City</td>
<td>39.6%</td>
<td>74.5% Delta</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>33.8%</td>
<td>73.2%</td>
</tr>
</tbody>
</table>

* includes Piedmont


clearly is. Nonetheless, the DOT’s antitrust delinquency is responsible for national concentration levels which are unacceptable, and which dampen competition by reducing the number of competitors in particular city pairs.

One additional observation about concentration levels pre and post deregulation is appropriate. Before deregulation, even a high level of concentration could be tolerated because fare levels were regulated. Even a monopolist could not reap monopoly profits from a market because the CAB regulated rates, ensuring that they were “just and reasonable.” But in a post deregulation environment, these high levels of concentration are a matter of serious concern, for the regulatory mechanism which formerly shielded consumers from price gouging has been eradicated by deregulation, and the theory of contestable markets seems not to be sustained by the empirical evidence of deregulation.56 Today, there appear to be significant economies of scale and scope in the airline industry.

For several reasons, it is unlikely that a new entrant will emerge to rival the megacarriers. First, the infrastructure of gates, terminal facilities, and at America’s four busiest airports (i.e., Chicago O’Hare, Washington National, and New York’s LaGuardia and Kennedy) landing slots have

been consumed. Sixty-eight percent of our airports have no gates to lease to a new entrant. Even if an incumbent would be willing to lease a gate to an upstart airline (and at an incumbent’s hub, few are so willing), the incumbent could nevertheless exact monopoly rents. The decision of the DOT to allow carriers to buy and sell landing slots means that the deeper-pocket carriers can purchase market share, and thereby enjoy the market power to reap oligopoly profits.\(^{57}\)

Second, the largest airlines today own the largest computer reservations systems, from which most tickets are sold. Many critics have argued that not only does such vertical integration offer the incumbents the potential to enjoy various forms of system bias (including screen bias, connecting point bias, and database bias),\(^{58}\) but that it gives the incumbents superior access to market information, with which they can adjust the number of seats for which discounts are offered on an hourly basis depending on passenger demand for seats.\(^ {59}\) Moreover, the advantages of being listed in the computer as an “on line” connection with one of the major airlines has led 48 of the 50 small air carriers to affiliate themselves with the megacarriers, renaming their companies (to, for example, United Express, Continental Express, American Eagle) and repainting their aircraft in megacarrier colors. Ninety percent of the 31.7 million passengers who flew abroad regional airlines in 1987 were carried aboard code-sharing airlines.\(^ {60}\) The small carriers have become, in effect, franchisees of the behemoths of the industry, and are therefore an unlikely source from which new competition will spring. They are also declining in number. The regional airlines, peaking at 246 in 1981, dwindled to 168 in 1987.\(^ {61}\)

Third, large airlines have more attractive frequent flyer programs, which serve as a lure to business travelers, the most lucrative segment of the market. Brand loyalty makes it difficult for a new rival to find a niche, particularly when its frequent flyer program offers free travel to decidedly less exotic destinations.

Fourth, although new entrants enjoyed significantly lower labor costs in the inaugural years of deregulation, the squeeze on carrier profits unleashed by deregulation has forced management to exact serious concessions in terms of labor wages and work rules. Some, like Continental and TWA, have effectively crushed their unions. Thus, the margin of labor

---

61. Id.
cost and productivity between a new entrant and an established airline has been significantly narrowed.

Finally, with 150 airlines having gone bankrupt since 1978, investor confidence in new airline ventures has evaporated. Hence, significant new entry is highly unlikely in the deregulated airline industry.62

The dominance by incumbent carriers of gates, terminal space, landing and takeoff slots, computer reservations systems, and the most attractive frequent flyer programs makes it unlikely that new entrants will emerge to challenge the megacarriers. Barriers to entry and economies of scale do exist in the airline industry; the theory of contestable markets, which supplied the intellectual justification for deregulation, has been refuted by an overwhelming body of empirical evidence. After a decade of deregulation, one thing is clear—the oligopoly that resulted from deregulation is here to stay.

That of course, means that the price discounts that many consumers have enjoyed in recent years will likely evaporate. Low fares have stimulated new traffic in the past decade, mostly for vacation travelers flying between large cities served by more than a single carrier. But business travelers and others unwilling to sleep in strange cities on Saturday nights, individuals flying to small towns, or people who, at the last minute, have to fly home for funerals or other emergencies, are ineligible for these discounts. So deregulation’s benefits have been unevenly distributed. Pricing discrimination is pervasive.

Kahn once argued that deregulation would bring about cost-based pricing. After a decade of deregulation, pricing seems to reflect the level of competition in any market, not costs. There seems to be a positive correlation between more competition and lower prices, and between fewer competitors and higher prices. With the industry becoming more highly concentrated, prices are ascending.

But even if new entry is unlikely, why should we be concerned with the high level of concentration which has emerged in the airline industry under deregulation? After all, even though Coke and Pepsi dominate the soft drink industry, don’t we still have pricing competition between them? Although other American industries are dominated by huge firms, transportation is different in the way it impacts the economy. Melvin Brenner said it best:

Other industries, even when comprised of only a few large firms, do not usually end up with a one-supplier monopoly in specific local markets. But this can happen in air transportation.

Moreover, because of the nature of transportation, a local monopoly can do greater harm to a community than could a local monopoly in some other industry. This is because transportation is a basic part of the eco-

62. See Monopoly Is the Name of the Game, supra note 27.
nomic/social/cultural infrastructure, which affects the efficiency of all other business activities in a community and the quality of life of its residents. The ability of a city to retain existing industries, and attract new ones, is uniquely dependent upon the adequacy, convenience, and reasonable pricing of its airline service.63

4. EMERGING OLIGOPOLIES

All deregulated industries—airlines, bus companies, motor carriers, and railroads—are marching to the drum of increased concentration. Each is becoming a monopoly or oligopoly.

Traditionally healthy carriers have been bankrupted, or substantially driven out of the transportation industry, by the selective rate cutting by major competitors which now dominate the market nationally. Increased concentration created by bankruptcies of small and medium size competitors increases the probability that the firms remaining will be in a position, unilaterally or collectively, to exercise market power.

As noted above, market power is the ability of one or more firms to maximize profits by maintaining prices above or restricting output below the competitive level for a significant period of time. That results in the transfer of wealth from consumers to producers, and is therefore regressive in character. A transportation industry with market power will mean that even the price wars that the nation’s largest shippers (and passengers flying between major markets) have enjoyed since deregulation began may be a short-term phenomenon.

Deregulation wasn’t supposed to turn out this way. It was supposed to ensure that consumers enjoyed more competition, not less. Its proponents assured us that if an incumbent were to raise its prices in a monopoly or oligopoly market, and thereby enjoy supracompetitive profits, new competitors would be attracted like sharks to the smell of blood, and would reestablish the competitive equilibrium. This was the theory of contestable markets, which was premised upon the false assumption that transportation was inherently competitive, and that the only barriers to entry were governmental requirements that carriers obtain certificates of public convenience and necessity before being allowed to compete.

The foundation upon which the theory rested has been shattered by an overwhelming body of empirical evidence that proves that economic barriers to entry, significant advantages in terms of traffic density, and economies of scale and scope do exist in the airline, railroad, bus and LTL trucking industries.64 The concentration which has inevitably emerged is a natural consequence of the dynamics of deregulation.

63. Brenner, supra note 22, at 189.
64. See supra, text accompanying notes 27-63.
B. EFFECTS OF DEREGULATION ON PRICING

Competition has enabled some users (particularly large shippers and discretionary passengers in major airline markets) to enjoy lower prices. But these benefits have been unevenly distributed, for small businesses, small towns, and rural communities pay relatively higher prices for poorer service. Moreover, as noted above, the unprecedented concentration emerging in all transport modes threatens to make the low prices enjoyed in large, competitive markets a short term phenomenon.

Deregulation inevitably eradicates some of the important benefits derived from the traditional scheme of economic regulation, including the prohibition against pricing discrimination. As Professors Wagner and Dean have noted, "regulation may better provide for rate equity for various shipper groups among commodities and between geographical regions. It can reduce discrimination."65 Thus, it is no surprise that deregulation became a catalyst for pricing and service discrimination.

1. CROSS SUBSIDIZATION

Prior to deregulation, there was some amount of cross-subsidization within the transportation industry. While carriers were allowed to serve specified lucrative routes, they were also required to serve less lucrative markets in the geographic territory designated by their operating certificates. Carriers were expected to cross-subsidize losses or meager profits earned from serving small communities with healthier revenues earned from dense, lucrative markets, thereby providing just and reasonable rates to both. Deregulation was designed to end this internal cross-subsidization on grounds that such wealth redistribution created allocative inefficiency.

Actually, cross-subsidization appears merely to have been reversed in direction, rather than eliminated. Today, carriers can extract higher rates from their monopoly and oligopoly markets (typically small and rural communities) to cross-subsidize the losses they are incurring as a result of the intensive competitive battles being waged for market share in dense traffic lanes. The carriers which are ultimately victorious in those price wars stand to reap significant economic rewards once the dust has settled and the competition has been eliminated. Such are the spoils of economic battle.

With the floodgates of deregulation thrown open to new entrants, and the advent of unconstrained pricing, carriers have been able to charge predatory rates in competitive markets, and cross-subsidize such losses.

with higher, discriminatory rates in oligopoly and monopoly markets. As we have seen, significant barriers to entry and economies of scale exist in the railroad, airline, and less-than-truckload motor carrier industries, making it possible for survivors to exert market power once competition has fallen by the wayside.

2. Monopoly

The impact of market power is already visible in the rail industry, which is the most heavily concentrated of transport modes, the one with the largest fixed costs and the one with the most significant economies of scale and barriers to entry. Many shippers of bulk commodities, typically grain and coal, have no realistic alternative to monopoly railroads to get their product to market. There is often no parallel railroad or barge line, and no economically feasible trucking operation. As a consequence, the railroads are free to charge whatever the market will bear. These inflated rates are passed on to consumers in the form of higher electric bills by their coal-fired utilities. The Consumer Federation of America estimates that these excessive charges are costing consumers $1.3 billion a year.66

As we saw above, most of the transport modes are becoming oligopolies; most have not yet acquired the dominant position for many commodities that the railroads have attained. For example, in trucking, many carriers find themselves dwarfed by the economic power of America’s largest shippers.

3. Monopsony

Professor Grant Davis has observed that the nation’s largest shippers exert monopsony power over trucking companies. By virtue of the economic leverage they wield by conferring or withholding their vast volumes of freight, the Fortune 500 can unilaterally dictate rates at (and for cash-starved carriers, below) the marginal costs of trucking companies.67 Professor James Rakowski agrees:

[A]bout 90 percent of the firms in the LTL general freight industry, including some of the largest firms, are having severe financial difficulty. Firms on the brink of bankruptcy cannot worry about long range planning and marketing studies. Carriers up against the wall need cash for tomorrow (actually the bills are probably long past due), not next week. They must price accordingly to get the traffic, regardless of their costs. . .68

In essence, the problem is one of greatly unequal market power between shippers and truck companies. The technical term for a situation like this is “monopsony”. It is in very simplistic terms, something like a buyer side

---

66. $1.3 Billion in Rail Overcharges, CURE NEWSLETTER (June 1985), at 1.
67. See 1985 Senate Hearings on MCA, supra note 10, at 234 (statement of Prof. Grant M. Davis).
68. Id. at 247 (statement of Prof. James P. Rakowski).
analogy to monopoly. In other words, the buyer rather than the seller has the power to set the price for the product. In the present situation, the large shippers and not the carriers themselves are effectively dictating the level of truck rates in many instances.

With enormous amounts of traffic available, these large shippers simply play one carrier off against another until unrealistically low (and unprofitable) rates are offered in order to get the traffic. Conversely, a shipper could simply name a price and, in plain English, tell the carriers to take it or leave it if they do not file a rate at that level.69

The secret negotiation of special and discriminatory rate discounts between motor carriers and large volume shippers has become widespread in deregulated interstate markets.70 While large volume shippers often exact substantial discounts from rail and motor carriers for the movement of freight, smaller businesses lack the monopsony power to decree a price lower than the published rate. Further, the published rate is climbing, to make up for the substantial discounts demanded by large shippers. Smaller shippers are forced to pay a disproportionate portion of carrier fixed costs, while large shippers enjoy generous discounts.71 Hence, America’s deregulated industries are robbing Peter to pay Paul.

Here, too, concentration exacerbates the problem of discriminatory pricing. The deregulated transportation industries are becoming oligopolies as the larger carriers consolidate their operations, and as smaller carriers collapse into bankruptcy. With fewer competitive alternatives to get their goods to market, smaller shippers today pay more for poorer service.72

4. DISCRIMINATION

Deregulation has created an environment in which widespread discrimination by airlines and motor carriers favors urban markets and large volume shippers, while penalizing smaller shippers and rural communities. One ICC study in California found that shippers in small towns were paying up to 40% more for motor carrier service than shippers in larger communities.73

In a sense, the big become bigger, and the small become smaller. It is no wonder, then, that America’s largest companies clamor for still more deregulation, for it is they that are the principal beneficiaries of pricing and service discrimination. In earlier periods of American political history,

---

69. Id. at 249.
70. See Betz, Taking the Crooked Route, DISTRIBUTION (Apr. 1986), at 69.
71. See 1985 Senate Hearings on MCA, supra note 10, at 241 (statement of Prof. Grant M. Davis).
such concentrations of wealth and power would have mandated governmental intervention, not regulatory regression.

Professor Donald Harper has noted that the ability of small shippers to compete against larger rivals is hindered by relatively higher freight rates.\textsuperscript{74} Hence, discriminatory transportation costs contribute to the economies of scale that larger entrepreneurs enjoy throughout the American economy.\textsuperscript{75} The higher cost of access to the stream of commerce endured by small shippers places them at a competitive disadvantage vis-a-vis their larger rivals. Assuming all other factors are equal, the large manufacturer with relatively (and in many cases, significantly) lower transportation costs will be able to market his product at a lower price than his smaller counterpart. Deregulation facilitates this discrimination. These deleterious economic consequences have a broader social impact, for small businesses create most of America’s jobs.

A small shipper recently summarized the impact of transportation deregulation upon smaller enterprises in testimony before the U.S. House of Representatives, “the benefits promised by the Motor Carrier Act of 1980 have not reached the medium and small shipper. Small shippers are receiving discounts substantially below what the large shippers enjoy. Our markets are shrinking.”\textsuperscript{76}

Interstate deregulation of motor carriers has been described as a “disaster” by many small shippers.\textsuperscript{77} Professor Harper notes that “[t]he chief victim of [deregulation] is the small shipper who has little bargaining power with carriers, whose traffic is not as ‘desirable’ to the carriers as that of larger shippers, and who cannot practically enter into private carriage for financial or other reasons.”\textsuperscript{78}

In Professor David Huff’s study comparing interstate and intrastate freight rates in Texas,\textsuperscript{79} it was demonstrated that published intrastate rates for shipments of 20,000 pounds were significantly lower than corresponding interstate rates for the same commodity classifications, weights and distances.\textsuperscript{80} Looking beyond the published rates, Dr. Huff examined the interstate and intrastate rates actually charged Texas shippers in

\textsuperscript{74} 1985 Senate Hearings on MCA, supra note 10, at 278 (statement of Prof. Donald V. Harper).

\textsuperscript{75} COALITION FOR SOUND GENERAL FREIGHT TRUCKING, THE RATIONALE FOR TRUCKING REGULATION: EXPOSING THE MYTHS OF DeregULATION 6 (1986).

\textsuperscript{76} Id. at 9. Dean Hille’s survey of small Missouri shippers appears to confirm these conclusions. 1985 Senate Hearings on MCA, supra note 10, at 94 (statement of Dean Stanley Hille).

\textsuperscript{77} Panelists Deplore Truck Deregulation, Rate Discrimination at NARUC Confab, TRAFFIC WORLD (Dec. 1, 1986), at 68.

\textsuperscript{78} 1985 Senate Hearings on MCA, supra note 10, at 283 (statement of Prof. Donald V. Harper).

\textsuperscript{79} D. HUFF, PERSPECTIVES ON THE REGULATION OF TRUCKING IN TEXAS (1987) (hereinafter cited as D. HUFF).

\textsuperscript{80} Id. at 53.
1985, and found that the intrastate rates averaged 4.4 cents per pound, while corresponding interstate rates averaged 7.1 cents per pound.\textsuperscript{81} Thus, regulated intrastate rates were 59.5\% lower than deregulated interstate rates.\textsuperscript{82}

The difference is even more pronounced when truckload rates are computed separately. For shipments of less than 500 pounds, Dr. Huff found that interstate rates were 186\% higher than intrastate rates.\textsuperscript{83} Based on such findings, he concluded, "An important expectation among those advocating the deregulation of the trucking industry is that rates will decline. The specific facts in Texas as well as historical developments in deregulated markets such as in interstate commerce and in California indicate that such an expectation is erroneous except for the small minority of shippers interested in large truckload shipments."\textsuperscript{84}

Pricing discrimination may cause serious injury to those enterprises or geographic regions disfavored by the pricing scheme. The U.S. Supreme Court has observed that, "Discriminatory rates . . . may affect the prosperity and welfare of a State . . . . They may stifle, impede, or cripple old industries and prevent the establishment of new ones."\textsuperscript{85} Dabney Waring, a nationally recognized transportation economist, has echoed these sentiments: "Discrimination, preference or prejudice, favoring one region, one industry, one person (or one type of region, industry, or person) can have an extremely disruptive effect on the dispersal of population and industry."\textsuperscript{86}

Today, most states prohibit motor carrier discrimination in rates, charges and classifications between shippers. Such provisions are fundamental if small shippers and small communities are not to suffer relatively higher rates than their larger counterparts.

The one area in which the average consumer has had direct experience with deregulation is airline transportation. Here, widespread discrimination is practiced against business and other non-discretionary travelers and in favor of vacation travelers, and against small towns and in favor of large, competitive markets.

For example, the airline rate from Dubuque to Chicago is $1 per seat mile, while the fare from New York to Los Angeles is 3.3 cents per seat mile.\textsuperscript{87} A round trip coach ticket between International Falls, MN, and

\begin{itemize}
\item \textsuperscript{81} Id. at 59.
\item \textsuperscript{82} Id. at 60.
\item \textsuperscript{83} Id.
\item \textsuperscript{84} Id. at 51.
\item \textsuperscript{85} Georgia v. Pennsylvania R.R., 324 U.S. 439, 450 (1945).
\item \textsuperscript{86} Waring, Motor Carrier Regulation—By State Or By Market?, 51 ICC PRAC. J. 240, 241 (1984) [hereinafter cited as Waring].
\item \textsuperscript{87} 1987 Senate Hearings on Deregulation, supra note 46, at 81 (testimony of John J. Nance).
\end{itemize}
Minneapolis/St. Paul is 86 cents a seat mile; between Washington, D.C., and Minneapolis/St. Paul, the fare is 27 cents a seat mile.\textsuperscript{88} The trip from Madison, WI, to St. Louis costs $225 one way, while a ticket from New York to Los Angeles via St. Louis is only $199.\textsuperscript{89} Hence, rather than reflecting marginal costs, air fares are instead reflecting the level of competition in a given market. These fares take from the poor who fly between small towns and give to the urban rich, in competitive battles waged for domination of the larger, more lucrative markets. Moreover, unprecedented concentration in this industry is sharply reducing the number of markets in which effective competition exists.

Growing consumer irritation with the deregulated airline industry is reflected in public opinion polls. In 1984, when consumers were asked, "Should airlines be allowed to raise or lower their fares on their own, or should they be required to get government permission?", only 35% believed that they should be required to get the government's permission. However, as consumers became more acquainted with deregulation, they became less enamored with it. In 1987, when asked the same question, almost half were willing to opt for more government rate regulation.\textsuperscript{90} Alfred Kahn now admits that the time has come to consider price ceilings in markets dominated by a single carrier. How quickly a dose of reality chills blind faith in laissez faire ideology.

C. \textit{Adequate Service to the Public}

Nearly a decade has elapsed since the federal government launched its grand experiment in transportation deregulation. The outlines of a consistent trend are becoming visible in all deregulated industries—airlines, railroads, and trucking, bus, and telephone companies. While deregulation has created a class of beneficiaries, small businesses, and consumers in small towns and rural communities are not among them. Today, they pay higher prices for poorer service.

Transportation deregulation has meant isolation for many of America’s rural communities. With the de facto elimination of the common carrier obligation (which traditionally insisted that carriers provide service to all points described in their operating certificates), interstate carriers have been free to reduce their level of service to less lucrative communities, and focus their energies and equipment on more profitable market opportunities. The Performance Audit of the Colorado Public Utilities Commission reached these conclusions:

One clear pattern emerges from the studies on the impacts of deregulation in different public utility industries: small communities and rural areas

\begin{itemize}
\item \textsuperscript{88} Id. at 41 (statement of Robert W. Anderson).
\item \textsuperscript{89} Dempsey, Fear Of Flying Frequently, \textit{Newsweek} (Oct. 5, 1987), at 12.
\item \textsuperscript{90} McGinley, \textit{Bad Air Service Prompts Call for Changes}, Wall St. J., Nov. 9, 1987, at 28.
\end{itemize}
have often paid a heavy price. Many small communities and rural areas have lost all of their passenger transportation services; many others have had their services reduced significantly. In addition, the costs of both passenger transportation and telephone services have increased, often substantially, in these areas.

The implications of the loss of services and increases in costs to small communities are significant. Many of these communities are trying to attract new businesses and keep existing businesses and residents from moving away. Attracting new investment becomes increasingly difficult for these communities when transportation services are poor and prices are high. This section examines the impact of deregulation of each of the major transport modes upon small towns and rural communities.

1. **Bus Companies**

Since promulgation of the Bus Regulatory Reform Act of 1982, 4,514 communities have lost bus service, while only 896 have gained it. The big losers have been small communities. Indeed, 3,432 of the towns which have lost service have a population of 10,000 or less. When Greyhound began its inaugural rounds of service cessation and reduction in 1982, 90% of the towns affected had fewer than 10,000 residents.

The *New York Times* reports that "[t]he trend toward cuts in service is continuing at a rapid pace, with dozens of communities throughout the Middle West facing possible loss of their last means of public transportation." Senator Larry Pressler (R-S.D.) notes that "[b]us deregulation has had a devastating impact on rural America. . . . Low-income families and the elderly are disproportionately affected because it is they who most heavily rely on the service." With the Greyhound-Trailways merger, the bus duopoly became a monopoly. Can higher prices be far down the road?

2. **Railroads**

Railroads have also taken advantage of the abundant opportunities provided by deregulation to abandon small towns. Railroads took advantage of exit opportunities in the Transportation Act of 1958 to shed themselves of most of the nation’s passenger trains. Since enactment of the

---

91. PUC PERFORMANCE AUDIT, supra note 9, at 39.
92. Letter from ICC Chairman Heather J. Gradison to Senator Larry Pressler (Sept. 8, 1986).
95. Id.
Staggers Rail Act of 1980, the focus has been on freight discontinuances; more than 1,200 communities have lost rail service. The tragedy is that the loss is usually permanent—once the rails are ripped off their ties, they are almost never replaced.

3. AIRLINES

The airline industry provides yet another example of the impact on small community service resulting from deregulation. The result of airline deregulation "is that many small communities have experienced a drastic reduction or deterioration in air service." Congress deregulated the industry with the promulgation of the Airline Deregulation Act of 1978. In the first year of deregulation, 260 cities suffered a deterioration in air service, a disproportionate number of them being small towns. Seventy of the communities which were receiving some service lost all of it. In the first two years of deregulation, more than 100 communities lost all scheduled service.

Professors Stephenson and Beier note that "deregulation has accelerated the withdrawal from smaller communities and . . . there has been a concomitant reduction in the frequency of direct flights in those markets." This is indeed a surprising consequence of deregulation, since section 419 of the Airline Deregulation Act of 1978 provided for a 10-year program of federal subsidies to attempt to preserve essential air service to small communities. Since deregulation began, approximately 140 small towns have lost all air service. In 190 more, the larger airlines have disappeared, to be replaced by smaller commuter carriers, offering inferior levels of comfort, convenience, and safety.

Clearly, there has been a qualitative deterioration of service for small communities. With the use of smaller aircraft, several communities enjoy more frequent departures, but suffer a decrease in the number of

104. See GENERAL ACCOUNTING OFFICE, DEREGULATION 73 (1985) [hereinafter cited as GAO REPORT].
seats.\textsuperscript{105}

Many passengers complain that the smaller unpressurized aircraft used by the commuter airlines are less comfortable.\textsuperscript{106} They are certainly less safe. Depending upon how it is measured, commuter airlines have a safety record of between 3 and 30 times worse than established jet airlines.\textsuperscript{107} Passengers also appear to be less satisfied with the service schedules and flight delays of commuter airlines.\textsuperscript{108}

Small towns lie remotely scattered under the dark and cloudy skies of deregulation, where not enough sunlight falls to give passengers a glimpse of the supersaver discounts prevalent in major markets.\textsuperscript{109} With the airline industry becoming an oligopoly (the top 5 carriers dominate 72\% of the domestic passenger market), passengers in small towns find their service reduced to a single airline, providing circuitous connections out of a major hub and charging whatever the market will bear.\textsuperscript{110}

Even deregulation proponent Thomas Gale Moore admits that 40\% of small communities have suffered both a loss of air service and a disproportionate increase in ticket prices since deregulation began.\textsuperscript{111} Similarly, Professor Addus observes that "[a]s a result of airline deregulation . . . fares for traveling between small points have increased rapidly; and commuter air carrier fares are reported to be particularly high in most cases."\textsuperscript{112} Assessing the quantitative and qualitative impacts, it has been noted that "smaller communities are receiving markedly worse air service

\begin{thebibliography}{112}
\bibitem{105} Id. at 73; {Meyer, supra note 100, at 181.}
\bibitem{106} {Oster, Jr. \& Zorn, Deregulation and Commuter Airline Safety, 49 J. AIR L. \& COM. 315, 316 (1984).}
\bibitem{107} {See Oster, Jr. \& Zorn, Airline Deregulation, Commuter Safety, and Regional Air Transportation, 14 GROWTH AND CHANGE 3, 7 (1983). Author John Nance summarized the reasons for the deterioration of safety resulting from the substitution of inferior commuter carrier service for scheduled airlines:}

\begin{quote}
The aircraft [commuter airlines] fly are usually less sophisticated, largely unpressurized, and much smaller than mainstream jetliners. Many are devoid of not only restrooms, they are also devoid of radar, devoid of decent cockpit communications, devoid of sophisticated flight instruments, devoid of those elements that are part of the safety buffer which all of us as Americans have come to expect of our air transportation system, whether we are boarding in a rural area of not.

In addition [most] of these aircraft . . . fly at altitudes most vulnerable to weather hazards and potential mid-air collisions. They are maintained by less sophisticated maintenance departments, they are flown by less experienced pilots, usually the first airline job of their career.
\end{quote}

\bibitem{108} {1987 Senate Hearings on Deregulation, supra note 46, at 81-82 (testimony of John J. Nance).}
\bibitem{109} See Ahmed, Air Transportation to Small Communities: Passenger Characteristics and Perceptions of Service Attributes, 38 TRANSP. Q. 15, 21 (1984).\textsuperscript{109}
\bibitem{110} {Dempsey, Life Since Deregulation: It Means Paying Much More for Much Less, Des Moines Register, Dec. 30, 1987.}
\bibitem{111} {Dempsey, Fear of Flying Frequently, NEWSWEEK (Oct. 5, 1987), at 12.}
\bibitem{112} {Addus, Subsidizing Air Service to Small Communities, 39 TRANSP. Q. 537, 548 (1985).}
\end{thebibliography}
than existed prior to deregulation."\textsuperscript{113}

Under section 419 of the Airline Deregulation Act of 1978, small community subsidies were to last until 1988. In 1985, 142 communities were receiving subsidized service under the program.\textsuperscript{114} Most will likely lose air service altogether if federal economic subsidies dry up.

The loss of service has an unhealthy ripple effect throughout the economy of each of these communities. As one commentator has noted, "Besides increasing transportation costs for companies already doing business in many small communities, the impact of deregulation is decreasing the attractiveness of locating new businesses in these communities."\textsuperscript{115} A survey of executives of the 500 largest American corporations reveals that 80% would not locate in an area which did not have reasonably available scheduled airline service.\textsuperscript{116}

Not only has airline service into and out of small towns deteriorated, but the national system of air travel is significantly worse than that which existed prior to deregulation. Even travelers who can get a super-saver fare find that the product they buy today is decidedly inferior to that which they purchased before deregulation.

Flying has become a miserable experience. The planes are filthy, delayed, cancelled, and overbooked, our luggage disappears, and the food is processed cardboard. Chronic delays, missed connections, near misses and circuitous routing all are products of hub-and-spoking, adopted by every major airline. Too often, we find ourselves stranded in airports or imprisoned in aircraft, waiting endlessly to get to our destinations. America has suffered billions of dollars in lost opportunity costs as a result of these delays. Travel delays in 1986 alone cost airlines $1.8 billion in extra operating expenses, and cost consumers $3.2 billion in lost time.\textsuperscript{117}

Consumer abuses do not stop with miserable service. Under deregulation, management philosophy in the airline industry is dominated by the philosophy of P.T. Barnum: "There's a sucker born every minute."

Without government oversight, airlines freely engage in imaginative forms of consumer fraud, including bait-and-switch advertising, deliberate overbooking, unrealistic scheduling, and demand based flight cancellations. As the \textit{Wall Street Journal} observed:

Complaints about service are at an all-time high, with flight delays and cancellations provoking protest chants and even violence among angry pas-

\textsuperscript{113} Meyer, supra note 100, at 182. See also, S. TOLCHIN & M. TOLCHIN, DISMANTLING AMERICA: THE RUSH TO Deregulate 245-46 (1983).
\textsuperscript{114} GAO REPORT, supra note 104, at 31-32.
\textsuperscript{115} Meyer, supra note 100, at 175.
\textsuperscript{116} Dark Side of Deregulation, supra note 2, at 458.
\textsuperscript{117} Gridlock!, supra note 4, at 55.
sengers. The alarming rise in reported midair near-collisions has sharpened demands for improved safety. Meanwhile, mergers have given some carriers so much market clout that fliers are seeing the consumer benefits of deregulation eroded.\textsuperscript{118}

Some commentators have asserted that airline deregulation has resulted in significant economic benefits to the consuming public. A Brookings Institute study maintained that this savings was as much as $6 billion, comprised of fare discounts and opportunity cost savings realized as a result of "improved service convenience [to business travelers] attributable to the accelerated development of hub-and-spoke operations and to frequency improvements in low-density markets."\textsuperscript{119} The overall import of the study was that airline service had not declined since deregulation began, but because of additional frequencies, had actually improved.

By focusing on the number of flights in larger markets as the dominant measure of airline service, the Brookings Study appears to have missed that which frequent flyers see. Whatever the improvements in the rate structure since deregulation, the consensus of most of what is written about airlines in this environment is that service has declined significantly. Moreover, the epidemic of delays which pervades the airline industry seems actually to have imposed significant opportunity costs, not benefits. As Melvin Brenner noted:

The very increase in hub-and-spoke frequencies which played so large a part in the study’s calculations has been an important contributor to the congestion and delays which by 1987 had become a matter of widespread concern. While reducing the time interval between published departure times, the increased hub-and-spoke frequencies have increased the actual delay time at the gate, and in runway queues—a form of lost time that is especially costly to business traveler productivity.\textsuperscript{120}

Moreover, the product which consumers now purchase is today, on average, decidedly inferior to that they could purchase before deregulation. A recent survey of consumers reveals that almost 50% said that airline service had declined since deregulation; less than 20% said service had improved. Among the complaints: late departures, crowded seating, long lines at check-in, unappetizing food, overbooked aircraft, and an unacceptably long wait for baggage.\textsuperscript{121} Another survey, this one of 15,000 frequent flyers, found even more negative attitudes of the impact of deregulation upon air service. 68% said that deregulated air service was "less convenient and enjoyable," while only 19% thought it

\textsuperscript{118} McGinley, \textit{Bad Air Service Prompts Call for Changes}, Wall St. J., Nov. 9, 1987, at 28.

\textsuperscript{119} S. Morrison & C. Winston, \textit{The Economic Effects of Airline Deregulation} 33 (1986).

\textsuperscript{120} Brenner, \textit{supra} note 22, at 223.

\textsuperscript{121} \textit{The Big Trouble With Air Travel}, \textit{Consumer Reports} (June 1988), at 362, 363.
more convenient and enjoyable. Still another survey, this one of 461 members of the Executive Committee (a group of corporate presidents and chief executives), revealed that 36% had lost job efficiency because of air travel delays.

These results parallel those of the U.S. Department of Transportation. DOT data reveal that consumer complaints about airline delays, congestion, overbooking, bumping, missed connections, lost baggage, cancellations, and deteriorating food have soared in recent years. During the first six months of 1987, DOT received 15,621 consumer complaints, a 144% increase over the same period one year earlier.

A recent editorial in the Washington Post summed up what many firmly perceive to be the results of deregulation: "Airline Service Has Gone to Hell". Why? One authority on services marketing said, "It's one of those terrible debt spirals. Without profit, there can be no service and no safety."

Admittedly some consumers are paying less for air service than they did before deregulation. Those who have benefitted most are vacation (discretionary) travelers in large markets served by several carriers.

122. Brenner, supra note 22, at 223.
123. Gridlock, supra note 4, at 55. Many said they took the precaution of arriving in a city on the night before an appointment rather than risk flight delays or cancellations, thereby saddling their firms with the cost of a hotel room. Id.
125. Coleman, No Silver Lining Expected to Brighten Airlines' Stormy Skies, MARKETING NEWS (Sept. 25, 1987, at 1) [hereinafter Coleman]. The top ten complaints, in order of number registered, were:

- Flight Problems: Cancellations, delays, or any other deviation from schedule.
- Baggage: Claims for lost, damaged, or delayed baggage; charges for excess baggage; carry-on problems; and difficulties with airline claim procedures.
- Refunds: Problems in obtaining refunds for unused or lost tickets or fare adjustments.
- Customer service: Rude or unhelpful employees, inadequate meals or cabin service, and treatment of delayed passengers.
- Reservations, ticketing and boarding: Airline or travel agent mistakes in reservations and ticketing; problems in making reservations and obtaining tickets due to busy phone lines or waiting in line; delays in mailing tickets; and problems boarding the aircraft (except oversales).
- Oversales: All bumping problems, whether or not the airline complied with DOT oversale regulations.
- Other: Cargo problems, security, airport facilities, claims for bodily injury, and other miscellaneous problems.
- Fares: Incorrect or incomplete information about fares, discount fare conditions and availability, overcharges, fare increases, and the level of fares in general.
- Smoking: Inadequate segregation of smokers from nonsmokers, failure of the airline to enforce no-smoking rules, and objections to the rules.
- Advertising: Ads that are unfair, misleading, or offensive to consumers.

Id.
127. Coleman, supra note 125.
Business travelers flying between small towns served by only a single carrier have not benefitted from fare reductions. And today, both the vacation traveler and the businessman is often routed through a circuitous hub connection, causing him to consumer more time in both aircraft and in airports, and a decidedly less pleasurable consumption of his time, than before deregulation. For many, opportunity costs have increased since deregulation began. Moreover, what we buy today is a poorer product for our money.

Why has the unregulated market not corrected this deterioration in service? Some suggest that service deterioration is attributable to the decline in profitability of firms caused by the "destructive competition" unleashed by deregulation. Hence, carriers haven't the resources to staff flights with more flight attendants than FAA minimums, to staff ticket counters or baggage areas adequately, to provide better food, to avoid deliberate overbooking or unrealistic scheduling, or even to clean aircraft properly. While some airlines are worse than others, the decline appears to be nearly universal.

Another explanation of the market's failure may be reflected in the nature of the item being sold. When a consumer purchases a manufactured product, he can examine it in a retail store before he spends his money, pull it off the shelf and turn it over, and make some assessment of its quality. But when a consumer buys a service, like transportation, its definition beyond a mere description of "the movement of my body from A to B," is more amorphous.

When booking a flight, most consumers do some price shopping. Where a competitive alternative exists, there has been some measure of pricing competition under deregulation, and those who price shop usually opt for the lower fare. Frequent flyers who have been through the ordeal of a hub connection may ask for a nonstop if one is available, or a one-stop, if one is not. But beyond that, how many consumers ask "(1) what kind of aircraft is being flown, how old is it, and when was it last overhauled; (2) how often is this flight late, and by how much, on average; (3) by what percentage of passengers do you usually overbook the flight; (4) what percentage of bags are usually lost on the flight, and if you don't lose them, how long will I have to wait at destination for my bags; (5) how many flight attendants are on board; (6) what's for dinner, and how tasty is it; (7) what's the average wait in the line at the airport; (8) how crowded is the flight and the waiting lounge at the gate; (9) how much knee and leg room do you give me between seats; and (10) how comfortable is the seat?" Because most of these questions are not asked by consumers

128. See Brenner, supra note 22.
before they purchase their ticket, the market has not responded to consumer desires for better service.

The U.S. Department of Transportation has authority to protect consumers from many of these evils, including deliberate overbooking, unrealistic scheduling, fraudulent ("bait and switch") advertising. But the Reagan Administration’s DOT has been reticent to do much of anything to correct market failure.

Another consideration which increasingly impacts both service and fare levels is the level of industry concentration which has emerged under deregulation. With fewer carriers, with some traffic lanes and hubs now a monopoly or oligopoly, and with no government agency to protect consumers, it is quite likely that as time passes prices will rise and service will decline further.

4. Motor Carriers

Because of the glut of capacity in the trucking industry, and the fact that the overwhelming majority of states continue to regulate intrastate motor carriage and enforce the common carrier obligation, we have not yet seen wholesale motor carrier abandonments of small communities. We may see it yet if more states abandon their regulatory responsibility to protect the public interest. As indicated above, evidence already exists of widespread price discrimination against small shippers, particularly those located in rural areas and small towns.

The economic impact of isolation is rippling perniciously throughout rural America, making it increasingly difficult for small towns to attract new investment, or indeed, to dissuade existing businesses from leaving. The downward economic spiral inevitably leads to an outmigration of youth, as small towns wither on the vine.129

D. Public Safety

Serious questions exist as to whether an unhealthy industry can be a safe industry. One of the dangers of poor or nonexistent profits for transportation is the natural tendency of management to curtail costs. Among those which can be significantly diminished are maintenance costs, including mechanic’s wages, spare or replacement parts, and idle vehicle time lost during inspections and maintenance.

1. Railroads

Unsatisfactory profits in the rail industry under regulation led it to defer maintenance on equipment and trackage as a matter of policy. The

result was a series of derailments, often causing loss of human life.\textsuperscript{130} Deregulation has enabled railroads too extract monopoly profits from captive consumers of bulk commodities such as coal and grain. This has significantly improved their economic posture, and made it possible for them to upgrade deteriorated track and roadbed, and to purchase new rolling stock, all to the substantial benefit of their level of safety. Hence, a carrier’s economic health seems to bear a positive correlation with its level of safety.

2. AIRLINES

Conversely, for airlines and motor carriers, the economic strains created by the intensive pricing competition unleashed by deregulation have had a deleterious effect upon carrier safety. Carriers earning inadequate profits cut costs where they can, by deferring maintenance or replacement of defective equipment, or by pushing labor beyond federal safety standards.\textsuperscript{131}

The father of airline deregulation, Alfred Kahn, now admits that the margin of safety has “possibly” narrowed since 1978, although fatality statistics do not yet reflect it.\textsuperscript{132} Of course, if the body count were the only measure of victory, we would have won the war in Viet Nam.

Although passenger fatalities have not ascended to the levels one would expect in such an environment, other measures of safety paint a different picture. Since deregulation, the average age of our nation’s aircraft fleet has grown sharply. The number of mechanics per aircraft has been reduced. The number of near misses has soared. 1987 saw the highest number of aircraft accidents since 1974.\textsuperscript{133} The average age of cockpit crew members is the lowest since deregulation began, and the duration and quality of their training has declined.\textsuperscript{134}

Because of the competitive pressures unleashed by deregulation, overall industry financial performance has declined to the point of inadequacy, despite the fact that the recession of the early 1980s has abated, and fuel prices have fallen. In many instances, these competitive pressures have had beneficial impacts upon carrier productivity; management has been forced to engage in hard negotiations to reduce labor costs and inefficient work rules.

\textsuperscript{130} Professor Golbe’s study established that profitable railroads have fewer accidents per mile than do unprofitable rail carriers. Golbe, \textit{Product Safety in a Regulated Industry: Evidence From the Railroads}, 21 \textit{ECON. INQUIRY} 39 (1983).

\textsuperscript{131} \textit{Transportation Deregulation}, supra note 2, at 352.

\textsuperscript{132} Kahn, supra note 23, at 251.

\textsuperscript{133} \textit{Air Safety Record Worst Since ’74}, Chicago Tribune, Jan. 13, 1988, at 5.

\textsuperscript{134} Thomas & McGinley, \textit{Airlines’ Growth, Pilot Shortage Produce Least Experienced Crews In Nine Years}, \textit{Wall St. J.}, Nov. 20, 1987, at 28.
But cost cutting may well have had a deleterious impact on the margin of safety. Concerns have been voiced over the problem of the age and poor maintenance of jets flown by unhealthy airlines, which lack the financial resources to reequip with modern aircraft, or properly maintain their aging fleets. This is particularly a concern in the commuter airline industry, seemingly plagued by endless bankruptcies, where recycled aircraft dominate the fleets of the smaller carriers. Professor Frederick Thayer reminds us that "safety always has suffered when airlines were largely unregulated." Ninety-seven percent of airline pilots believe that deregulation has had a deleterious effect on airline safety. Among the problems identified are: "lagging and inadequate maintenance; pressure to avoid delays; lowered hiring and experience standards for new pilots; increased use of waivers and exemptions from safety rules; increased flying hours for pilots; [and] the profusion of new, inexperienced airlines . . . ." One out of every five pilots has been involved in a near miss during the last two years, and only 25% of those were reported to the FAA.

According to the U.S. Department of Transportation, the amount of resources devoted by commercial airlines to aircraft maintenance fell 30% during deregulation’s first six years. A survey of commercial airline pilots reveals that almost half believe that their companies defer maintenance for an excessive period of time. As Chart V reveals, the number of mechanics per aircraft has declined more than 10% on average for the major airlines in the past five years.

Today, most carriers lack the resources to replace their aging fleets of aircraft. As a consequence, the average age of the industry’s jets grew 21% since 1979 to 12.53 years. Today, more than half the 2,767 jets in service are 16 years old or older. Chart VI provides the average aircraft ages of the ten major carriers.

The new low fares which are offered in larger, competitive markets during the last decade have stimulated significant new passenger demand. Between 1978 and 1987, departures for major airlines increased

---

136. Transportation Deregulation, supra note 2, at 354 n.100.
139. Id.
141. Id.
143. Id.
### Chart V — Number of Mechanics per Aircraft

<table>
<thead>
<tr>
<th>Airline</th>
<th>1982</th>
<th>1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>American</td>
<td>16.6</td>
<td>15.6</td>
</tr>
<tr>
<td>Continental</td>
<td>14.6</td>
<td>13.0</td>
</tr>
<tr>
<td>Delta</td>
<td>21.3</td>
<td>14.9</td>
</tr>
<tr>
<td>Eastern</td>
<td>22.1</td>
<td>16.9</td>
</tr>
<tr>
<td>Northwest</td>
<td>11.6</td>
<td>12.4</td>
</tr>
<tr>
<td>Pan Am</td>
<td>27.4</td>
<td>28.2</td>
</tr>
<tr>
<td>Piedmont</td>
<td>13.0</td>
<td>9.7</td>
</tr>
<tr>
<td>TWA</td>
<td>30.9</td>
<td>25.7</td>
</tr>
<tr>
<td>United</td>
<td>17.8</td>
<td>21.2</td>
</tr>
<tr>
<td>US Air</td>
<td>12.4</td>
<td>11.8</td>
</tr>
<tr>
<td><strong>AVERAGE</strong></td>
<td><strong>18.77</strong></td>
<td><strong>16.94</strong></td>
</tr>
</tbody>
</table>


by 27%. With airlines funneling their flights into "hub and choke" bottlenecks, and scheduling takeoffs and landings through a narrow window of time and space, near misses are soaring. Thus, the flight paths of the nation's major airports are heavily congested during peak periods. There were 584 near misses during 1984, 758 in 1985, 839 in 1986, and 610 for the first half of 1987 alone.

All of this has placed serious strains on the air traffic control system at a time when it is least capable of handling the surge in demand. In 1981, President Reagan fired 11,000 members of the Professional Air Traffic Controllers Organization (PATCO) for striking, leaving it with only a third of its work force, and the FAA has yet to replace them all. Not only is the system understaffed, but many airports and navigational facilities are equipped with obsolete and aging equipment. Operational errors, or mistakes by controllers, increased by 20% during the first half of 1987 over the same period one year earlier.

The level of public and media concern over the trimmed margin of safety has turned up the heat on the Federal Aviation Administration to

---

146. Increasing Near-Midair Incidents Spur Drive to Improve ATC Performance, Av. Week & Space Tech. 21 (1987)
147. Morganthau, Year of the Near Miss, NEWSWEEK (July 27, 1987), at 20.
CHART VI — AIRLINE FLEET AVERAGES IN YEARS

<table>
<thead>
<tr>
<th>Airline</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>American</td>
<td>11.14</td>
</tr>
<tr>
<td>Continental</td>
<td>11.96</td>
</tr>
<tr>
<td>Eastern</td>
<td>14.49</td>
</tr>
<tr>
<td>Delta</td>
<td>9.76</td>
</tr>
<tr>
<td>Northwest</td>
<td>14.54</td>
</tr>
<tr>
<td>Pan Am</td>
<td>14.67</td>
</tr>
<tr>
<td>TWA</td>
<td>15.14</td>
</tr>
<tr>
<td>United</td>
<td>14.43</td>
</tr>
<tr>
<td>US Air</td>
<td>11.58</td>
</tr>
<tr>
<td>Piedmont</td>
<td>10.25</td>
</tr>
</tbody>
</table>

Source: Aging Jets Problem Discussed Years Ago, Rocky Mountain News, May 8, 1988, at 32.

become more vigilant in enforcing its safety regulation mandate, something it was lethargic in doing during the early years of the Reagan Administration. As Chart VII reveals, significant fines have recently been levied on the major airlines.

Nonetheless, the Federal Aviation Administration recently came under fire in a report prepared by the Office of Technology Assessment (OTA).\textsuperscript{149} It found the FAA understaffed in the number of inspectors, controllers and technicians it employs, and that it maintained inadequate programs to improve the performance of aircraft crews, air-traffic controllers and mechanics. It urged the FAA to continue surprise inspections, and in particular, to engage in intensive and extensive oversight of the commuter airline industry “during the shakeout expected over the next few years.”\textsuperscript{150}

It also had a few words of criticism for the airline industry. OTA found that although all airlines profess adherence to high safety standards, there are significant variations in corporate cultures and maintenance procedures. Professed adherence to safety "means one thing to a financially well-off airline with an ample number of landing slots at airports, but something else to a financially strapped airline that must choose between spending money on discretionary maintenance on aircraft and buying


\textsuperscript{150. Id. at 13.}
new slots."¹⁵¹ OTA concluded that "while airline officials are concerned about safety, financial considerations drive many industry decisions and will continue to do so as strong competition exists among the airlines."¹⁵² Further, "many airlines have lowered hiring standards, [and] increased pilot and mechanic duty time . . . "¹⁵³

Why then, have the fatality levels not reflected the industry's miserable economic environment? Two reasons. First, the aircraft themselves are overengineered. Even if maintenance is deferred and a critical system fails, usually a backup system will fill the void until the plane can land. Even if the plane becomes a convertible, as did that 737 Aloha Airlines jet in Hawaii, a good pilot can still land it safely. Second, there is a higher level of vigilance in the cockpit than there has even been. Hub and spoking creates intense congestion, and pilots know if they don't keep a sharp eye out, a near miss could become an actual hit. Moreover, pilots are overwhelmingly concerned about the deterioration of maintenance under deregulation. They watch more carefully for mechanical problems than they ever have. Thus, we have been spared the tragedies that the eco-

¹⁵². OTA REPORT ON AIRLINE SAFETY, supra note 149, at 11.
¹⁵³. id. at 12.
nomic imperatives of deregulation suggest. Let us hope that we continue to be so lucky.

3. **Motor Carriers**

Similar conclusions have been reached by academicians who have studied the motor carrier industry. For example, Professor Daryl Wyckoff found a positive correlation between motor carrier regulation and safety; regulated carriers displayed a superior safety and compliance record vis-à-vis unregulated motor carriers.\(^{154}\)

Approximately 4,500 people died in accidents involving heavy trucks in 1986. Odds are 40 to 1 that the car occupant rather than the truck driver will die in these highway catastrophes.\(^{155}\) An overwhelming body of evidence suggests that trucking safety has deteriorated sharply since deregulation.

As discussed above, motor carriage does not operate in a purely competitive environment. Large shippers enjoy and exert monopsony power—the ability to dictate pricing discounts unavailable to smaller rivals. Hence, small shippers become saddled with the fixed costs of operation. That disparity of bargaining power (which demands pricing discrimination), coupled with unlimited entry (and the glut of capacity resulting therefrom) have made it difficult even for well-managed and efficient motor carriers to earn a reasonable return on investment. The losses have to be borne by someone. They have come out of the hides of labor and investors, and from deferred maintenance. Drivers must now drive longer hours to earn the same income, and too often, are pumped up on amphetamines. Firms with inadequate profits lack the resources to invest in new equipment, or repair aged equipment. As a consequence, trucking accidents have soared under deregulation. Virtually every objective study of highway safety has concluded that the rate of truck-related accidents, fatalities and injuries have increased dramatically since deregulation began, at a pace higher than the increase of truck miles traveled.

A study commissioned by the American Automobile Association [AAA] concludes that because there are few other areas in which to cut costs, motor carriers whose profit margins are squeezed have little alternative but to "run older equipment, pay less in wages, work drivers longer, and/or skip on maintenance."\(^{156}\) Professor Glaskowsky reached similar conclusions, noting that, "After five years of deregulation three


\(^{155}\) Labich, The Scandal of Killer Trucks, FORTUNE (Mar. 30, 1987), at 85 [hereinafter Labich].

\(^{156}\) F. Baker, Safety Implications of Structural Changes Occurring in the Motor Carrier Industry 15 (1985) [hereinafter cited as AAA Safety Study].
trends are fairly clear: (1) the equipment fleet of the motor carrier industry is aging, (2) a lot of maintenance (expense) is being deferred, and (3) the motor carrier accident rate is increasing."157

Indeed it is. Because carrier profits have been so severely squeezed, the average age of equipment on the highway has increased dramatically since deregulation.158 In 1978, when de facto deregulation began, the median age of trucks operating on the highway was 6 years; by 1986, that had risen to 7.5 years.159 Economically distressed carriers simply haven’t the resources to invest in replacing (and in some instances, repairing) aged equipment. As Professor Garland Chow observed, "The carrier which eventually goes bankrupt spends less on safety and maintenance, has older equipment and depends on owner operators more than carriers not going bankrupt. As these financially distressed carriers approach their eventual demise, they spend even less on safety, on new equipment . . . ."160

It is not only the carrier exiting the unregulated market which poses a serious safety hazard on the highway. The new, undercapitalized, shoestring operator who naively believes that he can compete with the "big boys" is also a threat. Professors Corsi and Fanara, Jr., examined the impact of the Motor Carrier Act of 1980 upon safety, and concluded that new entrants have accident rates between 27% and 33% higher than established carriers.161

As wages are reduced by financially strapped carriers, drivers have a strong economic incentive to stay on the highway beyond the maximum hours established by the federal government.162 The result has been sharply increased rates of trucking accidents and related deaths and injuries. Daust and Cobb found a "relationship between federal economic deregulation and the substantial rise in safety related incidence . . . [as well as a] cause-and-effect relationship of driver fatigue and unqualified drivers on traffic crash occurrences."163 A AAA study reveals that driver fatigue is the probable or primary cause of 41% of heavy truck

157. N. GLASKOWSKY, supra note 13, at 32.
158. AAA SAFETY STUDY, supra note 156, at 17. N. GLASKOWSKY, supra note 13, at 32.
159. M. Foley, supra note 18, at 25.
162. AAA SAFETY STUDY, supra note 156, at 16.
accidents.\textsuperscript{164} The Bureau of Motor Carrier Safety of the U.S. Department of Transportation reported an 18% increase in trucking accidents from 1983 to 1984.\textsuperscript{165} That is the largest increase since 1972.\textsuperscript{166} The American Insurance Association reports that the accident rate for interstate motor carriers increased from 2.65 per million miles in 1983, to 3.06 in 1984, to 3.39 for the first half of 1985.\textsuperscript{167}

Nationwide surveys performed under the Federal Motor Carrier Safety Assistance Program concluded that of the 366,400 trucks checked in 1985, 29% were insufficiently safe to drive on the highway. In 1986, safety inspectors in New York and Connecticut, operating under the Federal program, have ordered as many as 60% of the trucks off the highway as unsafe.\textsuperscript{168}

\begin{footnotesize}
\begin{itemize}
  \item[164] AAA FOUNTIN FOR TRAFFIC SAFETY, A REPORT ON THE DETERMINATION AND EVALUATION OF THE ROLE OF FATIGUE IN HEAVY TRUCK ACCIDENTS (1985). For purposes of this study, fatigue was defined as more than 15 consecutive hours of on-duty or defined activity time. Id. at 2.
  \item[165] As one driver noted:
  \begin{quote}
  In 10 years of driving I have had no employer who expected less than twice the legally allotted number of hours. Many drivers . . . must constantly break the law to keep their jobs. The resulting fatigue is the truck driver's real enemy and the true killer on the highway. . . .
  \end{quote}
  If the same official zeal [over drug abuse by drivers] were focused on shippers and employers who demand outlawy from drivers, the first step will have been taken toward reducing [the number of truck-related fatalities]. Until then, shippers will expect 68-hour trips from California to Boston, and profit will be made because drivers disregarded the law. More important, public safety will continue to be jeopardized.
  \begin{flushright}
  \end{flushright}
  \item[167] N. GLASKOWSKY, supra note 13, at 32.
  \item[168] Id. Fortune magazine found that both the age of trucks on the highway and the number of truck accidents have soared since promulgation of the Motor Carrier Act of 1980, and reached these conclusions:
  \begin{quote}
  The growing safety problem is a lesson in the perils of deregulation . . . . Deregulation compounded the problems [of highway safety] by creating economic circumstances that made trucking far more dangerous. Price competition forced hundreds of large and medium-size companies out of business. The smaller outfits and independent owner-operators who took their place are nimbler, but these new entrants have a hard time making money . . . . To stay in business, the small operator must run each rig at least 120,000 miles a year—more than 300 miles every day . . . . In today's competitive climate, the numbers often do not add up . . . .
  \end{quote}
  \begin{quote}
  Result: Many hard-pressed truckers have plenty of incentive to spend excessive hours at the wheel and to overlook expensive maintenance requirements . . . . [A]s many as one in three long-haul drivers resort to illegal drugs to help cope with grueling hours on the road . . . .
  \end{quote}
  Even a drug-free driver may be a menace on the highway because of the sorry condition of his vehicle. Roadside inspections conducted in various states in the past year regularly turned up serious problems in 30% to 40% of trucks pulled over.
  \begin{flushright}
  Labich, supra note 155, at 85-86.
  \end{flushright}
  \item[169] Hanley, 60% of Trucks Fail New York Area Inspections, N.Y. Times, Oct. 8, 1986, at B-1.
  \end{itemize}
\end{footnotesize}
Each of these independent studies points to a common conclusion: there has been a significant deterioration in the level of safety of motor carriers since federal deregulation began. There are reasonable grounds to believe that rate deregulation and safety deterioration are interrelated. As was revealed by Professor Glaskowsky's comprehensive study on the impact of deregulation upon motor carriers:

Many aspects of deregulation are subject to disagreement and debate as to their effects, but safety is not one of them. Safety costs money where transportation operations are concerned and it was inevitable that deregulation would put much financial pressure on many motor carriers.

Corners are being cut by financially strapped carriers and the accident rate is rising. This was a clearly foreseeable consequence of deregulation.169

Equipment maintenance is another major concern. Firms without adequate returns simply do not have adequate resources to fix brakes, replace worn tires, and the like. In recent years, state inspections around the nation have seen a dramatic increase in the number of trucks pulled out of service as unsafe to be on the highway because of illegal vehicles or drivers. Moreover, the average age of trucks on the highway has grown steadily every year of federal deregulation. Of course, the bottom line is that the principal cause of the deterioration of safety under deregulation is the economic anemia unleashed by overcapacity and the market power of large shippers.

Let's go a bit deeper, and look at the problem of externalities. Take a typical large manufacturer with a private fleet subsidiary of its own trucks and trailers. It will make sure that this subsidiary will earn a reasonable return on investment sufficient to allow it to maintain its equipment so as to avoid the potential liability that would be inspired by shoddy maintenance and overworked drivers. Now, suppose the large manufacturer tenders some freight to a common carrier. It has no incentive to ensure that the common carrier earns a reasonable return on investment, for any highway accident becomes a liability problem for the carrier, not the manufacturer. Instead, the manufacturer has an incentive to cut the common carrier's profit margin to the bone so as to maximize its wealth, the public be damned! With its own private fleet, the manufacturer cannot externalize the price the public pays for its greed, in terms of injuries and fatalities on the highway; with a common carrier, it can. So as to avoid the

---

169. N. GLASKOWSKY, supra note 13, at 33.

spillover effects upon third parties not participating in the transaction for either the sale of transport services or the goods the manufacturer sells in the market, responsible regulation is required.

Moreover, even if litigation were somehow able to force internalization of this injury (and for the reasons just expressed, it is not), litigation would be a poor alternative to regulation in that courts award monetary relief; innocent human beings bear the costs in terms of injuries or death. Even a generous jury award for damages cannot restore lost health or life. In contrast, regulation can prevent injury before it occurs, and this is a significant benefit indeed.

Targeted safety programs help. But unless the state is prepared to put a highway patrolman in every cab, it cannot hope to thwart the economic imperatives of inadequate returns mandated by deregulation.

Too many of us have seen the crushed accordions of twisted steel and bent chrome on our interstate highways, which were passenger automobiles before they were squashed by huge diesel-powered trucks pulling giant trailers. The kinetic energy released by a 40-ton tractor-trailer unit moving at 55 mph is approximately 16 million foot-pounds, or about 4,000 times the energy released by a high-power rifle.\textsuperscript{170} It is quite capable of compressing a compact car into a glob of steel almost the size of a suitcase.\textsuperscript{171}

\textsuperscript{170} Id. at 32.
\textsuperscript{171} Finally, as to the impact of deregulation upon highway safety, the CBS \textsc{Evening News} with Dan Rather reported the following:

\begin{quote}
\textsc{Bill Moyers}: Major truck accidents have increased sharply, up 18\% in just the last year. And state inspections like this one [in Barstow, California] are turning up more and more hazards in every kind of truck. . . . Of the nearly 600 trucks inspected on this day, 40\% were found to be "imminent hazards" and ordered off the road. The most common defect: faulty brakes . . . .
\textsc{Brian O'Neill}: I think it's fair to say that over half the trucks on the highway right now have defective brakes of one form or another.
\textsc{Moyers}: Over half?
\textsc{O'Neill}: Over half.
\end{quote}

\begin{quote}
\textsc{Moyers}: These truckers will tell you the reason is economic. The deregulation of the industry has increased competition, but more trucks are hauling less freight over long distances and earning less money.

\textsc{Trucker}: I averaged out last month what I made and I divided it by how many hours I got. I think I averaged 75 cents an hour in what I've made for myself.

\textsc{Moyers}: To cut costs in the face of cutthroat competition, some drivers are spending more time behind the wheel without sleep or rest and are cutting corners on safety . . . .

\textsc{Truck driving has become one of the most dangerous jobs in America.

\textsc{Washington, D.C.:} a tractor trailer loses its brakes, hitting six cars. The driver is killed.
\textsc{Van Buren, Arkansas:} a truck cited for defective brakes in four states smashes into a station wagon. Nine dead, including three children.
\textsc{Globe, Arizona:} a runaway semi hauling two trailers loses its brakes on a mountain road. Four are killed.
\textsc{Kalamazoo, Michigan:} just eleven days ago, a truck loaded with steel rams a school-bus. Four children die; 21 are injured . . . .

It seemed a good idea at the time to deregulate trucking and increase economic competition, let the market do it. But some things the market can't or won't do and its failure
One source reports that "[v]irtually all studies of accident, fatality, and injury rates found that rates are increasing more for trucks than for other types of vehicles and at a pace higher than the increases in truck miles traveled." An overwhelming body of evidence demonstrates that the motor carrier industry suffers from critical economic anemia under deregulation, and that truck-related carnage on the highways has soared since the early 1980s.

Despite the evidence, some deregulation proponents dogmatically insist that no one has proven conclusively that economic deregulation causes safety deterioration (and anyway, nothing as handsome as deregulation could give birth to so grotesque an offspring). One is reminded of the argument by tobacco companies that no one has established a conclusive link between cigarette smoking and cancer.

No one has been able to step forward with conclusive evidence to prove (or for that matter, disprove) either proposition. Nonetheless, public policy suggests that the burden of proof ought reasonably to be placed on the constituency which, common sense suggests, is harming innocent people.

Simply put, if a carrier hasn't the economic resources to replace worn equipment, it will have little choice but to defer maintenance, leave the truck rolling on the highway, and hope the next load or two will improve its economic position. This, indeed, was the explicit practice of the unhealthy railroad industry under regulation. The economic imperative of survival in the Darwinian market suggests the same for the unhealthy trucking industry under deregulation. The fact is, human beings are being maimed and killed in increasing numbers in truck-related accidents on our highways.

Only a change in the economic lot of carriers will improve highway safety. Not until motor carriers earn a reasonable return on investment will they have the resources to maintain their equipment properly, or replace it with newer trucks. Not until drivers earn a decent living will they be spared the endless hours behind the wheel pumped up on amphetamines. Prudently administered economic regulation can, by controlling entry, constrict excess capacity and thereby enhance carrier productivity. By regulating rates, it can ensure that efficient and well-managed carriers earn a return on investment sufficient to maintain and upgrade equipment

---

has to be reckoned now in human life and injury. That price is rising steadily for the drivers of these big rigs and for all of us who share the road with them.

I'm Bill Moyers.

CBS EVENING NEWS WITH DAN RATHER, Dec. 16, 1985 (transcript provided by CBS).

172. PUC PERFORMANCE AUDIT, supra note 9, at 34-35.

173. For an excellent analysis of the impact of deregulation upon highway safety, see D. Baker, COMMON SENSE RELATIONSHIP BETWEEN MOTOR CARRIER ECONOMIC REGULATION AND HIGHWAY SAFETY (1987).
to safe levels. By holding the Damocles sword of license revocation over their heads, the regulatory commission can ensure that such resources are spent to enhance safety.

III. FEDERAL PREEMPTION AND INTRASTATE DEREGULATION

A. FEDERAL PREEMPTION

Between 1976 and 1982, Congress was active, not only in deregulating interstate transportation, but also in preemption of state jurisdiction over transportation within their borders. For example, Congress preempted intrastate regulation of the airline industry with promulgation of the Airline Deregulation Act of 1978. Similarly, intrastate rail regulation must meet standards established by the Interstate Commerce Commission under the provisions of the Staggers Rail Act of 1980. In the Bus Regulatory Reform Act of 1982, Congress provided that state denials of bus abandonments and rate increases may be appealed to the ICC (where they are almost always reversed).

Of the major pieces of legislation deregulating the various modes of transportation, only the Motor Carrier Act of 1980 left unmolested the states’ jurisdiction over intrastate commerce (although the ICC has recently assaulted the states’ sovereignty with an ambitious definition of interstate transportation, now on appeal in the federal courts).

B. INTRASTATE DEREGULATION

Since promulgation of the federal Motor Carrier Act of 1980, only five states have chosen to follow the lead of the Interstate Commerce Commission by deregulating their motor carrier industries: Florida (1980), Arizona (1981), Maine (1982), Wisconsin (1983), and Alaska (1984). Note that enthusiasm for transportation deregulation began to wane at both the

---

175. See Railroad Comm'n v. ICC, 765 F.2d 221 (D.C. Cir. 1985).
177. See Texas v. United States, 761 F.2d 211 (5th Cir. 1985).
180. See Mann, Back Door Deregulation Of Intrastate Transportation Accelerates, 37 YOUR LETTER OF THE LAW 33 (1987). Such cases pending as the date of this writing include State of Texas v. United States (5th Cir. No. 87-4725), E & B v. Mattox (W.D. Tex. No. A-86-CA-446), Midwest Motor Freight Bureau v. Interstate Commerce Commission (8th Cir. No. 87-2043), Steele Tank Lines v. Interstate Commerce Commission (8th Cir. No. 88-4001), and California Trucking Association, Inc. v. Interstate Commerce Commission (9th Cir. No. 87-7439).
state and federal levels in the mid-1980s, as deregulation turned out not to be as beneficial to the public as promised by its proponents.

Florida was the first state to deregulate its intrastate motor carrier industry in the contemporary era, but not because of a strong, grass-roots political movement. Instead, the two houses of the state legislature simply failed at the last minute to agree on the language of a bill to extend the life of the existing regulatory framework. Under the Florida Sunset legislation applicable to all state governmental agencies, such regulation automatically terminated at a date certain in the absence of a new statute affirmatively extending its life. In the year preceding deregulation, the Florida Public Service Commission (PSC) received only 34 complaints regarding household goods transportation; but in the first month alone following deregulation, 44 such complaints were filed.\textsuperscript{181} Similarly, in Arizona, deregulation has resulted in more consumer complaints in the areas of household goods, taxicab and ambulance services.\textsuperscript{182}

In Indiana, a bill was passed in 1984 to sunset the jurisdiction of the state Public Utilities Commission (PUC) over motor carriers, to be effective in 1986. However, subsequent state legislation, supported by a group comprised principally of small businesses, repealed the bill’s sunset prior to its effective date. Thus, Indiana came quite close to deregulation, but reversed course at the eleventh hour, leaving the PUC’s jurisdiction unmolested.

In Wisconsin, Joe Sweda, an early deregulation proponent and Commissioner of Transportation, now laments the impact of the bill he supported. Said he, "Deregulation has not been the success that many had anticipated. Most rural areas have suffered under this law. The truck service and especially the bus service to these areas has been drastically reduced. My office has received numerous complaints from rural shippers concerning the sporadic service, late shipments and the general unavailability of many Wisconsin truckers."\textsuperscript{183} Sweda also pointed out that small shippers are disadvantaged vis-a-vis larger shippers because rates are no longer published. Hence, larger shippers are secretly able to negotiate preferential rates with carriers, while small shippers are helpless to defend themselves against rate discrimination. Loss and damage claims have escalated, and carrier safety has deteriorated, since Wisconsin decided to deregulate intrastate transportation.\textsuperscript{184}

\textsuperscript{181} Transportation Deregulation, supra note 2.

\textsuperscript{182} Id. at 362.


\textsuperscript{184} Id.
Unfortunately, deregulation has eliminated the monitoring functions which state agencies traditionally performed. Hence, there is precious little empirical evidence with which to evaluate intrastate deregulation.\textsuperscript{185}

One notable exception is our nation’s most populous state, California. In 1980, the California Public Utilities Commission (PUC) partially deregulated its controls over motor carrier ratemaking. Beginning in 1984, the California PUC conducted a two-year study of the impact of intrastate deregulation, and reached conclusions similar to those of Wisconsin Commissioner Sweda. Some 23 days of testimony was heard by an administrative law judge, and two days of en banc hearings were held before the full Commission. Producing nearly 4,000 pages of transcript and 2,000 pages of exhibits, California’s study is the most comprehensive and detailed evaluation of the impact of intrastate deregulation to date.

The study revealed that widespread discriminatory and preferential rate cutting created a situation in which the industry’s infrastructure became overaged; for-hire carriers were no longer able to maintain vehicle replacement programs or acquire new equipment; adequate financing was no longer available to motor carriers; safety deteriorated, leading to increased numbers of deaths and injuries from highway truck-related accidents; there was a serious reduction in the number of independent owner-operators; and to offset the prevailing rate cutting, drivers operated excessive hours, maintained multiple log books, overloaded vehicles, drove at excessive speeds, and reduced expenditures for equipment maintenance.\textsuperscript{186} As we have seen, these are exactly the consequences of federal interstate transportation deregulation.

The California Commission concluded that rate deregulation was having a serious adverse impact upon the motor carrier industry and the public it serves.\textsuperscript{187} It therefore decreed a mandatory 10% rate increase and adopted a program designed to eliminate preferential and discrimina-

\textsuperscript{185} “[A]t the state level, the total deregulation of trucking, in Florida for example, means that no reliable data on Florida intrastate trucking is available.” N. GLASKOWSKY, supra note 13, at 1.


\textsuperscript{187} The California PUC issued a decision on April 16, 1986, in which it concluded that additional deregulation would not be in the public interest. It made the following findings:

It is the intention to provide a regulatory system which promotes the financial health of the industry, equity, competitive opportunity and public safety . . . .

Although competition is not and never will be perfect, . . . one of the major objectives of the regulatory policy is to prevent competitive forces in the industry from becoming destructive . . . .

It is not our purpose to encourage carriers to offset losses through inadequate wages, poor vehicle maintenance or market instability. Further, if enough carriers engaged in sustaining underpricing, the industry as a whole would suffer, jeopardizing the provision of adequate, reliable service . . . .

We also agree with the staff’s assessment that under the prevailing circumstances, total deregulation of the state’s motor carrier industry is not appropriate.
ter rates.\textsuperscript{188}

More recently, the Ohio Public Utilities Commission (PUC) has launched an investigation as to whether stricter rate controls should be imposed.\textsuperscript{189} The PUC's Director of Transportation said, "We are concerned that the economic problems [of the industry] may potentially affect the service available in Ohio and the safety of the highways."\textsuperscript{190} The investigation will be conducted in two stages, the second of which will address issues such as limited and discriminatory price discounting, and below-cost pricing.\textsuperscript{191}

Finally, the West Virginia Public Service Commission (PSC), after six years of partial motor carrier deregulation, found that the result was service deterioration and higher prices for its small towns and rural communities. In 1987, the PSC decided to return to traditional economic regulation.\textsuperscript{192}

C. In Which Direction Should the States Go?

1. Why Not Intrastate Deregulation?

A number of state legislators and Public Utility Commissions (PUCs) have been confronted with various motor carrier deregulation proposals in recent years. Most such proposals, particularly those in Texas and California, have been supported and generously financed by coalitions of very large shippers. Any analysis of the contemporary political, legal and economic environment would be incomplete without a review of the principal costs of intrastate deregulation, and a suggestion as to what regulatory structure will accomplish desirable public objectives.

As we have seen, deregulation, while it benefits very large shippers (those with monopsony power), creates an anemic motor carrier industry, lots of bankruptcies, an aging and poorly maintained rolling stock of tractors and trailers, overworked and underpaid drivers, a growing number of highway injuries and fatalities, a high turnover rate among firms, and an oligopoly among large carriers.

A deregulated environment is not an environment of perfect competition. Distortions are created because of the size and power of both ship-

\begin{footnotesize}
\begin{enumerate}
  \item Baker, Does the Public Benefit from Deregulation?, 34 YOUR LETTER OF THE LAW 23, 28 (Nov. 1986).
  \item Id. at 31.
  \item Ohio Eyes Re-Regulation of Truck Ratemaking and Procedures in New Probe, TRAFFIC WORLD (Nov. 10, 1986), at 58.
  \item Ohio Commission Studying Economic Controls on Trucking, MOTOR FREIGHT CONTROLLER (Dec. 1986), at 6.
  \item Id.
  \item Public Service Commission of West Virginia M.C. Case Nos. 20376 and 20377, Middle Atlantic Conference, In the Matter of Investigation and Suspension of Tariffs (Mar. 6, 1987).
\end{enumerate}
\end{footnotesize}
pers and carriers. The monopsony power of large shippers enables them to unilaterally dictate price discounts below established rates. By selectively tendering or withholding their vast volumes of freight, they can extort extremely low rates from carriers. For unsophisticated carriers, this sometimes results in below-cost pricing, hastening their demise. For others, made desperate for freight by trucking industry overcapacity, it means marginal cost pricing.

But the fixed costs have to be picked up somewhere. Rather than having a fair allocation of the fixed cost burden placed on large shippers, the pricing structure which emerges is highly discriminatory. The monopsony power of large shippers unleashed by deregulation has created a pricing scheme which benefits large shippers, and penalizes small shippers. Effectively, this means that large shippers enjoy marginal cost (or too often, below marginal cost) pricing, while small shippers pay a higher freight bill to cover the carriers' fixed costs. Pricing also becomes higher for shippers in small towns and rural communities. Consumers who purchase from these suppliers are disadvantaged.

Pricing discrimination is prohibited in the sale of goods by the Robinson-Patman Act. But for the sale of important infrastructure services, such as transportation, it is only economic regulation that protects the public against the pernicious effects of pricing discrimination.

What are those deleterious effects? Large shippers enjoy superior access to the broader market for the sale of the goods they produce. It gives them a pricing advantage vis-à-vis their smaller competitors, and creates another layer of economies of scale. Small businesses, which create most of America's jobs, suffer higher transport prices. And small towns and rural communities also pay the price of discrimination, exacerbating their contemporary economic plight of an outmigration of investment, jobs and population.

But not only does unleashed monopsony power have a deleterious effect upon other users of the system, it has a devastating impact upon the motor carrier industry itself. Destructive competitive exists where even efficient and well-managed carriers fail to cover their fixed costs over a long period of time and drop into bankruptcy. The interstate trucking industry is plagued with unlimited entry, tremendous overcapacity, a number of unsophisticated competitors with inadequate understanding of costs, and a large number of carriers without the ability to counterbalance the enormous monopsony power of the larger shippers which unilaterally dictate ridiculously low rates. All of this has caused the industry to suffer thousands of bankruptcies, even after the recession of the early 1980s abated and fuel prices peaked and fell, and has caused the public to suffer thousands of highway accidents.

The trucking industry is one which is inherently vulnerable to over-
capacity, for it sells a service which is, in essence, an instantly perishable commodity. When a truck leaves the loading dock, any empty space is lost forever. Unsold space cannot be shelved and sold another day, as could say, clock radios. Imagine a grocer whose store was filled with goods, which had the spoilage properties of unrefrigerated cream cheese. Whatever he couldn’t sell quickly he would have to discard, for unsold inventory could not be warehoused. He would have a fire sale every afternoon to recover any portion of his investment. That’s a pretty fair picture of the trucking industry in a regime of unlimited entry, over-capacity and resultant destructive competition—plenty of bankruptcy, even among efficient and well-managed carriers.

The result is an undesirable one—even many efficient carriers go bankrupt. The vicissitudes of the national market cycle are such that during periods of slack demand, many efficient firms without deep pockets fall into bankruptcy, for they are more subject to the problems of over-capacity than competitors in industries which can warehouse their unsold products. Many large carriers, with deeper pockets, are able to endure the downward slope of the market cycle even though they are less efficient. As the social Darwinist experiment with federal interstate deregulation reveals, the very big get bigger still, and their smaller rivals drop into bankruptcy. Unfortunately, size rather than efficiency too often determines which firms survive.

The empirical evidence of the federal experiment in interstate deregulation reveals market structure attributes which appear to favor carriers of size. Despite the predictions of proponents of deregulation, there are significant economic barriers to entry and economies of scale in the less-than-truckload (LTL) industry arising as a result of the high capital costs of regional terminals and distribution networks. In fact, since federal deregulation, the number of major LTL carriers has dwindled as the industry has suffered an epidemic of bankruptcies, and not a single new carrier has successfully entered the market.

The economic barriers to entry and economies of scale are such that the interstate oligopoly which deregulation has unleashed may be here to stay. Only prudently administered economic regulation can ensure the survival of small and medium-size trucking companies, whose presence stimulates a healthy competitive environment, one in which the industry is productive and innovative. The concentration resulting from deregulation is an anathema to the public’s interest in the benefits of a healthy competitive environment.

Not only are distortions created by shippers with monopsony power, they are created by the market power of very large carriers as well. A carrier with a deep pocket, wanting to sacrifice short-term gain to achieve larger market share and ultimate long-term benefit, can certainly under-
price its rivals in a manner to drive them from the market. Predatory pricing can be arrested with responsible rate regulation, which prohibits a carrier from offering rates below its marginal costs, or below an average industry-wide marginal cost standard which incorporates requirements that carriers be efficient and well-managed.

Rate of return regulation prohibits the extraction of monopoly rents which a firm with market power could otherwise reap. Not only does responsible rate regulation deter firms from exploiting their monopoly markets, it also dissuades them from targeting smaller competitors for extinction via predatory pricing.

Some suggest that antitrust remedies are sufficient to deter predatory practices. They are not. Antitrust litigation is exceedingly time and resource consumptive. Even if a party can endure the years of expensive litigation, and prevail on a difficult evidentiary path, antitrust remedies only provide compensation in the form of money damages to those who have suffered from anticompetitive practices. They do not restore a competitor once lost from the market. Hence, the public’s interest in a healthy competitive environment goes unsatisfied.

Healthy competition exists when entry is reasonably limited, rates are set at reasonable levels, and carriers compete fairly for business. Only very large shippers benefit when carriers are slammed against the wall. Destructive competition can be avoided by responsible regulation of motor carrier entry, rates and business practices.

The economic health of motor carriers is extremely important if they are to provide the safe, adequate and dependable service needed by the public. Allowing unlimited entry, which floods the market with capacity, and allowing large shippers with monopsony power to dictate excessively low rates, makes it difficult for carriers to devote necessary resources to discretionary equipment maintenance. The public suffers in terms of a higher level of truck-related highway accidents and fatalities.

Also, unlimited competition thins the ranks of the smaller trucking firms, whose presence provides a catalyst for productivity and innovation for the larger firms. Thus, responsible regulation can ensure the existence of a healthy competitive environment for both the motor carrier industry and the public it serves.

Viable, healthy and adequate transportation services at reasonable prices constitute an essential foundation for economic growth. Simply put, without transportation, commerce does not flow. And if commerce does not flow, that greater market for the production, purchase and sale of goods abruptly grinds to a halt. Similarly, distortions in transportation pricing or service affect that greater market by creating deleterious impacts upon the economy.

The infrastructure of transportation services facilitated by responsible
economic regulation is a framework wherein all users (no matter how small or remote) enjoy non-discriminatory access at reasonable prices to the broader market for the sale of goods. Fair access to the gateway of commerce is required by all users if we are all to enjoy a piece of the American pie. Small shippers and small towns should have the same opportunities to participate in the cornucopia of American industrial enterprise that our nation’s largest corporations enjoy solely by virtue of their market power.

Equitable access to that gateway is the infrastructure which regulation protects and facilitates. Traditionally, economic regulation has satisfied this objective well, while also ensuring that the nation enjoyed a high level of dependable service adequately adapted to the evolving, contemporary needs of commerce.

Before deregulation, Americans could boast that they had the world’s finest system of transportation. After deregulation, the best you could say is that it serves the nation’s largest shippers well. The industry is anemic, bankruptcies are robust, safety has disintegrated, service has gone to hell, and pricing is highly discriminatory.

2. **What Form Should Regulation Take?**

The optimum form of regulation which serves the broader societal needs of all consumers, including those purchasing from small producers, those living in small towns and rural communities, those who drive on the highways, and those who do not own stock in America’s largest corporations is, it is submitted, as follows:

In a nutshell, *entry* should be regulated to ensure that the market is not flooded with so much capacity that efficiency is jeopardized. The *enforcement* power to suspend or revoke licenses should be exercised where, for example, a carrier fails to fulfill its common carrier obligations, discriminates in pricing, or fails to fulfill its safety obligations. *Rates* should be filed in tariffs with the PUC before they become effective. They should be “just and reasonable” and non-discriminatory between persons and places. A zone of reasonableness should be established within which pricing would be determined by the level of competition among carriers. The pricing structure should be sufficient to allow well-managed and efficient carriers an opportunity to earn a reasonable return on investment, so that they can provide adequate service throughout their operating territories, and properly maintain their equipment. At the upward end of the zone, monopoly pricing should be prohibited, while at the lower end of the zone, predatory pricing should be forbidden. *Mergers, acquisitions* and other *corporate practices* should be scrutinized to ensure that antitrust violations do not occur. However, antitrust immunity should be conferred to allow carriers to enter into agreements which enhance effi-
ciency, encourage information flows, and facilitate the ratemaking principles discussed above.193

Let us take a closer look at the benefits of a responsibly and prudently administered regulatory structure. Responsible economic regulation of any regulated industry, be it electric utilities, telecommunications or transportation, allows efficient and well-managed carriers an opportunity to earn a reasonable return on investment. Usually, such regulation includes a "zone of reasonableness" within which the level of competition sets the rate charged, usually at a price approaching marginal costs. At the upward end of the zone, regulation prohibits consumers from being exploited by monopoly pricing; at the lower end of the zone, smaller competitors are shielded from the effects of predatory pricing. This keeps the market flush with competitors, and ensures that healthy competition is the driving force behind pricing, a result which benefits consumers. As we have seen at the federal level, deregulation brings about industry concentration, predatory pricing, and discrimination.

The Public Utilities Commissions (PUCs) encourage efficiency among all regulated industries—electric and gas utilities, telecommunications, and transportation—by engaging in ratemaking methodology which allows only those costs prudently incurred to be passed through to consumers in the form of higher rates, thereby allowing only well-managed and efficient firms to earn a reasonable return on investment. Imprudently incurred costs should be disallowed. Inefficient carriers should not be allowed to earn competitive rates of return on investment.

Usually, progressive PUCs which regulate entry award an applicant a certificate of public convenience and necessity if it can demonstrate that it proposes a new service not presently available in the market. Say a shipper needs special packaging, or unusual equipment, and cannot get it from the existing complement of carriers which serve it. Many PUCs authorize the new entry on grounds that the innovative service accomplishes the desirable objective of facilitating service choice.

Once the entrant receives its license, the ratemaking protections shield it from the predatory behavior of its larger rivals. They also ensure it a reasonable return on investment so long as its operations are efficient and well-managed. Thus, prudently administered economic regulation can stimulate service choices, and thereby benefit both the motor carrier industry, and the shipping public it serves.

Prudently administered regulation can also encourage efficiency by avoiding the overcapacity problems created by unlimited entry. Flooding the market with empty trailers merely drives prices down to noncompen-

---

satory levels, causing economic injury to even well-managed and efficient motor carriers, while adding nothing in the way of efficiency or productivity to the market.

Moreover, by prohibiting predatory pricing, and allowing well-managed and efficient carriers to earn a reasonable return on investment, responsibly administered regulation keeps the market flush with small transportation competitors. Their presence continues to serve as a stimulus for cost minimization and efficiency among their larger rivals. The federal experience with interstate deregulation reveals that thousands of small carriers have been wiped out by the destructive competition which has been unleashed. Many of the strong survive under deregulation; many of the small and weak do not.

Responsible economic regulation enables small businesses, which create most of the nation’s jobs, to enjoy the same non-discriminatory access to the broader market for the sale of goods that larger shippers enjoy. As the federal experience with interstate trucking deregulation reveals, the discrimination unleashed by deregulation jeopardizes the economic health of small shippers, making it more difficult for them to survive, and provide that job-creating momentum.

A prudently administered regulatory scheme also enables small towns and rural communities to enjoy adequate and non-discriminatory access to the market. Without it, their ability to attract investment and employment is jeopardized.

Economic regulation also creates a common carrier obligation that licensed carriers provide adequate and non-discriminatory rates and services throughout their territories. The threat of the various sanctions available, including certificate suspension and revocation, provides a significant impetus to abide by these common carrier responsibilities.

Another dimension of quality and availability is, of course, the stability of the firms which provide an essential service, like transportation. Turnovers caused by seemingly endless rounds of bankruptcies do shippers little good, and cause some real harm. Take a typical scenario which too often occurs these days: the trucking company to which a shipper yesterday entrusted its goods has fallen into bankruptcy. The shippers’ goods disappear or get caught up in the carrier’s creditors’ competing claims for the assets. Or take another common scenario: its goods are strewn across an expressway because the carrier didn’t have the money to repair its worn brakes. Endless bankruptcies and crashes hardly enhance the quality and availability of service, yet they are a common occurrence under deregulation.

Allowing efficient and well-managed carriers an opportunity to earn a reasonable return on investment enables them to provide adequate service throughout their service territories, to pay labor a fair wage, and to
properly maintain their equipment. Inadequate returns on investment lead to overworked drivers and shoddy maintenance, and inevitably, increased numbers of truck-related accidents and fatalities.

Deregulation enables large shippers with monopsony power to extort extremely low rates from trucking companies. Cutting trucking rates to the bone, while enabling the stockholders of a few large corporations to enjoy healthy profits, causes society to pay more in terms of health care costs arising as a result of truck-related accidents, which by the way, are growing. Of course, insurance will cover some of these costs, if the trucking company carries insurance; but many unlawful operators do not. Nevertheless, however well money can ease the pain of injury, it often fails to restore health, and never restores life.

The regulation of minimum rates, which ensures that efficient and well-managed carriers have a fair opportunity to earn a reasonable return on investment, will help improve safety. So will prohibitions against discriminatory pricing, which thwarts the ability of large shippers with monopsony power to cut rates to the bone.

Entry regulation would also have a positive effect upon the states’ ability to regulate safety. Not only should a carrier demonstrate that its proposed operations are “consistent with the public convenience and necessity” in that it satisfies a public need for new service, the applicant should also prove that it is “fit, willing, and able” to properly and safely perform the proposed operations, and abide by the PUC’s rules and regulations. Fitness includes, but is not limited to, having the financial resources to purchase and maintain safe equipment, and hire a suitable staff of maintenance employees.

Fitness should also be an ongoing requirement, whereby a licensed carrier which fails to satisfy minimum standards of safety should have its operating certificate revoked or suspended. For example, if a carrier is found to operate unsafely, to improperly maintain its equipment or carry adequate insurance, or to push drivers beyond federal safety standards, license suspension or revocation should be considered an appropriate sanction. No carrier should be allowed to operate without a license. Hence, the threat of license suspension or revocation is a powerful tool to stimulate compliance.

The federal experience with interstate deregulation reveals that there is a direct correlation between a carrier’s financial health and its ability to devote essential resources to upgrading and maintaining its equipment, as well as the pressure placed on drivers to stay behind the wheel excessive periods of time. And there appears to be a correlation between deregulation and aging and poorly maintained equipment, exhausted drivers, and truck-related highway fatalities. Remember, the driver of the passenger automobile involved in a truck-related accident is 40 times
more likely to lose her life than is the driver of the heavy truck. All of this suggests that responsible regulation of rates is essential to avoid a deterioration in highway safety, and needless loss of life.

The principal benefits of responsible economic regulation of the motor carrier industry are that efficient and well-managed carriers are allowed to earn a reasonable return on investment sufficient to allow them to provide safe, adequate, and dependable service throughout their operating territories, at rates which are just and reasonable and non-discriminatory. As the federal experiment with interstate deregulation amply demonstrates, deregulation leads to inadequate returns on investment, a seemingly endless series of bankruptcies (even of efficient, but small carriers), deteriorating safety, poorer service, highly discriminatory rates, and a heavily concentrated LTL industry.

IV. SUMMARY AND CONCLUSIONS

Federal deregulation of transportation began a decade ago. As a consequence, things today are radically different in the air, over the rails, and on the highways. Trends toward concentration, pricing and service discrimination, and deterioration in service and safety are now readily apparent.

- **Airlines** were the first to be deregulated, with the promulgation of the Airline Deregulation Act of 1978. The industry rapidly became an oligopoly, with an unprecedented wave of mergers, consolidations and bankruptcies. Today, the top five airlines dominate more than 80% of the domestic passenger market.

Billions of dollars in aviation trust funds lay idle as air traffic control towers are still staffed below pre-PATCO strike levels. That, coupled with the industry’s practice of unrealistic scheduling, funneling aircraft into “hub-and-choke” bottlenecks, and filling cockpits with near adolescent pilots, have significantly narrowed the margin of safety, and sent near misses skyrocketing.

Airline service has gone to hell during the Reagan years. We are herded aboard aerial slums, served cardboard food, overbooked, bumped, and misconnected. Our luggage is routed through the Twilight Zone, never again to be seen during our natural lives.

Business and small town travelers routinely pay several hundred dollars more than the passengers wearing the loud palm tree shirts seated next to them. The market gives us a choice, of course. We can either spend an arm and a leg, or sleep in a strange city on a Saturday night.

- **The bus industry** was deregulated with the enactment of the Bus Regulatory Reform Act of 1982. Since then, it has evolved from a duopoly into a monopoly, as Greyhound and Trailways merged. Deregulation
has allowed them to abandon several thousand small towns, and raise rates to those they still choose to serve. In much of rural America, the bus no longer stops on Main Street.

- Railroads were deregulated with the Staggers Rail Act of 1980. This industry has also become highly concentrated during the last decade. Today, seven megacarriers handle 86% of the industry's freight, and earn 93% of its profits. Under deregulation, they have been free to use their monopoly power to extort whatever the market will bear. Exorbitant rates for the movement of coal have been passed on to consumers in the form of billions of dollars in higher electric rates.

Since 1980, railroads have abandoned service to more than 1,200 small towns. Service curtailments by airlines, bus companies and railroads make it increasingly difficult for small towns to attract new investment, or indeed, to dissuade existing businesses from leaving.

- The trucking industry was largely deregulated with the promulgation of the Motor Carrier Act of 1980. It is also becoming an oligopoly, as the top 10 motor carriers move 60% of general freight, and reap 90% of its profits. Every year since 1983, more than 1,000 trucking companies have plunged into the abyss of bankruptcy.

Since most of the industry is suffering from economic anemia, many carriers haven't the money to repair or replace aged and defective equipment. Many are pushing their drivers and equipment beyond the limit. As a consequence, truck-related fatalities have soared to more than 4,000 annually in recent years. Too often these days, we are sharing our highways with trucks and drivers in no shape to be on the road.

Under deregulation, large businesses enjoy a decided advantage, as they flex their monopsony muscles to dictate pricing discounts. Meanwhile, small shippers must pay the higher, published rates. With the exception of a few winners (notably the Fortune 500 corporations), deregulation has been, at best, an inconvenience, and at worst, a disaster. Small shippers and small communities now pay more for poorer service. The short-term benefits larger shippers enjoy have been taken out of the hides of employees and investors of thousands of bankrupt corporations whose carcasses now litter the market.

The surviving companies have merged into ever-larger megacarriers. Such concentrations of wealth and power would have been challenged by government during any other period of American history. Paradoxically, while the nation was initially euphoric over deregulation, experience has made the American public increasingly dissatisfied with it. Nonetheless, our federal government stubbornly adheres to its blind faith in the curative powers of Adam Smith.

Any analysis of the costs and benefits of deregulation must take into account these results. The market for transportation services is not per-
fectly competitive. Economies of scale and scope do exist. Economic barriers to new entry in several of the modes are significant. Oligopolies and monopolies have resulted. The theory of contestable markets has not been sustained by the empirical evidence.

Moreover, inequality of bargaining power is reflected in the overwhelming monopsony power exerted by large shippers against trucking companies. The Fortune 500 wield tremendous bargaining leverage by conferring or withholding freight, and unilaterally dictate prices lower than the published rates. Such discrimination gives large shippers a decided and unfair advantage over smaller rivals in the larger market for the sale of goods. Common carriers are the gatekeepers of that larger market. If a small enterprise cannot gain access to that market at a fair price, it cannot compete. If a small town cannot obtain adequate transportation service at a reasonable rate, it cannot hope to enjoy economic growth. Regulation can ameliorate that inequality of bargaining power, by prohibiting pricing and service discrimination.

Only regulation can promote public interest values which do not find a high priority in a regime of laissez faire. It can foster economic growth in rural areas by requiring nondiscriminatory access to infrastructure services. Fairly priced transportation services help facilitate access to the broader American economic pie by a larger number and more diverse group of participants. Both opportunities for wealth and pluralism are thereby enhanced. Regulation can also facilitate safety by ensuring that efficient and well-managed carriers are allowed to earn a reasonable return on investment. 194

Congress partially or wholly preempted intrastate regulation of air, rail and bus transport. However, it left intrastate regulation of motor carriers to the states. Although a few states embraced deregulation in the

194. The following are the broader impacts of transportation deregulation: Carrier productivity gains predicted to result from deregulation have not materialized. Perfect competition does not exist in the industry. Economies of scale and scope, and economic barriers to entry do exist. Unprecedented bankruptcies and mergers have radically increased concentration to the point that the transport modes have become oligopolies and monopolies.

Under deregulation, pricing discrimination in favor of larger shippers and against small shippers and small communities is widespread. Many large shippers hold monopsony power to dictate pricing discounts. Increasingly, small shippers are forced to bear the fixed costs of operation.

In most transport modes, deregulation has brought about a decline in levels of service. For small towns and rural communities, prices have increased and service has declined sharply under deregulation, making it more difficult to sustain economic growth and employment. In trucking, this impact has been tempered by the fact that the overwhelming number of states continue to regulate intrastate service levels, and prohibit pricing discrimination.

As deregulation continues to jeopardize the economic health of carriers, many firms lack the resources to upgrade or repair aged and defective equipment. Many drivers are pushed beyond reasonable limits. As a result, truck-related accidents and fatalities have soared.
early 1980s, enthusiasm with the movement has waned as the American public has had more experience with it. Today, the overwhelming majority of states continue to regulate trucking companies. As a consequence, the deleterious social impact of deregulation has not been as severe for trucking as for the other, more comprehensively deregulated transport modes.

Economic regulation, responsibly and prudently administered, can foster the following social and economic policies:

- **Avoidance of Problems of Imperfect Competition.** Regulation can avoid problems of concentrations of wealth and power—the monopsony power of large shippers, and the oligopoly or monopoly power of large carriers. Market power enables a firm to maximize its profits by raising prices and/or lowering service. The transfer of wealth from consumers to producers is regressive in character, and therefore, undesirable.

- **Equality of Access.** Regulation can ensure that all users of infrastructure services, large and small, enjoy equality of access to the market for the sale of their products. Prohibitions against rate discrimination allow small shippers the same opportunity to compete that large shippers have. In a sense, this stimulates competition in the market for the sale of goods. Moreover, giving small businesses the same chance to compete may indirectly facilitate employment, for small businesses create most of America's jobs.

- **Economic Growth.** Regulation can enhance the social policy of encouraging a geographic distribution of economic growth. Thus, under regulation, small towns and rural communities enjoy adequate service at a fair price, in spite of the fact that less competition for such traffic exists than in larger markets. Adequate and reasonably priced infrastructure services are essential for economic growth.

- **Productivity.** Regulation can prevent overcapacity in the transportation industry, and thereby improve carrier productivity and economic health. Under regulation, efficient and well-managed carriers can earn a reasonable return on investment. This enhances service dependability, and gives carriers the resources necessary to maintain and replace aged and worn equipment.

- **Safety.** As noted above, by enhancing productivity, regulation can allow efficient and well-managed carriers to earn a reasonable profit, and thereby allow them the means to repair or replace equipment. Decent returns can also remove the incentive for drivers to sit behind the wheel for excessive lengths of time. The prospect of certificate revocation encourages voluntary industry compliance with established safety standards.

  Adam Smith recognized that the depth and breadth of the market is
defined by the price and availability of transportation services. Econo-
mist Armen Alchian notes that the competitive vitality of the market for the
sale of goods is directly stimulated by transportation access thereto. He ob-
erves that a nation’s wealth is enhanced by the value of its cooper-
ative resources, including transportation: “A richer country with lots of
capital equipment and stable, market-facilitating institutions is a more effi-
cient place for a given amount of labor.” What is true for a nation must
also be true for any of its geographic regions. Government can stimulate
a geographic disbursement of economic growth and competitive alterna-
tives for consumers by insisting that all regions (small towns and rural
communities included) enjoy adequate, non-discriminatory, and reason-
able priced transportation. It is upon that foundation that commerce is

In order to have a healthy economy, all businesses and communities,
large and small, must have non-discriminatory access to the infrastructure
industries, or they cannot successfully compete. If a small shipper cannot
get his goods to market at a reasonable rate, he simply will not survive. If
a rural community does not enjoy adequate transportation service at a fair
price, it will be isolated from the mainstream of commerce, and wither on
the vine.

Transportation’s importance to the nation’s economy is reflected in
the role it plays in facilitating the nation’s commerce, communications,
and national defense. As noted by Professor Addus, “Transportation
plays a vital role in economic growth. . . . [T]ransportation and economic
development are mutually interdependent—transportation improvement
stimulates economic growth, and advances in economic development in-
crease the demand for transportation.”

These features distinguish transportation from most other industries,
and explain why the provision of such services is regulated in the public
interest, and has been since an early point in Anglo-American history. In
its seminal decision of Munn v. Illinois, the United States Supreme
Court noted that beginning with the early common law of England, com-
mon carriers have been deemed to be “affected with a public interest” for
they “stand in the very ‘gateway of commerce,’ and, take a toll from all
who pass.”

(1985 ed.).
197. Id. at 173.
199. Addus, Subsidizing Air Service To Small Communities, 39 Transp. Q. 537, 551-52
(1985).
200. 94 U.S. (4 Otto) 113 (1877).
201. Id.
Transportation firms are the gatekeepers to the larger market for the sale of goods. This gives them the leverage to facilitate or impede commerce, and makes their rate and service offerings critically important to all who require access to the market for the sale of their products. As Professor Martin Farris has observed, "In order to flourish, it is necessary to have a reliable and financially sound motor transportation system. Transportation is the 'life-blood' of the economy—the veins and arteries through which commerce flows."  

Economic regulation protects public interest values that might not find a high priority in the marketplace. It treats common carriers (e.g., airline, bus, trucking, railroad and telephone companies) as industries imbued with a unique responsibility to satisfy the needs of the public for universal service at just and reasonable rates. Small and large communities and shippers are required by government to be served reasonably well and at a non-discriminatory price.

By no means does this suggest that even the most omniscient regulatory commission can make all the decisions concerning levels of production and pricing. We leave that to individual, privately owned firms, with regulatory bodies identifying the broad perimeters within which the firms may lawfully operate. While the invisible hand of the marketplace makes most of the decisions regarding the level of service and price to be provided by privately owned companies competing for customers, the Public Utility Commissions in the vast majority of states regulate, in general terms, motor carrier entry, rates, and levels of service in order to protect the public interest.

Regulation imposes upon common carriers both a burden and a benefit. The burden is the obligation to provide an adequate level of service to all geographic areas within their operating licenses, at reasonable prices. In return for providing just and reasonable non-discriminatory rates to small shippers and small communities, the regulated enterprise

202. 1985 Senate Hearings on MCA, supra note 10, at 270 (statement of Prof. Martin T. Farris).
204. As Dabney Waring has observed:
    Government has responsibilities, principal among which is maintaining the infrastructure of essential services necessary for the commerce and amenities of a civilized nation. Certainly the government would be a poor manager of the motor carrier industry or of any business. But it is the metes and bounds, parameters, if you will, of performance. It is requiring that carriers fulfill their common carrier obligation; of seeing that service is not abandoned when there is not a viable alternative; of monitoring service offerings to see that capacity is not so far in excess of demand that gross waste results; of opening entry selectively to assure adequate numbers of carriers; of preventing any semblance of predatory pricing; of forbidding exploitation of market dominance situations be they in the area of geography, commodity, size of a shipment, or whatever. Waring, supra note 86, at 242.
enjoys the benefit of a franchise of operating authority which shields it from predatory practices by its larger competitors.205

There are undoubtedly winners and losers in any war waged as passionately as this one, to deregulate a major American industry.206 Any change in public policy as profound as deregulation inevitably produces serious social and economic dislocations. As we have seen, the winners of federal interstate deregulation are the Fortune 500—the largest carriers and largest shippers—which bask in the sun of deregulation. The losers are small businesses, small towns and rural communities, which have been left out in the cold.

Who would win if motor carriage were further deregulated? Again, large shippers would win. It is they who reap the bounty of discriminatory pricing in the deregulated interstate freight market, forcing their smaller rivals to bear the fixed cost burden of common carriers. Hence, additional deregulation would benefit the relatively modest number of larger shippers at the expense of the far more numerous small shippers.

Large interstate trucking companies would also win, for they have the economic muscle to drive out smaller rivals. As noted above, oligopolies have become the norm in all other deregulated modes of transportation.

Small businesses, small towns and rural communities would lose, paying a higher price for the same or poorer service. The existing regulatory system protects small businesses and small towns from the economic burden of pricing and service discrimination. This is a major feature of economic regulation which is well worth preserving.

Drivers of automobiles would lose, for the heavy trucks with which they share the highways would become increasingly unsafe, as maintenance was deferred, and the costs of safety were externalized. America’s citizens deserve to share their interstate highways with safe trucks and truck drivers, and not be subjected to the risk of injury or death posed by unregulated truckers. Preserving the existence and vitality of efficient small- and medium-sized trucking companies will not only allow them to maintain a healthy competitive presence in the economic environment, but will also allow them to put safe vehicles and safe drivers on the highways.

Our federal experiment with deregulation should teach that transportation is not a purely competitive industry, and that the theoretical benefits of pure competition have not emerged. To the extent that some pricing competition has occurred (albeit at the expense of a sharp decline in service and safety), these benefits have been unevenly distributed in favor of

large shippers. Moreover, such benefits may be a short-term phenomenon, for they are seriously jeopardized by an unprecedented level of industry concentration as the dust kicked up by deregulation begins to settle. The empirical results of deregulation also demonstrate that much is lost when the government declines to promote the public’s interest in achieving broader societal benefits, such as protecting market access for small shippers and small communities, and enhancing highway safety.

Prudently administered economic regulation can not only accomplish important public policy goals of correcting imperfections in the market, such as those resulting from economies of scale and scope, barriers to entry, market power, inequality of bargaining power, insufficiency of information, and externalities. It can also advance important social objectives which do not find a high priority in a regime of laissez faire. The primordial imperative of economic man is the accumulation of wealth, and this may conflict with society’s desire to accomplish other important objectives, such as stimulating economic growth in rural communities and small towns, or enhancing safety.

Private ownership of the means of production inspires the efficient and economical allocation of scarce resources. These are important public benefits, and ought to be encouraged under enlightened regulation. But government oversight of some managerial decisions can protect other public interest values, beyond allocative efficiency. Administrative agencies with regulatory power can balance the public interest against market imperatives, can assure that the economies and efficiencies of private ownership are tapped for the public good, can avoid the problems of imperfect competition, and can foster public interest values which do not find a high priority in an environment of laissez faire.

Neither governmental control nor unregulated competition are perfect environments. The real choice is between imperfect regulation and imperfect competition. But if applied with a gentle touch, economic regulation ought to be able to yield the best of both worlds—the economies and efficiencies of private ownership, and the accomplishment of social and economic policies in the highest public interest.

The high-water mark of deregulation peaked in the late 1970s and the early 1980s. As the American people have had more experience with deregulation, they have become less enamored with it. “Deregulation” is no longer the popular buzzword it once was. Most politicians no longer fill their campaign speeches with such rhetoric. Let us hope they have the courage and the wisdom to expunge it from national legislation as well.

Congress and our new President should come to grips with the fact that transportation deregulation is, in many respects, a failure. An infrastructure oligopoly which provides poor service at discriminatory prices and exploits unwary consumers is hardly what the public interest de-
mands. The time has come to reform the industry, and reestablish governmental protection of the public.
Airport Perimeter Rules: An Exception to Federal Preemption

JONATHAN WHITMAN CROSS*

I. INTRODUCTION ........................................... 102
II. FORMAL AIRPORT PERIMETER RULES AT NATIONAL AIRPORT, LAGUARDIA AIRPORT, AND LOVE FIELD .......... 102
   A. NATIONAL AIRPORT .................................. 102
   B. LAGUARDIA AIRPORT ................................. 104
   C. LOVE FIELD .......................................... 105
III. THE AIRLINE DeregULATION ACT OF 1978 AND FEDERAL PREEMPTION ........................................... 105
IV. AIRPORT PROPRIETOR'S REGULATIONS AS EXCEPTIONS TO FEDERAL PREEMPTION OF AVIATION ........................ 106
V. THE PERIMETER RULE CASES ............................. 109
   A. CITY OF HOUSTON V. F.A.A. .......................... 109
   B. WESTERN AIR LINES V. PORT AUTH. OF N.Y. & N.J. 111
VI. CONCLUSION ............................................. 114
VII. POSTSCRIPT ............................................ 115

I. INTRODUCTION

Any prospective airline passenger who has attempted to book a non-stop flight between the west coast and Washington, D.C.'s convenient National Airport has discovered that no such flight is possible. The reason lies in the phenomenon of airport perimeter rules.

Airport perimeter rules establish maximum permissible distances of non-stop flights into and out of a given airport. These rules serve as a means of controlling airport growth. Specifically, perimeter rules: 1) control increasing air traffic at a given airport; 2) reduce ground congestion by catering to business customers who move through the airport more quickly, with less luggage, and with fewer "meeters and greeters" than the leisure traveler; 3) maintain the airport as a short- and medium-haul facility by diverting long-haul traffic to a nearby airport, thus easing the burden on the parking lots, baggage handling, terminals, and other facilities; and 4) assure full utilization of a nearby, less convenient airport.\(^1\) The traditional promulgating authority for airport perimeter rules is the airport proprietor.

Perimeter rules tend to be controversial because they represent an encroachment by state or local authorities into the federally-preempted area of aviation. Two related issues arise from this apparent head-on confrontation. First, may a local airport proprietor impose a perimeter rule, limiting the distance of permissible routes into and out of a given airport, in view of Section 105(a)(1) of the Airline Deregulation Act of 1978 ("ADA") which prohibits states and interstate agencies from regulating the "rates, routes, or services of any carrier?"\(^2\) Second, do the "proprietary powers and rights" of airport operators preserved by Section 105(b)(1) of the ADA include the power to enact airport perimeter rules?

II. FORMAL AIRPORT PERIMETER RULES AT NATIONAL AIRPORT, LAGUARDIA AIRPORT, AND LOVE FIELD

A. NATIONAL AIRPORT

Beginning in the 1950's, air carriers serving Washington, D.C.'s National Airport ("National") filed an agreement with the Civil Aeronautics Board ("CAB") to a 650-mile perimeter rule on non-stop flights to and from National. Seven cities, ranging in distance between 650 and 1,000 miles from National, were permitted to maintain non-stop service operat-

\(^{1}\) See Western Air Lines, Inc. v. Port Auth. of N.Y. & N.J., 817 F.2d 222 (2d Cir. 1987), cert. denied, 108 S. Ct. 1467 (1988) [hereinafter Western].

ing as of December 1, 1965. Although the agreement expired on January 1, 1967, the air carriers continued to abide by its terms until May, 1981. At that time, three carriers—American Airlines, Pan American Airways, and Braniff International—announced plans to fly non-stop to National from cities located outside the perimeter. The Federal Aviation Administration ("FAA") viewed the perimeter rule as a means of controlling increasing traffic and delays at National.

In 1976, as a result of a lawsuit brought against the U.S. Department of Transportation ("DOT"), the FAA, and various airlines by a coalition of citizen groups to abate noise and air pollution at National, the Fourth Circuit Court of Appeals ordered the FAA to prepare an environmental impact statement ("EIS") concerning its operation of National and nearby Dulles International Airport ("Dulles"). In the supplementary draft EIS prepared in 1980, the FAA first discussed the possibility of a flat 1,000-mile perimeter rule to replace the existing 650-mile perimeter rule.

In August, 1980, the FAA proposed a flat 1000-mile perimeter rule regulation as part of Secretary of Transportation Goldschmidt's amended Metropolitan Washington Airport Policy. The regulation would have abolished the 650-mile perimeter rule and its exceptions, and was to take effect on January 1, 1981. However, Congress stepped in and the new policy, including the 1,000-mile perimeter rule, was delayed.

On November 27, 1981, as part of Secretary of Transportation Drew Lewis' updated policy, the DOT promulgated a perimeter rule regulation similar to the one proposed in 1980. This regulation superceded an interim rule maintaining the existing 650-mile perimeter, which the DOT had ordered the FAA to adopt on May 8, 1981. The interim rule prevented the inauguration by American, Pan American, and Braniff of their proposed non-stop flights to National from points beyond the perimeter.

National's 1,000-mile perimeter remained in place until 1986 when Congress expanded the perimeter to 1,250 miles as part of the Metropolitan Washington Airports Act of 1986. Under this Act, the FAA was au-

---

3. These "grandfathered" cities were: Minneapolis, St. Louis, Memphis, Miami, Orlando, Tampa, and West Palm Beach. Metropolitan Washington Airports, 46 Fed. Reg. 58,046 (1981).
6. "This [the 1,000-mile perimeter rule] will change the existing regulation, which prohibits nonstop operations to and from National beyond 650 miles except for seven cities located between 650 miles and 1,000 miles away. . . . The perimeter would maintain the long-haul nonstop service at Dulles [Dulles International Airport] and BWI [Baltimore-Washington International Airport] which otherwise would preempt shorter haul service at National. This is most consistent with the roles proposed for National Airport as a short/medium-haul facility and for Dulles as an unrestricted facility available for all types of operations." 46 Fed. Reg. 58,045 (1981).
Authorized to lease National to the newly-formed Metropolitan Washington Airports Authority. In essence, the Act placed National on par with other major airports by giving proprietary control over the airport to a local governmental authority. National’s perimeter rules have been successful in preserving the short- and medium-haul nature of National, in controlling increasing traffic, and in stimulating growth at lonely and under-utilized Dulles airport, by diverting long-haul traffic there.

B. LaGuardia Airport

An airport perimeter rule similar to National’s is in effect at New York City’s LaGuardia Airport ("LaGuardia"). LaGuardia is part of a multi-airport system in the New York City area operated by the Port Authority of New York and New Jersey ("Port Authority"), as part of a congressionally-approved compact between the States of New York and New Jersey.\(^8\) In addition to LaGuardia, the Port Authority operates Kennedy International Airport ("Kennedy") and Newark International Airport ("Newark"). Of the three major airports, LaGuardia is both closest to New York City and smallest.\(^9\)

Between the mid-1950’s and 1984, LaGuardia operated with an informal perimeter rule prohibiting non-stop operations in excess of 2,000 miles. The informal perimeter rule was adhered to by all of the air carriers operating at LaGuardia for nearly 30 years.

On September 13, 1984, however, after Air Canada Airlines threatened to violate the informal perimeter rule, the Port Authority Commissioners adopted a formal perimeter rule for LaGuardia, effective November 1, 1984. This perimeter rule limits non-stop air carrier operations, except on Saturdays when there is little congestion, to points within 1,500 miles of LaGuardia. Denver, Colorado, which is approximately 1,638 miles from LaGuardia, was grandfathered because continuous non-stop service between LaGuardia and Denver had existed since October, 1981, and because this service constituted a significant portion of LaGuardia operations.\(^10\)

In support of its belief that business travelers cause less airport congestion than do vacationers, the Port Authority instituted the perimeter

---


10. Western, supra note 1, at 953.
rule to encourage the airport’s use by business travelers, and the use of Newark and Kennedy by leisure travelers.

C. LOVE FIELD

On February 18, 1980, Congress approved a perimeter rule for Love Field in Dallas, Texas, as part of the International Air Transportation Competition Act of 1979.\textsuperscript{11} The “Love Field Amendment” prohibits interstate passenger service to or from Love Field; however, three exceptions are provided for. The first exception, which serves as the perimeter rule, permits turnaround service between Love Field and points inside the four states contiguous to Texas: Louisiana, Arkansas, Oklahoma, and New Mexico. The other exceptions provide for continued operation of interstate charter flights to and from Love Field (limited to ten flights per month) and interstate commuter service by airlines operating aircraft having a capacity of 56 passengers or less.

The Amendment imposes certain conditions on the airlines that are permitted to serve Love Field. First, air carriers that provide through service or ticketing with another carrier are not permitted to operate interstate service from Love Field. Second, those carriers offering service between Love Field and points in the four contiguous states are not permitted to offer or hold out service to and from points beyond the four contiguous states. Third, only turnaround service is permitted; flights operating to and from Love Field may not operate to points beyond the four contiguous states. This condition, for example, does not prevent a Love Field carrier from operating flights between points within the four contiguous states and points in other states beyond; however, it does prevent such a carrier from operating one-stop flights between Love Field and points beyond the four contiguous states through points located within the four contiguous states.

Near the conclusion of the Amendment’s legislative history, the authors noted that Sections 105(a) and (b) of the ADA apply to the authority to serve Love Field on interstate flights authorized by the Amendment.\textsuperscript{12}

III. THE AIRLINE DEREGULATION ACT OF 1978 AND FEDERAL PREEMPTION

In 1958, the Federal Aviation Act of 1958 ("FAA Act") granted the

\textsuperscript{11} International Air Transportation Competition Act of 1979, Pub. L. No. 96-192, § 29, 94 Stat. 35 (1980).

FAA power to regulate U.S. navigable airspace. The Act established complete and exclusive federal sovereignty over the national airspace. The FAA employs this power to ensure aircraft safety and the efficient utilization of airspace, by prescribing air traffic rules and regulations to protect persons and property on the ground.

Beginning in 1978, forty years of pervasive federal economic regulation of commercial aviation came to an end when the ADA established a thorough program of economic deregulation of the airline industry. The ADA, over a seven-year period, phased out CAB control over air carrier rates, routes, and service. While federal economic regulation was eliminated, the FAA retained its responsibility for managing U.S. airspace.

The federal statute dealing with the powers of airport proprietors relative to those of the federal government is Section 105, which amended the FAA Act. Section 105(a)(1) of the ADA provides that:

[no State or political subdivision thereof and no interstate agency or other political agency of two or more States shall enact or enforce any law, rule, regulation, standard, or other provision having the force and effect of law relating to rates, routes, or services of any air carrier having authority under subchapter IV of this chapter to provide air transportation.]

At the same time, however, the ADA preserved the "proprietary powers and rights" of local entities operating airports. Section 105(b)(1) provides:

Nothing in subsection (a) of this section shall be construed to limit the authority of any State or political subdivision thereof or any interstate agency or other political agency of two or more States as the owner or operator of an airport served by any air carrier certificated by the Board to exercise its proprietary powers and rights.

An airport authority's proprietary function permits it to enact regulations benefiting citizens who live near the airport, such as airport noise regulations or airport curfews. Such powers are analogous to the powers that a store owner would need to run his business, such as setting store hours. In contrast, governmental (police) powers permit the airport authority to promote the public welfare generally. A municipalities' obligation for the health, safety, or general welfare of the public is performed using such powers.

IV. AIRPORT PROPRIETOR REGULATIONS AS EXCEPTIONS TO FEDERAL PREEMPTION OF AVIATION

An important issue in the perimeter rule case law is the extent of an

---

airport operator’s proprietary powers and rights. Are such powers and rights limited narrowly to include only airport noise regulations, for example, or have courts permitted airport proprietors to regulate in areas other than noise?

Prior to 1973, local governments and airport proprietors attempted to reduce aircraft noise through regulations based upon their police and proprietary powers. However, in 1973, the U.S. Supreme Court held that airport proprietors could enact reasonable noise regulations only through their proprietary powers. In *City of Burbank v. Lockheed Air Terminal, Inc.*, Burbank adopted an ordinance pursuant to its police powers, which prohibited jet aircraft from taking off from Hollywood-Burbank Airport between 11:00 P.M. and 7:00 A.M. The Court held the ordinance invalid because Congress had preempted state and local control over aircraft noise. However, because Burbank was not the airport’s proprietor, the Court expressly limited its preemption holding to state and local exercise of the police power. In an oft-quoted footnote 14, the Court stated:

> The letter from the Secretary of Transportation also expressed the view that “the proposed legislation will not affect the rights of a State or local public agency, as the proprietor of an airport, from issuing regulations or establishing requirements as to the permissible level of [aircraft] noise. . . . Airport owners acting as proprietors can presently deny the use of their airports to aircraft on the basis of noise considerations so long as such exclusion is nondiscriminatory.”

Thus, the Court expressly left open the question of whether there was any limitation on an airport proprietor’s ability to regulate noise or impose other non-discriminatory regulations on the operations of an airport by utilizing its proprietary powers.

In 1975, a federal district court upheld the right of airport proprietors to determine the type of air service and the types of aircraft they wished to have operating from their airports. The airport proprietor was allowed to determine the most efficient and effective method to limit noise in compliance with a state statute requiring airports to limit the noise exposure of surrounding residential communities. The proprietor’s power to implement reasonable noise control procedures was a consequence of its exposure to liability for damage caused by airport noise.

In 1984, the Second Circuit Court of Appeals upheld a noise regulation which limited the cumulative level of noise exposure at an airport,

18. *Id.* at 635.
thus expanding the type of noise regulation that could be enacted by an
airport proprietor. This method of regulating noise pollution is in contrast
to the more restrictive and traditional form of noise regulation which
merely monitors the decibel level of takeoffs and landings.20 Other courts
as well have acknowledged that airport proprietors may enact reasonable
noise control regulations.21

Case law subsequent to the Burbank opinion has expanded the air-
port operator’s proprietary powers beyond the realm of noise regulations;
the courts have validated several other proprietor-imposed regulations.
For example, a U.S. district court upheld the Port Authority’s imposition of
a takeoff fee as a means of controlling airport growth. A twenty-five dollar
fee was exacted from each aircraft landing or taking off from each of the
three major New York area airports during certain peak traffic hours, as a
means of reducing airport congestion.22 The fee was found not to actu-
ally exclude any general aviation aircraft from the three major airports and
was therefore declared to be “valid as a reasonable, if not ideal, method
of effecting the most efficient utilization of air space and the air time
involved.”23

In 1984, a U.S. district court recognized the power of an airport pro-
prieto regulate airport capacity as a means of controlling congestion.24 The airport proprietor’s authority to deny an air carrier access to
an airport already filled to capacity was upheld as a means of allowing the
proprietor sufficient time to develop reasonable rules to allocate ground
space and takeoff and landing slots. The judge pointed out: “The legisla-
"tive history is unmistakably clear that Congress did not intend that the
preemptive force of 49 U.S.C. § 1305(a)(1) [ADA § 105(a)(1)] would in-
terfere with long recognized powers of the airport operators to deal with
noise and other environmental problems at the local level.”25 Local air-
port proprietors could issue reasonable, nonarbitrary, and nondiscrimina-
tory rules defining permissible noise levels or limiting other dangers
created by aircraft using the airport.

21. Santa Monica Airport Ass’n v. City of Santa Monica, 659 F.2d 100 (9th Cir. 1981); Brit-
ish Airways Bd. v. Port Auth. of N.Y. (“Concorde I”), 564 F.2d 1002 (2d Cir. 1977); and Nat’l
23. id. at 107.
Midway].
25. id. at 440 n.18 (quoting 124 CONG. REC. 37,419 (1978) (Statement of Sen. Ted
Kennedy)).
V. THE PERIMETER RULE CASES

A. THE CITY OF HOUSTON v. FAA

The first court of appeals decision to rule on the issue of whether an airport perimeter rule is a valid exercise of an airport proprietor’s authority was City of Houston v. FAA.\(^{26}\) Houston, located beyond National’s 1,000 mile perimeter, filed a petition for review of the perimeter rule on September 22, 1980. Houston essentially argued that the FAA’s perimeter rule violated the terms of the Administrative Procedure Act, that it had no rational basis, and that the FAA lacked the statutory authority to promulgate such a rule.

The Court, after finding that the FAA and DOT acted reasonably and in good faith, held that the perimeter rule not only had a rational basis but comported with common sense as well. The Court reasoned that a perimeter rule was an ideal means to promote the desired end: maintaining National’s short-haul character while promoting nearby Dulles, which was nearly deserted. Such a perimeter rule, said the Court, encourages the type of passenger who does not cause airport congestion—the one-day, arrive-and-return business traveler from New York who carries “nothing but a briefcase.” Those passengers, however, who travel to National from more distant cities such as Houston were intentionally burdened by the rule. These travelers, since they are generally unable to complete their affairs in a single day, must stay overnight and therefore carry baggage. They have less need of National’s convenience to downtown than the one-day, arrive-and-return business traveler. The Court alliterated that such “luggage-laden travelers are precisely those who make National congested.”\(^{27}\)

The perimeter rule did not infringe on a constitutional right to travel since passengers were not completely barred from traveling between cities beyond the perimeter and Washington, D.C. Rather, the perimeter rule gave travelers a choice between convenient non-stop service to Dulles or slightly lengthier, one-stop or change-of-plane service to National via one of the cities within the perimeter, such as Chicago or St. Louis. The Court made clear that passengers have no constitutional right to the most convenient form of travel.\(^{28}\)

The heart of City of Houston, however, involved an argument that airport proprietors were preempted from promulgating perimeter rules. Although the Fifth Circuit pointed out that airport proprietors have an extremely limited role in aviation management, they rejected Houston’s preemption challenge to National’s perimeter rule. The Court made its

\(^{26}\) Houston, supra note 1.
\(^{27}\) Id. at 1192.
\(^{28}\) Id. at 1192, 1198.
holding applicable to airport proprietors generally, despite the fact that
the perimeter rule was promulgated by a federal agency with statutory
authority to make such a rule, as opposed to the more traditional airport
proprietor lacking such authority.\textsuperscript{29} The key to this apparent paradox is
the court’s dual holdings which found, as an independent ground for the
decision, that the FAA acting in its proprietary capacity as the
owner/operator of National and Dulles had authority to impose perimeter
rules to control ground congestion. The Court also found, as an in-
dependent ground, that the FAA Act authorized the FAA to enact perime-
ter rules based on its power to “promulgate reasonable regulations
concerning the efficient use of the navigable airspace.”\textsuperscript{30}

The Court reviewed Section 105 of the ADA and immediately dis-
pensed with the claim that this statute barred the FAA from promulgating
a perimeter rule. The restrictions of Section 105 did not bind the FAA,
since the statute only applies to states, political subdivisions, interstate
agencies, and political agencies of two or more states. In addition, the
Court found that the FAA, acting in its proprietary capacity as operator of
National and Dulles, would not be bound by Section 105 because “Congress, in § 1305 [Section 105 of the ADA], sought to prevent the proprie-
tor of a rural airstrip [as opposed to a metropolitan area airport] from
infringing upon the federal government’s turf.”\textsuperscript{31}

The Fifth Circuit limited its holding by carefully drawing this distinction
between the authority of a local/rural airport proprietor to impose a perim-
eter rule and the authority of a multi-airport system proprietor to do so, as
was the case here.\textsuperscript{32} The Court distinguished an earlier case involving
the invalidation of a perimeter rule in effect at John Wayne Airport which
had imposed a perimeter on flights from more than 500 miles away.\textsuperscript{33} In
this case, the Fifth Circuit pointed out, the perimeter rule was imposed by
a local airport with no connection to nearby Los Angeles International or
Ontario International airports (and therefore no connection to the multi-
airport system serving the Los Angeles area). Therefore, John Wayne
Airport “could not blithely take such an action upon itself. . . . Section
1305 [§ 105 of the ADA] removes control over routes, etc., from local
airport proprietors.”\textsuperscript{34} The Court clearly left open the opportunity for air-
port proprietors who form a part of a multi-airport system in a large metropo-
listan area to impose reasonable perimeter rules.

\textsuperscript{29} Id. at 1194.
\textsuperscript{30} Id. at 1196.
\textsuperscript{31} Id. at 1194.
\textsuperscript{32} Id.
\textsuperscript{33} Id. citing Pacific Southwest Airlines v. County of Orange, No. CV 81-3248 (C.D. Cal.
\textsuperscript{34} Id.
B. **Western Air Lines v. Port Authority of N.Y. & N.J.**

The ability of airport owners, acting in their proprietary capacity, to impose perimeter rules was addressed most recently by both the U.S. District Court for the Southern District of New York and the U.S. Court of Appeals for the Second Circuit in *Western Air Lines v. Port Auth. of N.Y. & N.J.* 35

On March 27, 1986, Western Air Lines ("Western") obtained several slots at LaGuardia in a lottery conducted by the FAA. 36 Upon receiving the slots, Western immediately requested permission from the Port Authority to inaugurate non-stop service between LaGuardia and its Salt Lake City hub. Western believed that it was necessary to provide such service in order to effectively compete in the New York City airline market. Solely because Salt Lake City is 1,989 miles from LaGuardia (489 miles beyond the perimeter), the Port Authority denied Western's request for non-stop service. On August 13, 1986, Western filed suit in the U.S. District Court for the Southern District of New York alleging that the Port Authority's perimeter rule was contrary to Section 105(a)(1) of the ADA.

The District Court denied Western's application for preliminary and permanent relief and held that LaGuardia's perimeter rule was not preempted by Section 105(a)(1) of the ADA, reasoning that "in the absence of conflict with FAA regulations, a perimeter rule, as imposed by the Port Authority to manage congestion in a multi-airport system, serves an equally legitimate local need and fits comfortably within that limited role, which Congress has reserved to the local proprietor." 37

In reaching its conclusion, the District Court initially considered Western's allegation that Congress intended in Section 105(b)(1) of the ADA to preserve only those proprietary powers necessary to regulate noise or other potential sources of direct financial liability for the airport operator. The Court reviewed airport noise regulation case law to determine the extent of the "proprietary powers and rights" covered by Section 105(b)(1). The Court reached two conclusions. First, the case law did not reject the existence of proprietary interests in addition to noise. The cases merely sought to insure that, when such an interest existed, the proprietor did not regulate beyond the scope of that interest. Second, the cases made clear that proprietor-imposed regulations in addition to noise were valid exercises of proprietary power.

Turning to Section 105 of the ADA and its legislative history, the Dist-

---

35. The District Court decision is found at 658 F. Supp. 952 (S.D.N.Y. 1986); the Court of Appeals decision is found at 817 F.2d 222 (2d Cir. 1987).
36. The purpose of the slot system is to promote the more efficient use of navigable air space by limiting the number of flights arriving and departing at high density traffic airports during certain hours.
37. *Western, supra* note 1, at 958.
District Court noted that Section 105(b)(1) did not expressly limit proprietary powers to noise regulation and that "presumably Congress would have so limited the section if that is what it had in mind." The Court found the legislative history of Section 105 to indicate unmistakably that Congress did not intend to preempt the "long recognized powers" of airport operators to deal with noise and other environmental problems at the local level.

The District Court concluded that:

[a] proprietor's interest in regulating ground congestion at its airports would appear to be at the core of the proprietor's function as airport manager, perhaps even more so than the regulation of noise; and the ability of a proprietor such as the Port Authority to allocate air traffic in its three airport system is important to the advancement of this interest.

The District Court next discussed the similarities between City of Houston and Western. Both cases involved perimeter rules imposed for the purpose of constraining one airport's growth within a multi-airport system. The effect of both perimeter rules was also identical: the diversion of air traffic from one airport to another within the respective multi-airport systems. The effect was not, the Court made clear, to close all runways in a metropolitan area to air traffic from points outside the perimeter. The Court saw no apparent distinction in the cases between the FAA's interest as a proprietor in managing its airport congestion problems at National by use of a perimeter rule, and the Port Authority's interest, as proprietor of LaGuardia, JFK, and Newark, to do the same.

Finally, the District Court addressed whether LaGuardia's perimeter rule met requirements set forth in both British Airways Bd. v. Port Authority of N.Y. ("Concorde I") and Concorde II regarding the limitations on an airport proprietor's rules. According to these cases, an airport proprietor may issue only reasonable, nonarbitrary, and nondiscriminatory rules that "advance the local interest." Furthermore, interstate commerce may not be burdened, and the accomplishment of legitimate national goals must not be inhibited.

The District Court found that LaGuardia's perimeter rule passed muster under Concorde. The perimeter rule was reasonable, since the Port

38. Id. at 957.
39. Id. (quoting Judge Weinfield in Midway Airlines, supra note 23).
40. Id.
42. Although the Concorde I and II limitations applied to noise levels, the District Court applied them to perimeter rules. Concorde II stated, "[t]he maintenance of a fair and efficient system of air commerce, of course, mandates that each airport operator be circumscribed to the issuance of reasonable, nonarbitrary and nondiscriminatory rules defining the permissible level of noise which can be created by aircraft using the airport." Concorde II, supra note 20 at 1011.
Authority's reasons for implementing the perimeter rule were supported by numerous studies and questionnaires it had prepared.\textsuperscript{43} The studies indicated, \textit{inter alia}, that if LaGuardia's perimeter rule had been discarded, some 27 daily round trip flights to and from cities beyond the perimeter would likely have been introduced. Such flights would have added to existing overcapacity at LaGuardia. Furthermore, the perimeter rule was reasonable in view of LaGuardia's limited physical facilities and other inherent limitations and the larger capacities of nearby JFK and Newark.

On the issue of discrimination, the District Court found that the perimeter rule did not discriminate in light of the legitimate objectives sought. Adopting the Fifth Circuit's language from \textit{City of Houston}, the Court reasoned that an "accident of geography" underlies LaGuardia's perimeter rule, not any deliberate discrimination against certain states.\textsuperscript{44} Nor did the perimeter rule declare that Utah residents could not fly non-stop to LaGuardia from Salt Lake City. Rather, it merely set a limit of 1,500 miles on non-stop flights.

Western's last contentions were that reducing the perimeter from 2,000 to 1,500 miles was a purely arbitrary act and that the perimeter rule did not achieve its purpose. The District Court disposed of these arguments by referring once more to the Port Authority's "careful" studies, which concluded that the 1,500-mile perimeter was necessary to solve increasing congestion problems. The Court noted that it was not unreasonable for LaGuardia to impose the perimeter rule in light of these problems, especially since access to the New York City area remained unimpeded at both Kennedy and Newark.

In short, the District Court clearly believed that control of airport congestion, a matter of inherently local concern, was most effectively left to the airport operator.

Subsequently, the U.S. Court of Appeals, Second Circuit, unanimously affirmed the District Court's "well-reasoned opinion" in all respects.\textsuperscript{45} The Second Circuit noted that while "the perimeter rule may be a regulation 'relating to . . . routes' within the meaning of Section 1305(a)(1) [Section 105(a)(1) of the ADA], we agree with [the District Court's] conclusion that the rule, at least when enacted by a multi-airport authority, falls within the proprietary powers of airport operators exempted from preemption by Section 1305(b)(1) [Section 105(b)(1) of the

\textsuperscript{43} The Port Authority conducted studies of LaGuardia's ground and airside capacity. In addition, the Port Authority circulated questionnaires to airlines, the FAA, the DOT, and the State Department regarding its proposed perimeter rule. See \textit{Western}, supra note 1, at 959.

\textsuperscript{44} \textit{id.} at 958.

\textsuperscript{45} \textit{Western}, supra note 1.
VI. CONCLUSION

Although federal law preempts virtually the entire field of aviation, it is clear that a multi-airport proprietor may impose reasonable regulations regarding matters of local concern such as airport congestion. It is not so clear; however, whether a local airport proprietor, not included within a multi-airport system, may impose such regulations.

The types of regulation accepted to date by the courts include airport noise regulations, which limit either the decibel level of individual takeoffs and landings or the cumulative level of noise exposure; takeoff and landing fees;47 airport capacity regulations; and airport perimeter rules in con-

46. Id. at 226.

47. Traditionally, landing fees throughout the United States have been based on aircraft weight. Here, the total amount of landing fee assessed for any landing operation varies only according to the size of the aircraft. The philosophy behind weight-based landing fees is that landings of large, heavy aircraft impose greater costs upon an airport proprietor than do landings of small aircraft.

On March 16, 1988, the Massachusetts Port Authority ("Massport") adopted a new, controversial landing fee structure for Boston's Logan International Airport ("Logan") that departs from the traditional weight-based landing fee structure. The new composite fee structure, purporting to reduce excess airport congestion by reducing the number of operations conducted by small aircraft and regional commuter aircraft, represents the first phase of a comprehensive plan called the Program for Airport Capacity Efficiency ("PACE"). The second phase of PACE may involve additional peak hour pricing and a slot reservation and auction program. An additional fee (somewhere between $25.00 and $65.00) for use of the general aviation terminal is being considered by Massport as well.

Under PACE, the costs of owning and operating Logan are divided into two categories: those costs associated with aircraft landing weight (effective October 1, 1988, $0.51-$0.55 per thousand pounds), and those costs associated with landing operations (effective October 1, 1988, $100-$105 per operation). The second category of the fee structure represents a "fixed cost" charge that remains the same regardless of aircraft size or weight. PACE recognizes the fact that, irrespective of aircraft size or weight, various costs are attributable to both individual aircraft operations as well as aircraft size or weight.

Prior to PACE, Massport based 100% of the assessed landing fees on aircraft weight. Under PACE, however, only 37% of the assessed landing fees are based on aircraft weight; the majority (63%) are now assessed according to the landing operation "fixed cost charge." As a result, there exists an almost four-fold increase in landing fees for small aircraft and a substantial decrease in landing fees for large aircraft. For example, the cost of landing a Beechcraft 1900 commuter aircraft at Logan has increased from $25.00 to $101.47. This represents a 306% increase in landing fees. However, for a large aircraft such as a Boeing 747-300, the landing fee under PACE has decreased from $823.99 to $450.31. This represents a 45% decrease in landing fees. Investigation into Massport's Landing Fees, Brief of Regional Air Carrier Parties, FAA Docket 13-88-2, September 30, 1988.

Suit was filed in federal district court in Boston on April 19, 1988, challenging PACE. Various parties alleged that the new fees were unlawful in that they violated the Supremacy Clause, the Commerce Clause, the Anti-Head Tax Act, Section 511(a) of the Airport and Airway Improvement Act, Section 307 of the Federal Aviation Act of 1958 ("the Act"), and Section 105(a) of the Act, in that the fees are a state action "relating to" the rates, routes or services of air carriers.
junction with a multi-airport system.

With regard to airport perimeter rules, the courts have analogized this type of regulation to airport noise regulation. Like noise regulation, perimeter rules are a matter of inherent local concern that "can be most effectively left to the airport operator, as the unitary local authority who controls airport access."48

The second and fifth circuits agree that, even though airport perimeter rules may "relat[e] to . . . routes" within the meaning of Section 105(a)(1) of the ADA, such rules are among the proprietary powers exempted from preemption by Section 105(b)(1) when "enacted by a multi-airport proprietor."49

Allowing the multi-airport proprietor to take such an active role in controlling airport growth is vitally important in the present deregulation environment. So long as deregulation (and therefore liberal route entry and exit) persists, the imposition of airport perimeter rules at the local-proprietary level is clearly a most effective method of controlling resulting airport overcapacity, shortening lengthy delays, decreasing congestion at gates and on taxiways, and easing the strain on restricted physical facilities.

VII. POSTSCRIPT

In August, 1987, Delta Air Lines, Inc., following its merger with West-
ern, petitioned the U.S. Supreme Court for a writ of *certiorari* in the *Western* case.\(^{50}\) On October 15, 1987, the Air Transport Association of America submitted a brief *amicus curiae* in support of Delta’s petition.\(^{51}\) The Port Authority responded, on October 29, 1987, with a brief in opposition to the petition.\(^{52}\) In November, 1987, the Court invited the U.S. Solicitor General to file a brief *amicus curiae* expressing the views of the United States. This brief was completed on March 29, 1988.\(^{53}\)

In his brief, the Solicitor General agreed with the Port Authority that review by the U.S. Supreme Court is not warranted. The Solicitor General argued three points. First, the perimeter rule in question is properly viewed as an exercise of a proprietary power, protected from preemption by Section 105(b)(1) of the ADA, rather than as relating to "routes" within the meaning of Section 105(a)(1) of the ADA. Second, if Congress had intended in Section 105(b)(1) to protect only the proprietary power to regulate noise and other potential sources of direct financial liability, then Congress presumably would have more narrowly drafted the provision. Nothing in the ADA’s legislative history suggests such a narrow interpretation. Third, *Western* is expressly limited to cases involving a multiple airport proprietor and therefore involves a question of extremely limited applicability. Thus, it is unlikely that *Western* will have any significant impact upon the national air transportation system.

On April 18, 1988, the U.S. Supreme Court denied Delta’s petition for *certiorari*.

---

51. Brief Amicus Curiae of the Air Transport Association of America in Support of the Petition for a Writ of Certiorari to the U.S. Court of Appeals for the Second Circuit, Delta Air Lines v. Port Authority of N.Y. & N.J., id.
Regulation of Aircraft Noise at Major Airports:
Past, Present, and Future

DONALD V. HARPER*

Table of Contents

I. INTRODUCTION .................................................. 118
II. THE EXTENT OF THE AIRCRAFT NOISE PROBLEM .............. 119
III. THE MEASUREMENT OF AIRCRAFT NOISE ...................... 120
IV. RESPONSIBILITY FOR THE AIRCRAFT NOISE PROBLEM .......... 122
   A. AIRPORT OPERATORS ...................................... 122
   B. THE CIVIL AERONAUTICS BOARD ............................. 123
   C. THE FEDERAL AVIATION ADMINISTRATION .................... 123
   D. AIRCRAFT AND ENGINE MANUFACTURERS AND AIRLINES .. 123
   E. OTHER CONTRIBUTORS TO THE AIRCRAFT NOISE PROBLEM ...
      ......................................................... 123
V. SOLUTIONS TO THE AIRCRAFT NOISE PROBLEM .................. 124
   A. NOISE REDUCTION TECHNOLOGY ............................ 124
   B. NOISE-ABATEMENT FLIGHT PROCEDURES ..................... 125
   C. REGULATION OF NOISE BY GOVERNMENT AND AIRPORT
      PROPRIETORS .............................................. 125
   D. CONTROL OF LAND USE ..................................... 125
   E. MOVE THE AIRPORT ......................................... 126
   F. OTHER SOLUTIONS .......................................... 127

* Professor of Logistics Management, Carlson School of Management, University of
Minnesota.
VI. LIABILITY AND RECOVERY FOR DAMAGES RELATED TO AIRCRAFT NOISE ........................................ 127
   A. INJUNCTIONS ........................................ 127
   B. THE TRESPASS APPROACH .......................... 128
   C. THE NUISANCE APPROACH ......................... 128
   D. INVERSE CONDEMNATION ............................ 129

VII. LOCAL REGULATION OF AIRCRAFT NOISE .......... 131
   A. REGULATION BY LOCAL GOVERNMENT ............. 131
   B. REGULATION BY AIRPORT PROPRIETERS .......... 132
   C. CONCLUSION ON LOCAL REGULATION OF AIRCRAFT NOISE ........................................ 137
   D. KINDS OF REGULATORY ACTIONS TAKEN BY AIRPORT OPERATORS ........................................ 139

VIII. FEDERAL REGULATION OF AIRCRAFT NOISE ....... 140
   A. CIVIL AERONAUTICS BOARD ........................ 140
   B. FEDERAL AVIATION ADMINISTRATION ............... 141
      1. CERTIFICATION AUTHORITY PRIOR TO 1968 .... 141
      2. LEGISLATION OF 1968 .......................... 142
      3. FAA REGULATIONS OF 1969 ..................... 143
      4. ROLE OF THE ENVIRONMENTAL PROTECTION AGENCY 145
      5. FAA REGULATIONS OF 1973 ..................... 146
      6. FAA 1976 NOISE REGULATIONS .................. 147
      7. FAA 1977 AND 1978 NOISE REGULATIONS ....... 148
      8. AVIATION SAFETY AND NOISE ABATEMENT ACT OF 1979 ........................................ 150
      9. EXEMPTIONS FROM COMPLIANCE ................ 151
     10. FEDERAL NOISE REGULATION IN THE LATE 1980'S ... 153

IX. CONCLUSIONS .......................................... 158
   A. TECHNOLOGY AS A SOLUTION ........................ 159
   B. NEED FOR GREATER FEDERAL ACTION ............... 159
   C. LACK OF FEDERAL INITIATIVE ...................... 161
   D. WHAT THE FEDERAL GOVERNMENT COULD DO ........ 162
   E. THE FINANCING QUESTION ........................... 163

I. INTRODUCTION

Aircraft noise at major airports has been a serious problem in the United States for many years. Although there have been numerous attempts to reduce the amount of noise emitted by aircraft and to make the noise more acceptable to airport neighbors, the problem persists. It is becoming worse as the airline industry grows and as the number of airline and other flight operations in the United States increases.

Since the beginning of the problem, legal and regulatory issues have
been important in determining how it is dealt with and why there has not been more success in lessening the problem. It is the purpose of this paper to explain what the noise problem is, who is responsible for it, the solutions available to solve the problem, liability and recovery for noise-related damages, and local government, airport proprietor, and federal regulation of aircraft noise, and to draw some conclusions relative to future government policy on the matter.

II. THE EXTENT OF THE AIRCRAFT NOISE PROBLEM

Among the nuisances and environmental issues associated with transportation operations in the United States, perhaps none has received as much attention or been so emotional as that of aircraft noise at major airports. The problem began to develop in a serious way in the 1960’s as jet aircraft replaced piston-engine aircraft and airlines rapidly became primarily jet aircraft operators. At the same time, the number of airline flight operations (a flight operation is one takeoff or one landing) increased. Many aircraft noise battles, involving airport neighbors and airport operators, were fought around the country in the 1960’s and 1970’s.

Although various steps were taken to somewhat reduce the amount of noise emitted by individual aircraft, federal economic deregulation of air transportation in the late 1970’s made the problem worse because it resulted in rapid expansion of the route systems of existing carriers, entry of some new carriers and the number of carriers and flight operations at major airports increased dramatically. At the same time, there was a sharp increase in the amount of passenger and freight traffic carried in the 1970’s and 1980’s, as seen in Table 1, which also contributed to the increase in the number of flight operations. The total number of passengers, passenger-miles, mail, express, and freight ton-miles, and flight operations of scheduled United States airlines are shown in the table for the years 1969, 1976, and 1986.

The total number of passengers carried by the scheduled airline industry increased by 143.5 percent between 1969 and 1986, the number of passenger-miles increased by 192 percent, and the number of mail, freight, and express ton-miles increased by 92.2 percent. The number of flight operations actually decreased by 10.1 percent between 1969 and 1976, the increased traffic being carried by larger aircraft, thus requiring a smaller number of flight operations. After 1976, however, as deregulation began to take hold and traffic volume increased, the number of scheduled carrier flight operations increased by 33.8 percent to almost thirteen million in 1986. At the Minneapolis-St. Paul International Airport, for example, there was a large increase in the number of airlines serving the airport and the number of passenger airline flight operations per year
TABLE 1
Traffic and Flight Operations of United States
Scheduled Airlines*
1969, 1976, and 1986

<table>
<thead>
<tr>
<th>Year</th>
<th>Passengers (000)</th>
<th>Passenger-Miles (000)</th>
<th>Mail, Express, and Freight Ton-Miles (000)</th>
<th>Flight Operations**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>171,898</td>
<td>125,420,120</td>
<td>4,690,355</td>
<td>10,756,686</td>
</tr>
<tr>
<td>1976</td>
<td>223,318</td>
<td>178,988,026</td>
<td>6,210,421</td>
<td>9,665,328</td>
</tr>
<tr>
<td>1986</td>
<td>418,493</td>
<td>366,283,158</td>
<td>9,017,136</td>
<td>12,930,220</td>
</tr>
</tbody>
</table>

* Includes domestic and international United States scheduled airlines.
** A flight operation is one takeoff or landing.

Source: Air Transport Association.

grew from about 178,000 in 1980 to 283,000 in 1987. Total flight operations of passenger and freight airlines, general aviation, and military aircraft were 374,000 in 1987, 81 percent of which were air carrier operations. The total number of aircraft operated by both scheduled and non-scheduled United States airlines in 1986 was 4,431, 91.7 percent of which were turbine aircraft, almost all of them pure jets as opposed to turboprop aircraft. It can easily be seen why there is a noise problem at major airports.

Complaints about aircraft noise are usually directed at jet aircraft. The main sources of jet aircraft engine noise are the roar of the jet exhaust and the whine of the compressor and fan. The roar of the jet exhaust is of concern primarily during the takeoff phase. The whine of the compressor and fan is of concern primarily during the landing approach, particularly from a point some five miles from touchdown.

III. MEASUREMENT OF AIRCRAFT NOISE

The severity of the noise problem on the ground is determined by the intensity of the sound, the duration of exposure to the sound, and the number of occurrences at different times of day and under various atmospheric conditions. As to the frequency of exposure, four noisy flights per hour over a given location may be acceptable or tolerable but, as the

---

2. In addition to airline and military aircraft, there were 210,000 airplanes operated in general aviation in 1986, about 5 percent of which were turbine aircraft. Data from Air Transport Association.
number of such flights increases per hour, the total noise impact increases substantially and rapidly becomes intolerable. Therefore, air traffic volume as well as the kind of aircraft used is an important element in the aircraft noise problem.

There is disagreement as to how much noise is necessary to create a noise problem. Different people have different noise sensitivity and the effects on different people of a given noise level and frequency of noise vary and there is disagreement as to how excessive noise affects human beings and whether or not it can be dangerous to health. For some persons, excessive noise can actually cause measurable medical effects. For others, extreme and frequent noise is no more than a minor irritation.

Sound travels through the air in the form of small waves of tiny air pressure fluctuations to which the ear responds. Although there is no generally accepted definition of what constitutes excessive noise, the most common noise yardstick is the decibel (db) scale which is an expression of the sound pressure that moves the ear. The decibel scale begins with one db, the weakest sound that can be picked up by a normal ear. The scale is expressed in logarithmic form, however, so that ten times the minimum that can be heard is ten db and one thousand trillion the minimum is 150 db. The listener's perception of sound increases on a sharply accelerating scale and the sensation of loudness doubles with each 10 db increase—a 50 db sound is twice as loud as one of 40 db's and four times as loud as one of 30 db's. This means that a 20 db change in aircraft noise from about 110 to 90 would be very noticeable. At the same time, a change in db's of three or four would not be very noticeable.

The "Perceived Noise Decibel" (PNdB) scale, under which aircraft noise is frequently reported, has been widely adopted as the standard.

---

3. Among the medical consequences of excessive noise that have been suggested are contraction of arteries, increase in heart beat, dilation of pupils of the eyes, heart disease, mental illness, stomach ulcers, allergies, enuresis (involuntary urination), spinal meningitis, excessive cholesterol in the arteries, indigestion, loss of equilibrium, impaired vision, nausea, high blood pressure, damage to unborn children, changes in blood chemistry, loss of hearing, extreme exhaustion, impaired sexual ability, weight loss, colitis, and migraine headaches.


5. A decibel is one tenth of a "bel," a unit of measurement of sound pressure.

measure of the subjective loudness of noise. There is evidence that with aircraft noise below 90 PNdB, there are almost no complaints. Between 90 and 105 PNdB there are some, but not many, complaints. Above 105 PNdB, the volume of complaints increases rapidly with increasing PNdB levels. Many experts believe that 100 PNdB is the maximum noise tolerable because, above that level, hostility to the noise source rises rapidly.

However, as previously noted, the aircraft noise problem increases with the frequency of flight operations and the average level of noise tolerated from each aircraft substantially decreases. Vigorous complaints about noise can increase even if the noise produced per flight operation drops if the number of flight operations increases.

Landings represent the major noise problem for many airports. This is because landing approaches are generally less steep than climbouts after takeoffs and greater land area is exposed to low-altitude noise for a longer period of time.

IV. RESPONSIBILITY FOR THE AIRCRAFT NOISE PROBLEM

The responsibility for causing the aircraft noise problem at public airports rests with airport operators, the Civil Aeronautics Board (CAB), the Federal Aviation Administration (FAA), aircraft and engine manufacturers, airlines and other aircraft operators, local government, real estate developers, and land owners.

A. AIRPORT OPERATORS

The first step toward creating the aircraft noise problem was taken unknowingly by airport operators when they made decisions as to where the major scheduled airline airports were to be located. Many of the major airports in the United States were located long before the jet age and the planners were unable to visualize the noise problem that would eventually develop. Consequently, airport location decisions were not made on the basis of noise pollution considerations of any major degree. A second step in creating the noise problem was the failure of airport operators (and local and state government) to zone the land around major airports to control the use of land to prevent noise-sensitive land users from acquiring such land.

Whatever might have been the airport operator's role in creating the aircraft noise problem, it finds itself today as the chief target of anti-noise groups and the lawsuits involving the noise question usually are filed against the local airport.

7. Kryter, supra note 4, at 5.
B. THE CIVIL AERONAUTICS BOARD

The CAB, defunct since January 1985, did not choose to use its authority to grant operating certificates to airline companies to get involved in the noise issue. This was of particular importance in the 1960’s when the first and second generations of jet aircraft were introduced to the United States airline fleet. The CAB’s role is discussed in a later section of this paper.

C. THE FEDERAL AVIATION ADMINISTRATION

The FAA, by not using its authority to certify new engines and aircraft in the early years of jet aircraft (1960’s) to control noise emitted helped to create the noise problem that exists today. By delaying its meaningful intervention into the issue until 1976, and not taking an aggressive position on the matter since then, the FAA has allowed the noise problem to continue. The role of the FAA is discussed in more detail below.

D. AIRCRAFT AND ENGINE MANUFACTURERS AND AIRLINES

Because the CAB and FAA decided to not play a role in the noise controversy and local government and airport proprietors were limited in what they were willing and able to do, the aircraft and engine manufacturers were left to emphasize cost, speed, and efficiency factors rather than environmental factors when developing new aircraft. The airlines and other aircraft operators had little incentive to insist on quiet aircraft. As a result, they purchased what was available, and what was available was noisy.

One could argue that if the manufacturers and airlines were really interested in the welfare of the public they could have worked on the noise problem without the compulsion of legislation or regulation. The fact is that some of these companies did try to develop quieter aircraft. Others, however, expressed interest in reducing aircraft noise but neglected to do anything because technological change in aircraft engines to reduce noise would be too costly to them. This latter view demonstrates why the failure of the federal government to act on the noise question proved to be so important.

E. OTHER CONTRIBUTORS TO THE AIRCRAFT NOISE PROBLEM

Most major airports, when originally constructed, were located in sparsely settled areas without close neighbors in any significant number. An opportunity was available to zone the land around most of these airports to prevent land use by noise-sensitive users such as schools, home owners, hospitals, rest homes and churches. The airport operators could have accomplished this zoning by acquiring the land in question and then
restricting its use to non-noise-sensitive uses. As indicated above, this usually was not done so it was then up to local (and state) government to control the use of the land. This also was generally not done and the result was that houses, churches, schools, etc. were allowed to be built right up to the airport fences.

Contributing to the problem were real estate developers who were more interested in the sale of the land than in environmental questions. In addition, no attempt was usually made by them to provide special insulation or other soundproofing for the new buildings near airports. Perhaps it is too much to expect that real estate developers have any responsibility for such environmental concerns.

Lastly, the individual home owner, school district, church congregation, etc. is also at fault for not knowing better than to build or buy in a noise-sensitive area, although real estate developers and agents are partly at fault here, at least in the case of the residential problem, for falsely minimizing the noise problem in their sales messages and showing property only when the "other" runway was being used or on a particularly "quiet" day.

V. SOLUTIONS TO THE AIRCRAFT NOISE PROBLEM

A. NOISE REDUCTION TECHNOLOGY

The simplest solution in terms of least disruption of existing ways of doing things would seem to be to make the aircraft quiet by somehow muffling the noise emitted by the jet engines. This would mean that aircraft still to be built would be built with quieter engines. The aircraft now in use would be retrofitted by acoustic treatment of the engine nacelles, by nacelle redesign, by engine modification, or they would be reengined with quieter engines. The obvious difficulties in using a technology approach is the high cost of doing so and the question of whether or not the needed technology is available.

As to the latter point, numerous advances have been made in retrofit technology since the federal government began to impose noise standards on aircraft operators. Retrofit technology of various kinds was used successfully to meet the first set of noise standards established by the FAA (now referred to as Stage II—see discussion below) and such devices to further reduce the noise emitted by Stage II aircraft are becoming available. Aircraft and engine manufacturers have been able to produce new aircraft that meet the FAA's second set of noise standards (Stage III). If there is an economic incentive for the aircraft manufacturing industry to develop noise-reduction devices for existing and new aircraft it will no doubt be done.

Further progress in retrofitting or replacing aircraft to reduce aircraft
noise depends to a great extent on the position the federal government takes with respect to imposing more stringent regulation of aircraft noise and its willingness to play some role in financing compliance. These subjects are discussed later in this paper. Even with added regulation, however, the changeover will take several years to accomplish so that the current noise problem will not be solved for some time.

B. **Noise-Abatement Flight Procedures**

Certain noise-abatement flight procedures can be followed to reduce the amount and frequency of noise although not eliminating it or even making it completely acceptable. Noise-abatement flight procedures include (1) using "preferred" or "preferential" runways—those that cause the least noise problem and the fewest complaints—whenever wind conditions permit; (2) requiring turns away from noise-sensitive neighborhoods after takeoff and/or sharp cutback in thrust during the climb; (3) requiring the steepest landing glide slopes that are consistent with safe operation to increase the altitude of aircraft over a given location; (4) reduction in gross weight which reduces the amount of power needed; (5) requiring pilots to use low power at low altitudes; and (6) the removal of flight training from noise-problem airports.

Such procedures are the responsibility of the FAA and the airlines and can be encouraged by local airport management as well as by anti-noise groups, property owners, etc. They can and do have some impact on the noise problem but in themselves cannot solve the problem. Airline pilots are not in agreement with some of the procedures because of their safety implications. Such procedures are, of course, not used when weather or other conditions do not permit their safe use.

C. **Regulation of Noise by Government and Airport Proprietors**

Local government, airport owners, and the federal government have all to some degree been involved in trying to regulate aircraft noise with the objective of reducing its impact on airport neighbors. These are discussed later in this paper.

D. **Control of Land Use**

A solution is to move the people away from the airport and the noise. For existing airports, this means either zoning of unused land areas to prevent residential and other noise-sensitive uses or purchase of land already occupied by noise-sensitive users and turning the land over to non-sensitive use.

In the case of most major airports it is too late to zone most of the adjacent land area because it is already in use, and re-zoning would be
difficult. However, where some unoccupied land does exist it can be taken over by the airport itself or can be zoned by local government to prevent noise-sensitive use. Unfortunately, local government did not show much interest in this kind of zoning until it was too late—the land involved was already occupied by noise-sensitive users.

The other land-use alternative is for the airport operator or the local government to purchase the occupied noise-sensitive land area adjacent to the airport and convert the land to non-sensitive use. This has been done to some degree in Los Angeles, Minneapolis-St. Paul, and several other cities. Unfortunately, the value of the land adjacent to airports is often quite high (some of the country’s best residential neighborhoods are involved) and the amount of land involved is large—the noise sensitive area can extend from five to ten miles from the end of a runway and is several thousand feet wide. Consequently, the amount of money needed is great and airport operators and local governments do not have access to those kinds of funds.

In any event, land use control at existing major airports can be accomplished only to a limited degree. Therefore, land-use control can be an important solution primarily at new major airports rather than at existing airports. In selecting a site for a new major airport, care should be taken to consider carefully the noise consequences, to design the airport to minimize the noise problem, to locate the airport where land around it is not yet developed, and to provide for local government or airport operator control over land use around the airport.

E. Move the Airport

A drastic solution to the noise problem that is often advocated by anti-noise groups is to close down the airport and/or move airline traffic to a different location. However, although an eventual long-term solution may be to move the noisy air traffic to a new airport, the investment in major airports is so great that it is unlikely that a decision would be made to close down completely or to bar airline traffic if noise is the only problem. If the airport is obsolete and/or excessively congested, however, then the noise problem can add incentive to move to a new location and can, in fact, help in getting such a decision made. Whatever the condition of the existing airport, the financial and environmental barriers to opening a new airport are so great (nobody wants an airport for a neighbor) that it is not reasonable to expect much activity in this direction. A new major airport has not been opened in the United States since 1974 (Dallas-Fort Worth) in part because of financial and environmental barriers. In addition, even when a decision to move to a new site is made, noise relief is not immediate because it takes seven to ten years to build a new airport from scratch.
F. OTHER SOLUTIONS

Additional solutions that have been offered are appropriate mainly for existing airports. One is to soundproof existing and newly constructed buildings, including underground construction. Another is that shrubbery and trees around buildings can be used to muffle aircraft sound. The construction of sound barriers around airports has also been suggested. All of the above have been tried to a limited degree at some airports. Another proposal is to have the airport purchase the right to make noise—noise easements would be purchased from homeowners. These proposals do not offer solutions to the noise problem but rather are an attempt to make aircraft noise more acceptable.

VI. LIABILITY AND RECOVERY FOR DAMAGES RELATED TO AIRCRAFT NOISE

Many lawsuits have been filed against major public airports by neighboring residents. A common complaint is that aircraft noise has made it difficult to sell their homes and that when they can sell their homes the price is below that which they would get if there were no noise problem. Because of the multitude of factors that determine the value of residential property, including such things as availability of local public transportation, proximity to shopping facilities, accessibility to parks and other recreational facilities, the age and physical characteristics of the house, and distance to schools, it is always difficult to isolate the effects of one factor, such as aircraft noise.9 Actually, while it is true that a major airport can have a negative effect on residential property in the noise-sensitive area, it can also raise the value of commercial land in that same noise-sensitive area, and substantially raise the value of all real estate that is near the airport but not in the noise-sensitive area.

A. INJUNCTIONS

In dealing with lawsuits filed by airport neighbors, all courts agree that some residents aggrieved by substantial noise from nearby public airports should have a legal remedy but that the proper remedy is not an injunction preventing airport operations. This is based on the reasoning that the general social need for public airport operations is a paramount interest. An exception is an early case in which the plaintiff was successful in stopping the construction of a privately owned airport near Cleveland.10 The remaining possibilities for the unhappy airport neighbor are relief on the basis of trespass, nuisance or inverse condemnation.

9. The effect of aircraft noise on residential property values is discussed in Frankel, supra note 4, at 6-7.

B. THE TRESPASS APPROACH

Trespass has not been a satisfactory approach for the airport neighbor. If he or she sues on the basis of flights through the airspace above his or her land, the plaintiff is thwarted by the Congressional doctrine that the landowner does not own the navigable airspace above the property. Under the federal Air Commerce Act of 1926 and succeeding legislation, the United States has "complete and exclusive national sovereignty in the airspace" over the country. "Navigable airspace" is airspace above the minimum safe altitudes of flight prescribed by the FAA. Also, since complaining property owners who reside up to several thousand feet from either side of takeoff or approach paths cannot allege any property rights in these paths, no trespass is committed against them.

C. THE NUISANCE APPROACH

The nuisance approach has also usually been unsatisfactory. Property owners have brought many suits against airport operators based upon the nuisance argument. In most situations, public airports are considered to be of sufficient value to the general good to be regarded as legalized or privileged nuisances and this status provides immunity from both injunctions and some or all damage actions. The rights of property owners are deemed to be outweighed by the public interest.11 The identity of the defendant, a public airport, has a lot to do with this. Such airports are generally created via statutory authorizations. They are publicly owned. The operations of the airlines using the airports are regulated by the federal government. For these reasons jet noise will not generally support a nuisance claim. Legal actions based upon nuisance have usually resulted in the granting of relief only where there was a decrease in the value of the property. The nuisance approach in itself has had little success.

An exception was a combination nuisance-inverse condemnation case in California in which the state supreme court upheld an award of damages to homeowners on the basis of the nuisance caused them by aircraft operations at Los Angeles International Airport in the form of noise, smoke, and vibration. The court ruled that a statutory sanction of an activity such as airport operation does not grant the right to create a nuisance unless the statute involved specifically authorized the creation of the nuisance in question or that such authorization can be plainly implied from the powers expressly conferred by the statute so that it can be stated that the legislature contemplated the doing of the act which causes

injury, i.e., there is an unequivocal legislative intent to sanction a nuisance. In addition, the court said that the Los Angeles airport operator had authority and responsibility to acquire adequate noise easements from neighbors and to institute noise abatement procedures to reduce the negative impact of aircraft operations. Therefore, the argument that, because aviation and noise are necessarily inseparable, governmental approval and encouragement of aviation activity necessarily implies legislative approval of aviation noise which results in interference with neighboring land use, was rejected by the court.\textsuperscript{12}

In another California case, the state supreme court stated that airport noise is a classic example of a continuing nuisance, rather than one wherein by one act a permanent injury is done. With a continuing nuisance, successive actions may be brought by those harmed by it with recovery limited each time to actual injury suffered prior to commencement of each action.\textsuperscript{13}

\textbf{D. INVERSE CONDEMNATION}

The most successful legal approach has been one based on the theory of inverse condemnation or constitutional taking. Under this theory it is claimed that aircraft noise has resulted in the taking of a property right for a public use without paying just compensation and that this violates either the Fourteenth or the Fifth Amendment of the U.S. Constitution or a similar provision in a state constitution. The damages recoverable are limited in such cases to the loss in market value of the plaintiff’s property. In the case of \textit{United States v. Causey},\textsuperscript{14} the United States Supreme Court recognized the lack of airspace property rights but held that the flights in question (as low as 67 feet above the property owner’s house—noise from military overflights destroyed chicken business) were not within the reasonable airspace because the continuous invasion of the adjacent airspace had affected the use of the surface of the land itself. This decision combined elements of trespass with elements of nuisance and marked the advent of the theory of inverse condemnation.\textsuperscript{15}

In \textit{Griggs v. County of Allegheny}\textsuperscript{16} the United States Supreme Court

\begin{itemize}
\item \textsuperscript{14} 328 U.S. 256 (1946).
\item \textsuperscript{15} See Soenksen, \textit{Airports: Full of Sound and Fury and Conflicting Legal Views}, 12 Transp. L.J. 325, 331 (1982).
\item \textsuperscript{16} 326 U.S. 84 (1962).
\end{itemize}
decided that noise from commercial landings and takeoffs depreciated property value. The case also established that neither the airlines nor the federal government are liable but that liability rests with the local airport proprietor which picks the site of the airport. This ruling, which is still applicable, places the financial burden of aircraft noise on the segment of the aviation industry that can do the least about it. It also gave the responsibility for controlling aircraft noise to the proprietor without providing guidance as to what could legally be done in controlling such noise. Airport proprietors and/or neighboring property owners have, without success, in some situations attempted to shift liability for damages to airlines, aircraft manufacturers, and the federal government.17

Although many American courts agree that inverse condemnation is an appropriate theory upon which to proceed, they disagree as to whether all residents who are substantially injured should recover or whether a method limiting the number who may recover should be used. In some courts the flights must be directly over the subject property to constitute taking. In others an overflight is not required. In the two cases decided by the United States Supreme Court cited above, overflights were involved.18 Some state courts have allowed recovery only to those property owners located directly below the flight path. In other state courts all that is necessary is that the flights are close enough, whether or not directly overhead, to interfere substantially with the complainant’s use and enjoyment of the property.19

There are several unanswered questions associated with inverse condemnation. One is whether a given property owner should be compensated more than once if aircraft noise damage continued for a certain length of time, or does a given damage award cover all future as well as past damage? What if the damage becomes more severe as a result of increased volume and frequency of air traffic?20 Pursuing relief via the inverse condemnation route is difficult. It is a time consuming and expensive process and it is not easy to prove property value loss. For example,


18. See Batten v. United States, 306 F.2d 580 (10th Cir. 1962) for a lower federal court decision based on direct overflight.

19. See, for example, Thornburg v. Port of Portland, 376 P.2d 100 (Ore. 1962); Martin v. Port of Seattle, 391 P.2d 540 (Wash. 1964), cert. denied, 379 U.S. 989 (1964); Alevizos v. Metro. Airports Comm., 216 N.W.2d 651 (Minn. 1974); and Aaron v. City of Los Angeles, supra note 12.

20. See Baker v. Burbank-Glendale-Pasadena Airport, supra note 13 for a discussion of continuing nuisance which might also be applied to inverse condemnation.
in a case in Minnesota, a suit was filed in 1970 as a class action against the Minneapolis-St. Paul Metropolitan Airports Commission on behalf of 27,565 south Minneapolis property owners asking that the court award money to compensate for a loss of property values caused by aircraft noise. The case went to the Minnesota Supreme Court three times including twice when the court ruled that the suit could not be pursued as a class action because individual action would be a more efficient method of seeking relief.21 In 1979, a Hennepin County court judge ruled that the property owners suffered substantial invasion of their privacy but that they had not proven that their property had lost value. On appeal, the state supreme court in 1982 ruled that the suit should be tried before a jury.22 The jury trial had not yet been held at the time of this writing.

VII. LOCAL REGULATION OF AIRCRAFT NOISE

The question of whether a local or state government can regulate aircraft noise at an airport has arisen many times. In addition, because airports have been subjected to numerous lawsuits and have often been held to be responsible and liable for damages caused by such noise, the issue of regulation of aircraft noise by airport operators (who are often also local governments) becomes relevant. The local government issue is a matter of the right of a local or state government to regulate via its police power. The airport operator issue is a matter of the right of the owner or the proprietor of an airport to regulate.

A. REGULATION BY LOCAL GOVERNMENT

As to the proper role of local government in regulating aircraft noise, some communities have attempted to deal with the aircraft noise problem by passing laws that limit or prohibit flights over a given area or limit or prohibit flights below a certain altitude over a given area or prohibit flights at certain times of the day or night. Sometimes maximum noise levels permitted have been established. Courts have found most of the local ordinances to be unenforceable, however, on the ground either that the regulation of airspace has been "preempted" by the federal Congress under the federal constitution and/or that the local regulation is in conflict with federal law or regulation.23

In the *Burbank* case in 1973, the owner (Lockheed) of a private airport opposed a city ordinance that prohibited takeoffs of jet aircraft between the hours of 11:00 p.m. and 7:00 a.m. The United States Supreme Court viewed the city's action as an attempt to exercise its police power and applied the preemption doctrine and disallowed the regulation but stated that the court did not consider what limits, if any, apply if a city owns an airport and acts as the proprietor of the airport, rather than as a government, to regulate aircraft noise. This left open the question as to whether and to what extent an airport owner can regulate aircraft noise.25

B. REGULATION BY AIRPORT PROPRIETORS

Since the *Burbank* case, and because the airport proprietor is liable for damages caused by aircraft noise, the courts have recognized the right of the proprietor to protect itself from such damages by restricting the use of the airport so long as such actions are justified by the need to respond to a demonstrable noise problem. The question of the degree to which regulatory power can be exercised by airport owners has been decided on a case by case basis, with no general rule applicable to all situations. The question is to what degree the regulation has been preempted by the federal government, is in conflict with federal law or regulations, burdens or interferes with interstate commerce, or is discriminatory in its effects. Court decisions are influenced by the fact that federal airport grant agreements require the airport to be open to all kinds and classes of aeronautical users on fair and reasonable terms and without unjust discrimination.26

In the *Air Transp. Assoc. of Am. v. J.R. Crotti*, a federal district court reviewed a 1970 California law28 and its implementing regulations that required the California Department of Aeronautics to set noise regulations for the operation of all aircraft at all airports in California, including both private and government-owned airports, except those airports operated by the federal government. The counties where the airports are located were made responsible for enforcing the noise regulations adopted by the Department. The airports were to be responsible for monitoring and measuring noise emissions. Community Noise Equivalent Levels would establish maximum levels of airport noise around residential com-

munities. Single Event Noise Exposure Levels would establish maximum noise emission levels for an individual aircraft directly in flight.

In its opinion the court discussed the role of the proprietor in regulation of aircraft noise, saying that the proprietor of the airport is responsible for the consequences of the airport’s operation (liable to be sued under the Griggs decision) and, thus, has the right to determine the kind of air service to be provided as well as the kind of aircraft to use the facility. The responsibility includes proprietors who are also government agencies. The court then ruled that the state’s Community Noise Levels regulations were constitutional because they did not at that point attempt to regulate aircraft in flight, which is preempted by the federal government.29 However, the Single Event regulations were found to be unconstitutional because they would prescribe noise levels for individual aircraft in direct flight and were an unlawful exercise of police power into the exclusive federal domain of control over aircraft flights in interstate commerce. Thus, the preemption doctrine was applied. Although the court recognized the difference between government as a regulator of aircraft noise and as an airport proprietor, and the court recognized the right of the state and airport proprietors to impose Community Noise Levels, the court treated the Single Event regulation as a government regulation and not a proprietor regulation and ruled that the governmental police power was being abused.

In 1976 in Nat’l Aviation v. City of Hayward30 a federal district court upheld a regulation almost identical to the ordinance in Burbank. Because the FAA had not yet exercised the power to establish curfews, it had not preempted the regulation. The interference with interstate commerce would not be excessive and the regulation was enacted by the city in its role as the proprietor of the airport, not as part of its police power as a municipality.

In the mid 1970’s, the controversy over permitting the supersonic transport Concorde to land at John F. Kennedy Airport (Kennedy) in New York involved the question of proprietary control over access to the airport. The initial decision made by a federal district court was that the ban of the Concorde for noise reasons was prohibited because the regulation of aircraft in flight was preempted by the federal government.31 Indeed, U.S. Secretary of Transportation, William T. Coleman, Jr., in February 1976, had already authorized the Concorde to land at New York and Washington, D.C. in a sixteen month demonstration period. The district court decision was reversed and remanded by a federal court of appeals.

29. No airports had yet tried to impose a community noise level.
and the Port Authority (the proprietor) was given an opportunity to establish noise rules equally applicable to all aircraft.32 However, the Port Authority did not do so and the district court again entered a judgment against the Port Authority and fixed Kennedy's long-standing noise limitation of 112 PNdB (a "voluntary" limit in that no penalties were incurred for non-compliance) as the only possible standard against which the Authority could legally measure permissible noise of supersonic aircraft.33 The Port Authority had refused to set any specific standard for the Concorde to meet—the airplane would have met the 112 PNdB limit that already applied at the airport but the Authority had banned the Concorde anyway. Next, the appeals court authorized the Authority to adopt new, uniform, and reasonable noise standards in the future if it determined that the long-standing noise limitation was inadequate. The court enjoined further prohibition of Concorde operations at Kennedy until the Port Authority promulgated a reasonable, nonarbitrary, and nondiscriminatory noise regulation that all aircraft are afforded a reasonable opportunity to meet.34 The Port Authority did not establish the new standards asked for by the court so that the prohibition of its ban of the Concorde remained in force and the Concorde was allowed to serve Kennedy beginning in the fall of 1977.35

The federal government at the time made it clear that, although it opposed the local airport's ban on the Concorde, it did not want to try to preempt the airport operator's right to regulate noise. This point was apparently made to emphasize the government's position that it did not want Griggs reversed as to the issue of federal liability. A finding that the federal government had completely preempted the aircraft noise field would reverse Griggs and make the federal government liable for all inverse condemnation "takings" rather than the proprietor which owns and operates the airport.36

In 1981, the Ninth Circuit heard a case involving a general aviation airport owned by the city of Santa Monica, California. The court upheld a United States District Court decision and ruled that a city-owner of an airport can impose reasonable noise control, including a maximum single-event noise exposure level of 100 db, a night curfew on takeoffs and landings, a weekend and holiday ban on practice operations, and a prohibition of helicopter flight training. The court said that Santa Monica should

be allowed to enact noise ordinances under the municipal-proprietor exemption if it had a rational belief that the ordinances would reduce the possibility of liability or enhance the quality of the city’s human environment. Contrary to the Crotti decision, the court upheld the single-event regulation saying that it had not been preempted by the federal government because it was not regulation of airspace or flight and that it did not amount to a substantial burden on interstate commerce. The court decided also that the single-event regulation would not cause pilots to engage in unsafe practices in order to avoid exceeding the 100 db level and, even if it did, the federal government could prevent safety violations via its power to regulate safety. Further, the court said that, although there was some effect of the set of regulations on interstate commerce, it was indirect and not substantial. However, the city-owner’s blanket ban of all jet aircraft from the airport was ruled discriminatory and an impermissible burden on interstate commerce because some excluded jets were more quiet than some permitted propeller aircraft.37

The Santa Monica case illustrates the uneven authority of airport proprietors in the regulation of aircraft noise and really does not clarify the role of the proprietor. The single-event noise limit and night curfew were found to be acceptable by the court but, had the airport been an airline airport and not a general aviation airport, the court may have found an unacceptable burden on interstate commerce. The court allowed a single-event noise limit to be imposed but also said that the federal government could override such noise limit if necessary to provide air safety. Finally, the court invalidated Santa Monica’s attempt to ban all jet aircraft on the ground that it would be discriminatory and an undue burden on interstate commerce. It would be difficult to draw definite conclusions as to what this decision means relative to the authority of major airport proprietors to regulate aircraft noise.

An interesting aspect of the case was the fact that the federal government generally sided with the airport proprietor. It followed its usual policy of discouraging any court ruling that would bar the proprietor from regulating aircraft noise on the ground that it is exclusively a federal government responsibility. Otherwise the federal government would be liable for damages in suits brought by property owners claiming loss of property value.

In the Global case,38 several airlines sought to prevent the implementation of an “interim” rule of the Port Authority of New York and New Jersey that limited the proportion of total flight operations of Stage I air-

37. Santa Monica Airport Association v. City of San Monica, 481 F. Supp. 927 (C.D. Cal. 1979), aff’d, 659 F.2d 100 (9th Cir. 1981).
craft (aircraft that did not comply with the initial FAA noise rules) at the Authority’s airports at a time when the FAA had required a gradual phasing out over time of Stage I aircraft that had not yet taken full effect. By limiting the proportion of flight operations of Stage I aircraft, the local rule required stricter standards than did the federal rule. A federal Court of Appeals found that the local rule was not preempted by the federal government and did not conflict with or present an obstacle to the federal noise control program. The reasoning was that the Port Authority rule restricted the cumulative number of flight operations while the federal rules dealt with the composition of the airline fleet and the local rule did not necessarily cause a change in fleet composition. Only an airline-by-airline study could show the effect of the Port Authority rule on the fleet composition of each carrier. The decision reaffirmed the right of airport proprietors to establish requirements as to the level of permissible noise created by aircraft using their airports.

In another New York case, the same Stage I rule was involved. The plaintiff air carrier asked for an exemption from the rule and argued that the rule caused an undue burden because it would alter the carrier’s market and cause economic harm. A federal district court decided that the rule was not preempted by the federal government and that the burden on interstate commerce was only incidental because other carriers could provide the service in question and at the same time comply with the rule. And, since the rule was consistent with federal noise policy, it was not subject to the Commerce Clause even if it did amount to more than an incidental effect on interstate commerce. The court also ruled that the refusal to grant an exemption was not done in a discriminatory manner—only one exemption had been given to a carrier under highly specialized circumstances.39

Finally, since the FAA continues to rely on noise rules it prescribed in the 1970’s, a situation is developing where an airport proprietor is attempting to take the lead in control of aircraft noise. In 1988, the San Francisco Airport Commission adopted a ban on night flights at San Francisco International Airport to begin in January 1989. Stage II aircraft (those meeting the first noise standards prescribed by the FAA in 1969) would be banned between 1:00 a.m. and 6:00 a.m. with the hours of the ban extended each year through January 1993. In addition, by January 1, 1989, one-fourth of all flights at the airport were to be made with Stage III (the most stringent standards required by the FAA) aircraft, rising to 50 percent on January 1, 1994 and 75 percent on January 1, 1999. Further, the Commission was to set, by January 1992, a time limit for the phase-

out of all Stage II aircraft using the airport. The proposal is an indication of the frustration felt by airport proprietors with what they believe is a lack of sufficient federal action on the subject. If allowed to stand, regulation such as that proposed in San Francisco will force the noisy aircraft to other airports, shifting the noise problem elsewhere. At the time of this writing, the FAA had not as yet officially reacted to the plan. Its reaction is likely to be negative.

If the FAA chooses to challenge a restriction such as the one in San Francisco, it has two options available. One is to initiate or support a direct challenge in court, requesting that the court enjoin implementation of the restriction. The second option is to decline to enter into new grant agreements with the airport and/or to withhold funds payable under any existing grant agreements until the proprietor modifies or eliminates the restriction to suit the FAA. At major airports there can be airport user opposition as well as FAA opposition, the user opposition mainly coming from airline companies with general aviation interests playing a minor role. At airports that are primarily for general aviation use, however, general aviation users can play an active role.

C. Conclusion on Local Regulation of Aircraft Noise

Although the federal government has sufficient power under the federal Constitution to take over regulation of airport noise at the local level, it has chosen to share responsibility for noise control with local authorities. The federal government has not prohibited proprietor regulation or preempted the entire area of aircraft noise control because to do so would make it liable for any "takings" that occur under inverse condemnation.

The partial role that the federal government has chosen to play has resulted in conflict and uncertainty regarding the role of airport proprietors in regulating aircraft noise, partly because the federal government has not provided sufficient guidance in the area. Because of the lack of federal direction, the courts have become the rulemakers to determine, on a case-by-case basis, how close the local restrictions come to encroaching upon an area historically perceived to be federally preempted or otherwise invalid.

It is clear that local government regulation under their police power is

42. This is discussed in Schlesinger, Airport Noise: The Proprietor's Dilemma, 16 TRANSP. L.J. 333, 334-35 (1988).
43. Bennett, supra note 17, at 489.
not possible because of the preemption, conflict with federal regulation, and interstate commerce doctrines. This makes some sense because if the legality of local ordinances were upheld a patchwork of conflicting regulations could be imposed around the country which aircraft operators would have difficulty complying with, perhaps seriously disrupting air traffic and having serious economic and social consequences for the communities involved. The worst case would probably be where a given airport is subjected to the inconsistent regulations of several different neighboring communities that it serves.

On the other hand, court decisions to date seem to allow airport proprietors to engage in some regulation of noise, provided it is not an action preempted by federal law or regulation, does not conflict with federal regulation, does not result in an unacceptable burden on interstate commerce, and is non-discriminatory.

However, the airport proprietor is caught in the middle between those who want to maintain a high level of aircraft operations because of convenience and economic and social benefits to the local community and those who want to lower the level of operations to reduce aircraft noise. At the same time, as we have seen, the proprietor is limited as to the types of restrictions it can impose, and yet it is liable for any damages caused by noise.44 As stated by one author,

"... the law remains in the same ambivalent and somewhat contradictory state; airport proprietors are at once told that their noise abatement authority has not been preempted, and at the same time warned to tread delicately so that their standards and procedures do not create an actual conflict with FAA regulation in the... noise control field, are not unreasonable or unjustly discriminatory, and do not impose an undue burden on interstate or foreign commerce."45

The problem created by this is that it is unclear to what degree airport owners can really regulate aircraft noise but, even in the best case, their power is very limited because of the obstacles they face. Each situation must be examined separately to determine whether the regulation is reasonable, not an interference with federal regulation, not an unlawful burden on interstate commerce, and non-discriminatory. The failure of the federal government to take the lead has left the burden of defining what airport operators can do to control aircraft noise to the courts. Because airport owners are unsure of their jurisdiction and are concerned about lawsuits on behalf of the federal government and loss of federal funds, their tendency is to move carefully in regulating aircraft noise and, where they do try to regulate, the impact of such regulation on the amount of

44. See Ellett, supra note 26, at 14-18 for a discussion of these issues and how airport proprietors view their role.
45. Donin, supra note 35, at 726.
noise is, by necessity to avoid being found unlawful, very limited.\textsuperscript{46}

It seems reasonable to conclude that the area of regulation of aircraft noise is in desperate need of a national system of uniform regulation.

\textbf{D. Kinds of Regulatory Actions Taken by Airport Operators}

Airport proprietors are the chief targets of anti-noise groups and, as noted above, the lawsuits involving the noise question are filed against the local airport. However, they cannot solve the noise problem themselves because much of the problem is beyond their control. Airport operators do not decide what kinds of aircraft will be purchased by airlines, the number of airlines that will be authorized to serve a given airport (although airport operators historically have encouraged additional service to their airports), the flight procedures followed by the airlines and the FAA, or, in many cases, the use of land around airports. Operators do not have full control even over the configuration of their own airports. Runway layout is determined primarily by the direction of the prevailing winds.

The previous discussion has indicated the difficult legal situation that airport proprietors find themselves in when regulating aircraft noise. A principal area of control that the airport operator does have is over the procedures followed by the airlines and others in operating their aircraft when on the ground. Unfortunately, regulation of ground operations can have only a limited impact on the total noise problem.

Despite these difficulties, some airport owners have been active in regulating noise and have had some degree of success. The kinds of things done include: setting noise standards, both overall standards and those that apply to individual flight operations; banning or limiting flights at certain hours; regulating ground operations to reduce the amount of noise produced; banning or limiting training flights by aircraft operators; barring certain aircraft from using an airport; limiting growth in the total number of flights by a specific aircraft operator and/or requiring that an increase be accomplished only with a certain kind of aircraft; banning certain noisy aircraft entirely; requiring new airlines serving an airport to meet certain noise standards; and requiring gradual phase out of noisy aircraft. These measures must not be deemed to have been preempted by the federal government, must not be in conflict with federal regulations, must not cause an undue burden on interstate commerce, and must not be discriminatory in their effect on different aircraft operators in order to avoid

\textsuperscript{46} However, according to one author, the cumulation of independently derived and uncoordinated airport access and aircraft use restrictions inevitably will cause the national air transportation system to become so inefficient and costly to operate that it will cease to exist as we know it today. See Ellett, \textit{supra} note 26, at 21. This argument is denied in Blackman and Freeman, \textit{supra} note 41.
legal difficulty. In some cases, as we have seen, the courts have ruled against the proprietors' regulations, sometimes at the request of the FAA. In other situations, the federal government via the FAA has decided to let a questionable regulation stand in order to avoid "taking over" responsibility for noise regulation and the resulting liability for damages caused by noise. In still other cases, the federal government has not yet decided what to do.

A new development in proprietor regulation of aircraft noise has been the use of "noise budgets." A noise budget establishes a maximum amount of total aircraft noise that is allowed at an airport and each airline is assigned a share of the total budget and that carrier is not to exceed the amount of noise allocated to it. Some form of this concept has been adopted at Denver47 (required of the carriers), Boston (required), and at Minneapolis-St. Paul48 (voluntary). Success in reducing overall noise has been reported at Denver49 and Minneapolis-St. Paul.50 At the time of this writing, the FAA had not yet interfered with these programs.

VIII. FEDERAL REGULATION OF AIRCRAFT NOISE

A. CIVIL AERONAUTICS BOARD

Until January 1985, the CAB was responsible for carrying out federal economic regulation of air transportation, which included controlling entry into the industry by for-hire air carriers. Although the CAB could attach terms, conditions, and limitations that "the public interest may require" to the certificates of public convenience and necessity it issued, the CAB chose not to do so in terms of noise abatement. The CAB did not believe that economic regulation included regulation of noise produced by the airlines certificated by the CAB and that aircraft noise had to do mainly with the character of the aircraft, an FAA problem, rather than with whether or not a given airline should serve a given point. This was despite the fact that, by having control over the number of air carriers serving an airport, the CAB also had control over the number of flights in and out of a given airport because the more carriers that serve a given point, the more flights there will be.51 In any event, the refusal of the CAB to participate in regulation of aircraft noise left the problem to the other federal agency concerned with aviation, the FAA.

48. See Schlesinger, id.
51. The CAB did not, however, ever regulate the number of flights directly.
B. FEDERAL AVIATION ADMINISTRATION

1. CERTIFICATION AUTHORITY PRIOR TO 1968

As one of its responsibilities under the Federal Aviation Act of 1958, the FAA has the authority to issue “type” certificates for aircraft, aircraft engines, and propellers if it is found that such aircraft, aircraft engine, or propeller is of proper design, material, specification, construction, and performance for safe operation. The FAA may also prescribe in the certificates issued any terms, conditions, and limitations as are required in the interest of safety. The FAA also has the authority to certify the airworthiness of aircraft. Such certificate shall be issued by the FAA if the aircraft conforms to the type certificate therefor and the aircraft is in condition for safe operation. The FAA may also prescribe any terms, conditions, and limitations as are required in the interest of safety.

It is clear that the Federal Aviation Act of 1958 (Act) empowers the FAA to determine which aircraft and aircraft engines shall be permitted to be used in the United States. The objective of such control is safety. As the noise problem developed in the 1950’s and 1960’s, the FAA believed that aircraft noise was not a safety factor and, therefore, it was not authorized under the Act to accept or reject aircraft and aircraft engines on the basis of noise considerations. Consequently, until 1969, the noise factor was not part of FAA deliberations on any jet aircraft or engine that was put into service. It preferred to handle the noise problem through voluntary cooperation among the aircraft and engine manufacturing industry, the airlines, and airport operators, and by conducting research. In 1967 the FAA created the Office of Noise Abatement to handle its noise-abatement program. The Office was to design new noise-abatement flight procedures that would reduce the noise impact on surrounding communities.

This means that an important method of controlling aircraft noise was not used. If the FAA could have and would have used its certification power to require that aircraft and engines be relatively quiet, the aircraft and engine manufacturing industry and the airlines would have had incentive to try to produce quieter aircraft than existed in the 1960’s and 1970’s. In the absence of such control by the FAA, however, engines were designed and built on the basis of efficiency and economy with no important consideration of the noise problems they would bring about.

54. Federal officials, including those at the CAB and FAA, had been aware of the seriousness of the aircraft noise problem for many years. They received a warning in the President’s Airport Commission Report (Doolittle Report) of 1952 entitled The Airport and Its Neighbors (U.S. Gov’t Printing Office, Washington, D.C.). However, most government officials did not show much interest in the subject until the late 1960’s. See Sherrill, The Jet Noise is Getting Awful, N. Y. TIMES MAG., Jan. 14, 1968.
A question is whether the FAA had the power to consider the noise factor in its certification process. It is clear that the emphasis in the certification section of the Federal Aviation Act was on safety and not on nuisance factors such as noise. However, if there had been a genuine interest in the noise problem on the part of the FAA, that agency might have at least tried to construe its powers to include noise abatement. The certification section of the Act could possibly have been interpreted to include noise as a certification factor since noisy aircraft lead to the use of noise-abatement flight procedures such as steeper glide paths on landings, sharp turns on takeoffs, and using crosswind runways on occasion, that many airline pilots claim are unsafe procedures. Therefore, the use of noise as a certification factor could result in elimination of "unsafe" noise-abatement procedures and hence be interpreted to be in the interest of safety and thus a valid exercise of the powers given to the FAA under the certification provision of the Act.

Even if the FAA did not wish to use the certification section of the Act, it might have recognized that the part of the Act that deals with the general powers and duties of the FAA specifically states that the FAA is authorized and directed to prescribe air traffic rules and regulations for various purposes including the protection of persons and property on the ground.55 "Protection of persons and property on the ground" might be interpreted to mean protection from excessive noise. Thus, the FAA may have been able to use this power to try to do something about aircraft noise when exercising its certification power.

2. LEGISLATION OF 1968

The FAA was brought in as a direct participant in the noise regulation issue when Congress, in 1968, to a great extent as a result of efforts by a study group established by President Lyndon B. Johnson,56 enacted into law an amendment to the 1958 Federal Aviation Act that specifically gave to the FAA the authority to consider noise as a certification factor.57 The law required the FAA to prescribe and amend standards for the measurement of aircraft noise and prescribe and amend such rules that it may find necessary to provide for the control and abatement of aircraft noise. The law specifically authorized the FAA to use noise reduction as a criterion for issuance and revocation of certificates relating to aircraft. There is a requirement that the FAA weigh any proposed regulation on three main counts. These are (1) whether it is technically practicable, (2) whether it

55. 49 U.S.C. § 1348(c).
is consistent with the highest degree of safety, and (3) whether it is "economically reasonable." 58

The general exemption authority of the FAA applies to noise regulation, meaning that the FAA may grant exemption from any rule or regulation prescribed under the Federal Aviation Act if it would be in the public interest. 59 Since 1972, the Federal Aviation Act has provided that the FAA may not grant any exemption from noise regulations established unless the FAA first consults with the federal Environmental Protection Agency (EPA). 60

3. FAA REGULATIONS OF 1969

In November 1969, the FAA issued its first regulations under its new authority, referred to as Federal Aviation Regulations, Part 36—NOISE STANDARDS: AIRCRAFT TYPE CERTIFICATION, 61 commonly known as FAR 36. The regulations required that applicants for new type certificates must show compliance with the noise standards established in the new regulations. As to previously certificated aircraft, aircraft with high bypass ratio engines 62 and for which application was made prior to January 1, 1967, were to meet the new noise standards or show that the noise generated was reduced to the lowest levels that were economically reasonable, technologically practicable, and appropriate to the particular type design. For aircraft with high bypass ratio engines for which application was made on or after January 1, 1967, it was to be shown that the noise levels produced are no greater than the standards set forth in the ruling. These provisions applied to the wide-bodied jets being developed at the time—the Boeing 747, Douglas DC-10 and Lockheed L-1011. However, the regulations did not apply to the first version of the Boeing 747 because the airplane was already in production at the time. The Boeing 747 only had to meet the above-stated provision requiring that its noise output be reduced to the lowest levels that were "economically reasonable, technologically practicable, and appropriate to the particular type of de-

60. 49 U.S.C. § 1431(b) (1982).
62. Bypass ratio has to do with the flow of air through a jet engine. A bypass ratio of 2 means that, of total entering airflow, twice as much air discharges through the fan duct as through the core engine. The higher the bypass ratio, the less noise will be produced. Some aircraft engines being developed in the late 1980's for use in the future have extremely high bypass ratios and are referred to as "ultrahigh bypass ratio engines." In addition to less noisy engines, newer aircraft also emit less noise because of a steeper takeoff angle.
sign." However, later versions of the 747 were required to comply with the new noise standards.

For aircraft that did not have high bypass ratio engines, i.e., the Boeing 707, 720, 727, and 737, Douglas DC-9, General Dynamics Convair-990, and British Aircraft Corporation BAC 111, for which application was made before December 1, 1969, it was to be shown that the lowest noise levels reasonably obtainable were achieved. For those for which application was made on or after December 1, 1969, it was to be shown that the noise levels did not exceed the standards set forth in the new regulations.

This meant that all previously certified and pre-existing aircraft were exempt from the new rules and that they applied only to the new wide-bodied jets for which certificate application had been made on or after January 1, 1967. This was a primary reason why the new rules were found to be generally disappointing to anti-noise groups.

Depending upon the weight of the aircraft, a maximum of 93 to 108 "Effective Perceived Noise Decibels" (EPNdB) were to be allowed at specific takeoff and approach path and sideline points where noise measurements were to be taken (93 to 108 on takeoffs and 102 to 108 on approaches). The noise measurement point for takeoffs was to be 3.5 nautical miles from the start of the takeoff roll on the extended centerline of the runway. For approaches, the measuring point was to be one nautical mile from the threshold on the extended centerline of the runway. The sideline points were to be 0.25 nautical miles from the extended center line of the runway for aircraft with three or less engines, and 0.35 nautical miles for aircraft with four engines. In 1978, the FAA modified the noise measurement point requirements by changing the distances slightly. Thus, for takeoffs the previous 3.5 nautical miles distance from the start of the roll was increased by 59 feet to 21,325 feet (6,500 meters). For approaches, the one nautical mile distance from the threshold was increased by 486 feet to 6,562 feet (2,000 meters). The 0.25 sideline point distance from the extended center line of the runway was decreased by 43 feet to 1,476 feet (450 meters). The 0.35 distance was not changed.

The 1969 ruling provided that, for the takeoff runway centerline measuring point, the maximum allowed noise level was 108 EPNdB for maximum weights of 600,000 pounds or more, less 5 EPNdB per halving of the 600,000 pound maximum weight down to 93 EPNdB for maximum weights of 75,000 pounds and under. For the approach centerline measuring point and for sideline points for both approaches and takeoffs, the

---

63. EPNdB is a computed value taking into account the actual sound pressure level on the human ear, plus the duration of the noise, and the pure tones, including particularly annoying sounds, such as the screeching noises jet engines make.

noise levels were not to exceed 108 EPNdB for maximum weights of 600,000 pounds or more, less 2 EPNdB per halving of the 600,000 pound maximum weight down to 102 EPNdB for maximum weights of 75,000 pounds or under.

Since noise generation doubles with each additional 10 EPNdB, the regulations could reduce the noise generated by one-half the noise level produced by the earliest four-engine narrow bodied aircraft of 110 to 120 EPNdB at takeoff and landing runway centerline measuring points. A lesser or no reduction would occur with the newer jet aircraft then in operation.\(^65\) However, because the regulations did not apply to aircraft already in service (there was no retrofit requirement), there was no immediate noise reduction as a result of the FAA rules. A major barrier to the FAA going any farther than it did was the fact that the FAA must weigh any noise control requirement on the basis of whether it will be "economically reasonable."

This factor had a lot to do with exempting the 747 from the rules and the unwillingness to require retrofitting of narrow-bodied aircraft since the cost of doing so would be quite high.

The new regulations were criticized by anti-noise interests because they did not apply to all aircraft, they did not require the development of new noise reduction technology, and their effect could be counteracted by the increase in airline traffic and flight operations that was anticipated. At the same time, there was erroneous optimism on the part of some experts based on the fact that the newly introduced wide-bodied aircraft were quieter than their predecessors and the expectation that their growing use would solve the noise problem.\(^66\)

4. \textit{Role of the Environmental Protection Agency}

Meanwhile, the FAA discussed various proposed changes in the rules but no action was actually taken. In the Noise Control Act of 1972,\(^67\) Congress brought the EPA into the aircraft noise controversy, apparently in response to "foot dragging" by the FAA.\(^68\) Although the Act required the FAA to consult with the EPA before establishing noise regulations, the role of the EPA turned out to be minimal. The Act instructed the EPA to conduct a nine-month study of the adequacy of FAA noise regulations and to recommend noise control rules to the FAA. However, the FAA was to have the right to decide to accept or reject the recommendations. An


FAA veto of recommended regulations was permitted if safety would be compromised or because the standards were technologically or economically not feasible. The FAA was required to either promulgate the EPA suggested regulation(s) within a reasonable period of time or to publish notice declining to adopt the regulation(s) and explaining why.\textsuperscript{69}

5. **FAA Regulations of 1973**

In 1973 the FAA made the FAR Part 36 regulations applicable to most older designed aircraft with maximum weights of over 75,000 pounds (such as the Boeing 727) to be manufactured after December 1, 1973.\textsuperscript{70} This meant that narrow-bodied aircraft produced before December 1, 1973, were still not required to meet the 1969 noise standards.

The first energy crisis of the 1970’s occurred in 1973, sharply increasing the price of jet fuel and adding incentive to aircraft engine manufacturers to improve engine fuel efficiency and giving airlines an incentive to purchase aircraft equipped with such engines. If such engines could also be less noisy than their predecessors, an opportunity to improve the noise situation was developing.

However, by the mid-1970’s the FAA was being accused of "regulatory paralysis"\textsuperscript{71} because it had failed to act with respect to most aircraft that were already in service. Several states filed lawsuits against the federal government for failure to implement EPA recommendations on aircraft noise regulation.\textsuperscript{72} In the mid-1970’s, only about 20 percent of the United States airline fleet met FAR Part 36 standards.\textsuperscript{73} At the same time the airline industry was complaining about lack of standardization in noise regulation caused by the diverse approaches to noise control exercised by local governments and airport operators. Federal standards that would apply to all airports were preferable to the carriers, provided that they were not overly severe from their point of view. Several versions of more stringent noise regulations were recommended by the EPA. Others were generated by the FAA on its own in the period after 1972 but none were adopted by the FAA. Bills to require stronger regulation were con-


\textsuperscript{70} December 31, 1974 for aircraft with maximum weights of 75,000 pounds or less. Those aircraft with Pratt and Whitney JT3D series engines were given until December 31, 1974 to comply. See Noise Standards for Newly Produced Airplanes of Older Type Design, 38 Fed. Reg. 29,569 (1973) (codified at 14 C.F.R. § 21.183(e) and 14 C.F.R. § 36.1(a)(d)(1-3)).


\textsuperscript{72} U.S. Studies State Suit Seeking Mandatory Response on Noise, AVIATION WEEK & SPACE TECH., Nov. 1, 1976, at 29.

\textsuperscript{73} North, supra note 71, at 815.
sidered in Congress. A major factor in the discussions was the matter of cost—who would pay for retrofitting old aircraft or acquiring new aircraft if stiffer rules were set forth. The fact that airlines were in poor financial condition at that time led many people to believe that the airline industry could not be expected to pay for the changeover itself. Various proposals to have the federal government help finance the noise-reduction steps were made by interested parties. They included using general taxation to help pay for the changeover, levying an additional tax or a surcharge on airline passengers and air freight shippers as a source of revenue, perhaps by setting up a special fund, making use of surplus money in the Airport and Airway Trust Fund, imposition of a noise pollution tax on noisy aircraft, and federal government loan guarantees for the purchase of replacement aircraft.

6. **FAA 1976 NOISE REGULATIONS**

At the insistence of President Gerald R. Ford, Secretary of Transportation William T. Coleman, Jr. (the FAA is a unit in the U.S. Department of Transportation) finally took action in the matter in December 1976, and ordered that aircraft used by United States carriers in domestic service gradually meet the 1969 FAR Part 36 standards by January 1, 1985, either through replacement of the aircraft or through retrofitting.\(^74\)

The new regulations were allowed to remain in effect by the incoming administration of President Jimmy Carter. They required that domestic commercial turbojet aircraft in excess of 75,000 pounds that did not meet FAR Part 36 standards must be retired from the fleet or modified to meet the standards according to a specific eight-year time table. The first generation four-engine jets (Boeing 707, McDonnell Douglas DC-8, and General Dynamics Convair-990) had to meet the standards by January 1, 1985 with one-quarter of them to be in compliance in four years and one-half to be in compliance in six years. The second generation two- and three-engine jets (Boeing 727, McDonnell Douglas DC-9, Boeing 737, and British Aircraft Corporation BAC 111) were given until January 1, 1983, for full compliance, with one-half of the fleet to be in compliance in four years. The wide-bodied jets (Boeing 747, McDonnell-Douglas DC-10, and Lockheed L-1011) were also given until January 1, 1983, with one-half to be in compliance in four years (the DC-10 and L-1011 already met the standards). The rules did not apply to United States aircraft in international service nor to aircraft of foreign carriers. The FAA stated that at the time 1,600 of the 2,100 large jet aircraft in the United States fleet

did not comply with FAR Part 36 standards and that one-half of these would still be in service by 1990 if no change were made in the noise regulations.

7. **FAA 1977 AND 1978 NOISE REGULATIONS**

In February 1977, the FAA issued new noise regulations which applied to aircraft to be certified in the future and established three noise level categories for aircraft—Stages I, II, and III—effective October 1, 1977.\(^{75}\)

The Stage I noise level is a level above the FAR Part 36 standards established by the FAA in 1969. The Stage II noise level is the FAR Part 36 level established in 1969.

The Stage III noise level is the level newly established in the 1977 regulations and was to be required of turbojets with high or low bypass ratio engines that apply for certificates on or after November 5, 1975. Stage III requirements varied depending upon the weight of the aircraft and the number of engines. Minor changes were made in the Stage III limits in February 1978, effective April 3, 1978. Under the modified and still current rules, the takeoff range for aircraft with more than three engines is from 89 to 106 EPNdB depending upon the weight of the aircraft. For aircraft with three engines the takeoff range is now from 89 to 104 EPNdB, while the takeoff limits for aircraft with less than three engines remains at a range of 89 to 101.

The approach limits were made the same for all aircraft, regardless of the number of engines, with a range of 98 to 105 EPNdB, depending upon the weight of the aircraft. Sideline points limits were made the same for all aircraft, regardless of the number of engines, with a range of 94 to 103, depending upon the weight of the aircraft.\(^{76}\) As noted earlier, the measuring point distances were modified slightly. A provision was made for exceeding the Stage III limits at some measuring points if it could be offset by less than allowable noise readings at other points ("tradeoff" provision).

Recall that the Stage II (original FAR Part 36 established in 1969) limits are 93 to 108 for takeoffs, 102 to 108 for approaches, and 102 to 108 for sideline points. See Table 2 for a comparison of Stage II and Stage III limits. Thus, the reduction in the noise levels allowed in 1977 and 1978 appear to be moderate when compared with the 1969 rules.


### TABLE 2
Stage II and Stage III Aircraft Noise Limits*

<table>
<thead>
<tr>
<th>Stage II Limits</th>
<th>Stage III Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Aircraft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stage III Limits</td>
</tr>
<tr>
<td></td>
<td>Aircraft With:</td>
</tr>
<tr>
<td></td>
<td>4 or more Engines</td>
</tr>
<tr>
<td></td>
<td>3 Engines</td>
</tr>
<tr>
<td></td>
<td>Less Than 3</td>
</tr>
</tbody>
</table>

Takeoff          
Extended         
Runway           
Centerline       
Measuring Point  

Takeoff          
Sideline         
Measuring Point  

Approach         
Extended         
Runway           
Centerline       
Point            

Approach         
Sideline         
Measuring Point  

93-108           
89-106           
89-104           
89-101           

102-108          
94-103           
94-103           
94-103           

102-108          
98-105           
98-105           
98-105           

102-108          
94-103           
94-103           
94-103           

* Ranges in EPNdB's depending on the weight of the aircraft with first number applying to the lowest weight.


The greatest impact of the 1977-1978 regulations was on sideline point limits, changing the range of 102 to 108 EPNdB to a range of 94 to 103 for all aircraft. For takeoff and approach extended runway measuring points, the changes between the 1969 limits and the 1977-1978 limits are less, the difference varying by aircraft. For takeoffs of four-engine aircraft the maximum allowed is reduced only from 108 to 106. For three-engine aircraft, it is reduced from 108 to 104. However, for takeoffs of aircraft with less than three engines, the maximum limit is reduced from 108 to 101, so that significant noise reduction can result with such airplanes on takeoff. The Stage III rules have the least impact on approaches, the
maximum allowed reduced from 108 to 105 for all aircraft.\textsuperscript{77}

In its discussion of the 1977 regulations, the FAA said that, despite the previous noise regulation of the federal government, aircraft noise was still a "significant annoyance" for six to seven million persons in the United States with 600,000 persons severely impacted.\textsuperscript{78} Noise-interested groups usually claim that the noise problem is more serious than the FAA reports. The FAA also said that the short-term noise reduction would remain small as long as the aircraft fleets did not contain a significant number of Stage III aircraft.\textsuperscript{79} The reader is reminded that Stage III noise levels are required only of aircraft that applied for certification on or after November 5, 1975.

To summarize, these regulatory steps created three categories of aircraft in respect to their noise emissions. Stage I aircraft were those aircraft that did not meet the 1969 standards and were to be eliminated or retrofitted by 1985. Stage II aircraft are those that meet the 1969 standards. Stage III aircraft are those that meet the lower noise levels set forth in 1977 and 1978 for newly certified airplanes.

The issue of how compliance with the noise regulations would be paid for was not decided by the FAA or any other government agency. Concern was expressed in Congress and elsewhere principally over whether the airlines could meet the deadlines set forth in the 1976 regulations, particularly, how they would pay for retrofitting or replacing aircraft. The federal government did not come forward with a plan to help finance the changeover. However, as airlines became increasingly profitable in the late 1970's, the idea of some sort of government financial support was abandoned and the carriers were left to finance the changeover themselves. By this time the price of energy had risen dramatically and gave the carriers an additional incentive to make the investment required to comply with the noise regulations—the replacement aircraft would be more energy efficient.

8. \textit{Aviation Safety and Noise Abatement Act of 1979}

After the 1976 noise rules setting forth the 1985 time table were adopted by the FAA, various attempts were made in Congress to enact legislation that would make the rules less stringent in one way or another and to assist the airlines in paying for retrofitting or acquiring new aircraft. As noted above, the attempts to provide government aid to finance the changeover disappeared when airlines became very profitable beginning

\textsuperscript{77} Some experts state that changes of 5 or fewer EPNdB are not noticeable to the human ear, U.S. Department of Transportation, \textit{Aviation Noise Abatement Policy}, supra note 74, at 14.

\textsuperscript{78} 42 Fed. Reg. 12,360, supra note 75, at 12,362.

\textsuperscript{79} \textit{id.} at 12,370.
in 1978. However, in early 1980, Congress reacted to pressure to liberalize the rules of 1976 by incorporating into the Aviation Safety and Noise Abatement Act of 1979\textsuperscript{80} (the 1979 Act) a modification of those rules. The 1979 Act extended the deadline for two-engine aircraft for 100 percent compliance from January 1, 1983 to January 1, 1985, for aircraft with 100 or more seats, and January 1, 1988 for those with fewer than 100 seats. This was referred to as the small community service exemption.\textsuperscript{81} The law also modified the requirements for both two-engine and three-engine aircraft of any seat capacity if the operator had, by January 1, 1983, made arrangements for replacement of the aircraft with an airplane that would meet the noise requirements. In such cases, the deadline for noise compliance was extended to January 1, 1985 for three-engine aircraft and to January 1, 1986 for two-engine aircraft.\textsuperscript{82}

In addition, the 1979 Act provided that the FAA require United States and foreign air carriers engaged in foreign air transportation to comply with noise standards set forth in FAA regulations or with International Civil Aviation Organization (ICAO) noise standards, if any, that are substantially compatible with FAA noise standards.\textsuperscript{83} By November 1980, the ICAO had done nothing to establish noise standards so the FAA ruled that its noise regulations would apply to aircraft in foreign commerce, although they were made subject to the January 1, 1985, deadline without the phase-in feature.\textsuperscript{84}

Among other things, the 1979 Act also provided for a system whereby airport operators could, if they wish, request federal approval of airport proprietor anti-noise programs involving such things as the use of preferential runways, restrictions on the use of certain classes or types of aircraft, the construction of barriers and acoustical shieldings (including soundproofing of buildings), the use of flight procedures to control the operation of aircraft, and the acquisition of land so as to assure the use of property for purposes that are compatible with airport operations.

9. **Exemptions from Compliance**

As the January 1, 1985, deadline approached for the first generation of narrow-bodied, four-engine aircraft, the FAA began to use its exemption power permitted under the original Federal Aviation Act and the 1968


\textsuperscript{81} 49 U.S.C. § 2124 (1982).

\textsuperscript{82} 49 U.S.C. § 2123 (1982).

\textsuperscript{83} 49 U.S.C. § 2122 (1982).

Noise Regulation Act\textsuperscript{85} to exempt some of these aircraft from the deadline. It used as criteria for exemption, five criteria suggested by Congress for consideration in the House-Senate conference report on the 1979 law.\textsuperscript{86} These were that the applicant for exemption must be a smaller carrier, that it must have made good faith compliance efforts, that the carrier would suffer financial havoc without an exemption, that the travelling and shipping public would be deprived of a vital service, and that the retrofit technology ("hush kits") for the aircraft was either delayed or unavailable (there was a problem involving the availability of hush kits in 1984 and 1985).

To add to the exemption puzzle, the Act of 1979 was amended by Congress in October 1984, (Hawkins-Chiles Amendment) to eliminate four of the five suggested exemption criteria the FAA had been using, leaving only the criteria of having made a good faith compliance effort (in the form of a contractual commitment to retrofit or replace a noncomplying aircraft).\textsuperscript{87} This encouraged exemptions to be given. In addition, the Hawkins-Chiles Amendment exempted four-engine aircraft operating international flights out of either Miami International Airport or Bangor, Maine from compliance with the January 1, 1985, deadline. This was done on behalf of the large number of air freight carriers operating out of those airports, primarily Miami.

In 1984 and 1985, the FAA granted a series of exemptions to operators of four-engine aircraft and issued a larger number of denials of such exemptions. Some, but not all, of the exemptions granted involved Bangor or Miami. Lawsuits followed by carriers who objected to the exemptions given to others after they themselves had spent considerable money to meet the January 1, 1985, deadline and by carriers who had been denied exemptions. There was also considerable criticism from anti-noise interested persons of the FAA policy of allowing any exemptions at all.

A United States Court of Appeals decision in early 1985 vacated thirteen of twenty FAA decisions made and criticized the FAA for inconsistencies in handling exemption requests, applying all of the five criteria mentioned above in some cases but not in others.\textsuperscript{88} In response to the Court decision, the FAA reinstated the five criteria referred to above when granting exemptions. By May 1985, it had approved 17 percent of the

\textsuperscript{85} 49 U.S.C. § 1421(c) and 49 U.S.C. § 1431(b) (1982), respectively.
\textsuperscript{88} Airmark Corp. v. FAA, 758 F.2d 685 (D.C. Cir. 1985). The FAA exemption policy was referred to by the court as an "exemption shell game." \textit{Id.} at 693.
113 applications sought under the exemption authority. In general, the exempted aircraft could not be operated beyond December 31, 1985, except where the operator had a firm retrofit ("hush kit") commitment for delivery after that date but, in such cases, no later than December 31, 1986.

10. FEDERAL NOISE REGULATION IN THE LATE 1980'S

By 1988 the carriers had complied with the regulations set forth in 1976 and 1977-1978. This was done at considerable cost to the carriers involved.

At the beginning of 1985, Stage II-compliant aircraft numbered 2,367, or 79.6 per cent of the airline fleet, not including about 300 still-exempt Stage I aircraft. The balance were Stage III aircraft. The Stage II aircraft were predominantly the Boeing 727-100 and 200 and 737-100 and 200 aircraft and McDonnell Douglas DC-9's. They numbered 2,057, or 66.9 percent of the Stage II aircraft. The FAA estimated that the percentage of the fleet that would be Stage II would still be 57.5 percent in 1990 and 38.6 percent in 1995.

Meanwhile, the rapid rise in the volume of air passenger traffic in the 1980's led to a severe airport capacity problem and the demand for expansion of the United States airport system. It also led to a steadily increasing noise problem which promised to get worse in the future. There were significant increases in the number of airlines in operation, the number of aircraft operations, the number of passengers carried, and the number of seat-miles flown. About 450 million passengers were carried by United States domestic carriers in 1987, about double the number carried in 1978 and this was expected to reach 750 million by the year 2000.

---

89. See Transportation Dept.'s Defends Noise Exemption Policy as Judgment Call, AVIATION WEEK & SPACE TECH., May 27, 1985, at 36.
92. Id.
In 1986, of the 3,200 public airports in the United States, the top fifty accounted for more than 80 percent of all passenger boardings and more than 30 percent of all aircraft flight operations.\textsuperscript{94} It is at these airports that the noise problem is the most serious.

Proprietors at some large airports have taken measures to reduce congestion. For example, airport proprietors in Boston and New York have proposed sharp increases in landing fees for regional airlines to discourage their use of the airports involved (Boston) or to shift off-peak times of the day (New York). Boston would include general aviation aircraft as well, while New York already has a high peak period landing fee system for general aviation.\textsuperscript{95} Although the purpose in both cases is to reduce airport congestion, the effect on noise will be to permit a greater number of large aircraft to use the airports, adding to the noise generated.

With the extensive growth in traffic expected by the year 2000, not only will airport capacity continue to be a problem, but the noise problem can become more severe and affect more people than is the case now, even if mainly Stage III aircraft are in use by then, because of the frequency factor—the aircraft noise problem is a function of noise generated by a single flight operation and the frequency of such operations.

By mid 1988, the FAA had not yet decided what to do next in the noise-regulation area and Congress, although occasionally discussing additional legislation requiring lower noise levels, had made no serious attempt to do anything. Meanwhile, as aviation jet fuel prices remained low (about $0.60 per gallon in 1987) the carriers’ incentive to purchase new aircraft for energy conservation purposes was lessened. The energy savings were not sufficient to offset the high cost of new Stage III aircraft compared with keeping Stage II aircraft or purchasing a used Stage II aircraft.\textsuperscript{96} Some airlines were also in financial difficulty in the 1980’s and could not afford new aircraft. Airline reluctance to purchase Stage III aircraft is also said to be caused by airline uncertainty as to whether or not local proprietor regulations will permit their long-term use.\textsuperscript{97} However, in 1988, orders for new Stage III aircraft increased, reflecting the improved financial condition of some carriers.

On the other hand, liberal federal policy permitted many airline merg-

\textsuperscript{94} Shifrin, \textit{Officials Hope Capacity Crisis Will Spur Expansion of Airports}, \textit{Aviation Week & Space Tech.}, Nov. 9, 1987, at 83.

\textsuperscript{95} Hughes, \textit{Agency Proposes Raising Fees at New York Airports}, \textit{Aviation Week & Space Tech.}, Apr. 4, 1988, at 64; Hughes, \textit{Two Coalitions Sue Massport to Block Logan Fee Increase}, \textit{Aviation Week & Space Tech.}, Apr. 25, 1988, at 99; and \textit{Who Controls Airport Access?}, \textit{Aviation Week & Space Tech.}, Mar. 28, 1988, at 9.

\textsuperscript{96} New Stage III aircraft available in the late 1980’s included the Boeing 747-200A, 747-400, 757, 767 and more recent versions of the 737, the McDonnell-Douglas DC-9 MD-80 series, and Airbus A-300.

\textsuperscript{97} See Ellett, \textit{supra} note 26, at 28.
ers to take place which, in turn, temporarily reduced the number of flight operations at some major airports. Greater stability in the airline industry and elimination of unprofitable flights also contributed to the reduction. At the same time, adoption of the hub-and-spoke method of operation by many airlines increased the number of flight operations and the noise problem at other airports such as Memphis, Nashville, and Raleigh-Durham.\textsuperscript{98}

\textit{In the long-run, the picture of airport capacity and the noise problem is not a positive one.}

Anti-noise protesters in the 1980's advocated that the government set a cutoff date for both production and operation of Stage II aircraft, the aircraft that meet the 1976 noise standards that were established originally in 1969. This has been accompanied by increased militancy of local anti-noise organizations and airport operators seeking solutions to the noise problem. This is in spite of the progress that has been made in introducing new generation aircraft. Among the recommendations that were made to the FAA at a hearing conducted in 1985 were the following proposed by the Minneapolis-St. Paul Metropolitan Airports Commission: stopping production of Stage II aircraft; strict enforcement of the January 1, 1988, deadline for Stage I aircraft still operating under the small community exemption provided in the 1979 Act; a January 1, 1995, deadline to halt operation of all Stage II aircraft; federal tax credits and other financial inducements for U.S. airlines to purchase Stage III aircraft; Stage IV technology research to lower the noise emitted by future aircraft; antitrust immunity for airlines to jointly and voluntarily reduce Stage II aircraft flights at noise-impacted airports; local regulatory action to reduce Stage II flights if necessary; additional public hearings in noise impacted communities; and statutory incentives, including imposition of a surtax on jet fuel consumed by noisy aircraft, to develop funds for interest-free/low-interest loans to airlines to purchase Stage III aircraft. At the same hearing, the Airport Operators Council International advocated strict compliance with noise regulations; prohibition of further production of Stage II aircraft after January 1, 1986; a program to phase out operations of Stage II aircraft; government directives to require airlines to use Stage III aircraft in noise-sensitive communities; and financial inducements to airlines to phase out Stage II aircraft.\textsuperscript{99}

An FAA report to Congress in 1986 proposed several different regulatory approaches that could be taken. They were a Stage II nonaddition rule, prohibiting the addition of any Stage II aircraft into the United States fleet on or after a specific date, such as January 1, 1988; a Stage II oper-

\textsuperscript{98} Ott, \textit{Leading Airports Reflect Mergers in Declining Aircraft Traffic}, \textit{Aviation Week & Space Tech.}, Feb. 1, 1988, at 81.

\textsuperscript{99} See Ott, \textit{Cutoff Date for Stage II Aircraft Operations Urged at FAA Hearings}, \textit{Aviation Week & Space Tech.}, Dec. 23, 1985, at 34.
ating ban at critical airports, making the noise limitation a local option; a nationwide Stage II operating ban with a fixed date, which would set one or more dates by which some percentage of the affected aircraft must be brought into compliance with Stage III standards, exported, or taken out of service; a nationwide Stage II operating ban by age of aircraft, guaranteeing each transport a minimum service life before it must be phased out; a nationwide Stage II operating ban, combining a fixed phase-out date with federal preemption of the right of local airport proprietors to restrict the operation of Stage II aircraft at their airports prior to the FAA deadline; operational flight procedures, which would provide Stage III aircraft preferential treatment in the use of operational procedures in terminal areas and en route; operational ground procedures, providing preferential ground handling treatment to operators of Stage III aircraft by the FAA and local airport proprietors; noise budgets, allowing the airport operator to assign a noise budget to each carrier using that airport; modification of current FAR Part 36 noise standards, which might include adding one or more additional stages to the two stages for which standards currently are written; and noise fees, which would implement a user surcharge for operators that choose to continue to operate their Stage II aircraft.\textsuperscript{100} None of these approaches had been adopted at the time of this writing.

In 1987, a long-range plan under which U.S. air carriers would phase out Stage II aircraft in exchange for an end to new airport noise restrictions was presented in draft form to the FAA by an FAA-sponsored working group representing airlines and airport operators and two trade associations (Working Group on Aircraft Noise/Airport Capacity). The report recommended a December 31, 1987, cutoff date for the production of Stage II aircraft. This would have affected the Boeing 737-200, the only Stage II aircraft still in production. A December 31, 1989, cutoff date was recommended for final registration of any Stage II aircraft, which would mean that airlines could not buy or sell such aircraft after that date. The group recommended an operational phase-out of the Stage II aircraft which would permit airlines to phase out 20 percent of those aircraft in their fleets in each of five three-year blocks, beginning December 31, 1994, and ending no later than December 31, 2009, with an additional recommendation that Congress provide financial incentives that would result in completion of the phase-out by December 31, 1999. In addition, the group proposed a moratorium on the establishment of new noise restrictions at individual airports while Congress considers the new program, and made recommendations having to do with land use and noise

\textsuperscript{100} Preble, Inaction on Noise Standards Raises Industry Concern Over Stage 2 Fleet, AVIATION WEEK \& SPACE TECH., July 6, 1987, at 38.
mitigation measures around airports.\textsuperscript{101} The draft report was still subject to public hearings and review by Congress. The report was viewed by some critics as an attempt to have airport operators trade their local noise controls for early retirement of noisy airplanes before their economic life is ended, especially if the December 31, 1999, deadline could be achieved. At the time, there were in service approximately 2,200 Stage II Boeing 707’s, 727’s, and 737’s, McDonnell Douglas DC-8’s and DC-9’s, and British Aircraft Corporation BAC 111’s.\textsuperscript{102}

The newly appointed Administrator of the FAA, T. Allan McArtor, responded to the Working Group report by announcing that the FAA would propose legislation to Congress to establish a national noise policy and require a phase-out of Stage II aircraft, create an incentive program for airlines to comply, and outline terms of agreement for airports to call a halt to aircraft restrictions.\textsuperscript{103} Legislation by Congress would be needed if future noise regulation involved government financing of some sort. But legislation would not be needed to require lower noise levels. The FAA already has authority to do so on its own. In any event, the newly appointed Secretary of Transportation, James H. Burnley IV, later said that it would be politically naive to make such a proposal (McArtor’s), and it would give the federal government too much power over local airport operators.\textsuperscript{104}

Despite pronouncements by FAA officials that a cutoff date for Stage II aircraft would be set, this had not yet been done at the time of this writing. The airlines, of course, prefer to operate the 2,200 or so Stage II aircraft currently in use as long as they are economically viable. At the same time, the sharp increase in the volume of airline traffic and the number of flight operations since 1977 has largely mitigated the effect of the Stages II and III rules now in effect because the noise problem is a combination of the amount of noise emitted by an aircraft and the number of occurrences (number of flights). For example, at Minneapolis-St. Paul, although about 27 percent of the scheduled airline flight operations were Stage III aircraft in 1987, the number of registered noise complaints received at the airport reached an all-time high of 16,696 in that year; it was only 601 in 1980.\textsuperscript{105}

Meanwhile, criticism of the FAA mounted in the country because of


\textsuperscript{102} id.


\textsuperscript{105} Minneapolis-St. Paul Metro. Airports Comm., \textit{supra} note 1.
alleged failure to adequately regulate airline safety. It was claimed that it was difficult for the FAA to operate effectively when part of the larger Department of Transportation, that the governmental personnel and procurement rules and procedures were making the FAA inefficient, and that there was too much budgetary uncertainty year to year for the agency to properly carry out its mandate. As to the problem of slow decision making, decisions of the FAA had to be approved by the Department of Transportation and the Office of Management and Budget. Establishment of a new aviation standard was said to require 217 steps and often took years with an average of nineteen months between first notice and the final rule before a rule making became effective. There also had been too much turnover in the post of Administrator. In short, the FAA was said to be unable to respond quickly and efficiently to change.\textsuperscript{106} The FAA structure has been criticized also because of the mixed nature of its functions. It regulates air safety, it builds, operates, and maintains the federal air traffic control system, and it is charged with promoting air transportation development. Critics say that it cannot do all three things simultaneously in an effective way. Because of some of the criticisms stated above, a Presidential Commission on Aviation Safety, in April 1988, recommended that there be a complete organizational overhaul of the FAA which would include removing it from the Department of Transportation and establishing it under a new name as an independent agency and giving it freedom to control its own financing.\textsuperscript{107}

IX. CONCLUSIONS

The aircraft noise problem is a serious one for many Americans. Unfortunately for them, they are a small minority of the total population which makes it difficult for them to get a satisfactory political response to their complaints.

As pointed out earlier in this paper, there is multiple responsibility for the problem and there must be multiple responsibility for trying to solve it. Therefore, local government, airport proprietors, land developers, those who buy property near airports, aircraft and engine manufacturers, airlines and other aircraft operators, and the federal government all have a


part to play.\textsuperscript{108}

A. \textit{Technology as a Solution}

However, given the limitations on what the others can do, aircraft and engine manufacturers, aircraft operators, and the federal government are the most likely to be able to have a significant impact on the problem. This is because technological improvement is the best long-run and permanent solution. Other measures are mainly attempts to regulate the effect of noise rather than to reduce the amount of noise emitted from aircraft. Unfortunately, it is often not in the economic interest of airlines and other aircraft operators to invest in retrofitting or replacing noisy aircraft. Replacement can be attractive if the aircraft are ready to be retired anyway. There is some incentive to replace aircraft also if replacements are more energy efficient to an important degree, but the role of energy has been lessened since the mid 1970's as the price of crude oil fell and more or less stabilized at a "reasonable" level.\textsuperscript{109} The lack of interest in buying new technology for noise-reduction purposes has a discouraging effect on aircraft and engine manufacturers and their interest in spending money to develop less-noisy aircraft.

B. \textit{Need for Greater Federal Action}

Therefore, if technology is the route to acceptable noise levels, while the carriers and aircraft and engine manufacturers have little economic incentive to develop it, the federal government is the logical actor to accelerate adoption of better technology. Without more aggressive action by the federal government requiring the use of new or retrofitted aircraft (unless conditions change and the airlines have great economic motivation for doing so), it is not likely that the airline industry will generally operate many Stage III or better aircraft for a long time. The federal government is the only party that has the legal jurisdiction required and it is the only party with the capability, if necessary, of arranging non-airline financing for a noise-reduction program.

The difficulties associated with local government and airport proprietor noise-reduction efforts were discussed earlier in this paper. The legal limitations on what can be done in establishing noise standards are severe and the impact of local government and proprietor regulation on the problem is bound to be limited but at the same time a nuisance for the

\textsuperscript{108} Some of the deficiencies of the current approach to regulating aircraft noise are discussed in Ellet, \textit{supra} note 26. A response to that discussion is Blackman and Freeman, \textit{supra} note 41, who argue in favor of the current system of divided regulatory authority.

\textsuperscript{109} A severe energy crisis in the future accompanied by a sharp rise in price could change the attitude of air carriers on this question.
aerial aircraft operator. In addition, to the extent that they do have some effect, local rules serve to create a series of different sets of regulations that conflict with the need for a smooth flowing national air transportation system, for example, when a certain kind of aircraft cannot serve a given airport or flights are banned at certain times of the day. Other more indirect options in addition to setting noise standards available to local government and airport proprietors are inadequate, in themselves, to make a significant impact on the problem. It is too late to use some of the methods available to them such as zoning for compatible land use and choosing acceptable sites for airports. Regulation of procedures followed when aircraft are on the ground has a limited impact on the problem. Encouragement of noise-abatement flight procedures has limited effect because safety issues take precedence and, when they are effective, they, to a large extent, merely redistribute the noise rather than reduce it. Purchasing and/or soundproofing buildings is too expensive to be a large-scale solution and is also very disrupting to the property owners involved.

The federal government, on the other hand, has far fewer legal limitations. Under the United States Constitution, it has the authority to regulate interstate commerce when needed, provided that it does so in a reasonable and non-discriminatory way. The airport noise problem is an interstate issue and is best dealt with by an agency that has jurisdiction over interstate matters. Noise regulation by the federal government is already accepted as being legitimate, not just in air transportation, but in other industries as well, including other transportation industries. In addition, the legal hassles involving local action would be avoided if the federal government would take a more active and meaningful role in the matter of aircraft noise and a great deal of uncertainty for all concerned would be eliminated, particularly for airline companies when making aircraft acquisition decisions. This may or may not necessitate federal preemption of the authority to regulate aircraft noise. In the Burbank case, Justice William H. Rehnquist, in his dissenting opinion, observed that “Clearly Congress could preempt the field... if it chose, and very likely the authority conferred on the Administrator of the Federal Aviation Administration [by the Federal Aviation Act, 49 U.S.C. 1431 (1982)] is sufficient to authorize him to promulgate regulations effectively preempts local action.”

Another advantage of federal action is that it would recognize that

110. Moving the airport is a very effective solution, if the new location is large enough and remote enough and the adjacent land is controlled as to land use. However, financial and environmental barriers are so great that there is little likelihood of this happening on any important scale in the near future. The fast-rising volume of traffic may eventually force some airports to new sites because of lack of sufficient capacity but this also appears to be in the distant future.

111. City of Burbank v. Lockheed Air Terminal, supra note 24, at 653.
aircraft noise is a national problem that requires a national solution. It would insure that whatever is done is done nationally for all aircraft and airports, thus avoiding the "patchwork" or "balkanization" effect of local attempts to deal with the problem. This will preserve the "national system" character of air transportation. In addition, all areas of the country would be treated equally and airlines would not be able to avoid the regulations by moving their operations elsewhere, which has sometimes been threatened when airport proprietors show interest in noise regulation. All carriers would be treated equally as well, so that whatever negative effects there are on them are borne equally, thus minimizing the effect on competition among carriers. In the area of air safety and in the area of economic regulation (which ceased in the early 1980's) the federal government has been supreme, with the states and local government having virtually no role to play. If airport noise is a national problem affecting the national air transport system, why should aircraft noise be different with the federal government sharing control with local governments and airport proprietors?¹¹²

C. LACK OF FEDERAL INITIATIVE

There are several reasons why the federal government has not taken a more proactive role in the matter of aircraft noise. First, the FAA does not want to assume greater control, perhaps by preempting all regulation on the matter, because of fear of the federal government becoming liable for damages caused by aircraft noise under the inverse condemnation principle. A second reason is that the FAA, in regulating safety as well as in regulating aircraft noise, must regulate in a reasonable way so that the regulations imposed are practical and not unduly burdensome on the carriers. In fact, the law authorizing the FAA to set noise standards provides that the FAA take into account the economic feasibility of any regulation that it may impose. This means that the FAA may refuse and has refused to promulgate a high-cost noise regulation because of the negative economic impact on the airlines. It has done the same thing with recommendations regarding safety made to it by the National Transportation Safety Board.

Finally, there is no doubt that the organizational structure within which the FAA operates is responsible, in part, for the approach the FAA has taken to the aircraft noise problem. As part of the Department of Transportation, its decisions are politically motivated to a certain degree because it is part of an executive branch agency. The fact that the FAA

¹¹². An early argument for federal action on the aircraft noise issue is in Vitten, Jr., Airport Noise—the Unanswered Question, PROCEEDINGS OF TRANSPORTATION RESEARCH FORUM (1972), at 401.
has not made an important change in the country’s aviation noise policy since 1978 is probably related to the non-interference policy of the federal administration. Other than the political factor, the problems mentioned earlier relating to government procedures and slow decision making have also been important.

In any event, regardless of the reasons, the FAA did virtually nothing in the matter of aircraft noise until Congress specifically required it to do so in 1968. Since then, it has installed moderate noise rules in 1969 that didn’t affect most aircraft until much later when the 1976 policy was implemented completely in the mid 1980’s. It took about seventeen years for moderate noise regulation to be imposed on a significant number of aircraft in United States service. Stage III standards are an improvement over Stage II standards but apply to only a small part of the fleet in 1988 and there has been no decision by the FAA to end operation of Stage II aircraft and to go on to further reduce aircraft noise with a Stage IV set of standards. There has not been a significant noise ruling by the FAA since 1978.

D. WHAT THE FEDERAL GOVERNMENT COULD DO

There is no shortage of suggestions that have been made by various individuals and organizations over the years as to what the federal government should do, some of which were referred to in this paper. The FAA could easily find a combination of steps it could take that would be within its legal jurisdiction and practical from the standpoint of availability of technology. The problem of assuming greater liability for noise-related damages is often brought up as a reason for the federal government not becoming more active in noise control. It is claimed that more severe federal noise regulation of the kind suggested here may mean that damaged property owners would be able to sue the federal government and not the local airport. This is not likely. The federal government would not be taking over all regulation of aircraft noise—it would just become more effective in the kind of regulatory authority it has specifically had since 1968 and has participated in since 1969. It would not mean that the federal government has preempted all local control.

A problem would be the need to take into account the economic impact on the carriers. If deemed necessary, the FAA could also propose to Congress how the federal government could assist in the financing of retrofitting or replacing noisy aircraft.

New federal regulations could include: (1) setting a fixed near-term deadline to end the adding of Stage II aircraft to an airline fleet; (2) setting a fixed near-term deadline for ending operations of Stage II aircraft—within five or six years or about 1995, i.e., all aircraft in operation would
have to conform to Stage III standards; (3) establishment of a new Stage IV set of standards that newly-certified aircraft would have to meet after a certain date; (4) setting a long-term deadline for ending production of Stage III aircraft; (5) setting a long-term deadline for ending operation of Stage III aircraft; and (6) reducing the number of flights at the more seriously noise-affected airports by permitting carriers to schedule collectively or by the FAA imposing flight reductions on airlines.

There is a question whether the FAA can be expected to take the lead in more stringent regulatory standards. Cynics will say no because of the FAA's past record on the subject. If it is the case that the FAA will not take appropriate action, then Congress can require it to do so or authorize it to do so can be given by Congress to the EPA, a less biased agency which already has jurisdiction over noise in some other industries. Restructuring of the FAA along the lines suggested by the President's Commission on Aviation Safety, including placing responsibility for regulation of aircraft safety and noise in a new independent regulatory agency, could be a step toward more active regulation of aircraft noise by reducing the political element, eliminating the possible conflict between different functions the FAA now has, and speeding up the regulatory process.

E. THE FINANCING QUESTION

The financing question must also be dealt with. Near-term significant noise reduction regulations could impose a financial hardship on the carriers. If a careful analysis of the financial consequences of ending the operation of Stage II aircraft should show that the economic burden on the carriers would be too great for them to survive as a viable industry, then there is justification for the federal government, acting in the public interest to preserve common carriage in air transportation, to help the carriers finance the changeover to Stage III aircraft and, perhaps, to Stage IV aircraft eventually.

A considerable amount of money is already available in the form of surplus in the federal Airport and Airway Trust Fund (Fund). The surplus is currently about $6 billion. The Fund was established by Congress in 1970 to help pay for improvements in the air traffic control and airport system of the country. The money in the fund is derived from several taxes paid by aircraft operators, the major contributor being the 8 percent tax on airline passenger tickets which is passed on to airline customers. This tax is collected by the airlines and turned over to the federal government and is considered a "user tax" on the airline industry. The current surplus is the result of a number of factors, not the least of which is the rapid growth in airline traffic and the number of tickets sold in the last ten

years which has caused the 8 per cent tax to produce far more revenue than anticipated. Another factor is the federal government's policy of holding back spending all of the money available in the Fund in order to keep the federal budget deficit as low as possible, i.e., the surplus is used on the plus side in measuring the amount of the deficit. This is done even though the Fund has nothing to do with the deficit since it is a user fund—the government can spend only what is in the Fund—deficits are not possible. The government considers the Fund and other dedicated funds as being part of the "unified" federal budget, meaning it is included in the overall revenue-expenditure picture. If these dedicated funds and their surpluses, if any, were not included, the federal deficit would be even worse than the calculations have shown. The unified budget approach also means that spending from the Fund is subject to whatever laws Congress has passed or will pass regarding the size of the allowable annual deficit in the federal budget.

The surplus would not be enough to provide significant short-term noise reduction. In addition to, or instead of, the surplus, there are other options. Diversion of part of the user revenue and/or an increase in the federal user taxes paid by aircraft operators could raise sufficient revenue. Each one per cent of the eight percent tax on airline passenger tickets, for example, produces about $373 million per year. Part of this current or increased tax revenue could be dedicated to the noise-reduction program. Other options are a temporary surcharge on airline passenger fares, federal tax credits to reequipping airlines, no or low interest federal loans to reequipping carriers, and federal guarantee of private loans made to reequipping airlines. However, the funds used should be derived from air transportation users in some way and not from general revenue. The beneficiaries of air transportation should furnish the funds used by government to help pay for noise reduction.

Retrofitting is less expensive in the short run than replacing aircraft. There have been various differing estimates made of the cost of retrofitting, ranging from $4 million to $8 million per airplane. If we use $6 million as the number, and 2,000 aircraft were to be retrofitted, the total cost would be $12 billion. As an illustration of what might be done, a combination of some or all of the surplus money in the Fund and an increase in the passenger tax from 8 to 10 percent would make it possible to complete a retrofitting program within a reasonable period of time, assuming that the carriers would pay part of the cost with their own funds, which they should be required to do. Instead of retrofitting, the carriers may prefer to retire and replace some of the older aircraft so that all 2,000 aircraft would not be retrofitted and the federal program would need to include some sort of

114. Based on projected revenue from the tax for fiscal year 1988. See id.
financial incentive for those carriers who choose to buy new aircraft, perhaps allocating an amount equal to the federal share of retrofitting the replaced aircraft to an airline that purchased a new airplane. New Stage III aircraft cost between $22 million (Boeing 737-400) and $120 million (Boeing 747-400) each, depending upon the kind purchased and the configuration and options ordered by the customer. Most aircraft purchased would probably be in the lower range. This high cost is partially offset by much better fuel efficiency and other economies of operation and larger capacity than the Stage II aircraft they will replace.

Caution must be exercised in such a federal program. Some airlines have gone farther than others in retrofitting and/or acquiring new aircraft to reach Stage III and some carriers are in a better financial position to retrofit or replace aircraft than others. It may not be fair to the more advanced and more profitable carriers to begin a federal assistance program after they had already invested considerable funds on their own to reduce noise or are in a position to do so in the future when their competitors are not able to do so. Fairness can be maintained if the program recognizes past noise-reduction investment and includes retroactive federal assistance to those carriers, and if funds would be supplied to all carriers, regardless of profitability. One negative is that, by providing financial help to less profitable and, perhaps, less efficient carriers, the government may be helping to keep them in business to the disadvantage of those carriers that are more efficient.

There are at least two reasons why the federal government should participate in the financing of noise regulation compliance. One reason is that the need to provide capital for retrofitting or replacing aircraft would be imposed on the carriers by a government regulatory decision. Therefore, it can be argued that the government should bear some responsibility for financing the compliance. A second reason is that there does not appear to be any alternative. If meaningful aircraft noise regulation is to be imposed and the carriers are unable to completely pay for it on their own, then the federal government should participate in the financing.

There is also a reason why airline customers, the ultimate payers of user charges levied against airlines, should pay to reduce aircraft noise. The noise generated is in their behalf—they receive the benefits of air transportation. Until now, a small part of society who live near major airports have borne all the social costs of the air transport system. Although they also may benefit from airline service, the benefits are enjoyed by many others as well—the benefits are diffuse and have little relationship to distance from the airport. The noise burden, however, is concentrated on the airport’s neighbors.

There is precedence for this approach. Barge lines operating on our river system pay a diesel fuel tax to the federal government which is re-
lected in the rates paid by their customers. The tax revenue is used to help build, operate, and maintain the federal waterway system. Trucking companies pay considerable user taxes to all levels of government, including fuel taxes, which they must reflect in the rates charged to their customers. The tax revenue is used to build, operate, and maintain highways. In these cases, the higher rates paid by shippers are justified because they benefit from the provision of water and highway transportation. Using the taxes on airline passenger tickets or other user charges is no different from taxing the fuel burned by barge lines or by trucking companies—they are all passed on to the customers of these companies. The difference is that not all airline customers benefit directly from the noise reduction as such, since they are not all airport neighbors. In effect, the airline customer who is not an airport neighbor would subsidize the customer who is an airport neighbor in respect to noise reduction. But all airline customers benefit from air transportation service and, if noise control is considered to be a necessary part of operating an air transportation system, similar to providing safety devices or a minimum amount of space per passenger, or food service, or proper maintenance of airplanes, then the cross-subsidy argument fades. The cost of operating a transportation system is normally reflected in the prices charged to use the system. In this situation, instead of the carriers incurring all the costs of noise reduction and then passing them on to their customers, the federal government would incur part of the cost and recoup the cost from airline customers in the form of a user charge. In any event, there are other transportation examples where the federal government has gone even farther than what is suggested here and paid for transportation improvements out of general revenue without requiring that carriers and/or their customers pay the bill. General taxpayers, many of whom never benefit directly from the services provided, contribute toward their provision. In such cases, there is no connection whatever between taxes paid and benefits received. Amtrak, Conrail, and the Merchant Marine Subsidy Program are illustrations.

The Executive Director of the Minneapolis-St. Paul Metropolitan Airports Commission was quoted as saying, at a recent public meeting regarding the noise problem, "In the year 2000 we'll still be sitting here talking about noise unless something radical is done." That something radical will have to be done by the federal government. It is a federal problem and the federal government must take the lead in solving it and be willing to help pay for it, if necessary.
Book Reviews


by PAUL STEPHEN DEMPSEY*

The "what-if" world of motor carrier transportation in a completely deregulated environment is examined in this interesting and well-written book. The authors, prominent Washington D.C., transportation law experts, purposefully avoided a survey approach, and instead attempt to inform those both within and without the motor carrier industry the state of affairs that would exist when (not if) total deregulation occurs.

Chapter One deals largely with how bills of lading will be viewed in the absence of regulation. For instance, "short term" bills of lading can currently be used, because much of the requisite contract language is contained in the statutes governing the industry and both parties know of the content. With deregulation, all, or substantially all, of those items will have to be negotiated on an item-by-item, contact by contact basis. However, the authors point out that much of the necessary language exists in the common law. Also, in individual negotiation, parties can contract lower rate structures by "dealing away" liability and by providing prior declarations of value. The authors find this approach preferable to litigation. Other basic contract elements must be incorporated in the bill of lading (e.g. time for filing claims, time for initiating litigation). But wouldn't this ultimately lead to a return to the long form contract, thereby increasing transaction costs and opening the door for adhesion contracts? The book provides few insights.

Chapter One also includes a discussion of the application of state law in an interstate transportation setting, together with Article 7 of the Uniform Commercial Code, as a potential source of law.

Chapter Two examines labor relations. The premise adopted is that total deregulation would fundamentally change the legal climate for inter-state carriers. Instead of federal law controlling the definition of an independent contractor, that determination would be left to each state, thus

---

* Professor of Law and Director of Transportation Law Program, University of Denver College of Law.

167
creating uncertainty as to liability under the doctrine of respondeat superior. Also, when deregulation occurs, the National Labor Relocations Act and its distinction between employees and independent contractors could well be muddied, especially as applicable to unionization.

Four other areas (employee rights, withholding tax, minimum wage and overtime) are analyzed. The conclusions reached are that deregulation would have a negative impact on the industry with respect to all four.

Chapter Three examines the issue of what motor carriers will be called (answer—most of the time "common carriers"), and the death of contract carriers post deregulation. A lengthy discussion ensues concerning who will be called "common carriers" vis-à-vis "private carriers" (common law precursors to contract carriers) based on common law.

Rates and charges and how their enforcement would come under the auspices of the FTC and how price discrimination can be prohibited through an amendment to the Robinson-Patman Act are discussed. Remember that Robinson-Patman's prohibition against discrimination applies only to the sale of goods, not services. The authors aptly point out that at the time the statute was promulgated, America's major service industry, transportation, was already subject to the antidiscriminatory prohibitions of the Interstate Commerce Act. Hence, there was then no need to extend Robinson-Patman protections to this industry. Other subjects (e.g. set-offs, lack of published tariff rates, equipment) are discussed under the purview of common law, noting the possibility of burdensome state regulations.

Chapter Four looks at the function of the U.S. Department of Transportation [DOT] as the new regulating body in a deregulated world. This chapter deals with the DOT's expansive role in the areas of employee safety, equipment safety, service and operations. After examining pending and proposed rules, the authors conclude that with or without economic deregulation, the DOT will continue to expand its regulatory authority in the area of safety operations, thereby relieving the Interstate Commerce Commission [ICC] of much of its influence and power. The chapter concludes by offering the following alternative scenarios:

1. The Congress will continue to introduce legislation that will eliminate rather than transfer economic and operational regulation; or

2. It will at least vest jurisdiction to regulate motor carriers regarding such activities as leasing practices, credit regulations, claim rules, in the DOT.

The book shifts gears (so to speak) in Chapter Five by examining the effect that deregulation would have on intermodal transportation—that which is provided by a number of companies when more than a single mode of transportation is involved. The authors proceed to examine the
effects of deregulation on the several combinations of intermodal transportation (i.e. motor carrier and railroads, water/motor relations, and air carrier operations).

As to railroads, the authors point out that the motor carrier will assume the position of a shipper when dealing with the railroad. Several issues of which motor carriers must be aware are identified. Most of the differences will be ministerial in nature and are an expansion of the areas touched on in Chapter One. These issues primarily deal with contractual language and clauses that will need to be specifically negotiated.

As to water/motor relations, the authors state that "[t]he proposed elimination of all economic regulation of the surface motor carrier industry would have little practical effect on the operations of the motor carrier as they pertain to the participation of such carriers in through intermodal international transportation movements." Id. at 59-60. The authors examine Federal Maritime Commission [FMC] jurisdiction as it applies to Motor Carriers as NVOCcs, as ocean freight forwarders, ocean freight brokers, and motor carrier liability on through intermodal international transportation. All will be marginally impacted by deregulation, according to the authors.

As to international air commerce, however, the changes could be measurable because of the existence of the Warsaw Convention and its attendant rules on liability. The authors point out that these waters are fairly untested and therefore muddy. Some general recommendations and ideas are offered.

Chapter Five, by far the longest chapter in the book, explores the potential growth of antitrust actions when complete deregulation is achieved. The chapter begins with a review of the Sherman Act and several U.S. Supreme Court decisions interpreting it. Next, the authors forcefully point out that the motor carrier industry, under the regulatory jurisdiction of the ICC, currently enjoys immunity from much of the Sherman Act, both statutorily and by virtue of implied immunity. Very lengthy discussions follow and address such areas as mergers, pooling and monopolization, among others. The discussion centers around the various loss of immunities once the ICC is abolished. Some ways around the potential increased exposure to antitrust liability are suggested. Basically, practices must be "non-rate" oriented. The thrust of any attempt by motor carriers to standardize industry transactions or practices must not be viewed as affecting rates. One possible exception to this might be joint-line movements where rates are by definition agreed upon and affected. However, even joint-line arrangements could be a violation under the Sherman Act if instituted for anti-competitive purposes.

As to implied immunity, much of it would be lost if the ICC were abolished. The authors review several Supreme Court decisions (Keough and
Square D, for instance) to show how the courts find no antitrust liability where regulations dictate behavior. Therefore, abolition of the ICC would remove many of the immunities available under the Keough doctrine. Mergers would be similarly affected if implied immunities vanished under deregulation, as would carrier interlocks, injunctions and monopolization.

The FTC's greatly expanded role in antitrust actions in a deregulated market is discussed at length. Since the FTC currently keeps its fingers out of the ICC antitrust pies, abolition of the ICC will force FTC action. The authors present an overview of the various FTC statutes that would affect the industry.

The final area addressed in the book is that of state antitrust laws, made important because federal deregulation would allow some state antitrust statutes to apply.

The book will serve as a useful reference for transportation lawyers and industry executives as we enter the brave new world of deregulation. But perhaps a bit more could have been done to provide pragmatic solutions to the issues posed. Remembering the authors' own assumption that deregulation will occur, providing more examples of tangible applications would have strengthened the presentation. For example, the authors could have provided items such as a new Model Bill of Lading, examples of agreements between shippers and carriers that would not violate antitrust laws, and perhaps just a bit more "this is what you should do" analysis. It would have been easier reading had the numerous statutory and common law citations been dropped to footnotes. Nevertheless, considering its length, there is quite a lot of useful information packed in this succinct reference guide. It joins the collection of books essential for a transportation law reference library in the deregulated environment.¹

¹ See also, D. Sweeney, C. McCarthy, S. Kalish & J. Cutler, Jr., TRANSPORTATION DEREGULATION—WHAT’S DEREGULATION AND WHAT ISN’T (1986); P. Dempsey & W. Thoms, LAW & ECONOMIC REGULATION IN TRANSPORTATION (1986); W. Tye, ENCOURAGING COMPETITION AMONG COMPETITORS (1987).

by JOHN DAVID HEALY*

William B. Tye sets the tone for his discussion of motor carrier deregulation and collective ratemaking in the epigraph to one chapter in the book. Quoting from former Presidential Economic Adviser Walter W. Heller, he writes, "An economist is a person who, when he finds something that works in practice, wonders if it will still work in theory." Dr. Tye basically contends that collective ratemaking serves several valuable purposes even in the era of deregulation, and that critics of collective ratemaking have preconceived notions of how the ratemaking process should work.

Tye is an economics and management consultant with Putnam, Hayes & Bartlett, Inc. Widely published, he has appeared as an expert witness and served as National President of the Transportation Research Forum in 1983.

Tye assumes that deregulation of motor carrier entry is here to stay. Free entry is accompanied by the right of independent action (IA). Carriers can and do freely "flag out" of rate bureau tariff to meet competitive conditions. According to the book, carriers filed 1,736 IA's during October-November of 1981; Tye states, "The regulatory deterrent to rate cutting is virtually non-existent." Carriers now compete freely on rate matters. What purpose, then, is served by permitting the existence of rate bureaus?

Tye argues that rate bureaus serve a number of useful functions for both carriers and shippers, even if it be true that carriers can readily abandon the published bureau tariff. "Efficient provision of integrated nationwide service," he replies, "must start with a common set of price and service standards established by collective action... it would be grossly inefficient to have a separate rate for every bilateral agreement between carriers applying to every origin and destination and every commodity."

"It is difficult to believe that with the loss of antitrust immunity for classification and joint-line rates, a list of carriers occupying 110 pages of fine

---

* Attorney, Clifton, NJ; formerly Attorney-Advisor, Office of Proceedings, Interstate Commerce Commission.
print in the National Motor Freight Classification would somehow join together under the direction of the ‘Invisible Hand’ to establish a consistent set of classification, points, rates, and tariff rules for joint-line rates.” In fact, he believes that in the absence of bureaus, monopoly practices might increase as few carriers would be able to meet the increased transaction cost involved in pricing each and every shipment handled. While carriers could conceivably establish agreements on rate practices without antitrust immunity, Tye argues that the specter of possible criminal and civil penalties for engaging in borderline conduct would have a chilling effect on carrier negotiations. Nor would a ban on bureau-established single-line rates succeed—it would be just too difficult to administer. “The cooperation required to establish such tariffs,” Tye contends, “inherently raises antitrust concerns because it is inefficient to provide for individual bilateral interline agreements that are so idiosyncratic in their applicability that they do not also apply directly to markets where one or more of the carriers also serve single-line traffic.”

On the customer side, collective rates furnish “a convenient starting point for price negotiations for commodity rates, IA’s, discounts, and so on.” “In the trucking industry,” Dr. Tye continues, “individual transaction costs (including antitrust compliance and uncertainty) are high, and the benefits of cooperation are often appropriable by nonparticipants.”

It has been suggested that third parties be enabled to design carrier tariffs, similar to existing computerized airline reservation systems. Dr. Tye contends, however, that computers simply cannot handle the “complete market access function.” Shippers also profit from rate bureaus because they receive the protection of printed rates and the advantage of a price ceiling based on the published bureau tariff.

One could argue strongly that the problem with motor carrier deregulation was that it handed a victory to theoreticians who had little experience with the actual industry operation. They had blind faith in Adam Smith’s Invisible Hand and forgot to check the fine print in Paul Samuelson’s Economics text about preconditions to proper pricing structure under actual conditions of competition. Among other parameters, deregulators needed a better grip on the role of information cost in selecting carriers. (Perfect competition assumes costless market information.) Thus, Dr. Tye’s argument seems entirely reasonable and very effective.

On the other hand, Tye has merely summarized the existing literature. While his footnotes and tables make extremely perceptive reading, there is little original research. Also, a strong advocate of abolition of rate bureaus could ask, “Since a declining percentage of traffic actually moves in joint-line service, why should this bastion of monopoly continue to exist?” The mere presence of the bureaus on the scene may encourage collusion rather than vigorous competition, according to this ar-
gument. Also, there is the view Dr. Tye himself acknowledges that if the carriers *think* they have a monopoly, they can do a lot of short-term damage by setting artificially high rates until competitors can bring new production factors into the field. Tye notes the Arab oil embargo as an example of this type of behavior. However, as Dr. Tye responds if this be so, the long-run losers "will be the incumbent carriers themselves."
There are not many aviation law books on the market, and those that appear focus primarily on regulation and deregulation of domestic air transportation in the United States. Some books are directed to pilots who need to know the impact that the FAA has on their operations, while others are still heavily involved with the workings of the now-defunct Civil Aeronautics Board.

It remained for Professor Dempsey to address the issues of the still-regulated area of international transportation. For deregulation still stops at the water’s edge, despite the efforts of Canada and some other nations to emulate the United States’ progress in this field. But the area of international air policy has been more of a political than a legal structure, and Dempsey wisely incorporates the prevailing political winds into his treatise on post-deregulation aviation.

There is no comparable freedom of the air that corresponds to the freedom of merchant shipping. Although national boundaries may end in outer space; in aviation national sovereignty is alive and well and goes up to the limits of the atmosphere. Professor Dempsey attempts to tell how this state of affairs came to be, starting with the Chicago Convention of 1944 and continuing through the bilateral regime of Bermuda-type agreements to the present day.

The first part of the book deals with the regulation and deregulation of air travel in the United States. Although today entry and exit are free for the taking and the Civil Aeronautics Board is dead, deregulation ends at

---

1. See, for example, A. Lowenfeld, AVIATION LAW (1982), G. Pucci, AVIATION LAW (1977). There are materials emerging for use in aviation education programs at U.S. colleges, but most of these are aimed at the amount of law and F.A.A. regulations that pilots need to obtain their certificates.


the water's edge. Part I deals with the effect of U.S. deregulation upon our nation's aviation partners, and the response of European carriers and their tentative moves toward liberalization of economic constraints.

When deregulation occurs, antitrust is supposed to fill the gap. Antitrust is thought of as an American phenomenon by foreign commentators. In Part II Professor Dempsey outlines how antitrust considerations have guided U.S. policy in dealing with our aviation partners. A good deal of this part deals with the author's own critique of the "open skies" policy and what Dempsey believes to be the sacrifice of the interests of U.S. carriers to the purity of deregulation abroad. In dealing with changing policies toward aviation competition, the author describes most of the recent bilateral agreements between the U.S. and aviation destination countries since the rise to power of the Department of Transportation.5

Part III deals with arbitration of disputes between airfaring nations. Although there is some discussion of ad hoc arbitral tribunals, the majority of this short section deals with dispute settlement by the two major international entities in Montreal—the U.N's International Civil Aviation Organization and the industry's own International Air Transport Association. The discussion of the role of ICAO is particularly cogent and complete, concluding with a question of why ICAO's dispute resolution process does not receive more use.6

Part IV is an ambitious section attempting to summarize the concept and structure of international law and then to apply it to aviation. This is a huge topic and probably too broad to be applied as an afterthought to a book of this sort. But the analysis of international law becomes more focused with Dempsey's final topic, that of aircraft hijacking and the response of the international community.7

As a teacher of aviation law, I am impressed by the text's timeliness and the astute political thought. For my purposes, the book lacks two important questions in international air law: the Warsaw Convention (which limits liability in international air accidents) and its future, and the demarcation line between air law and space law, a line which is certain to grow fuzzier with the emergence of the hypersonic vehicle.8 I found myself asking what the prospective audience is for this book-practitioners or law students? The author seems to seek a middle ground. But for the

6. Id. at 300-302.
7. Id. at 349-382.
8. The hypersonic vehicle takes off like a plane and then, during its flight, becomes a spacecraft. There is a body of space law which affects space vehicles and their launched objects, which has a different basis than the air law regime so carefully catalogued in Professor Dempsey's book. It appears that the aviation lawyer of the 21st century will have to be an astrolawyer as well.
serious researcher or lawyer seeking in-depth analysis of aviation and the legal regime that supports it, Professor Dempsey fills a gap in the literature and does it with clarity and style.
SYMPOSIUM

Regulation of Intrastate Motor Carriers: The Oregon Debate

Without question, the most passionate transportation debate of the last decade has involved deregulation. Amid the controversy in political, legal, academic, industry, and media circles, numerous pieces of legislation affecting interstate competition, economic efficiency, pricing, service, and safety have been passed by Congress, aimed at railroads, airlines, buses, and motor carriers.

A concomitant debate has emerged at the state level. While the overwhelming majority of states continue to regulate intrastate transportation, the political and regulatory bodies of nearly all states have been considering modifications to the existing regulatory climate—ranging from stricter regulation to almost complete deregulation.

This issue of the Transportation Law Journal is pleased to provide two views of intrastate motor carrier regulation. The two lead articles focus on Oregon, a state with a typical intrastate regulatory scheme which has been considering taking steps toward deregulation. The first article, Economic Regulation of Oregon Intrastate Trucking: A Policy Evaluation, by Evan White, argues that Oregon would benefit from substantial deregulation of the state's motor carriers. The rejoinder article, Benefits of Economic Regulation of Oregon Intrastate Motor Carriers, by Dick Dolan, argues that the state and its transportation industry would not. Both authors are employed by the Oregon Public Utility Commission, and are extremely well qualified to present their views on this important topic.

The Editors and Staff of the Transportation Law Journal
TRANSPORTATION LAWYERS ASSOCIATION

OFFICERS

President .................................................. Kim D. Mann
Washington, D.C.

President-Elect ............................................. Richard P. Kissinger
Denver, Colorado

First Vice President ....................................... David R. Parker
Lincoln, Nebraska

Second Vice President ..................................... Mark J. Andrews
Washington, D.C.

Secretary-Treasurer ....................................... Leonard R. Kofkin
Chicago, Illinois

Immediate Past President .................................. Michael J. Ogborn
Denver, Colorado

AT-LARGE MEMBERS OF THE EXECUTIVE COMMITTEE

Bates Block .................................................. Atlanta, Georgia
Miles L. Kavaller ........................................... Beverly Hills, California
Alex M. Lewandowski ...................................... Kansas City, Missouri
Paul Angenend .............................................. Austin, Texas
Michele Gouin ............................................... Montreal, Quebec
Jeremy Kahn .................................................. Washington, D.C.

CHAIRMAN, TRANSPORTATION LAW JOURNAL
BOARD OF GOVERNORS

Roderick W. MacDonald
Vancouver, British Columbia
Economic Regulation of Oregon Intrastate Trucking: A Policy Evaluation

EVAN D. WHITE*

TABLE OF CONTENTS

I. INTRODUCTION ..................................................... 180
II. ARGUMENTS AGAINST DEREGULATION .............................. 186
   A. NATURAL MONOPOLY ........................................... 186
   B. DESTRUCTIVE COMPETITION ................................. 190
   C. UNJUST DISCRIMINATION .................................... 195
   D. SMALL COMMUNITY SERVICE ................................. 200
   E. TRUCKING SAFETY ........................................... 208
III. EFFECTS OF DEREGULATION ..................................... 213
IV. CONCLUSIONS ..................................................... 223
APPENDIX .......................................................... 227

The views expressed are those of the author and not necessarily those of the Public Utility Commission of Oregon or any of its members.

* Mr. White is currently Deputy Assistant Commissioner, Utility Program, with the Oregon Public Utilities Commission, Labor & Industries Building, Salem, OR 97310. He has been on staff since 1972. Mr. White received his M.B.A. from Wharton School of Finance and Commerce, University of Pennsylvania (1970); M.A. Economics, University of California at Berkeley (1964), B.A. Economics, Claremont McKenna College (1961). Mr. White spent from October 1985 to January 1987 on special assignment by the OPUC to evaluate trucking regulation.
I. INTRODUCTION

State trucking regulation began in Oregon in 1921—more than a decade before passage of the federal Motor Carrier Act of 1935.\(^1\) Highways were poor and railroads were the dominant mode of transportation. Both state and federal trucking regulation were intended to protect the railroad industry from trucking competition.\(^2\) The railroad industry has since been substantially deregulated by the Staggers Act of 1980.

Oregon, as in most states which regulate trucking, still patterns its regulatory policies after old federal trucking regulations which were extinguished by the Motor Carrier Act of 1980. That act virtually deregulated interstate trucking. Two states have never regulated trucking (Delaware and New Jersey) and eight others have since chosen to deregulate their trucking industries. California deregulated, regulated again, and began new deregulation hearings in late 1988. Both the California PUC staff and California Legislative budget analyst\(^3\) have recommended complete deregulation. The other states regulate with varying degrees of rigidity (see Table 1).

Economic regulation of the trucking industry has been questioned by economists almost from its very beginnings. It has been very difficult to find professional economists willing to support trucking regulation.\(^5\) The California Trucking Association, for example, was apparently unable to find a professional economist to testify in favor of regulation during recent deregulation hearings before the California Public Utilities Commission. At the national level, only one economist with some prominence has risen to defend trucking regulation.\(^6\)

There is virtually no professional economics literature which suggests that economic regulation of trucking is beneficial for consumers. An extensive search by this author found only one such attempt—a 1976 paper by the staff of the Interstate Commerce Commission (ICC) easily dis-

---

missed as too "blatantly self-serving to be convincing or worthy of further notice."  

<table>
<thead>
<tr>
<th>States that regulate rates of carriers</th>
<th>States that apply liberal rate regulation</th>
<th>States that do not regulate carrier rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>Arkansas</td>
<td>Alaska</td>
</tr>
<tr>
<td>California</td>
<td>Georgia</td>
<td>Arizona</td>
</tr>
<tr>
<td>Colorado</td>
<td>Illinois</td>
<td>Delaware</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Iowa</td>
<td>Florida</td>
</tr>
<tr>
<td>Hawaii</td>
<td>Kansas</td>
<td>Indiana</td>
</tr>
<tr>
<td>Idaho</td>
<td>Maryland</td>
<td>Maine</td>
</tr>
<tr>
<td>Kentucky</td>
<td>Massachusetts</td>
<td>New Jersey</td>
</tr>
<tr>
<td>Louisiana</td>
<td>Michigan</td>
<td>Utah</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Missouri</td>
<td>Vermont</td>
</tr>
<tr>
<td>Mississippi</td>
<td>Montana</td>
<td>Wisconsin</td>
</tr>
<tr>
<td>Nevada</td>
<td>Nebraska</td>
<td></td>
</tr>
<tr>
<td>New Hampshire</td>
<td>New Mexico</td>
<td></td>
</tr>
<tr>
<td>North Carolina</td>
<td>New York</td>
<td></td>
</tr>
<tr>
<td>Ohio</td>
<td>North Dakota</td>
<td></td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Pennsylvania</td>
<td></td>
</tr>
<tr>
<td>Oregon</td>
<td>South Carolina</td>
<td></td>
</tr>
<tr>
<td>Rhode Island</td>
<td>South Dakota</td>
<td></td>
</tr>
<tr>
<td>Texas</td>
<td>Tennessee</td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>Virginia</td>
<td></td>
</tr>
<tr>
<td>West Virginia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wyoming</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: California Public Utilities Commission, Division of Ratepayer Advocates, "Report on General Freight Regulation in California, and Program Proposals," Case 1.88-08-046, October 27, 1988, page 63. The table was amended to show that Utah now matches the federal trucking regulations—with no restrictions on entry and no limits on price reductions.

Economic regulation of trucking has experienced shrinking support by government agencies. During the recent deregulation hearings before the California PUC, for example, the Commission heard extensive testimony by its own staff favoring deregulation as well as pro-deregulation testimony by economists from three federal agencies—the U.S. Small Business Administration, the U.S. Department of Transportation, and

---

9. E. Rastatter, Chief, Regulatory Review and Planning Division, U.S. Department of Trans-
the Federal Trade Commission. One consultant also testified that deregulation is urged by companies which control the operation of more than half of the trucks which utilize the interstate highway system, as well as by every national association of shippers and receivers.

### Table 2

<table>
<thead>
<tr>
<th></th>
<th>Carriers</th>
<th>Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>State regulated</td>
<td>592</td>
<td>20,861</td>
</tr>
<tr>
<td>Partially state regulated</td>
<td>3,444</td>
<td>10,093</td>
</tr>
<tr>
<td>Private Intrastate</td>
<td>10,993</td>
<td>23,775</td>
</tr>
<tr>
<td>Other Intrastate</td>
<td>2,409</td>
<td>9,021</td>
</tr>
<tr>
<td>Interstate</td>
<td>16,445</td>
<td>156,791</td>
</tr>
<tr>
<td>Total</td>
<td>33,883</td>
<td>220,541</td>
</tr>
</tbody>
</table>


State regulation affects the operations of the entire Oregon trucking industry, although only a fraction of the industry is subject to full state regulation. There were nearly 34,000 carriers operating some 221,000 vehicles in Oregon at the close of 1988. Only about 592 of these carriers are subject to both state entry and rate regulation. These carriers generally are restricted in the markets they serve, the rates they charge, the commodities they carry, the origins and destinations they serve, and the routes over which they travel; there are even restrictions on shipment weights and frequency of service. An additional 3,444 log, sand, and gravel carriers (with 10,093 trucks) are subject to partial PUC regulation of entry, but not rates. The remaining 30,000 carriers (190,000 trucks) are not directly regulated. The Oregon Legislature, however, has enacted statutes, and the Commission has adopted regulations and policies consistent with those statutes, to ensure that these carriers do not directly compete with those who are regulated.

Oregon motor carrier regulation has evolved into a complex system requiring considerable resources on the part of state government and the carriers and shippers who must comply with the system. For example, the Oregon trucking industry is probably the only industry in the state in which prospective customers may have to appear at hearings before Ad-

---


ministrative Law Judges and present statements of justification to gain authority for a prospective supplier to provide service to them.

Established carriers are notified in advance by Commission staff of their legal right to appear with their attorneys to object to future competition. In the face of such protests, which are often lodged routinely, the burden of proving worthiness is shifted to the applicant and to the applicant's prospective customers.

The Commission staff policy for many years was that established carriers are "entitled" to all the freight they can handle and that the adverse effect of new competition is cause for rejecting an application for new trucking authority. There is also a policy to eliminate even the possibility of future competition. Hence, the government-awarded right to engage in for-hire trucking becomes a valuable "property right." In fact, operating authorities to serve the public are bought and sold by the established "owners."

Even the proponents of trucking regulation must be troubled by examples of seemingly irrational government action. The Oregon Commission was compelled to hold four days of hearings on the "fitness" of one small carrier. Two dozen witnesses were called. Motions and counter motions were filed by attorneys. All of this fuss and expense for a company which had only four trucks and a total equity investment of $13,000. 12 Another Oregon carrier traveled widely throughout the state to deliver daily copies of the Oregonian newspaper. The carrier's 27 foot trailers were often partially empty, so it solicited freight from various shippers. Competing carriers objected, hearings were held, and eventually the Oregon Commission found the carrier guilty of providing "blatant" regular route service. A $1,000 fine was imposed. 13

State trucking regulation also has the appearance of being distinctly unfair. The burden of proof in authority cases is always upon the applicant, even when shippers are dissatisfied with the current level of service. To conduct operations efficiently, a less than truckload ("LTL" or less than 10,000 pounds) carrier needs to have a network of related routes. It is difficult to build an efficient network when established carriers routinely lodge objections to any grants of additional authority.

One large and well-financed carrier, Viking Freight System, maintains a terminal at the Port of Portland, but lacks authority to serve Eugene, Oregon's second largest city. Viking estimates that it would need to spend at least $50,000 in legal fees alone to obtain approval to serve

---

Eugene, with only a 50 percent chance for approval. The owner of a much smaller firm considers it to be "unfair, unjust, and wrong" for the Oregon Commission to allow someone "whose father was granted authority in 1945," to block his chances for business expansion.

Both shippers and carriers have ample opportunity to evade state regulation. Shippers may choose to buy or rent, and then operate their own trucks. Large shippers may negotiate for "commodity" rate concessions. Regulated trucking companies, who in theory must provide service upon demand, in practice have the opportunity to discourage unprofitable freight through "negative selling" or by simply refusing to provide service.

State trucking regulation also cannot overcome the fact that Oregon is part of the national and international economic community. One enterprising carrier located in Vancouver, Washington, collected freight in neighboring Portland, drove it across the river to his terminal in Vancouver, and then back across the river 100 miles south to Eugene, Oregon. The carrier charged rates lower than Oregon carriers and argued that the freight was interstate and not subject to Oregon Commission regulation. The Ninth Circuit Court of Appeals found that the Vancouver carrier, Southwest Delivery, was providing interstate service and was therefore exempt from Oregon economic regulation.

State regulators must rely upon information supplied by carriers who have no incentive to understate their costs. The carriers may allocate the costs of unregulated affiliates to their regulated trucking operations. Since many intrastate carriers also provide interstate service, there is further opportunity to allocate costs so as to make the regulated intrastate service appear more expensive.

The Oregon Commission's enforcement system depends upon anonymous complaints by one or more carriers that another carrier is "illegally" charging lower rates or providing unauthorized service. Such complaints lead to Commission investigation, and possible assessment of

18. Gauntt, Southwest Delivery Hauls in Regulatory Victory, The Business Journal, Dec. 28, 1987, at 6. (Referring to Ninth Circuit Court of Appeals, CA86-7086 and CA86-7522 (Dec. 8, 1987) (unpublished decision) which appealed an ICC decision, MC-C10932). An industry spokesman was quoted as saying that interstate rates were 10 percent below Oregon intrastate rates for comparable movements.
monetary penalties ($441,000 in 1987).\textsuperscript{19}

The actual extent of violation of state economic regulations is unknown. Commission staff inspected 262 trucks during a five day inspection period in 1986 (out of some 11,500 trucks which passed the inspection stations). One-third of the inspected trucks were found to be carrying "unauthorized" freight. Since these trucks were not selected by means of a random selection process, however, the number of violations which were found is not necessarily indicative of the total amount of violations. These results, nevertheless, suggest that some carriers may break the rules to be competitive with others who also break the rules. Clearly, economic regulation of trucking is at best a clumsy instrument of public policy, and at worst, an encouragement to engage in illegal activity.

Our economy is largely organized to promote free market competition. Government regulation or ownership of production is rare and usually confined to situations in which monopoly seems readily apparent (gas, electric, and telephone utilities) or where there are substantial societal benefits, as in sanitation, public education, or national defense. Competition is relied upon in most situations because it generally promotes an efficient allocation of production and distribution. We have laws which encourage competition. Monetary penalties and even prison sentences are imposed upon those who illegally seek to thwart competition. Comprehensive programs of entry restrictions and pricing regulation are an exception to the free market rule.

This suggests a need to carefully evaluate the public policy objectives sought by state legislatures which require economic regulation of their state trucking industries.

Oregon Revised Statutes 767.020(1) lists the "Oregon transportation goals" as follows:

(a) Promote safe, adequate, economical, and efficient service and to promote the conservation of energy.

(b) Foster sound, economic conditions in transportation.

(c) Encourage the establishment and maintenance of reasonable rates for transportation services, without unjust discriminations, undue preferences or unfair or destructive competitive practices.

(d) Provide specific state action immunity against all antitrust claims and prosecution in those instances when carriers lawfully develop, publish, and charge rates and provide services specifically prescribed by the commission and in those instances when carriers lawfully engage in prior consultation for purposes described in this paragraph.

Since free market competition is the predominant way in which our society has chosen to organize the production and distribution of eco-

nomic goods and services, an implicit assumption of Oregon trucking regulation is that one or more of the above goals would not be attained without economic regulation of trucking. Hence, the above goals may be evaluated as arguments against trucking deregulation.

II. ARGUMENTS AGAINST DeregULATION

The Oregon legislative goals may be expressed as: (a) prevention of monopolistic pricing, (b) prevention of destructive competition, (c) prevention of unjust discrimination, (d) promotion of small community service, and (e) promotion of safe trucking practices. Proponents of continued state trucking regulation often argue that economic regulation is needed to achieve these goals.

A. NATURAL MONOPOLY

The natural monopoly argument is that big companies have intrinsic cost advantages and a tendency to get bigger and bigger. Without regulation, it is argued, there would be only one or a few trucking companies surviving in each market, thus exposing shippers to monopolistic pricing. The evidence is overwhelming that the trucking industry is not a natural monopoly, such as the gas, electric, or telephone utilities. Shippers and receivers would have the most to lose from deregulation if trucking were monopolistic. Yet these groups most often favor deregulation. Many studies support the belief, expressed by shippers and receivers, that state and interstate deregulation has lowered freight rates and improved the quality and availability of trucking service.

Trucking is regarded by informed experts as one of the most competitive industries in the United States. Entry barriers are very low; unregulated or exempt trucking companies have virtually no ability to hold their prices above their costs. State regulation acts to hamper interstate carriers which seek to establish a least cost network linking Oregon to the rest of the national economy. If there is any monopoly tendency in trucking at all, and the evidence indicates that there is none, it would be in the nation-wide less-than-truckload (LTL) part of the business. Yet a small state such as Oregon clearly has little ability to regulate these large multi-state carriers.

The existence of a monopoly typically requires a high level of fixed costs, dedicated plant that cannot be shifted easily to other markets, significant barriers to entry, closely held information about production processes, and significant economies associated with larger and larger amounts of production. All these characteristics are generally lacking in the trucking industry. Asset lives are relatively short. Most costs are variable, consisting of fuel, labor expense, and highway use taxes. Start-up
costs are small and the highways are freely available. Many shippers and receivers buy, lease, and operate their own trucks.

Monopoly cost conditions seldom occur in American industry. Studies by economists indicate that most industries have "constant returns to scale," which means that expansions or contractions of output tend to leave per unit costs unchanged. Studies of the motor carrier industry, particularly recent studies, have also found that the motor carrier industry generally has constant returns to scale.

The need for economic regulation typically arises only when firms are able to exercise "market power" by maintaining rates above their costs. Market power is not likely to exist in an unregulated trucking market—even in small towns which can be profitably served by only one carrier. The one truck/one town carrier has no market power because there are no appreciable entry or exit barriers in the trucking industry. A potential competitor can exit without losing much of his investment. The threat of new competition eliminates any need for economic regulation.

Even if the ability to concentrate shipments gives larger firms a cost advantage on certain routes or in certain areas, these firms cannot raise prices much above costs without risking that their customers would be approached by trucking companies which serve adjacent areas. It would be relatively easy for firms which serve contiguous areas to extend their operations or for large national firms to enter new territories.

It is hard to imagine an industry more flexible and versatile than trucking. Tractors and trailers have a variety of uses and can easily be sold. They can be quickly moved from one market to the next on short notice as demand conditions change in order to pick up almost any kind of freight.

Much of the trucking industry is capable of carrying a wide variety of freight. An ICC survey, cited by Boyer, showed that about 50 percent of trucks were standard vans, 16 percent were refrigerated vans which can also carry other types of freight, and 18 percent were flats or lowboys. The remaining 17 percent were tank trucks or other specialized vehicles.

For most "truckload" (TL) carriers, the economies of scale are very small compared to the size of the market. The most efficient size of operation may be very close to a one truck/person owner-operator firm.

Before ICC interstate deregulation, large TL carriers were better able to take advantage of network economies since they could route shipments more directly and provide more balanced service to shippers. These large carriers held this advantage because they had more ICC route authorities.  

Current studies of the TL segment of the trucking industry show that there is little danger of monopolization even on low density routes.  

For the less than truckload (LTL) segment of the trucking industry, there are larger investments which must be made in terminal networks, sophisticated management information systems, and rolling stock. Even here, however, the economies are modest compared to the size of the market. Some of the earlier cost studies, using poorer data and less sophisticated research techniques, found some evidence of economies of scale in the LTL sector. These apparent economies largely disappear when shipment characteristics are taken into account. Pre-reform ICC regulation sheltered at least some relatively large LTL carriers from competition by smaller and more efficient firms.  

Even assuming the presence of some economies of scale does not necessarily make a case for entry and price regulation. There are some economies of scale in many unregulated industries. For example, large supermarket grocery chains probably operate at per unit costs lower than “Ma and Pa” neighborhood markets. Yet government does not impose economic regulation on the grocery industry.  

Efficient trucking requires a knowledge of markets and development of an efficient network system. For many years truck brokers have supplied these informational services for exempt carriers of interstate agricultural commodities—there were perhaps 1,000 such unregulated brokers operating in the U.S. as of late 1979.  

In the general commodities industry, in contrast, there were less than 100 brokers operating in the U.S. by the late 1970’s, as a result of restrictive ICC regulation. Following interstate deregulation, the general commodities freight brokerage industry experienced a spectacular revival. The number of general commodities brokers has risen to about 6,000. The growth of the freight brokerage industry helped new small TL trucking companies compete with larger established carriers. One study com-

---

27. Taft, A Study of Truck Brokers of Agricultural Commodities Exempt from Economic Regulation, TRANSP. J. (Spring 1979), at 6.
pared the costs of 78 TL firms in pre-reform 1977 to the costs of 72 firms in post-reform 1983. Average costs fell by about one-third after interstate deregulation.\textsuperscript{28}

\begin{center}
\textbf{TABLE 3}
\end{center}

\begin{center}
\begin{tabular}{lcccccccc}
\hline
\end{tabular}
\end{center}


Another study reported declines in real revenue per ton mile for both common carriers (both TL and LTL) and contract carriers (TL) between 1978 and 1984. The decline was 14 percent for common carriers and 24 percent for contract carriers. (See Table 3). If the natural monopoly argument had any validity, trucking companies would raise their prices just as soon as they are set free from regulation. Yet, there is no evidence that truckers have responded to interstate or state deregulation with effective price increases. Widespread discounting began—for the first time ever—after passage of the Motor Carrier Act of 1980. The published interstate tariffs no longer provide a reliable indication of the rates which are actually charged. Discounts of 30 percent to 50 percent off published interstate tariffs are common. There is abundant evidence that effective rates have generally decreased and service has improved.

If there were any danger that deregulation would bring a drift toward monopoly, one would expect to find carriers actually earning monopoly profits. But nearly one decade after the beginnings of regulatory reform, there is no evidence of monopoly profit taking. Value Line monitors about one dozen large carriers which have publicly traded securities. These carriers have “betas” (a risk measurement) ranging from 1.0 to 1.3, indicating that their securities are slightly more risky than the market as a whole (the overall market risk is 1.0). Regulated gas, electric and telephone monopolies typically have betas of 0.6 to 0.7, indicating significantly less risk. Value Line expects that these large trucking companies in 1991-93 will earn equity returns appropriate to their risk levels—ranging from 11.5% on equity to 16%, excluding the lowest (8.0%) and highest (22.0%) expected equity returns. Similarly, the Interstate Commerce Commission staff monitors the investment performance of 100 large Class

\textsuperscript{28} McMullen, \textit{The Impact of Regulatory Reform on U.S. Motor Carriers}, J. TRANSP. ECON. & POL’Y (Sept. 1987), at 317.
1 carriers, which earned an average of 11.32% on equity in 1986 and 13.49% in 1987.29

When government controls are removed on trucking, competition has flourished with substantial benefits to consumers and shippers. The extensive literature is summarized in Appendix A. By all accounts, the trucking industry "largely matches the classic requirements for pure competition."30

B. "DESTRUCTIVE" COMPETITION

The destructive competition argument is the assertion that deregulation would become "too competitive" for the public. This argument is in direct contradiction with the previous monopoly argument that deregulation would bring less and less competition, but both arguments are commonly cited by the same opponents.

The fear of "destructive competition" appears to be the primary basis for minimum rate regulation. The perceived need to preserve a system of minimum rates is, in turn, the primary basis for entry regulation. Entry must be tightly controlled to prevent downward pressure on rates.

There simply is no evidence of any propensity for "destructive" trucking competition harmful for consumers. The very notion of "destructive" competition would probably be considered laughable by those shippers and receivers who must rely upon for-hire trucking, yet are not themselves sheltered from price and service competition. The "destructive" argument is usually advanced from the point of view of the established trucking companies, and not from the point of view of the consumers who are the intended beneficiaries of regulation. Healthy competition, beneficial for consumers, has been the outcome from state, interstate, and foreign trucking deregulation. The American economy is organized to promote competition because competition usually encourages efficient production and results in lower costs for consumers, competitive wages and normal profits for efficient producers. Most markets and industries work efficiently without regulated pricing. Blind and frenzied entry and exit occur rarely, if ever.

Competition is usually considered to be beneficial for consumers because competition increases the number of products and services and eliminates inefficient firms. Competition can be "destructive" for firms which cannot compete effectively due to inefficient operations, poor marketing strategies, dated techniques, or inability to respond to changes in


consumer demands. There is no public outcry when a restaurant goes out of business, and many do. Why should there be a public outcry over trucking bankruptcies?

Sometimes the "destructive" competition argument is supported by references to The Great Depression. Unemployment reached nearly 25% of the civilian labor force during the 1930's, when federal trucking regulation was introduced. Wage levels declined, for those fortunate to have a job, and trucking equipment could be purchased very cheaply. Workers in the trucking industry today, however, benefit from minimum wage laws, unemployment compensation, and social security. A reasonably healthy economy provides jobs in other industries and a market for used trucking equipment.

The destructive competition argument is particularly weak in an industry such as trucking. Unlike other regulated industries (such as gas, electric, or telephone utilities), the trucking industry does not require vast investments in fixed and immobile capital. Capital equipment in trucking have relatively short lives, can be added in small increments, and can easily be shifted to other markets. Highway use taxes must be paid only when highways are actually used. Variable costs for labor, fuel, taxes, and maintenance are relatively high in the trucking industry—perhaps 90 percent or more—and no rational businessman will operate at prices below his variable costs. It would be more profitable for him to seek other employment or quit and go fishing.

Closely related to the "destructive competition" argument are two parallel arguments that either carriers or shippers, without regulation, would be able to practice unfair pricing strategies.

The carrier argument is that dominant carriers, absent the watchful eye of government, would engage in pricing strategies designed to intentionally eliminate smaller competitors. In order for this to be a profitable business strategy, however, (a) the predator must sustain losses until his competitors are driven from the market, and (b) the successful predator must also be able to prevent new competitors from entering the market in order to recover the losses he sustained in seeking to eliminate competition. Since there would be no barriers to entry or exit in a deregulated motor carrier market, any attempt to set prices above costs would attract new entry into the industry. The predator would be unable to prevent new competition and thus be unable to recover his previous losses. Dominant carriers have incentives to expand their market coverage and provide "one carrier" service, but these carriers rarely have any financial incentive to seek intentionally to drive out smaller competing trucking
companies. 31

The shipper argument is that, without regulation, large shippers would somehow be able to squeeze below-cost rate concessions. But carriers generally do not have durable, immobile, or specialized assets which give rise to "sunk" costs capable of serving only the dominant shipper. Carriers in a deregulated market could respond to shipper pressure by dropping that shipper and freely entering other markets. General freight carriers are used by thousands of manufacturers, wholesalers, and retailers. The fragmentary data that are available on shipper freight expenditures show that even very large shippers account for rather insignificant shares of total general-freight carrier services. If a shipper attempted to extract rate discounts that pushed rates below a competitive level, carriers in the less regulated market could quickly react by seeking new accounts and by reassigning trucks to other routes. "Given competition among shippers for trucking service, one would expect rates to be remunerative." 32 To the extent that regulation prevents small truckers from serving other markets, one might argue that regulation exposes small carriers to economic pressure by large shippers.

Shippers are unlikely to have the ability to exert pressure on truckers who have access to other markets, because most trucking costs are variable and a prudent trucker will never operate at rates below his own variable costs. Buyer pressure on sellers is likely to be a problem only when sellers have high levels of fixed cost, or when the cost of the purchased product or service is relatively large. 33 None of these characteristics are present in the trucking industry.

Predatory pricing is not a rational strategy. There has been no proven instance of predatory pricing as a result of interstate deregulation. Two formal complaints of predatory pricing were dismissed by the ICC for lack of evidence. The U.S. General Accounting Office (GAO) found no recent court cases which even alleged that predatory pricing had occurred. 34

Concentration ratios have increased in LTL markets; however, these ratios are still about the same or below those of most U.S. manufacturing industries. 35 New LTL entry has generally not occurred since the Motor Carrier Act of 1980. However, a great many carriers were able to secure

35. Id. at 11.
48-state ICC authority. One study found that competition had increased on 179 of 248 major routes, and that rates had declined by almost 10 percent.\textsuperscript{36} Large LTL carriers expanded by increasing terminals and areas served, rather than by increasing concentration in markets already served.

One type of predation which \textit{is} practiced under \textit{regulation} is "predation by abuse of government processes."\textsuperscript{37} Established carriers routinely lodge objections to increases in motor carrier authority to prevent competition. This tactic can raise rivals' costs without necessarily causing a loss of profits for the predators.\textsuperscript{38}

\begin{table}
\centering
\caption{Carriers Reporting to the ICC, 1980-1987}
\begin{tabular}{lccc}
\hline
 & Class I & Class II & Class III \\
\hline
1980 & 947 & 2,164 & 14,610 \\
1981 & 1,031 & 2,293 & 18,563 \\
1982 & 1,144 & 2,139 & 22,059 \\
1983 & 1,139 & 1,631 & 24,411 \\
1984 & 1,088 & 1,154 & 27,370 \\
1985 & 1,013 & 1,489 & 30,337 \\
1986 & 947 & 1,387 & 33,903 \\
1987 & 956 & 1,266 & 35,505 \\
\hline
\end{tabular}
\end{table}


Small trucking companies have benefited from interstate trucking deregulation. Between 1982 and 1983, new business starts in trucking and warehousing rose at twice the rate of increase in the general economy (21.8 percent vs. 11.1 percent). Between 1980 and 1982, large trucking firms (over 500 employees), lost 74,812 employees while small firms (under 20 employees) gained 61,334 employees.\textsuperscript{39}

Table 4 shows that the number of ICC Class III carriers (revenues less than $1 million) greatly increased after interstate deregulation.

A survey of Class III carriers found only 74, out of 1,325 respondents, who reported that they had left the industry. The number who left was

\begin{itemize}
\item 38. S. \textsc{salop} & D. \textsc{scheffman}, \textit{Raising Rivals' Costs}, in \textit{AMERICAN ECONOMIC ASSOCIATION: PAPERS AND PROCEEDINGS} 267 (1983).
\end{itemize}
more than offset by those who grew to become Class II or I carriers.\textsuperscript{40} Bankruptcy rates have not been relatively higher for small trucking companies.\textsuperscript{41}


table 5

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Unregulated* (SIC 4212)</th>
<th>Intercity** (SIC 4213)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>208</td>
<td>218</td>
</tr>
<tr>
<td>1972</td>
<td>143</td>
<td>121</td>
</tr>
<tr>
<td>1973</td>
<td>135</td>
<td>98</td>
</tr>
<tr>
<td>1974</td>
<td>144</td>
<td>132</td>
</tr>
<tr>
<td>1975</td>
<td>127</td>
<td>166</td>
</tr>
<tr>
<td>1976</td>
<td>180</td>
<td>146</td>
</tr>
<tr>
<td>1977</td>
<td>119</td>
<td>102</td>
</tr>
<tr>
<td>1978</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1979</td>
<td>104</td>
<td>120</td>
</tr>
<tr>
<td>1980</td>
<td>237</td>
<td>223</td>
</tr>
<tr>
<td>1981</td>
<td>380</td>
<td>345</td>
</tr>
<tr>
<td>1982</td>
<td>627</td>
<td>523</td>
</tr>
<tr>
<td>1983</td>
<td>614</td>
<td>816</td>
</tr>
<tr>
<td>1984</td>
<td>745</td>
<td>980</td>
</tr>
<tr>
<td>1985</td>
<td>760</td>
<td>1280</td>
</tr>
</tbody>
</table>

\* not affected by regulatory reform
\** affected by regulatory reform


Changes in economic conditions probably best explain changes in trucking bankruptcy rates. One study compared unregulated local pickup and delivery carriers to previously regulated intercity carriers—which were affected by regulatory reform. The failure indices for both groups were highly correlated, suggesting that the recession of the early 1980's was the primary reason for the increase in the failure rate.\textsuperscript{42}

\textsuperscript{40} Mandex, Inc., \textit{A Survey of Class III Motor Carriers of Property} (prepared for the U.S. Department of Transportation) (July 31, 1984), at 2, 11.


\textsuperscript{42} Klein, M., \textit{Five Years After the Motor Carrier Act of 1980: Motor Carrier Failures and Successes}, (prepared for the U.S. Department of Transportation) (Sept. 1985), at 11. It should be noted that although reliable statistics on bankruptcies are provided by Dun and Bradstreet, it
As shown in Table 5, the failure rate for intercity trucking companies did not rise until the early 1980's. After 1980, there was an increase both in the number of intercity trucking companies and in the number of intercity trucking bankruptcies. There was also an almost equivalent increase in the overall business failure rate index per 10,000 firms. The failure rate index for intercity trucking firms (SIC 4213) rose from 100 in 1980 to 443 in 1983, compared to an increase from 100 to 458 in the overall business failure index covering the same time period. The overall business failures reported by Dun and Bradstreet after 1983 are not comparable with earlier statistics. A study of economic variables suggested that changes in overall economic conditions provide the best explanation for changes in both trucking and overall business failures. Hence, "the claim that regulatory reform caused the increase in truck failures is not substantiated."43

Proponents of continued state trucking regulation often depict a seemingly alarming increase in the number of trucking company failures and in the failure rate index per 10,000 carriers. What they fail to note is that the relative number of failures is comparatively low both before and after federal regulatory reform. For example, in 1986 there were 1,561 failures and 85,024 carriers, the failure index per 10,000 carriers would be 183.6, meaning less than two percent failed.

The best evidence that trucking competition is beneficial for consumers comes from the large number of studies of trucking competition in (a) exempt unprocessed agricultural commodities, which have never been subject to ICC economic regulation; (b) intrastate and interstate trucking markets after deregulation; and (c) foreign regulated and deregulated markets. Many of these studies are listed and summarized in the Appendix. None give any support to the fear that deregulation would expose consumers either to monopolistic pricing or its polar opposite, destructive competition.

C. UNJUST DISCRIMINATION

Proponents of trucking regulation contend that deregulation would create rates which are unjust, unfair, or discriminatory. To evaluate this argument, it is necessary to ask (1) in what sense does economic regulation result in rates which are fair, just, and nondiscriminatory; (2) what should constitute the basis for deciding whether a rate is unjust or discriminatory; and (3) would a deregulated motor carrier industry charge rates any less fair than those now charged by the regulated industry?

---
Government action to prevent "unjust discrimination" is usually appropriate only when consumers are unable to defend themselves—when they lack reasonable access to competitive alternatives. But it is government itself which has created this problem in intrastate trucking, since state regulation greatly reduces the number of actual and potential competitive alternatives. Oregon and perhaps two dozen other states also grant antitrust immunity for collusive ratemaking in the trucking industry—sanctioning a business practice that would be illegal in almost all other American industries. This special privilege further reduces the defenses which would ordinarily be available to consumers.

Discrimination is difficult for government officials to define and enforce in ways that do not end up doing more harm than good. Government regulation of competitive industries, such as trucking, is likely to increase costs both for those who use for-hire trucking as well as for those who are restricted in their ability to fully utilize their own private trucking fleets.

Price discrimination may be defined as the sale of a good or service by a seller to two (or more) buyers at prices which do not reflect differences in cost. Thus, price discrimination occurs when different prices are charged when costs are equal, or when the same price is charged when costs are unequal. Price discrimination can be successful only when the seller possesses market power—an ability to hold price above costs. This will occur only when there is a barrier to entry in the market that is being discriminated against. Since there are no barriers to entry in trucking, other than those imposed by restrictive regulation, successful price discrimination in an unregulated trucking industry is unlikely to occur.44

Much of the rationale behind rate regulation is the fear that firms with monopoly power would provide one customer with a competitive advantage which is not enjoyed by another customer. There is a feeling that "similarly situated customers" should not pay different rates for the same product.45 It is clear that rates must not be based solely upon personal favoritism; but, otherwise it is not clear what forms of discrimination would be "undue." Hence, the prohibition against "undue discrimination" rests upon a "murky theoretical foundation" interpreted only with difficulty by regulatory agencies and the courts.46

The regulated segment of the Oregon trucking industry is organized into three rate bureaus, and most fully regulated carriers belong to one of these bureaus. The basic purpose of these rate bureaus is to eliminate price competition, by means of common agreement among competing

46. Id. at 180-81.
carriers. The rate bureaus have regular meetings for the purpose of allowing carriers to agree on rate changes.

Rate changes approved by the Commission apply to all carriers that are members of the rate bureau and, in the case of a general rate increase, to all carriers with annual intrastate revenues of $250,000 from regulated traffic.

The anti-competitive influence of rate bureaus has weakened in recent years. Formerly, the initiative for rate changes came almost entirely from rate bureaus—prompted by submissions from individual trucking companies. In recent years, however, more rate proposals are being made "independently" without the concurrence of competing trucking companies.

A rate bureau is a "cartel," defined as a group of otherwise competitive firms who seek to limit competition and increase their collective profits. Cartels tend to be highly unstable because they are made up of inherently competitive firms, each of which is tempted to increase sales and profits by means of secret price concessions or by encroachment upon another member's market. For this reason, government action is usually required to sustain a cartel by establishing and enforcing market quotas and minimum rate levels.47

The information gathering and dissemination activities of regulatory commissions also help to keep trucking cartels intact. Competitors gain information about each others' market shares, revenues, and profits. Regulatory commissions notify cartel members of proposed rate changes, thereby allowing other competitors to match proposed rate reductions (and reducing the incentives for rate reductions). Entry restrictions foster mutual cooperation among firms that are already in the market.

Rate bureau published tariffs are seldom relied upon by shippers—perhaps because of their historic complexity. An Oregon Commission staff survey of paint manufacturers found that most regarded the regulated rate structure as so complex that they were unable to make informed choices about their shipping alternatives.48 Similarly, an ICC survey of 1,200 randomly selected small shippers in rural communities, found that less than 5 percent actually used the rate bureau published rates.49

The foundation for the motor carrier rate structure is a densely

47. C. FERGUSON, MICROECONOMIC THEORY 355-360 (1972).
49. Motor Carrier Ratemaking Study Commission, Collective Ratemaking in the Trucking Industry, A Report to the President and the Congress of the United States (June 1, 1983), at 62 (hereinafter M.C.R.S.C.).
printed two-inch thick National Motor Freight Classification (NMFC) manual. In theory, all the various commodities are classified with reference to four basic transportation characteristics (density, stowability, handling and liability) and then placed into rate-related classes, with Class 100 being the designated reference point. A Class 80 rating for a specific type of commodity, for example, would mean that it would move at a rate which is 80 percent of the Class 100 rate applying to shipments of the same weight moving the same distance.

Two loopholes undermine any argument that the regulated rate structure "protects" small shippers. Although as much as 90 percent of all LTL shipments may be carried under class rates, there are two avenues of escape for shippers who can credibly threaten to buy or lease and operate their own trucks: (a) 

*Exception rates* substitute different, and usually lower, classification ratings for a particular commodity than those assigned by the NMFC. Where an exception rate is in effect, charges are calculated in the same way but using a *lower* classification rating. (b) 

*Commodity rates* bypass the class rate structure entirely. They are established for a specific commodity or group of commodities moving between specific points under specific weight restrictions. Commodity rates are usually much lower than applicable class rates.50

Regulated motor carrier tariffs sometimes contain incentives for shippers to report that a shipment is *heavier* than its actual weight. One economist found, for example, that for a hypothetical household goods shipment weighing 7,000 pounds, it would actually be cheaper to pay for 8,000 pounds!51 This strange result occurs because motor carrier rates do not vary continuously with distance, but instead take on several discrete values depending on the weight bracket. Apparently, the use of bill weights which are *higher* than actual weights is an accepted industry practice in order to obtain a lower freight rate.52

It would seem very reasonable to base rates upon the actual costs incurred in providing service. But how should those costs be calculated? Historically, transportation regulators have tended to insist that trucking and railroad rates should reflect "fully allocated" (average) costs, calculated so that the sum of all costs equals the company's total revenue requirement. If average costs are not recovered, the company will not earn a profit. This makes administrative sense; but it does not make economic sense.

The overwhelming majority of professional economists say that it

makes no sense whatsoever to base any prices, including transportation rates, on measurements of "fully allocated" costs. This point is demonstrated repeatedly in economics textbooks. Economists instead believe that prices (rates) should reflect marginal costs (defined below) adjusted to reflect customer demand for the product. This economic teaching is well understood by progressive trucking companies, which seek to calculate marginal cost in order to enhance their overall profitability.53

A rate which makes economic sense is one which reflects the costs which change as a result of decisions to produce more or less. These costs are called "marginal costs." Marginal costs are defined to include all the additional costs, both public and private, which are needed to bring an additional product or service to market, including the additional costs borne by society. Trucking marginal costs can be difficult to measure, because costs vary along several dimensions, including (but not limited to) weight, distance, volume, perishability, and many other factors.

The complexity of trucking costs may be illustrated by the "backhaul problem." Suppose that a truck travels from point A to B and back again. There will be little additional cost if the truck returns fully loaded instead of empty. The additional costs of returning fully loaded—the additional fuel and labor—are called the "separable marginal costs" and normally these costs will be low.

The economically efficient set of fronthaul and backhaul rates would maximize the freight that is carried in both directions as long as the combined revenue for both segments of the trip equals the round trip marginal costs, and as long as each segment of the trip recovers its separable marginal costs.

Depending on the demand for trucking services, the appropriate set of truck rates could result in equal sharing (50-50) of the joint costs between both the fronthaul and the backhaul; or, if demand for trucking services is very, very low at point B, the appropriate level of backhaul rates could be equal to little more than the additional gas and oil consumed by returning full rather than empty. Any backhaul rate just slightly above the separable marginal costs makes some contribution to the total joint costs of the round trip and thereby benefits the fronthaul shippers. If a trucking company tried to set the backhaul rates too high, it might lose the traffic altogether which would either reduce profits or cause an increase in the fronthaul rates. Hence, an economically efficient set of fronthaul and backhaul rates must reflect demand characteristics in each market. The situation becomes even more complicated when a carrier

has an opportunity to return by way of point C, etc.\(^54\)

Regulation imposes inflexible prices and restrictive operating conditions. Carriers are limited in their ability to change prices in response to changing market opportunities, and they are confined to particular markets and commodities. This leads to emptier trailers and higher average costs for shippers and receivers. Substantial cost savings can occur when carriers are free to choose different routes and commodities. In response to interstate deregulation, for example, several shippers were able to reduce their freight costs by 25 to 60 percent solely by means of creative traffic planning to take advantage of backhaul opportunities.\(^55\)

It is difficult to see how any government agency could prescribe economically efficient trucking rates. "Markets generate and use enormous quantities of specialized information that is extremely difficult and costly for government officials to obtain."\(^56\) Knowledge of trucking marginal costs is difficult to ascertain. Knowledge of demand conditions is available only in very general terms to experienced traffic managers. Both costs and demand conditions are apt to change on a daily basis.

\(\textit{D. Small Community Service}\)

Proponents of continued trucking regulation contend that service to small communities is more costly and that the current rate structure does not compensate for these additional costs. The proponents claim that regulation holds prices above costs in some markets, thus generating extra profits which can be used to "subsidize" small community service. It is argued that deregulation would cause small communities to suffer rate increases and/or deterioration in service.

This argument is regarded as "totally fraudulent," by America's best known scholar of regulation.\(^57\) Economic regulation is not needed to sustain service to small communities. There is no evidence that small community service is "subsidized" by consumers in large urban communities. Truckers are independent business persons who do not voluntarily serve unprofitable locations, and there is no evidence that rural service is unprofitable at current rates. At its very heart, state trucking regulation means government action to greatly reduce the number of actual and potential competitors available in \textit{all} communities—both urban and rural. It is difficult to see how such restrictions could be of \textit{any} possible benefit to


\(^{57}\) A. KAHN, \textit{supra} note 54, at xxi.
small communities. Surveys have shown time and again that deregulation has not changed or has improved service to small communities.

Regulators are powerless to prevent withdrawal of service to small communities. If regulators actually did prevent withdrawal of small community service, such restrictions would strongly discourage small community service from being provided in the first place. A trucker who began small community service would know that he might be stuck with potentially unprofitable service and could extricate himself only with difficulty.

The term “cross subsidy” has a specific meaning in economics. Rural service is subsidized by urban customers only when rural service imposes a burden upon urban customers. The question to be asked is: would urban customers be better off if rural service were not provided? The limited information which is available suggests that while rural service probably is more costly, these cost differences are already reflected in the motor rate structure.58

Truckers can make small community service profitable by increasing revenues and by reducing costs. Revenues may be increased by means of (a) minimum charges—defined as the lowest rate which a trucker will accept, or by imposing (b) arbitrages—“add ons” to the class rate, designed to make the shipment compensatory, imposed regardless of freight classification or shipment weight.

Costs may be reduced by means of (a) multiple tender discounts—which encourage shippers to consolidate two or more shipments and tender these to a carrier at one stop, or by (b) peddle runs—on which trucks call on a relatively long list of shippers or receivers with infrequent trips to terminals. The frequency of service can be reduced to ensure that trucks will be profitably loaded. Lower traffic congestion and flexible employee work practices also help to reduce costs in small communities.

Small trucking companies, which specialize in small community service, are not likely to subsidize small communities since there is no one to which to charge the subsidy. These small companies seem to be able to continue in business and remain profitable, which suggests that there is no subsidy.

A dozen or more small Oregon trucking companies specialized in small community service in 1985, and seemed to be able to recover their costs of service without subsidy from urban shippers. Shown below are the “operating ratios” (expenses divided by revenues) of these small Oregon trucking companies.

58. M.C.R.S.C., supra note 49 at 287, 326.
Table 6 might suggest that two-thirds of the above carriers either operated at a loss or at a break-even point, since a 96 percent operating ratio is "marginal;" however, motor carriers often furnish unreliable financial reports. Varying levels of management compensation can distort the apparent financial picture. Many small companies also lease their equipment and engage in transactions with nonregulated affiliates. Levels of investment can vary widely but are not reflected in the operating ratio. The operating ratio does not show return on investment and may have been employed historically by regulators who sought to conceal high rates of return from the public.\(^{59}\)

R.L. Banks and Associates conducted a more careful examination of nine carriers which specialize in small community service in various parts of the United States. The Banks study concluded that small carriers were often better able to monitor changing market conditions, provide individual service to customers and maintain control over costs.\(^{60}\)

A study of the prices paid for operating certificates from 1972 to 1977 also suggested that small community service can be profitable; and that ICC regulation was ineffective in causing small community service to

\(^{59}\) California Public Utilities Commission, Strategic Planning Division, California’s Trucking Industry: A Review of Regulatory Policies and Objectives, Feb. 1988, at 25. See also, Gellhorn and Pierce, supra note 45, at 306.

\(^{60}\) R.L. Banks and Associates, Service to Small Communities, in Regulation of Entry and Pricing in Truck Transportation (P. MacAvoy & J. Snow eds. 1977), at 141.
be either initiated or maintained. Certificates to provide intrastate trucking service to small Oregon communities are also offered for sale, and purchased in the expectation of future profitable operations.

Large multi-state trucking companies have no financial incentive to subsidize small communities. The collective ratemaking process does not contain any mechanism for compensating a firm losing money in one market with excess profits from another market. There is also no mechanism by which a firm which experiences overall net losses, because it specializes in carrying freight to small communities, would be compensated by other firms which specialize in traffic to high-density urban areas.

There was no change in rate differentials in either Arizona or Florida following state deregulation. Changes in rate differentials for urban and rural service suggest that, if anything, rural service subsidized urban service. Rates generally declined, service quality was maintained, and there was no evidence of instability. Viking, a large regional carrier, responded to Arizona deregulation by expanding its Arizona service from 67 points in 1982 to 147 points by 1988.

Studies have often found scant reliance by rural shippers and receivers upon regulated trucking companies. The issue of small community service was hotly debated before Congress passed the Motor Carrier Act of 1980.

Deregulation advocates were able to argue that the presumed benefits of regulation for small communities were, for the most part, pious fictions. the [U.S.] Department of Transportation offered to survey shippers in two communities in any state represented on the committee, at the request of the respective senator. In one New Mexico community, selected for Senator Schmitt by the ATA [American Trucking Association], it turned out that no regulated company was providing service...

Most of the freight needs of small communities are met by private carriage, United Parcel Service (UPS), bus package express, and a variety of informal arrangements. Many small communities have shippers or receivers that are tied in with the large traffic departments of a chain or franchise, or that receive prepaid freight routed by someone else. Local Western Auto outlets, or General Electric appliance distributors, for example, may benefit by being part of a large, professionally managed distribu-

61. Pustay & Frew, Motor Carrier Regulation and Service to Small Communities, GROWTH AND CHANGE 7-8 (July 1982).
64. DERTHICK AND QUIRK, supra note 5, at 126 and 128.
tion network.\footnote{M.C.R.S.C., supra note 49, at 316-19.}

One pre-reform study examined trucking service to 128 rural communities in Eastern Oregon, Washington, Idaho, Montana, and Utah. No evidence was found to suggest that these communities were being subsidized by regular route common carriers. Although carriers "must hold themselves out to serve" up to the limits of their operating authorities, "much managerial discretion is permitted with respect to the quantity and quality of service." \footnote{Breen & Allen, \textit{Common Carrier Obligations and the Provision of Motor Carrier Service to Small Rural Communities}, Q. REV. OF ECON. \\& BUS., Winter 1980, at 87, 90, 96, and 104.} Carriers apparently were able to abandon unprofitable or relatively less profitable markets. Garrett Freightlines, for example, served Pendleton, Baker, John Day, and Burns, Oregon, as authorized by its ICC certificate, but had abandoned service to sparsely populated Izee, Mt. Vernon, and Dayville, Oregon, which were also authorized on its ICC operating certificate. The smaller the community, the less likely that it would receive regular route common carrier service. Since the ICC did not force these carriers to serve all points on their operating certificates, there was no \textit{possibility} that service to the abandoned communities would become worse after interstate deregulation.\footnote{Public Utility Commission of Oregon, \textit{Transportation of Property in Selected Small Communities Within Oregon}, (unpublished study of the Motor Program Staff) 1981 (not paginated).}

The Oregon Commission staff conducted a survey of truck service to Maupin, Madras, Prineville, Mitchell, John Day/Canyon City, and Burns/Hines. The staff found that it was virtually impossible to obtain information about capacity, frequency, or routes of travel of private or exempt carriers. Several of the large interstate carriers were taking forest products and agricultural commodities as backhaul tonnage for eastbound movements. Some irregular route carriers were (illegally?) providing service which was very similar to regular route service.\footnote{\textit{Id.} (not paginated).}

Five carriers had made informal arrangements to overcome PUC restrictions, since none were authorized to serve all six communities. Garrett Freightlines, for example, was authorized to serve John Day/Canyon City but not from Portland; so it made a deal with John Day Auto Freight. Similarly, although Interior Motor Freight was authorized to serve Madras from The Dalles; in practice, however, traffic from Portland to Maupin was handled by Silver Wheels from Portland to The Dalles, unloaded, and then loaded on the truck of another carrier for delivery to Maupin.\footnote{\textit{Id.} (not paginated).}

Still another study, conducted by this author in 1986, found that the smaller Oregon communities are less likely to have both authorized and "available" service.

The official Oregon Highway Map suggests that about 14 percent of
Oregon's population live in 220 towns with populations of less than 10,000 persons. Virtually all of these communities are "authorized" destinations for at least one carrier, according to records maintained by Commission staff. The route operating certificates were then compared to yellow page directory advertising listings as a measure of the degree of actual service availability. Advertised regular route interstate trucking service was available to 58 percent of the small Oregon communities.

**TABLE 7A**

<table>
<thead>
<tr>
<th>Population Size</th>
<th>Number of Communities</th>
<th>&quot;Served&quot; Communities*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-499</td>
<td>61</td>
<td>21</td>
<td>34%</td>
</tr>
<tr>
<td>500-999</td>
<td>52</td>
<td>29</td>
<td>56%</td>
</tr>
<tr>
<td>1,000-1,999</td>
<td>49</td>
<td>33</td>
<td>67%</td>
</tr>
<tr>
<td>2,000-4,999</td>
<td>38</td>
<td>29</td>
<td>76%</td>
</tr>
<tr>
<td>5,000-9,999</td>
<td>20</td>
<td>16</td>
<td>80%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>220</td>
<td>128</td>
<td>58%</td>
</tr>
</tbody>
</table>

*Authorized and (yellow page) advertised regular route general commodity service.

**TABLE 7B**

<table>
<thead>
<tr>
<th>Population Size</th>
<th>&quot;Served&quot; Communities</th>
<th>Authorized Carriers</th>
<th>Authorized Average</th>
<th>Advertised Carriers</th>
<th>Advertised Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-499</td>
<td>21</td>
<td>82</td>
<td>3.9</td>
<td>30</td>
<td>1.4</td>
</tr>
<tr>
<td>500-999</td>
<td>29</td>
<td>104</td>
<td>3.6</td>
<td>49</td>
<td>1.7</td>
</tr>
<tr>
<td>1,000-1,999</td>
<td>33</td>
<td>133</td>
<td>4.0</td>
<td>60</td>
<td>1.8</td>
</tr>
<tr>
<td>2,000-4,999</td>
<td>29</td>
<td>113</td>
<td>3.9</td>
<td>69</td>
<td>2.4</td>
</tr>
<tr>
<td>5,000-9,999</td>
<td>16</td>
<td>80</td>
<td>5.0</td>
<td>38</td>
<td>2.4</td>
</tr>
</tbody>
</table>

There is great variation within each size group. Astoria, with a population of 9,950, was an authorized destination for only one carrier. Dallas, population 8,770, was authorized for three carriers, but only two advertised their availability. Oregon Freightways advertised, but its service was restricted to northbound shipments of nuts, fresh and dried fruit, and cement.

The Oregon Department of Transportation conducted a study of eight small Oregon communities in 1981-1982 to determine the usage of package service provided by the intercity bus operator.69 Four

---

69. Interstate bus service was deregulated by the Bus Regulatory Reform Act of 1982. As of September 1983, bus companies had eliminated or were proposing to eliminate service to 776 U.S. nonmetropolitan communities. A 1984 ICC study found that half of 1 percent of the U.S.
communities (John Day, Lakeview, Gold Beach, and Arlington) heavily used the package service. The other four communities (Condon, Heppner, Vernonia, and Canyon City) did not have bus service; however, the residents generally did not identify the lack of bus package service as a problem. There was a strong sense of "community" and self-reliance. Informal systems had been established to meet local needs. There was heavy reliance on United Parcel Service (UPS). Sometimes token payments would be made to neighbors or regular payments to drivers of private delivery trucks. Because of regulatory restrictions on the size and weight of UPS packages, and the absence of UPS weekend delivery, farmers who lacked a critical equipment part were apt to make a long trip by automobile or plane.\textsuperscript{70}

A 1981 survey by the U.S. Department of Transportation of shippers and receivers in three small Oregon towns (Enterprise, Tillamook, and Vernonia) found that the common carrier obligation did not effectively guarantee that service would be provided. Even without regular interstate service, shippers/receivers were able to secure adequate freight services "due to the variety of freight transportation options available and their own resourcefulness."\textsuperscript{71} The 27 Oregon business-persons interviewed were satisfied with the trucking service available to them. Small package specialists and private carriage were used to a great degree. Only 18.5 percent of the surveyed businesses primarily relied upon regulated LTL service (zero percent in Vernonia, 16.7 percent in Enterprise and 27.3 percent in Tillamook). Fifty-six percent of the respondents said that they primarily use small package specialists, and 26 percent said that they primarily use private carriage. ICC-regulated general freight common carrier service had not deteriorated in the past few years.\textsuperscript{72}

After state deregulation in Florida, three economists conducted a detailed analysis of over 27,000 shipments made by ten major Florida intrastate carriers. Small shippers in rural areas were found to have benefited from state deregulation, although the price decrease was larger in the larger markets. The study concluded that that "there are no apparent losers" and that state deregulation was a "solid success." Rates fell by 12 to 16 percent.\textsuperscript{73}

population lived in those communities, some of which were suburbs of larger cities or close to communities which have bus service. The number of persons who actually used the bus service in these communities was, of course, much smaller than half of 1 percent. See, Pinkston, REGULATION (Sept./Dec. 1984) at 52.


72. Id. at 39.

73. Blair, Kasserman & McClave, Competition on Trial: Florida Deregulation Trucking,
Another study compared four states with strict regulation (Texas, Ohio, Minnesota, and New Mexico) with four others which have deregulated or have loose regulation (South Dakota, Florida, Maine, and Wisconsin). The study examined 50 small communities (less than 2,000 persons) in 1976, 1982, and 1984 to detect changes in the availability of trucking service. While service was found to have improved in all eight states, more improvement was found in those which had liberalized or eliminated intrastate regulation. Florida, for example, experienced major improvements in small community service after intrastate deregulation. Small community service in Ohio had also improved, since the Ohio PUC had begun to grant state-wide radial authority to truckers, thus liberalizing entry into small Ohio trucking markets.74

Kidder surveyed rural shippers in three northern and in three southern states. She found that very few rural shippers and receivers have experienced declines in trucking service in North Carolina, South Carolina, Georgia, Maine, New York, or Pennsylvania. More firms reported increases in the number of competing carriers. Three times as many firms reported an increase in trucking competition (compared to those who reported decreases). Increased competition resulted in new service options, restraint on rate increases, and widespread ability to deliver to and from most rural destinations. Motor carrier service improved for the majority of respondents in rural areas, both large and small.

Service quality and quantity has not diminished with deregulation for the vast majority of shippers and receivers in rural areas. For most shippers, very little has changed since the first study in 1978-79: a heavy dependence upon UPS for small package shipments; considerable use of private carriage; and generally acceptable levels of freight service available from an array of certificated common carriers. Service quality (timeliness and security) and interstate competition is higher on the whole. Most of the respondents conclude that, on balance, regulatory reform has not resulted in adverse shipping conditions. Indeed, a growing number of rural firms are willing to attribute some of their recent improvements to regulatory changes.75

All of the Syracuse University surveys concluded that interstate deregulation benefited a broad cross section of firms in rural communities.

Rural communities have also benefited from the growth of the inter-state freight brokerage industry, according to a survey of the brokerage

industry. Nearly half of the broker respondents said that they provide extensive service to small isolated communities. The respondents said they primarily serve small shippers and handle a substantial amount of LTL traffic. These results suggest that rural Oregon communities may be poorly served by current restrictions on entry into intrastate freight brokerage.

A study of deregulated British trucking companies found that there were substantial economies related to vehicle size, and that smaller operators tended to use smaller trucks. This finding also implies that Oregon trucking regulation may result in unnecessarily high cost service to rural areas, since state regulation prevents new entry and confines certified truckers to limited market areas.

E. TRUCKING SAFETY

The proponents of continued economic regulation allege that deregulation has had a disastrous effect on safety. They also argue that economic regulation leads to higher profits and that this money is spent in improved driver training, better maintenance, or new equipment.

There is no evidence, however, of a systematic relationship between economic regulation and trucking safety. Economic regulation could not possibly be an effective way to improve trucking safety, since most of the industry is not subject to any form of state economic regulation. National accident, injury, and fatality rates per vehicle mile have all declined over the past 10 years—a period of interstate and growing state deregulation. Regulated Oregon intrastate carriers of general commodities have accident rates which are higher than the Oregon accident rates of comparable interstate carriers which are no longer subject to economic regulation. More than 80 percent of Oregon truck accidents are attributed to driver error. Direct inspection and enforcement is the best way to improve driver performance.

Government does not respond to other safety issues by comprehensive programs of entry and rate regulation. For example, the profits of chemical companies are not intentionally fattened by restricting entry and by maintaining minimum price controls in the hope that the chemical companies will "do something" about toxic wastes.

Safe service is reliable service. Shippers are willing to pay more for reliable service. Cutting back on safety does not necessarily improve profits. The few carriers subject to state economic regulation are not

obliged to spend excess profits on safety improvements. Economic regulation would, therefore, be at best only a very clumsy and indirect tool by which to improve truck safety.

Truck accident statistics suffer from at least two deficiencies. The first is that they depend upon voluntary reporting by carriers, and may be underreported by as much as 40 percent.\textsuperscript{78} An apparent increase in accidents may therefore reflect nothing more than improved reporting by carriers. Furthermore, there have been increases in the permissible length, width and weight of tractor trailers. Probably nothing can be done to remedy these deficiencies in the historical data.

The second defect is that only accidents above a certain dollar threshold are reported. The threshold was $2,000 from 1973 through 1985—which means that inflationary increases in repair costs would show up in the statistics as an apparent increase in the number of accidents. This defect can be partially remedied. When the historical accident data are adjusted to remove effects of inflation, it is evident that safety performance has significantly improved since 1978. See Table 8.

Oregon accident statistics also do not support the claim that inter-state deregulation was followed by a deterioration in trucking safety. The Oregon Commission obtains accident information directly from the Oregon State Police, county, and city police departments. This data, however, is still subject to error. Not all accidents get reported. Many carriers haul both regulated intrastate freight as well as (deregulated) interstate freight, and sometimes carry freight in still a third category. Accidents, however, are reflected in only one category, which may make statistical comparisons meaningless.

Yet, if there is a relationship between economic regulation and trucking safety, it is still not one which is apparent from Oregon statistics. Oregon regulated intrastate general commodities carriers have had accident rates higher than the deregulated interstate general commodities carriers. The year 1985 was the only year in which the state-regulated carriers had a lower accident rate. See Table 9.

Some proponents of economic regulation still cite the views of the late D. Wyckoff, a former trucking company executive who taught at Harvard Business School.\textsuperscript{79} Wyckoff conducted a nationwide survey which seemed to indicate that unregulated owner-operators had an accident rate substantially higher than did the drivers of regulated common carriers. His research was widely publicized and was cited by an Oregon legislative report on trucking regulation.


\textsuperscript{79} D. WYCKOFF, \textit{TRUCK DRIVERS IN AMERICA} (1979).
Wyckoff computed accident rates by giving the same weight to all drivers, regardless of differences in the mileages driven. For example, if one driver drove 50,000 miles and had one accident, Wyckoff would treat this driver as if he had two accidents per 100,000 miles. This method of averaging might be acceptable for some applications. Wyckoff's sample

### TABLE 8

<table>
<thead>
<tr>
<th>Year</th>
<th>Self-Reported Accidents</th>
<th>Fatal Accidents</th>
<th>Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>50.9</td>
<td>6.45</td>
<td>7.66</td>
</tr>
<tr>
<td>1979</td>
<td>48.2</td>
<td>6.43</td>
<td>7.68</td>
</tr>
<tr>
<td>1980</td>
<td>41.1</td>
<td>5.43</td>
<td>6.51</td>
</tr>
<tr>
<td>1981</td>
<td>40.2</td>
<td>5.59</td>
<td>6.65</td>
</tr>
<tr>
<td>1982</td>
<td>40.5</td>
<td>5.28</td>
<td>6.34</td>
</tr>
<tr>
<td>1983</td>
<td>37.3</td>
<td>5.23</td>
<td>6.26</td>
</tr>
<tr>
<td>1984</td>
<td>38.2</td>
<td>5.05</td>
<td>5.95</td>
</tr>
<tr>
<td>1985</td>
<td>36.5</td>
<td>4.89</td>
<td>5.85</td>
</tr>
<tr>
<td>1986</td>
<td>31.7</td>
<td>4.67</td>
<td>5.49</td>
</tr>
<tr>
<td>1987</td>
<td>30.2</td>
<td>4.33</td>
<td>5.10</td>
</tr>
</tbody>
</table>

1Federal Highway Administration, Office of Motor Carriers, reports from interstate carriers. Adjusted to exclude accidents that would not have been reportable if the minimum damages threshold had been adjusted for inflation.

2National Highway Transportation Safety Administration, reports of highway fatalities involving combination vehicles.


### TABLE 9

<table>
<thead>
<tr>
<th>Oregon Truck Accident Rates</th>
<th>Intrae State vs. Interstate General Commodities Carriers</th>
<th>(Accidents Per Million Miles)</th>
<th>1980-1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrae State</td>
<td>1.33</td>
<td>1.47</td>
<td>1.28</td>
</tr>
<tr>
<td>Interstate</td>
<td>0.99</td>
<td>1.17</td>
<td>0.74</td>
</tr>
</tbody>
</table>


for unregulated owner-operators, however, was relatively small and contained an extreme observation. One driver had an accident and drove only 2,000 miles. The averaging method chosen by Wyckoff resulted in this driver being treated as if he had 50 accidents per 100,000 miles! The entire difference between the published accident rate for the exempt owner-operator category and the published rates for the other categories is attributable to this single unusual observation.81 When the Wyckoff data is corrected, the apparent relationship between economic regulation and trucking safety disappears.82

<table>
<thead>
<tr>
<th>Type of Operation</th>
<th>Reportable Accidents/100,000 Miles Per Year</th>
<th>Wyckoff Data*</th>
<th>Wyckoff Data**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exempt, Owner-Operator</td>
<td>0.70</td>
<td>0.184</td>
<td></td>
</tr>
<tr>
<td>Contract, Owner-Operator</td>
<td>0.33</td>
<td>0.299</td>
<td></td>
</tr>
<tr>
<td>Common, Owner-Operator</td>
<td>0.31</td>
<td>0.287</td>
<td></td>
</tr>
<tr>
<td>Contract, Company</td>
<td>0.26</td>
<td>0.183</td>
<td></td>
</tr>
<tr>
<td>Exempt, Company</td>
<td>0.24</td>
<td>0.230</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>0.24</td>
<td>0.205</td>
<td></td>
</tr>
<tr>
<td>Common, Company</td>
<td>0.19</td>
<td>0.140</td>
<td></td>
</tr>
</tbody>
</table>


An examination of audit data from the Bureau of Motor Carrier Safety (BMCS) also showed that the estimated accident rates were the same (to two significant digits) for exempt, contract, and common carriers.83

Finally, an independent survey was made of drivers at 18 different truck stops in the U.S. Drivers' mileage and accidents were classified into unambiguous non-overlapping regulatory and employment status categories. Accident rate estimates in all categories were found to be basically identical. The researchers concluded that "there is no systematic relationship between economic regulation and accident rates."84

A number of media articles or statements from industry representatives are sometimes cited in an attempt to "prove" that there is a mean-

81. Id. at 14-15.
82. Id. at 48.
83. Id. at 29.
84. Id. at 48.
ingful relationship between economic regulation and trucking safety. Several of these claims were carefully reviewed by a California Public Utilities Commission/California Highway Patrol joint task force (1987) and found to be inconclusive, or misleading. Based upon its own research and literature review, the task force also found no apparent relationship between economic regulation and trucking safety.85

A study of accidents from 298 carriers found that "a carrier's legal classification as a contract or private carrier, in contrast to a common carrier, is not associated with a significantly different carrier accident rate." Furthermore, "changes in a carrier's net operating income are not linked statistically with changes in accident rates."86

A more recent study found "no worsening of safety performance among the established carriers during the 1977 to 1984 transition." However, firms operating "in a precarious financial situation have significantly higher accident rates than do those not in financial distress." Owner-operators appeared to have a somewhat higher accident rate, both before deregulation and afterwards. These findings suggest that safety enforcement programs should place more emphasis on new entrants and on firms in financial distress.87

Another researcher used three alternative econometric models to analyze possible safety effects from passage of the Motor Carrier Act of 1980. The accident rate, the injury rate, and the fatality rate per vehicle mile traveled have all declined since 1980. The analysis concluded that "there is no relationship between economic regulation and truck safety performance."88

A recent report by the Office of Technology Assessment also concluded that "no clear link can be established between changes in economic regulation and motor carrier safety."89 Data from the deregulated Australian,90 British,91 and New Zealand92 trucking industries also sug-

---

88. R. Cherry, Did Regulatory Reform Reduce Truck Safety? (Americans for Safe and Competitive Trucking) (June 17, 1987), at 2.
91. KAHN, supra note 54, at 166.
suggest that there is no relationship between economic regulation and trucking safety.

Mechanical defects were responsible for only 6.5 percent of total truck accidents in Oregon during 1987. Of far greater importance is the driving performance of the truck driver himself and the other driver, who were collectively responsible for 82.5 percent of total truck accidents in Oregon during 1987 (truck driver—47.4 percent; other driver—35.1 percent).93 Driving performance is best controlled by direct inspection and enforcement.

Northwestern University held a conference in June, 1987, on “Transportation Deregulation and Safety” with participation from the Teamsters Union, American Trucking Association, and the U.S. Department of Transportation. The executive summary of the conference proceedings stated that:

Participants at the Northwestern University conference strongly supported the position that where safety difficulties are identified, they should be addressed by safety measures and not economic regulation.94

Unfortunately the debate about economic regulation has often diverted attention away from more fruitful discussions of how safety could be improved by more direct enforcement.

III. THE EFFECTS OF DEREGULATION

Any estimate of the potential effects of state trucking deregulation must consider the central role occupied by trucking in a modern economy. Raw materials may travel by truck at many different stages as they are converted into finished products for sale to consumers at retail outlets. Every trip which occurs in Oregon is influenced by state trucking regulation, even though the carrier itself may not be subject to direct state entry and rate regulation. It appears that deregulation of transportation has been followed by lower freight rates, faster inventory turnover, a lowering of the premium paid for use of organized labor, and a growth in total trucking employment.

Although any such estimate is necessarily conjectural, the potential benefit from Oregon trucking deregulation could be quite high. The trucking industry is used by business owners who want to minimize their total costs, including transportation costs, inventory carrying costs, and warehouse expenses. Producers must balance two different risks: the risk of not having enough raw materials on hand to continue production and the

risk of not having enough finished goods to meet the needs of their customers. A lack of adequate raw materials bring a halt to production. An insufficient supply of finished goods means that some customer orders cannot be filled on a timely basis.

Consumers benefit when logistics costs are kept low. An estimated thirty cents of every consumer dollars spent on goods goes for logistics costs—defined as transportation, inventory carrying costs and warehousing expense. Personal consumption expenditures (less services) amount to about 38% of personal income in the United States.

Logistics costs are not directly reported in the national income accounts, and must therefore be estimated. Table 11 shows one such calculation of logistics costs. Line 2 shows total business inventories for the United States at $841 billion, as reported by the U.S. Department of Commerce. In addition, costs associated with warehousing, insuring, and accounting for these inventories, are judged by one logistics expert to average about 19% (line 3). A return must be earned on the inventory investment since lenders require compensation for the use of their funds.

Price changes, however, make inventory investment rather speculative. For example, suppose a business owner had $100 invested in an inventory of goods which later appreciated in price by 10%. He would have realized a $10 paper profit on the investment; which would have lowered the effective cost of a bank loan. Considering various inventory price level changes, it has been estimated that inventory carrying costs have averaged about 3.5% per annum from 1974 through 1986 (line 4). Add in transportation costs, (line 5), and a small amount for administrative costs (line 6), and the total estimate of 1986 logistics costs amounts to $425 billion in 1982 dollars.

A few additional calculations suggest that there have been significant improvements in logistics management in recent years. In 1980, the ratio of logistics costs to the nonservice component Gross National Product (GNP) was .260 (line 8 of Table 11). Non-service GNP grew by $282.4 billion for 1980 to 1986. If logistics costs in 1986 had also been .260 of non-service GNP, national logistics costs would have increased by $84 billion in 1982 dollars.

Inventory investment is also influenced by changes in the level of business activity. It may therefore be desirable to take a longer perspective, to smooth the effects of economic fluctuations. Logistics costs averaged about 26.1 percent of non-service GNP during the 1974-79 period, and then declined to an average of 24.0 percent during 1981-86; this

TABLE 11

Logistics Cost Savings
(1982 Dollars)

<table>
<thead>
<tr>
<th></th>
<th>1980</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Non-Service GNP</td>
<td>1676.0</td>
<td>1958.4</td>
</tr>
<tr>
<td>2. Total Business Inventory</td>
<td>769.1</td>
<td>841.0</td>
</tr>
<tr>
<td>3. Non-interest Inventory Cost (19% * Line 2)</td>
<td>146.1</td>
<td>159.8</td>
</tr>
<tr>
<td>4. Constant Real Interest Rate Carrying Cost (3.5% * Line 2)</td>
<td>26.9</td>
<td>29.4</td>
</tr>
<tr>
<td>5. Transportation Cost</td>
<td>244.9</td>
<td>221.2</td>
</tr>
<tr>
<td>6. Administrative Cost</td>
<td>17.9</td>
<td>14.7</td>
</tr>
<tr>
<td>7. Constant Real (Interest Adjusted) Total Logistics Cost (Lines 3 + 4 + 5 + 6)</td>
<td>435.8</td>
<td>425.1</td>
</tr>
<tr>
<td>8. Ratio of Interest Adjusted Total Logistics Cost to Non-Service GNP (Line 7 - Line 1)</td>
<td>.260</td>
<td>.217</td>
</tr>
</tbody>
</table>

1986 Cost Savings:

\[
(0.260 - 0.217) = 4.3\% \text{ savings}
\]

\[
4.3\% \times 1958.4 = \$84.21 \text{ billion}
\]

Post Deregulation Average:

Average Ratio of Interest Adjusted Total Logistics Cost to Non-Service GNP:

<table>
<thead>
<tr>
<th>Average (1974 - 1979)</th>
<th>.261</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average (1981 - 1986)</td>
<td>.240</td>
</tr>
</tbody>
</table>

Difference: .021 = 2.1%

2.1% * 1958.4 = $37.69 billion


change is a decline of 23.1 percent, and a savings of nearly $38 billion per year in 1982 dollars.

Food and clothing are large parts of every household budget. Revolutionary changes have been occurring in the way these essential products are being provided. Two specific examples show how consumers have benefited from reductions in logistics costs made possible by transportation deregulation.

More than half the groceries purchased today are checked out at cash registers hooked up to optical scanners. The data entered at the checkout stand reduces paperwork, and allows for "rapid price changes, measurement of consumer response to advertising, closer inventory control, precise dispatch orders for trucking . . . and reduced error rates in billing, ordering, and pricing."96

Interstate trucking deregulation has allowed supermarkets and grocery wholesalers to use their trucking fleets more productively. Some have been using 60 to 80 percent of their trucks to backhaul manufacturers’ goods. Familiar names include Borden, Frito-Lay, Kellogg, Quaker Oats, and T.J. Lipton. An estimated $169 million was directly saved by food and grocery distributors during 1982.97

Consumers have also benefited from changes in clothing production and distribution. The U.S. clothing industry has been under severe pressure from foreign competition. The industry is responding by developing an integrated system from fiber production to retail sales. The goal is to reduce greatly the 65 weeks now required to move fiber into a retail store as a finished product.98

J.C. Penney, for example, has been linked with a number of apparel makers such as J.P. Stevens, and with DuPont, the largest fiber manufacturer. In a pilot project, selected J.C. Penney locations were able to order clothing directly from participating suppliers. These orders were then electronically transmitted to the fabric and fiber makers who would send raw materials using a "just-in-time" delivery system. The manufacturers had set up flexible production processes, which allowed short set up and fast turn around on customer orders. This system substantially reduced inventory holding costs.99 This improvement is particularly important in retailing, where forced markdown clearance sales may amount to as much as 14 percent of sales.100 Inventory reductions of as much as two-thirds have been reported.101 These changes are only beginning. The apparel industry is expected to evolve into "highly responsive networks" composed of "comparatively small establishments connected together by a well-managed communication and transportation system."102

The recent fall in national logistics costs "is equivalent to an increase of almost 3 percent in per capita income." These improvements would have been largely impossible under restrictive pre-reform ICC regulation. Although most of the benefits from transportation deregulation may have already been realized, it has been estimated that an additional $20 to $30 billion in transportation and logistics savings may be obtainable by eliminating the remaining vestiges of ICC economic regulation and by federal

98. Office of Technology, supra note 96, at 47.
100. Office of Technology, supra note 96, at 239.
102. Office of Technology, supra note 96, at 239-240.
preemption of state regulation.103

State trucking regulation imposes internal trade barriers in the U.S. The European Economic Community is moving toward complete elimination of trucking entry and pricing regulation by the end of 1992. Since the production and distribution of domestic products often involves ten or more separate movements within the U.S., while imports usually involve only one or two movements, continued state trucking regulation may cause U.S. products to become increasingly less competitive in relation to foreign imports.104

As impressive as these technological improvements are, such streamlined logistical systems will not work without highly reliable transportation systems, and often that requires dedicated service under a performance contract with one carrier with penalties for late delivery to the assembly line. Pre-deregulation such penalties were considered to be illegal rebates. Shippers simply do not have time or patience to deal with a dozen carriers, each with highly particular and restrictive regulatory operating rights, none of which match precisely the shipper’s business operations. Nor do shippers patiently endure the uncertain outcome of regulatory proceedings.

Before passage of the Motor Carrier Act of 1980, no interstate carrier had 48-state ICC authority. Private carriers were denied the right to accept for-hire freight. Under strict ICC regulation, a carrier’s operating permit application, routinely faced opposition from other carriers—even from those not hauling the same commodities. Thus, carriers wishing to obtain a permit would often have to incorporate cost increasing restrictions to appease protesting carriers or risk jeopardizing the entire application. The resulting crazy quilt pattern of restrictions increased empty backhaul mileage, caused circuitous routes, and imposed restrictions on commodities which could be hauled. Two former ICC employees found that 84% of the ICC certificates granted in pre-reform 1976 were for one-way authority only.105 In one notorious instance, a frustrated carrier filed an application to haul (non-existent) yak fat, only to be met with protests from 13 carriers.106

The pre-reform ICC restrictions led to a flourishing market for the sale and purchase of the legal right to haul freight from one point to another. The pattern of operating rights was similar to a jigsaw puzzle. Carriers often had to purchase operating rights to cope with “the complex web of inefficiencies” caused by detailed regulation of routes, commodities and

104. Id. at 52-7, 8, 9.
105. Mabey & Strack, Deregulation—A Green Light for Trucking Efficiency, REGULATION (July/Aug.) 1982), at 42.
106. Robyn, supra note 6, at 64.
services.\textsuperscript{107} One researcher examined the sales of 1,500 ICC operating certificates between 1971 and 1977. He could predict the level of regulation-induced monopoly profits "simply by determining the level of service demand that is present in the service area."\textsuperscript{108} Oregon state trucking regulation has likewise created value for the owners of operating certificates, which are also sometimes sold for a profit.

After passage of the Motor Carrier Act of 1980, some 4,000 interstate carriers were granted 48-state ICC authority. One-way restrictions were no longer imposed. Carriers were able to remove operating restrictions from their ICC certificates. Private carriers could obtain ICC authority to accept for-hire freight. Interstate carriers were able to obtain much broader ICC authority and directly control pickup from shippers, consolidate freight, and provide direct delivery from the plant to the customer. A range of highly non-traditional services have been provided by some carriers, including appliance installation, simple servicing, and holding safety inventory stocks close to the point of need. Carriers were able to work directly with shippers and receivers to ensure that all the components for a set production period arrive "just-in-time." Savings from 8 to 66 percent have been realized over traditional LTL class rates.\textsuperscript{109}

Computers, telecommunications networks and management information systems are being used to achieve efficiencies undreamed of even fifteen years ago. Federal Express pioneered the use of the hub and spoke system and transformed the airfreight industry. Yellow Freight made major investments in information and telecommunications systems to be able to track LTL shipments across the U.S.\textsuperscript{110}

Large multi-state LTL carriers stress the logistics advantages to shippers of dealing with a carrier which offers one-stop shopping, serving many different areas and locations. These carriers offer logistics planning assistance, and guaranteed delivery using state-of-the-art information systems. Smaller regional carriers claim that they offer superior personal attention and low rates by concentrating on smaller territories. A 1985 survey of manufacturers found that 40 percent had implemented just-in-time inventory systems. An additional 40 percent were planning to do so by 1987.\textsuperscript{111}

\textsuperscript{107} Kafoglis, A Paradox of Regulated Trucking: Valuable Operating Rights in a 'Competitive' Industry, AEI J. ON GOV'T. & SOC'Y (Sept./Oct. 1977), at 32.
\textsuperscript{111} ICC, Office of Transportation Analysis, Highlights of Activity in the Property Motor Carrier Industry, Staff Report No. 11 (Aug. 1987), at 7-9.
Continued state trucking regulation thwarts development of consistent pricing systems and retards the introduction of more efficient methods of transferring information. Regulators need a clear audit trail of documentation in order to determine if rules have been broken. Shippers find it confusing to have to deal with two freight rate structures—one set by state authorities, the other freely negotiated for interstate movements. Shippers are also unwilling to spend the time required to participate in state regulatory proceedings. Moreover, state regulation impedes the introduction of electronic data interchange systems—computer to computer exchange of bills of lading, freight bills, rate quotes, delivery receipts, trailer manifests, and other documents.

Interstate trucking deregulation has apparently encouraged the beginnings of a futures market for TL freight in the United States, which will further increase the competitiveness of the U.S. trucking industry. Such a system already appears to be well developed in France. Shippers or receivers may list their needs on a computerized information service. French truckers also list their schedules and the quantity of available capacity on each route. Empty backhaul space can be listed, for example, followed by a request for customers who wish to ship cargo on that route. This request by the French trucker may be matched with the requests by customers who wish to ship that route. Such a system permits easy scheduling and helps to make better use of the capacity of the French trucking industry.

Trucking firms could be regulated on a firm-by-firm basis, as with public utilities. In Oregon, however, trucking companies are regulated on an aggregate basis. Firms of varying sizes, markets, and cost characteristics are lumped together and treated as a group for rate setting. This practice reduces administrative costs but tend to trade one form of inefficiency for another. It encourages price leadership and the padding of costs, as less efficient firms are included within the regulatory averaging process. Competitive unregulated markets would force these firms to make improvements. Regulators tend to seek "fair results" which allow some of the inefficient to survive, thereby increasing average costs. Inefficient carriers can survive in secure market niches, and efficient carriers find their expansion limited by government restrictions. The aggregate rate of return may appear reasonable on a relatively high level of average

costs. Pre-reform ICC regulation, in fact, did foster inefficiency and prevent the establishment of least-cost network systems.

The productivity gains made possible by interstate deregulation occurred to some extent at the expense of organized labor in the trucking industry. ICC regulation had created an opportunity for organized labor to earn wages substantially above that paid for similarly skilled nonunionized trucking industry employees. Labor is a large component of total cost, particularly for LTL carriers. Unionized carriers paid wages as much as 50 percent above the wages paid for similarly skilled employees at nonunionized carriers. By the mid-1970’s, even before the beginnings of ICC regulatory reform, unionized carriers began to feel substantial competitive pressure from nonunionized carriers. The smaller unionized carriers had particular difficulty competing and were often forced to seek “under the table” wage and working practice concessions from local unions. The number of workers covered by the National Master Freight Agreement (NMFA) dwindled by ten percent during the 1970’s (from 306,037 in 1970 to 277,017 by 1979). Enactment of the Motor Carrier Act of 1980 was followed by a recession, and a substantial decline in NMFA coverage to somewhere between 200,000 to 160,000 workers by 1985.

Interstate deregulation has reduced but not eliminated the wage premium earned by the unionized segment of the trucking industry. Data compiled by the Teamsters Union reportedly indicate that in 1985 NMFA drivers earned $40,000 per year (working an average of 50 hours per week) compared to only $22,000 for nonunionized drivers. Thus, unionized carriers are likely to continue to feel competitive pressure from nonunionized carriers.

Total employment in the U.S. trucking industry grew by 8.6% from 1.249 million in 1979 to 1.356 million by 1987. Employment in the Oregon trucking industry increased by 13.7% over the same period (from 17,198 to 19,561). The average hourly earnings in the trucking indus-

120. Id. at 2, 10.
121. ICC, supra note 111, at 19.
123. Oregon Employment Division, Research and Statistics.
try are about 12.3 percent higher than in the manufacturing sector.\textsuperscript{124}

Unemployment in the U.S. trucking industry since 1978 has been about the same or slightly below that of the manufacturing sector.\textsuperscript{125}

Oregon trucking regulation protects the regulated carriers by imposing restrictions to limit the usefulness of private carriers who might otherwise be able to market their excess capacity and compete with the regulated carriers. Private interstate carriers won several major concessions in the Motor Carrier Act of 1980 which are still denied to Oregon intrastate private carriers.

Before interstate deregulation, empty backhauls for private carriers in the U.S. were estimated to be 27 percent, or two-thirds greater than that of for-hire carriers. With interstate regulatory reform, private carriers significantly reduced empty backhaul mileage to 11 to 12 percent.\textsuperscript{126}

In theory, private carriers can obtain for-hire authority in Oregon. In practice, regulation of entry is so restrictive that only five percent of Oregon private carriers have obtained a certificate to provide for-hire service, according to a 1985 staff survey of 73 private carriers (each of which operates 20 or more power units plated in Oregon).\textsuperscript{127} Oregon also prohibits compensated intercorporate hauling, which is permitted by federal law.

One carrier responded to the 1985 Oregon PUC staff survey by saying that the state policy on intercorporate hauling had forced him to merge five of six corporate subsidiaries into the corporate parent, in order to work around the Commission rules. Oregon policy also makes it difficult for private businesses to lease and operate a truck and driver—the driver must either become an employee of the lessee, or the lessor must have for-hire authority (which is extremely difficult to obtain). A majority (71 percent) of the Oregon private carriers who were surveyed said that they would like Oregon law on the use of private fleets to be made consistent with federal law. Five carriers said that a revision of Oregon law on intercorporate hauling would encourage their company to expand its Oregon operations.\textsuperscript{128}

A large number of studies are available comparing rates before and after deregulation, comparing the unregulated to regulated carriers, determining the rate effects implicit in the sale of operating certificates, or the fall in stock market values following interstate deregulation. Florida


\textsuperscript{125} ICC, supra note 111 at 30.

\textsuperscript{126} STANDARD AND POOR'S INDUSTRY SURVEYS (Sept. 22, 1988), at R39.

\textsuperscript{127} Oregon PUC, Changes in Federal Regulation Affecting Private Carriers of Property: Implications for Oregon, (staff report) (June 28, 1985), at i.

\textsuperscript{128} Id. at i, ii.
intrastate rates, for example, fell by about 12 to 16 percent after state
deregulation. Rose considers a fall of at least 10 to 20 percent in rates
to be a likely outcome of California deregulation. Schary believes that
Oregon rates already reflect pressure from interstate competition but that
a rate fall of 2 to 5 percent would be likely after state deregulation.

Not all of the logistics productivity improvements are due to interstate
trucking deregulation, but clearly the trucking industry is responsible for
most of the improvements. Measured by revenues, the trucking industry
is the dominant mode of freight transportation, with revenues amounting
to more than 70% of the nation’s freight bill. The U.S. census of transporta-
tion defines 60% of all motor carrier tonnage as intrastate.

The most recent publicly available information on the distribution of
intrastate motor freight tonnage among the states is the 1976 Continuing
Traffic Study (CTS) tapes collected by the major rate bureaus and made
available to the ICC. Oregon is among the “top ten” states in terms of
both intrastate general freight ton-miles and intrastate general freight rev-
venues. Oregon’s share was 2.82% of intrastate general freight ton-miles
and 3.06% of intrastate general freight revenues.

The potential benefits from state trucking deregulation can be esti-
inated based upon several assumptions: at least half of the fall in national
logistics costs is attributable to interstate trucking deregulation; half of that
amount represents a potential benefit from state regulation; the potential
benefit could be allocated to Oregon based upon Oregon’s relative share
in intrastate freight; and that realistically, only about one-third could actu-
ally accrue as a result of intrastate deregulation.

With all of the above assumptions, the potential logistics savings from
Oregon intrastate trucking deregulation could be calculated as perhaps
$100 million per year in 1988 dollars ($42 billion × .5 × .5 × .03 × .33).
This savings would represent a 2% reduction in Oregon’s total logistics
costs, assuming that Oregon’s logistics costs are about $5 billion per
year.

The present value of all future costs would be much higher, even for

---

129. Blair, Kasserman & McClave, supra note 73.
130. N. Rose (Testimony before the Calif. Public Utilities Commission, Docket I. 88-88-046)
(Oct. 27, 1988), at 22.
131. Schary, An Investigation of the Impact of State Regulation of Motor Carriers of Property
on Interstate Transportation (prepared for DOT (forthcoming)), at 183.
132. Delaney, The Disunited States: A Country in Search of an Efficient Transportation Pol-
133. Allen, The Impact of Collective Rate Making on Motor Carrier Rates: A Test, INT’L J.
134. Total U.S. logistics costs of $425.1 billion in 1982 dollars (Table 11, line 7), can be
escalated by about 12 percent to 1988 dollars ($476 billion), and then multiplied by the ratio of
Oregon’s personal income to total U.S. personal income (1.02%) = $4.86 billion.
very low estimates of the annual cost of economic regulation of trucking.135

IV. CONCLUSIONS

Oregon has imposed economic regulation on part of its trucking industry for nearly 70 years. State regulation of trucking entry and rates began when highways were very poor and railroads were the predominant mode of transportation. Both railroads and interstate trucking were essentially deregulated in 1980. Yet trucking regulation lives on in Oregon and in 39 other states.

State trucking regulation is both unfair and inefficient. Oregon, as in two dozen other states, tightly restricts entry into for-hire carriage of general commodities. Established trucking companies are allowed to object to any potential new competition when applications are filed for additional or expanded operating authorities. Business opportunities are denied in order to protect those who got there first (and their heirs). The fully-regulated truckers are not free to change their rates in response to changes in market conditions, in order to fill up trailer space which would otherwise go empty, or ration limited capacity at times of peak demand. Shippers are restricted in their ability to negotiate for lower rates and better service. Empty mileage is created by restrictions imposed upon exempt, interstate, and private carriers.

This article has drawn upon the considerable body of research on trucking which has accumulated during the past ten years. An abundance of evidence, both theoretical and empirical, all point to the same conclusion. The trucking industry is like many other industries in our economy. It can be expected to work much better without government controls over entry and pricing.

Oregon trucking regulation, as in other states where regulation still exists, appears to often be justified by five false assumptions.

1. The trucking industry is not a natural monopoly. Its industry structure is not similar to gas, electric, or telephone utilities. If trucking were potentially monopolistic, shippers and receivers would have the most to lose from deregulation. Yet shippers and receivers most often express a desire for trucking deregulation. Many surveys and studies support the belief, expressed by shippers and receivers, that state and interstate deregulation has lowered freight rates and improved the quality and availability of trucking service. Entry barriers in trucking

135. For an assumed real interest rate of 2 percent, the present value of indefinite annual savings could be determined by dividing the annual savings estimate by .02. See, T. Copeland & J. Weston, FINANCIAL THEORY & CORPORATE POLICIES 702 (2d ed. 1983).
are very low; unregulated or exempt trucking companies have virtually no ability to hold their prices above their costs. State regulation acts to hamper interstate carriers which wish to establish an efficient transportation network. If there is any monopoly tendency in trucking at all, and the evidence indicates that there is none, it would be in the national LTL part of the business. Yet a small state such as Oregon clearly has little ability to regulate these large multi-state carriers. Trucking is one of the most competitive industries in the United States.

2. The trucking industry has no tendency toward "destructive" competition harmful for consumers. The very notion of "destructive" competition would probably be considered laughable by those shippers and receivers who must rely upon for-hire trucking, yet are not themselves sheltered from price and service competition. The "destructive" argument is usually advanced from the point of view of the established trucking companies, and not that of the consumers who are the intended beneficiaries of regulation. Healthy competition, beneficial for consumers, has been the outcome from state, interstate, and foreign trucking deregulation.

3. Government action to prevent "unjust discrimination" is usually appropriate only when consumers are unable to defend themselves—when they lack reasonable access to competitive alternatives. But it is state government itself which has created this problem because state regulation greatly reduces the number of actual and potential competitive alternatives.

Interstate deregulation gave rise to deep discounting off the published interstate rates. The situation is perhaps similar to the regular 50-percent-off sales of mattresses advertised by department stores. Yet there is no public demand for regulation of department stores, or demand that consumers must pay the presale price for mattresses. Consumers who have access to competitive alternatives will be able to protect themselves.

Oregon is one among the two dozen states which grant antitrust immunity for collusive ratemaking in the trucking industry\(^{136}\)—sanctioning a business practice that would be illegal in almost all other American industries. This special privilege further reduces the defenses which would ordinarily be available to consumers.

Discrimination is difficult for government officials to define and enforce in competitive industries in ways that do not end up doing more harm than good. Government regulation of trucking increases costs both for

those who use for-hire trucking and for those who are restricted in their ability to fully utilize their own private trucking fleets.

4. Economic regulation is not needed to sustain service to small communities. There is no evidence that small community service is "subsidized" by other consumers in large urban communities. Truckers are independent business persons who do not voluntarily serve unprofitable locations. State trucking regulation greatly reduces the number of actual and potential competitors in all communities—both urban and rural. State regulation makes it more difficult and expensive for interstate carriers to include rural communities as part of an efficient transportation network. Surveys conducted by impartial researchers have shown time and again that deregulation has not caused a deterioration of service to small communities.

5. Economic regulation is not an effective way to improve trucking safety. Most of the industry is not subject to any form of state economic regulation.\textsuperscript{137} Accident, injury, and fatality rates per vehicle mile have declined substantially over the past 10 years—a period of interstate and growing state deregulation. Regulated Oregon intrastate carriers of general commodities have accident rates which are higher than the Oregon accident rates of comparable interstate carriers which are no longer subject to strict economic regulation. It might seem plausible to assume that vigorous competition would lead to cost-cutting, higher speeds, longer hours and less safety. But less than 7 percent of truck accidents are attributed to mechanical failure. More than 80 percent of Oregon accidents are attributed to driver failure by the truck driver (47.4%) or the other driver (35.1%).

Clearly, direct inspection and enforcement is the best way to improve safety performance. It is perhaps ironic that the total annual fines for violations of Oregon economic regulations consistently exceed the fines for safety violations.

The five above fallacies are proclaimed with considerable ingenuity and disregard for internal contradictions. In Oregon, for example, it has been alleged that interstate carriers have suffered from destructive competition and soaring bankruptcy rates. It has also been claimed that intrastate rates are below comparable interstate rates, thus proving the "benefits" of continued state trucking regulation. If all of the above assertions were true, then the regulated intrastate carriers must be in very sorry condition indeed, and unable to generate the subsidies which are said to be necessary to sustain small community service and maintain safe trucking practices.

\textsuperscript{137} The 1982 U.S. Census of Transportation suggests that less than 9 percent of total Oregon truck miles are driven by for-hire intrastate and local carriers.
Any estimate of the potential effects of deregulation must consider the central role occupied by trucking in a modern economy. Raw materials may travel by truck at many different stages as they are converted into finished products for sale to consumers at retail outlets. Every trip which occurs in Oregon is influenced by state trucking regulation, even though the carrier itself may not be subject to direct state entry and rate regulation. It appears that deregulation of transportation has been accompanied by a successive fall in inventory investment, as businesses introduce modern logistics systems to lower their production and distribution costs. Deregulation has been followed by lower freight rates, faster inventory turnover, a lowering of the premium paid for use of organized labor, and a growth in total trucking employment. Although any such estimate is necessarily conjectural, some plausible assumptions suggest that the potential benefit from Oregon trucking deregulation could be as high as $100 million per year. This would be equal to an approximate 2 percent fall in Oregon logistics costs. There are no reasons to delay providing those benefits to the Oregon public.
APPENDIX
STUDIES OF TRUCKING COMPETITION: EXEMPT, REGULATED, AND DeregULATED*

W. Allen & C. Taylor-Brown, Examination of the Unregulated Trucking Experience in Delaware, (prepared for DOT, available through Nat'l Tech. Info. Ser., Jan. 1980). (Unregulated Delaware intrastate carriers provide service "better than or equal to" then-regulated interstate carriers. Rates 8 to 30-50 percent below interstate rates. No cutthroat competition.)


Beilock, Is Regulation Necessary for Value-of-Service Pricing, 16 RAND J. OF ECON. 93 (1985) (Intensely competitive unregulated Florida produce trucking industry operates efficiently without destructive competition.)


Beilock & Kilmer, The Determinants of Full-Empty Truck Movements, 68 AMER. J. AGRIC. ECON. 67 (1986) (Unregulated carriers of Florida agricultural produce, "act rationally, basing their decisions on a wide range of factors . . . regulatory restrictions continue to result in unnecessary empty movements.")

Beilock & Shonkwiler, Modeling Weekly Truck Rates for Perishables, S.J. AGRIC. ECON. 83 (July 1983) (No chaos or destructive competition in unregulated trucking for Florida produce.)


Breen, Antitrust and Price Competition in the Trucking Industry, THE ANTITRUST BULL. (Spring 1983) (Following interstate deregulation, carriers began offering 20-25 percent "multiple pickup" discounts, and across-the-board discounts of 10 to 15 percent.)

Breen, Regulation and Household Moving Costs, REGULATION,

* Supplementing those discussed in the text.
Sept./Oct. 1978. (Regulated household goods rates 39 to 67 percent higher than deregulated rates.)

Breen, The Monopoly Value of Household-Goods Carrier Operating Certificates, 20 J. OF L. AND ECON. 153 (1977) (Monopoly value due to regulation estimated at $60.8 million.)


Informational Trucking Program Overview: En Banc Hearing Before California Public Utilities Commission, Division of Ratepayer Advocates, (Feb. 17, 1988) (California shippers saved at least $1.3 billion between 1982 and 1985 as a result of state deregulation. Rates in the petroleum tank truck sector fell by as much as 33 percent, and by 16 percent for general freight. Rates went up by $180 million per year when the CPUC later reinstated regulation and ordered a 10 percent rate hike.)

De Vany & Saving, Competition and Value of Service Pricing in the Trucking Industry: Reply, 70 AM. ECON. REV. 184 (1980) (More valuable freight moves at higher prices in unregulated trucking markets. These rate differences enhance economic efficiency.)

Enis & Morash, Accounting for Public Policy Actions: The Case of Motor Carrier Deregulation, 21 ABACUS 63 (1985) (Investors did not believe that interstate deregulation would have a permanent negative impact on the trucking industry.)

Felton, The Impact of Rate Regulation Upon ICC-Regulated Truck Back Hauls, J. TRANSP. ECON. & POL’Y 253 (Sept. 1981) (Survey article estimates potential annual benefit of $182 million from abandonment of ICC policies requiring high and inflexible backhaul rates. The article notes that rate flexibility in deregulated British trucking led to a high degree of traffic balance.)

Felton, Seasonal Variations in Demand and the Economic Regulation of Trucking, 16 LOGISTICS & TRANSP. REV. (1980) (Elimination of commodity restrictions would improve seasonal utilization.)

Felton, The Costs and Benefits of Motor Truck Regulation, Q. REV. ECON. & BUS., (Summer 1978) (Citing study by Farmer, Felton reports that regulated carriers have costs and rates 66 percent or more higher than those of exempt unregulated carriers. Exempt carriers have 50 percent greater average tonnage. After court-ordered deregulation, interstate poultry freight rates fell by 33-36 percent. Fresh fruit and vegetable rates fell by 19 percent. Service improved.)

J. Freeman & R. Beilock, The Impact of Motor Carrier Deregulation on Freight Rates in Arizona and Florida (April 1985) (prepared for DOT,
available through Nat'l. Tech. Info. Ser.). ("Deregulation has been a success" in Arizona and Florida. Rates "generally lower." Small shippers not penalized. Service to remote areas improved. Rates moderate and stable. Small shipments not penalized relative to large shipments.)

J. Freeman & R. Beilock, *The Effects of Transportation Deregulation on Motor Carrier Service in Florida and Arizona*, (prepared for DOT, available through Nat'l. Tech. Info. Ser.) (May 1984) (Shippers "strongly prefer" deregulation "by a wide margin." Rural service did not decline. A plurality of Arizona carriers and one-third of the Florida carriers support deregulation. No shipper respondent had been left without truck service. Urban shipper/receivers did not appear to benefit at the expense of rural shipper/receivers.)


Frey, Krolick, Nidiffer & Tontz; *Effects of Re-regulation of the California Trucking Industry*, TRANSP. J., Spring 1985, at 4. (Two-thirds of responding shippers report TL rate decreases, 55 percent LTL rate decreases after state deregulation. Shippers perceive regulatory reform as beneficial.)

Fuller, Makus & Lamkin, *Effect of Intrastate Motor Carrier Regulation on Rates and Service: The Texas Experience*, TRANSP. J. (Fall 1983) (Texas agricultural commodities—regulated intrastate rates higher than exempt interstate rates. Exempt carriers provide better service. Regulation not needed to protect small volume shippers.)

Hilton, *Ending the Ground-Transportation Cartel*, in INSTEAD OF REGULATION (R. Poole, Jr., ed. 1982) (Trucking "cartel is very inefficient, amounting to the equivalent of a tax on the economy of nearly $6.5 billion per year.")

Johnson, *Impacts on Agriculture of Deregulating the Transportation System*, AM. J. AGRIC. ECON. (Dec. 1981), at 913. (Article mentions that exempt livestock trucking industry provides reliable and good service with rates very close to USDA budgeted cost increases.)

Joy, *Unregulated Road Haulage: The Australian Experience*, OXFORD ECON. PAPERS, (July 1964), at 277. ("Fierce rate wars" after Australian deregulation; then flexible shifting of truck capacity in response to seasonal changes in demand. Rate flexibility and voluntary delays helped improve efficiency.)

ysis that regulation has primarily benefited organized labor and fuel suppliers.)


Makus & Fuller, *Motor Carrier Regulation and Its Impact on Service: An Analysis of Texas Fresh Fruit and Vegetable Shippers*, S.J. OF AGRIC. ECON. (Dec. 1983) (Survey of Texas fruit and vegetable shippers who use both exempt interstate and tightly regulated intrastate carriers. Unregulated interstate carriers have lower rates and better service.)

Mandex, Inc., *Industrial and Commercial Shipper Survey*, (prepared for DOT, available through Nat'l. Tech. Info. Ser.) (Sept. 20, 1985) (Shipper costs reduced as carriers offer more complete and improved service. Smaller shippers and shippers of smaller loads also benefited.)


McMullen, *Commodity Specific Rate Differentials in a Competitive Trucking Industry*, LOGISTICS & TRANSP. REV. (June 1985) (Unregulated Oregon log truck carriers operate efficiently.)

Miklius, *Effect of Regulatory Reform on Motor Carrier Quality of Service*, (Working Paper No. 82-04, prepared for DOT available through Nat'l. Tech. Info. Ser.) (July 1982) (Deregulated interstate carriers offering more price and service options. No significant change in service levels.)


Moore, *Rail and Truck Reform—The Record So Far*, REGULATION, (Nov./Dec. 1983), at 33 (TL rates fell from an index value of 99 in year 1978 (1975 = 100) to an index value of 75 by 1982, following interstate regulation. LTL rates fell from 104 to 89. Return on investment for major trucking firms fell from 24.0 percent in 1978 to 11.1 percent in 1982.)

Moore, *The Beneficiaries of Trucking Regulation*, 21 J. OF L. AND ECON. 327 (Oct. 1978) (Monopoly value of ICC operating certificates worth an estimated $2.1 billion to $3 billion in 1972.)

Moore, TRUCKING REGULATION: LESSONS FROM EUROPE, (1976) (Freight rates "seem to have declined" after deregulation in Great Britain...
and Sweden (page 133). Stable rates with no evidence of industry instability. Adequate industry profits. Regulated West German rates 40 to 50 percent higher than those which would prevail under deregulation.)

Moore, *Deregulating Surface Freight Transportation*, in PROMOTING COMPETITION IN REGULATED MARKETS, (A. Phillips, ed.) (1975) (Rates in highly regulated West Germany about 43 percent higher than in less regulated Great Britain, Belgium, Netherlands, and Sweden. Pre-reform ICC regulation imposed a $1 billion penalty on private carriers. Cost penalty for forestry trucks estimated to be $170 million per year.)


Nelson, *Regulatory Performance in Surface Freight Transportation in Australia, Canada, Great Britain and the U.S.A.*, contained in REGULATION AND COMPETITION IN TRANSPORTATION: SELECTED WORKS OF JAMES C. NELSON (1983) (“Very few” British shippers “could find anything much to complain about after deregulation” (page 104). Rates were competitive and service was good—even to remote locations. Industry earnings were adequate. No signs of instability. Satisfactory market performance in deregulated Canadian provinces.)


Nelson, *The Economic Effects of Transport Deregulation in Australia*, TRANSP. J. (Winter 1976) (Rate competition still prevails in Australia, with adequate industry earnings. Development of multi-model freight forwarding companies, providing good service at competitive rates.)


Pustay, *Pre-Reform Entry Into the Interstate Motor Carrier Industry: An Appraisal*, J. OF TRANSP. ECON. & POL’Y. (Jan. 1986) (Pre-reform ICC regulation operating certificates sold at prices varying from 8.5 cents per dollars of annual sales (contract carriers) up to 33.1 cents per dollar of annual sales (general commodity regular route certificates.))
Rose, Labor Rent-Sharing and Regulation: Evidence from the Trucking Industry, J. POL. ECON. (Dec. 1987) (Organized labor received 70 percent of the monopoly benefit from trucking regulation.)

Rose, The Incidence of Regulatory Rents in the Motor Carrier Industry, RAND J. ECON. (Autumn 1985) (Loss of stock values after MCA is evidence that monopoly profits were earned under regulation.)

Rosengren & Webb, The Australian Road Freight Industry: Is There a Need for Government Regulation?, AUSTRALIAN ECON. PAPERS (Dec. 1981) (Bankruptcy rates for the deregulated trucking industry are not higher than for other self-employed businessmen. No “exceptional financial instability” (page 305.))

Schuster, The Effects of Intrastate Motor Carrier Regulation Upon the Texas Agricultural Industry, 24 PROC. OF THE TRANSP. RES. F. (1983). (Texas agricultural producers pay a $41.2 million penalty because they cannot use unregulated independent owner operators.)

Snow, The Problem of Motor Carrier Regulation and the Ford Administration’s Proposal for Reform, in REGULATION OF ENTRY AND PRICING IN TRUCK TRANSPORTATION, (P. MacAvoy and J. Snow, eds.) (1977) (Exempt for-hire carriers provide fast and efficient service, even to remote locations.)


Williamson, Singer & Bloomberg, Impact of Regulatory Reform on U.S. For-Hire Freight Transportation: Carriers’ Perspective, TRANSP. J. (Summer 1985) (Shippers strongly support deregulation. Carriers offering more services and more flexibility after deregulation. Rate decreases outnumber rate increases.)

Williamson, Singer & Bloomberg, The Impact of Regulatory Reform on U.S. For-Hire Freight Transportation: The Users’ Perspective, TRANSP. J. (Summer 1983) (Eighty-four percent of shipper respondents favor deregulation; benefits broadly dispersed to firms of different sizes. No destructive competition.)

Wilson, Effects of 1979 Legislation Exempting Certain Commodities From PUC Regulation (Oregon Legislative Research) (Jan. 21, 1981) (Oregon log truck deregulation lowered rates and improved service, according to a shipper survey. Independent truckers thankful for opportunity to compete.)

Wisconsin Office of the Commissioner of Transportation, Deregulation of Wisconsin Motor Carriers (prepared for the Wisconsin Legislature, July 1983) (Large majority of shippers satisfied with state deregulation.)

J. Ying & T. Keeler, Pricing in a Deregulated Environment, paper
Benefits of Economic Regulation of Oregon Intrastate Motor Carriers

DICK DOLAN*

TABLE OF CONTENTS

I. REGULATORY OBJECTIVES AND HISTORY ........................................... 236
II. OREGON’S REGULATORY CHALLENGE ................................................. 240
III. INTERSTATE DEREGULATION—THE REAL IMPACT ................................. 242
    A. DEREGULATION IN OREGON—“WHAT IF” ................................... 243
IV. ARGUMENTS AGAINST DEREGULATION .............................................. 244
    A. THE DRIFT TOWARD MONOPOLY .............................................. 244
    B. DESTRUCTIVE COMPETITION ................................................. 246
        1. PREDATORY PRICING ................................................... 248
        2. PRIVATE CARRIERS .................................................... 249
        3. BUSINESS FAILURE RATES ............................................ 250
    C. DEREGULATION AND DISCRIMINATION IN RATES ............................ 253

* Manager, Continuous Traffic Study and Special Projects, Transportation Program, Oregon Public Utility Commission, Labor & Industries Building, Salem, OR 97310. Mr. Dolan holds a Bachelor’s Degree from Southern Oregon State College (1965) and has been licensed in Oregon since 1967 to practice as a Certified Public Accountant. Prior to joining the staff of the Oregon Public Utility Commission in 1979, he engaged in both public and private accounting, and has been responsible for a variety of management services including systems design, financial analysis, and budgeting and forecasting. In his current role, he is responsible for a program that monitors the flow of general freight within Oregon, and his section also provides research to the Commission on various transportation issues.
I. REGULATORY OBJECTIVES AND HISTORY

Transportation is one of the essential industries that constitute the infrastructure upon which the rest of commerce is founded. Access to the commercial transportation system is crucial to the economic development and survival of both large and small businesses and communities.

In Oregon, for-hire motor carriage is "a business affected with the public interest." OR. REV. STAT. 767.020 (1987). The state transportation policy promotes safe, adequate and economical service to the general public at reasonable rates without unjust discrimination or destructive competitive practices. Regulation of intrastate motor carriage in Oregon enables the state to implement this policy.

For motor carriers, economic regulation provides both benefits and burdens. The burden is the common carrier obligation to serve the general public in its authorized geographic area in a non-discriminatory manner. The benefit is the freedom from destructive competition by carriers not required to serve the general public.

Entry and rate controls embody the essence of economic regulation of motor carriage. Entry regulation ensures adequate levels of service while protecting consumers from the development of monopolies within the industry. Rate regulation guarantees that shippers will benefit from the minimum level of rates required to adequately compensate carriers. At the same time, rate controls prevent discriminatory pricing and rate wars, which ultimately lead to erosion of the quality of service, deterioration of equipment maintenance and safety standards, and, eventually, to carrier bankruptcy.
Even before the turn of the century, Congress had determined that economic regulation of commerce was necessary if the national transportation system was to serve the needs of the general public. The Congressional decision to place the national transportation industry under federal regulation came about as a result of market imperfections impeding the flow of rail traffic. The shippers, not the carriers, brought these imperfections to the attention of Congress.

In 1887, the Act to Regulate Commerce was passed by Congress. The Act created the nation's first independent regulatory agency and brought the railroads under federal control. Since that beginning, the name of the Act to Regulate Commerce was changed to the Interstate Commerce Act, the Interstate Commerce Commission was formed, and additional legislation was adopted which would eventually bring other modes of transportation under the control of the Commission.

The motor carrier industry grew from about 700 registered trucks in 1904 to approximately 525,000 at the close of World War I.¹ As the infant industry grew, it began to compete with the railroads for business. It was plagued with many of the same market imperfections that had characterized the rail industry. Competition was fierce, rates were discriminatory and below compensatory levels, service was inadequate, and carriers regularly went out of business as a result of their distressed financial condition. Recognizing that motor carriage must be regulated in order to meet the public need, the District of Columbia enacted the first law governing motor carrier operations in 1913. In the next few years, their lead was followed by Pennsylvania, Colorado, Wisconsin, and New York. By 1935, when interstate motor carriage came under the jurisdiction of the Interstate Commerce Commission, almost every state in the nation had enacted legislation to regulate its intrastate motor carrier industry.

Economic regulation served the following purposes: 1) to prevent the extraction of unreasonable profits when monopoly power exists; 2) to subsidize certain traffic or modes of transportation found to be in the public interest; 3) to prevent favoritism of shippers based on bargaining power; and 4) to maintain stable and healthy expansion of transport facilities free from the ravages of rate wars.

The national transportation system, under the auspices of federal and state regulation, generally served the nation well. But the regulatory system had flaws. Regulation did not provide the industry with the incentives it needed to be innovative. It encouraged pricing and service complacency and protected inefficiencies.

Just as market imperfections were the driving force behind regulatory efforts during the early part of the century, regulatory failure provided the

momentum for a deregulatory wave that engulfed the political scene in the late 1970's and early 1980's. Professor Paul Stephen Dempsey, in his book *The Social and Economic Consequences of Deregulation: A Decade Late, and The Band Played On*, commented on that period in regulatory history:

Various forms of de jure and de facto interstate deregulation resulted both from legislation passed by Congress in the mid-1970's and early-1980's, and from the appointment by Presidents Carter and Reagan of individuals fervently dedicated to deregulation of the federal regulatory commissions. The federal statutes partially deregulating various aspects of the transportation industry include the following:

- The Railroad Revitalization and Regulatory Reform Act of 1976,
- The Air Cargo Act of 1977,
- The Airline Deregulation Act of 1978,
- The International Air Transportation Competition Act of 1979,
- The Motor Carrier Act of 1980,
- The Staggers Rail Act of 1980,
- The Household Goods Transportation Act of 1980,
- The Bus Regulatory Reform Act of 1982,
- The Shipping Act of 1984,
- The Civil Aeronautics Board Sunset Act of 1984, and

The high water mark of deregulation as a blossoming political movement seems to be behind us, having peaked late in the Carter and early in the Reagan Administrations. As the American people have had more experience with the grand experiment in deregulation, they have become less enamored by it. Congress has not passed a major deregulation act in recent years, and is now considering various reregulation proposals for those modes which have experienced the most comprehensive deregulation—airlines and railroads. And while a few states jumped on the bandwagon and adopted intrastate trucking deregulation in the early 1980's, that momentum seems to have died, too, for no state has opted for intrastate deregulation since 1984. Today, the overwhelming majority of states continue to regulate intrastate motor carriage.\(^2\)

Dempsey correctly observes that the American public is becoming more and more disenchanted with deregulation. According to trends observed by the Consumer Federation of America, public support has shifted away from deregulation, and back toward regulation. The Federation published a report, entitled *Public Opinion About Regulation and Deregulation in the Transportation and Communication Industries*, which concluded:

A plurality, and perhaps even a majority, now support tighter regulation. In none of the industries where there has been substantial deregulation does a majority of respondents believe that deregulation has been in the best inter-

ests of individuals and the nation. Pluralities also believe that deregulation has hurt consumers.³

Even some of the few states that chose to follow the federal lead, deregulating their intrastate motor carrier industries, have found deregulation unsatisfactory.

California, the nation’s most populous state, partially deregulated in 1980. In 1984 it began a two-year study to examine the impact on its intrastate trucking market. The study concluded that the effects of deregulation had been devastating to the industry and had impaired intrastate commerce. As a result, the California Commission readopted rate regulation.

West Virginia also returned to traditional rate regulation in 1987, after a six-year experiment with deregulation.

Wisconsin is still deregulated, but according to Joe Sweda, an early deregulation proponent and the current Wisconsin Transportation Commissioner, his office has received numerous complaints of discriminatory rates, poor service to rural areas, escalating loss and damage claims, and safety hazards created by irresponsible motor carrier operations.⁴

The Oregon legislature, in conjunction with the Oregon Public Utility Commission, investigated the relative merits of the regulation vs. deregulation issue in 1980. According to Robert Hollis, a well-known transportation attorney who participated in the 1980 investigative hearings, Oregon’s regulatory policy at that time was one “utiliz[ing] a balanced program of regulation and competition, providing for Commission controlled but not exclusive entry, Commission controlled but carrier initiated rates, and substantial but not pervasive Commission involvement in safety operations and conditions of service.”⁵

Both the Commission and the legislature found the existing regulatory system yielded results consistent with legislative goals and the public policy. Neither those legislative goals nor the regulatory policy have changed since that determination and the public interest continues to be served in the regulated Oregon environment.

Hollis observes, “The legislature, in my experience, is . . . highly pragmatic in shaping regulatory legislation, framing its goals in societal rather than academic terms. The legislative process, with its tempering

⁵. R. Hollis, Comments Submitted to the Oregon Public Utility Commission on behalf of the Oregon Trucking Association, Inc. 5 (Sept. 16, 1988) (File MRS 1000).
and balancing of the interests of numerous constituencies, almost never yields statutes reflecting pure theory, economic or otherwise. The Commission’s long-standing regulatory mandate... is a pragmatic charge to secure good quality utility services for consumers at fair, just and reasonable rates.”

Certainly there can be no disagreement between regulators and legislators, who share the pragmatic view, and the deregulatory theorists as to the fact that transportation is an infrastructure industry and the public need must be met. The difference in viewpoints is purely philosophical.

Deregulators believe the free market will provide a higher degree of allocative efficiency than what they perceive as “protectionist” regulation. The theoretical “improvement” in efficiency, they contend, will automatically protect the public interest. Oregon regulators and legislators, on the other hand, recognize the marketplace has many imperfections. They believe regulation is necessary if the motor carrier industry is to achieve the economic goals of allocative efficiency coupled with the societal goals of indiscriminate rates, adequate service, and public safety.

Deregulation has had difficulty delivering the benefits it promises. However, the relentless pursuit of this ideology by free market theorists continues to bring regulation under severe criticism. Regulators today must not only fulfill their statutory obligation to ensure the public receives the benefits of market competition without the adverse impact that unregulated competition brings; they must do so while defending their actions to those theorists who, in the main, have little if any practical understanding of either the motor carrier industry or the benefits of regulation in general.

II. OREGON’S REGULATORY CHALLENGE

Even in Oregon today, the Public Utility Commission (PUC) must continually study regulatory policy to deliver the innovative changes necessary for regulation to remain in step with the state’s changing economy. Only by continued scrutiny of regulatory policy, in the changing economic environment, can the state be assured it will not suffer from the same regulatory ills that led to federal deregulation.

Assistant Commissioner David Astle, of the PUC’s Transportation Program, testified as to future goals before an Oregon Joint Interim Committee on Transportation in January, 1988:

PUC has given high priority to a project currently underway involving a thorough review and analysis of policies it follows in regulating intrastate for-hire motor carrier transportation of both freight and passengers. The goal of the project is to develop and communicate to the industry and the general public

6. *Id.* at 3.
the policies which the Commission intends to follow in regulating Oregon’s motor carrier industry and to identify the criteria which it will consider most important in reaching decisions on specific types of cases.

Industry representatives have strongly emphasized their desire for a clearer statement and consistent application of the Commission’s policies and criteria employed in reaching decisions affecting economic regulation of motor carriers. Many carriers view consistent application of regulatory policy as a necessary ingredient in guiding their decisions on whether or not to invest in physical plant and rolling equipment to provide for future business growth. Members of the public and shippers have also expressed concern about some aspects of economic regulation, especially where they perceive it as limiting Oregon shippers’ and producers’ ability to compete with shippers and producers in other states.

Accordingly, the Commission believes this is an appropriate time to review its administration of Oregon’s motor carrier regulatory system to see if it is consistent with legislative intent . . . and with the public interest. Active participation by regulated carriers, shippers, and other interested parties is being solicited. After a review and discussion process, eventually involving some public hearings, policy proposals will be forwarded to the Commission for final review and adoption.\(^7\)

The Transportation Program’s “Economic Regulation Policy Development Project” is an analysis of a total of 19 different aspects of economic regulation in Oregon. The policy review is expected to be completed late in 1989. A list of issues being reviewed by the Commission in the “Project” includes:

**General Issues**

—Restrictions on common control of common carrier and contract carrier authority—policy regarding dual operations.

—Restriction on common control of a motor carrier and a broker.

—Policy regarding issuance of common carrier authority from the facilities of a named shipper.

—Distinctions between regular and irregular route authority.

**Entry**

—The criteria or minimum showing necessary for the Commission to grant certificated authority to transport (a) general commodities, (b) sand and gravel, and (c) logs, poles, and piling; focusing on the statutory requirement that applicants, in the event of protest and hearing, show that the service “is or will be required by the public convenience and necessity.”

—The standards for determining “true need” in applications for temporary authority to operate. Also the standards for approving temporary operations pending the transfer of existing authority.

—Dormancy of authority and its impact on a transfer proceeding.

—The standards for staff intervention and withdrawal in applications for operating authority.

\(^7\) *Hearings Before the Oregon Joint Interim Committee on Transportation*, 1 (Jan. 22, 1988) (statement of David Astie, Asst. Commissioner, Oregon Public Utility Commission Transportation Program).
Rates
—Criteria for approving rate proposals prior to a hearing.
—Implementation of a monthly rate docket in lieu of the present bimonthly docket.
—Policy regarding the approval of special backhaul rates.

Enforcement
—Priority of operating authority investigations and rate audits.
—Penalty assessment and methodology used to compute number of violations.
—Complaint settlement procedures.
—Necessary standards of proof in action for aiding and abetting a carrier’s illegal intrastate operations.

Oregon, through its Legislative Assembly and PUC, has taken steps to ensure that motor carrier economic regulation does not promote inefficient trucking operations or provide unreasonably high profits to Oregon’s regulated trucking companies. Through laws and policies which encourage individual initiative in setting rates at the lowest reasonable level, by assuring that small communities receive a reasonable level of essential service, and by protecting motor carrier customers from the widespread rate discrimination now practiced at the interstate level, motor carrier regulation in Oregon is serving a useful public purpose in a cost-effective manner.

III. INTERSTATE Deregulation—The Real Impact

The social and economic benefits provided by the motor carrier industry under rate and entry regulation have generally been taken for granted in our society, just as the benefits of regulation were taken for granted prior to deregulation of the airline, railroad, banking, and telecommunications industries. In fact, the problems attributable to deregulation are recognized only after industry stability disappears. Similarly, many problems directly attributable to partial deregulation of the motor carrier industry are only now being recognized.

These problems include rate wars and transportation rates below cost. Tariffs and rate structures have become more complex, and discriminatory rates are commonplace as a result of discounting. Large shippers in major traffic lanes benefit from lower rates and higher levels of service, but they do so at the expense of smaller shippers and those marooned in more remote areas.

The motor carrier industry has suffered the worst economic losses in its history. Instability in the industry has increased while productivity and efficiency have declined. Not surprisingly, there has been a significant increase in the number of carrier bankruptcies.

Deregulation of the motor carrier industry at the federal level has
caused the less-than-truckload (LTL) sector to become an oligopoly, and in some markets, a monopoly.

In the truckload sector of the industry, relaxed entry standards have resulted in overcapacity. The number of empty miles operated has increased while load factors decreased. Theorists said deregulation would eliminate the problem of empty backhauls. Instead, rates on truckload traffic have dropped to levels so low that they are not compensatory. Operating ratios have gone up and established companies are going out of business. Survivors have difficulty borrowing money for fleet replacement because of low earnings. As a result, the average age of the motor carrier fleet increases and maintenance is deferred. Pressure is placed on employees to take wage cuts in order to keep their jobs, which decreases the amount those consumers can spend in their communities. Lower pay rates frequently result in less-experienced employees replacing people who refuse to take pay cuts. The combination of poorly-maintained equipment and inexperienced drivers results in increased truck accidents.

A. **Deregulation in Oregon—"What If"**

How would deregulation affect Oregon? Based on the interstate experience, Oregon might expect to see a negative impact on motor carrier service, freight rates, and highway safety.

At the present time there are about 34,000 active motor carrier accounts in Oregon, according to weight-mile tax rolls. Those carriers operate approximately 220,000 power units. In a deregulated Oregon environment, it is very likely that both the number of vehicles and the number of carriers would grow. The number of carriers in the nation increased by about 16,000 as a result of federal deregulation. Most of the new entrants were truckload operators, and about 80% of them operated only one truck.

With entry made easier, new entrants would begin competing for existing traffic. The ensuing destructive competition would probably result in the increased exiting of carriers, particularly smaller operations. Eventually, one might predict there would even be fewer large carriers, but those remaining would haul a greater proportion of the intrastate traffic.

Based on the interstate experience, it is likely that some freight rates would decrease and some would increase. Similarly, the level of motor carrier service might increase for some and not for others. Decreases in rates and increases in levels of service might occur on the most profitable traffic in the most attractive traffic lanes, particularly Interstates 5 and 84. Increases in rates and decreases in levels of service would probably occur on the less profitable traffic in the less attractive traffic lanes, particu-
larly the coastal region and eastern Oregon. Fluctuations in rates and service would most predictably apply to LTL shipments to and from any small community generating a low volume of traffic.

Based on the interstate experience, individual ratemaking and discounting would limit shipper knowledge of the rates being offered by most carriers and rates being paid by competing shippers. Most small carriers do not have adequate staff to provide cost analysis permitting ratemaking on an informed basis. Large shippers would be able to coerce carriers into making rate and service concessions, which would promote discrimination. The cost of joint movements would probably increase substantially. Interlining would be hampered due to the necessity for each participating carrier to make separate rate agreements with every other participating carrier, in the absence of antitrust protection. One might expect loss and damage claims to increase, too.

An influx of new carriers, especially an increase in the number of owner-operators, would dictate an increase in the size of the state's safety enforcement staff. Studies mentioned later in this report discovered that the new entrants, following interstate deregulation, were ones with the highest accident propensity. It is reasonable to assume the same safety questions would follow new entrants in a deregulated Oregon.

Aside from the jeopardy to highway safety, and the additional expense for safety enforcement, Oregonians might also be forced to suffer substantial "out-of-pocket" costs in the form of lost highway-use tax revenues. In 1987, Oregon collected more than $128 million in weight-mile taxes. More than $117 million of that went to the Highway Fund to finance and maintain Oregon highways.

The present regulated environment makes it somewhat easier to collect, and raise, highway-use taxes. The threat of operating authority suspension poses an effective deterrent to all entry-regulated carriers who would delay payment of highway-use taxes. Additionally, carriers subject to rate regulation can expect to eventually recover tax increases through general rate increases. Based on the interstate experience, a deregulated Oregon might expect the increase in carriers, especially an increase in owner-operators, would result in a significant increase in carrier bankruptcies and more highway-use tax defaults.

IV. ARGUMENTS AGAINST Deregulation

A. THE DRIFT TOWARD MONOPOLY

The motor carrier industry can generally be separated into two parts based on service: one part providing less-than-truckload (LTL) service and another part handling truckload traffic. LTL operations handle a large number of small shipments, require heavy capital investment for a termi-
nal network and operating equipment, and employ a large labor force. Truckload operations, by way of contrast, generally handle only volume traffic in truckload quantities, require a minimal investment in equipment, and find labor to be a very small part of their operating cost. Truckload operators frequently specialize in the transportation service they provide by hauling only certain types of freight, such as heavy equipment, automobiles, etc. Deregulation has created unique problems for both the LTL and truckload sectors of the industry. Those problems, however, have a common thread in that they all negatively impact the public interest. Rates, service, and safety all have suffered.

Deregulation has caused the less-than-truckload segment of the motor carrier industry to become a national oligopoly, and in some markets, a monopoly. In the LTL market, there have been no successful new entrants. Fortune 500 megacarriers who now control that market have a larger market share than at any time in history.

In *Effects of Deregulation on Motor Carriers*, Nicholas Glaskowsky commented on the growing trend toward concentration in the LTL sector of the deregulated motor carrier industry:

\[\ldots\text{large-scale LTL operation is a very complex business requiring substantial capital investment, involving a large amount of fixed overhead cost and, consequently, having significant economies of scale.}\]

One industry outcome since deregulation is that thus far there have been no successful entrants into the large scale interstate LTL segment of the industry. The only notable attempt was made by Leaseway, and it failed. It is clear that the barriers to entry into the LTL sector are very high, primarily due to the need for a large and expensive network of terminals.\(^8\)

Glaskowsky went on to quantify the trend at the national level:

\[\ldots\text{in 1978 the largest four interstate LTL carriers had a fifth of the market for such freight, the ten largest had 39 percent, and the top twenty had 43 percent.}\]

\[\text{By early 1985 the amount of interstate LTL traffic carried by the four largest carriers had risen to 35 percent (a 75 percent increase over their previous 20 percent), the ten largest carriers had 60 percent (a 70 percent increase since 1978), and the twenty largest had 67 percent of the market (a 56 percent increase).}\]

The rate growth of the interstate LTL traffic concentration since deregulation," Glaskowsky concluded, "is without parallel in American business history. It is unquestionably a direct result of motor carrier deregulation, and the increasing concentration of LTL traffic in the hands of a shrinking number of carriers is continuing."\(^{10}\)

---

8. N. GLASKOWSKY, EFFECTS OF DEREGLULATION ON MOTOR CARRIERS, 6 (1986) (report of the Eno Foundation for Transportation, Inc.).
9. Id. at 25.
10. Id. at 26.
B. DESTRUCTIVE COMPETITION

According to the Alfred Kahn school of marginal economics, the motor carrier industry functions well in a free market because it does not suffer from destructive competition.¹¹ Destructive competition, according to that school of thought, is a concern only in industries with a high level of fixed costs and immobile plant; and trucking has exactly the opposite characteristics.

Garland Chow disagrees. The Assistant Professor of Transportation and Logistics at the University of British Columbia co-authored an article in 1985 entitled Motor Carrier Bankruptcy in an Uncertain Environment. Chow and University of Portland Professor of Finance Richard Gritta observed that following the Motor Carrier Act of 1980 "reduced profitability was due in large part to sustained price competition reflected in discounting and lower rates. There is little doubt that this would have been minimized if the ICC had maintained strict control of rate competition and entry into the industry as in previous years. If deregulation means increased competition, the natural result is increased turnover via bankruptcy of competitors. Competition is, by its very nature, destructive."¹²

In describing that competition in a 1987 report, Highway Safety—A Cost of Motor Carrier Deregulation, Dabney Waring quotes a New York State Automobile Association study:

The federal government's deregulation of the trucking industry, intended to decrease red tape and governmental interference, has created a free-wheeling marketplace where safety takes a back seat.

Before deregulation began in 1980, major trucking firms exercised substantial control over interstate rates and routes. Since that time, savage price wars have forced many major firms out of business. In their place, some 12,000 new firms have sprung up, many of them independent, single-vehicle, owner-operators. These firms are in fierce competition for a volume of freight that has dropped almost 45%, a decrease that adds to the underbidding and discontinuing and declining profit margins for truckers.¹³

Waring warned that while some new carriers may "weather the storm," others will face two alternatives: exit or cut corners:

Exiting is not as simple as might first appear. It was stated that economic barriers are low; this is not because tractor-trailer units are cheap, but because they can be obtained for relatively low down payments. Substantial monthly payments against the lien continue. In the ongoing condition of excess capacity, there is not a ready market for used equipment. Foreclosure means loss of original investment and a damaged credit rating. The ten-

¹¹ Prof. Alfred Kahn, former Chairman of the Civil Aeronautics Board, is considered to be the "father of airline deregulation."
¹³ NEW YORK STATE AUTOMOBILE ASSN., TRUCK SAFETY SHORTCOMINGS 2 (Feb. 1986).
dency then is to hang on as long as possible. Most of the new TL entrants
don't know how to manage their need for future cash and wind up running
until they break down completely—then they get out because they don't have
replacement cash.\textsuperscript{14}

In a 1987 report, \textit{The Economic Effect of Trucking Deregulation},
Michael Evans reported productivity in the motor carrier industry went
from an average increase of 1.5\% per year for the 1960-1980 period to a
decline of 0.7\% per year for the 1980-1985 period. Productivity in 1985
was actually lower than in the recession year of 1980.\textsuperscript{15}

Evans determined that the ratio of total investments in all trucks, to
total investment for all other producers of durable equipment, declined
from an average of 11.5\% during the 1970's to 8.3\% for the 1980-1985
period. He found the average age of trucks, which had declined from 7.3
years in 1970 to 6.9 years in 1979, had increased every year since dereg-
ulation to an average of 8.2 years by 1984.\textsuperscript{16} Since 1979, the proportion
of trucks 12 years and older had increased 33\% and the proportion of
trucks retired had diminished 32\%. Evans concluded that “the capital
stock of the trucking industry has deteriorated sharply since the onset of
deregulation.”\textsuperscript{17}

In testimony before the California Utilities and Commerce Committee
in 1986, the California Trucking Association (CTA) presented evidence of
that state’s experience with deregulation. The Association reported that
since deregulation the number of firms operating at a loss had increased
by 59\%. It noted that this was in spite of the fact that the industry had
changed its cost structure to spend “much less on employee wages and
benefits.”\textsuperscript{18}

In a 1988 survey of California shippers and receivers, Friends Univer-
sity Professor William Brooks found 60\% of small shippers and 69\% of
large shippers pointed to deregulation as a “significant factor” in creating
“instability” in the motor freight industry. Brooks found the instability had
caused nearly one of every four large shippers to suffer financial loss as a
result of motor carriers ceasing operations or taking bankruptcy. Up to
40\% of small shippers also reported economic loss.\textsuperscript{19}

\begin{flushright}
\begin{footnotesize}
\textsuperscript{14} D. WARING, JR., \textit{HIGHWAY SAFETY: A COST OF MOTOR CARRIER DEREGULATION} 3 (1987)
\hspace{1em} (report for The Coalition for Sound General Freight Trucking).
\textsuperscript{15} M. EVANS, \textit{THE ECONOMIC EFFECT OF TRUCKING REGULATION} 3 (1987) (report for The
\hspace{1em} Coalition for Sound General Trucking).
\textsuperscript{16} \textit{Id.} at 5.
\textsuperscript{17} \textit{Id.} at 6.
\textsuperscript{18} \textit{Correlation Between Regulation and Public Safety: Hearings Before the California As-
\hspace{1em} sembly Utilities and Commerce Committee}, 1 (Oct. 8, 1986) (statement of the California Trucking
\hspace{1em} Association).
\textsuperscript{19} \textit{A Survey of California Shippers’ and Receivers’ Attitudes Toward Trucking Regulation:
\hspace{1em} Hearings Before the California Public Utilities Commission}, 1 (Oct. 27, 1988) (statement of Wil-
\hspace{1em} liam Brooks).
\end{footnotesize}
\end{flushright}
Robert Wittenberg, Director of Marketing and Commerce for Gross Common Carrier, Inc. of Wisconsin Rapids, Wisconsin, outlined certain effects of deregulation in a presentation before the National Conference of State Transportation Specialists in June 1986:

Gross Common Carrier finds itself in a situation many times where it can no longer attract traffic between major markets in the state of Wisconsin unless it prices its rate proposal either below cost or at a cost with no allowance for profit. ...20

The large shippers are demanding transportation rates that are below the carriers’ costs. Large multi-page invitations to bid are distributed by shippers that spell out conditions under which to bid or (under which they) will accept bids. Many carriers are so desperate for the business that they bid each other to death... many of these bids are far below the operating costs of the carrier successful in securing the business. Consequently, these carriers have no choice but to make up the difference on small shippers. This is also fueled by carriers operating in a weak financial condition, the weaker the carrier financially, the more important it may become just to generate revenue to meet payroll and debt. These companies fall as easy prey for shippers to place heavy demands upon. The stronger carriers must either meet these price demands to be competitive, cut back operationally, or run empty room on equipment reducing efficiency.21

1. PREDATORY PRICING

In his book, The Social and Economic Consequences of Deregulation: A Decade Later, and The Bank Played On, Paul Stephen Dempsey observed that the smaller, regional, interstate LTL carriers have suffered from predatory pricing as the large national LTL carriers move into regional markets. Dempsey reported, “... large carriers, it is alleged, use the profits they earn on less competitive long-haul routes to sustain the deep (and sometimes below cost) discounts offered in short-haul markets. As a consequence, there has been a high failure rate among small and medium size motor carriers.”22

The high failure rate cited by Dempsey appears to hold true in the Oregon experience. In September 1988, John Mathews of O.K. Delivery System, Inc., submitted a statement to the Oregon Public Utility Commission in which he listed 48 regional carriers that had either failed, liquidated, or been acquired by other carriers in mergers since January 1984. He noted that no less than three dozen of the carriers were family-owned Oregon-based carriers.23

21. Id. at 15.
22. P. DEMPSEY, supra note 2, at 27.
It is abundantly clear that industry dominance by a few large carriers has occurred at the national level in the LTL sector of the industry since deregulation. Discriminatory monopolistic pricing practices have resulted, along with curtailed service levels to areas outside the major traffic lanes. The national carriers continue to engage in predatory pricing as they further increase their market share, while regional LTL carriers battle their way to extinction. According to Dempsey, "The concentration unleashed by deregulation is an anathema to the public's interest in the benefits of a healthy competitive environment."24

While deregulation has been the driving force behind concentration in the LTL portion of the industry, it has also created a glut of carriers in the for-hire truckload sector. This market is typically characterized by a large number of relatively small carriers, usually operating only a few trucks each. Shippers requiring the services of this segment of the industry are generally quite large in comparison to the size of the carriers they use. The result is an imbalance of market power between carrier and shippers, with shippers asserting most of the power. The larger the shipper, and the smaller the carrier, the more pronounced the imbalance. As might be logically expected, it is the shippers who dictate rate levels in the truckload market, and those rates are traditionally very low. In many instances, they are even below marginal costs of operation as the smaller carriers scramble to haul anything that will generate a little cash flow.

In *Effects of Deregulation on Motor Carriers*, Nicholas Glaskowsky said:

The picture in regard to truckload traffic is almost exactly opposite what has happened in the LTL sector of the industry. Due to the difference in operating cost structure between truckload and LTL movements, deregulation has spawned about 12,000 new truckload "carriers." Many of these are very small operations—just one, two, or a few trucks—and there seems to be no end to them. . . . It is not likely . . . that there will be any diminution of competition for truckload traffic despite the low profit margins being realized by most truckload operators.25

The entry of so many new and small (with low overhead) truckload operators has created so much excess capacity and made truckload rates so competitive that many of these new operators must inevitably settle for uneconomic returns, quit, or go broke.26

2. *PRIVATE CARRIERS*

Prior to deregulation, private carriers could engage in transportation only when it was incidental to a primary business purpose other than

24. P. DEMPSEY, supra note 2, at 114.
25. N. GLASKOWSKY, supra note 8, at 27.
26. Id. at 8.
transportation. Since deregulation, private carriers have contributed to overcapacity in the truckload sector by more often operating as "for-hire" carriers in return trip or "backhaul" traffic. Advocates of deregulation predicted that relaxed entry standards would allow these private carriers to compete with established common and contract carriers to obtain backhaul traffic, resulting in greater "allocative efficiency" in the form of fewer empty miles and lower rates. There are elements of truth in the prediction, but they failed to tell the whole story.

Relaxed entry standards diverted traffic from established for-hire carriers because the private carriers often priced their backhaul service at or below marginal cost. After all, the truck had already delivered the private carrier's goods and had to return home. It presented an opportunity to offer extremely low rates because any contribution the return trip traffic could make to the operating cost would be pure gravy. The private carrier could offer any level of rates that would pay more than the pickup and delivery cost of the backhaul freight.

Deregulation, then, allowed private carriers to reduce the number of empty backhaul miles that they operate by diverting traffic from established for-hire carriers. The "allocative efficiency" merely diverted traffic, it did not reduce the overall number of empty miles. In so doing, the private carriers force rates to levels so low that they are often not compensatory. Rate cutting, although benefiting some shippers and some private carriers, has had a detrimental effect on the financial integrity of the industry.

Generally speaking, those competing in the truckload sector lack the sophistication of their LTL counterparts in identifying costs. This, coupled with unlimited entry into the industry (competition) and the relative monopoly power enjoyed by their shipper customers, exerts an ongoing downward pressure on rates. The result is a very high degree of turnover in that segment of the industry, more often than not resulting in the bankruptcy of the carrier. This waste of resources could be minimized if the industry were controlled by effective rate and entry regulation.

3. **Business Failure Rates**

Destructive competition brought about by concentration in the LTL sector, coupled with intense rate competition created by overcapacity in the truckload sector, has resulted in the highest rate of motor carrier business failure in the nation's history. In a publication entitled *Gearing Up For Safety*, the Office of Technology Assessment (OTA) of the U.S. Congress reported the following:

Profit margins have fallen even for the most successful carriers, a product of intense price competition caused partly by changes in manufacturing and partly by continuing overcapacity. Carriers' expenses per ton-mile are up
Benefits of Economic Regulation

75% since 1978, while revenues have increased only 54%. General freight revenues per ton-mile have increased slightly more than the consumer price index since 1978, but have not matched price increases in the general economy, particularly for large shippers and those in highly competitive city-pair traffic lanes.\textsuperscript{27}

Profit margins have indeed declined, and they remain substantially below those of the manufacturing industries. Early in 1988, analysts were estimating 1987 carrier bankruptcies had increased more than eightfold over 1978 levels.\textsuperscript{28} The following chart tracking motor carrier failure rates through 1986 illustrates how the numbers have steadily increased after de facto deregulation began in 1978:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Carriers</th>
<th>Number of Carrier Failures</th>
<th>Failure Rate per 10,000 Carriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>67,030</td>
<td>162</td>
<td>24.2</td>
</tr>
<tr>
<td>1979</td>
<td>68,451</td>
<td>186</td>
<td>27.2</td>
</tr>
<tr>
<td>1980</td>
<td>72,146</td>
<td>382</td>
<td>52.9</td>
</tr>
<tr>
<td>1981</td>
<td>75,167</td>
<td>610</td>
<td>81.2</td>
</tr>
<tr>
<td>1982</td>
<td>79,115</td>
<td>960</td>
<td>121.3</td>
</tr>
<tr>
<td>1983</td>
<td>83,262</td>
<td>1,228</td>
<td>147.5</td>
</tr>
<tr>
<td>1984</td>
<td>78,078</td>
<td>1,411</td>
<td>180.7</td>
</tr>
<tr>
<td>1985</td>
<td>80,308</td>
<td>1,541</td>
<td>191.1</td>
</tr>
<tr>
<td>1986</td>
<td>85,024</td>
<td>1,561</td>
<td>183.6</td>
</tr>
</tbody>
</table>

As important as the statistics themselves are the observations that accompany the report. In tracking the failure rate through 1985, Dun & Bradstreet observed:

Our information indicates that trucking industry failures occur throughout the entire industry, from smaller to larger firms and among all types of carriers. It is important to note that almost two-thirds of the failures occurred during 1983-1985, in an expanding economy.\ldots

The rise in the failure rate coincided with deregulation of the trucking industry.\textsuperscript{29}

Glaskowsky concurs: "Clearly, a large number of carriers have exited the industry—many of them bankrupt—as a result of the effects, direct or indirect, of deregulation."\textsuperscript{30}

Ron Roth, Director of Statistical Analysis of the American Trucking Association, compiled statistics on motor carrier bankruptcies and made

\textsuperscript{27} Office of Technology Assessment, Gearing Up for Safety: Motor Carrier Safety in a Competitive Environment, 26 (Sept. 1988).
\textsuperscript{28} D. Waring, Jr., statement before the California Public Utilities Commission, 4 (Mar. 10-11, 1988).
\textsuperscript{29} N. GLASKOWSKY, supra note 8, at 8 (citing Dun & Bradstreet).
\textsuperscript{30} Id. at 8.
a comparison of motor carrier profit margins to the profit margins of all manufacturers. His findings are presented in the following table (profit margins are in terms of after tax earnings as a percentage of gross revenues):

<table>
<thead>
<tr>
<th>Year</th>
<th>Motor Carrier Bankruptcies</th>
<th>Motor Carrier Profit Margins</th>
<th>All Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>162</td>
<td>2.92</td>
<td>5.4</td>
</tr>
<tr>
<td>1979</td>
<td>186</td>
<td>1.97</td>
<td>5.7</td>
</tr>
<tr>
<td>1980</td>
<td>382</td>
<td>1.73</td>
<td>4.8</td>
</tr>
<tr>
<td>1981</td>
<td>610</td>
<td>1.58</td>
<td>4.7</td>
</tr>
<tr>
<td>1982</td>
<td>960</td>
<td>0.77</td>
<td>3.5</td>
</tr>
<tr>
<td>1983</td>
<td>1,228</td>
<td>2.37</td>
<td>4.1</td>
</tr>
<tr>
<td>1984</td>
<td>1,416</td>
<td>2.24</td>
<td>4.6</td>
</tr>
<tr>
<td>1985</td>
<td>1,543</td>
<td>1.74</td>
<td>3.9</td>
</tr>
<tr>
<td>1986</td>
<td>1,564</td>
<td>2.64</td>
<td>3.8</td>
</tr>
<tr>
<td>1987</td>
<td>1,351</td>
<td>1.57</td>
<td>4.9</td>
</tr>
</tbody>
</table>


Dempsey attributes the increase in carrier bankruptcies and the decline in carrier profit margins, as compared to all manufacturers, to deregulation. He makes the following observations:

Note that carrier failures have exceeded 1,000 each year since 1983. This is all the more remarkable in light of the fact that by 1984, the national economic recession had abated, and in 1986, fuel prices had declined significantly . . . these waves of carrier bankruptcies have created service and pricing instability, and a deteriorating margin of safety.

Note also that the profit margins of all manufacturers have been consistently superior to those of interstate motor carriers since deregulation began. Although profit margins for all manufacturers fell during the recession of the early 1980s, the drop was not nearly as drastic as that experienced by the deregulated motor carriers. Today, the profit margin of interstate motor carriers is among the lowest of all American industries.31

The financial erosion of the deregulated industry has touched many regional interstate carriers who also serve Oregon on an intrastate basis. One such carrier, based in Portland, had a delinquent highway-use tax account with the Oregon PUC. In a September 1988 letter, the company’s president explained the circumstances leading to the delinquency:

Unfortunately we are a product of the effects of deregulation, and have been unable due to capital restraints and contract obligations negotiated before deregulation to financially adjust. With the entry of less than quality

31. P. DEMPSEY, supra note 2 and 17 (citing Truckers in Trouble, INSIGHT, Nov. 3, 1986, at 45).
operators into our industry, freight rates have dropped to levels that legitimate trucking companies that “do it right” cannot survive. Proof of this fact is that there are no full truckload, flatbed companies left that were the strong operators during the 60’s and 70’s; such as Mitchell Bros., West Coast Truckline, Mellow, etc.

The net effect is we voluntarily shut our operation down effective March 31, 1988. This is the reason why our February and March reports were not filed on a timely basis. In an attempt to weather out the effects of deregulation we depleted our assets to absorb our losses; subsequently when we closed our doors we had a $300,000 negative net worth and were in arrears to the IRS for withholding taxes in excess of $56,000 and to the State of Oregon for $24,000.32

In spite of business failures, lost jobs, depleted capital investment and bankruptcies, many economic theorists insist that deregulation has not resulted in predatory pricing, overcompetition in the truckload sector, or destructive competition. They say this is all part of the “shaking out” process; these failures are to be expected and are even desirable because the nation is enroute to a higher level of economic efficiency. It might be difficult for the company president just quoted to get real excited about the lofty goals of economic theory, since the application of that theory at the federal level has just forced him to close his company’s doors. It is very difficult, indeed, for most people to rationalize that Oregon business closures and the loss of Oregon jobs does much to enhance the state’s economic growth.

C. Deregulation and Discrimination in Rates

Because of the diverse operating characteristics and capital requirements of the truckload and LTL segments of the motor carrier industry, the impact of deregulation on rates should be considered separately for each segment.

Since deregulation, rates in the for-hire truckload sector have dropped. Whether the decrease in the level of interstate truckload rates has been in the public interest, or whether it is just another illusion of deregulatory success, depends on the point of view. Private carriers and large shippers certainly realize that deregulation has served their interests because they are the ones reaping the benefits. Equally certain is the fact that the best interests of other groups have not been served, such as the owner-operators that have gone broke, the small shippers that pay higher rates, the former Teamster members whose wages have been cut to near-subsistence levels, and those who have lost their jobs. Whether good or bad, the undeniable fact is that large shippers now have the eco-

nominate leverage to exercise substantial control over interstate truckload rates, and those rates have decreased since deregulation.

Just as in the truckload sector, deregulation has allowed the large players in the LTL market to make whatever pricing arrangements that they choose and both the carriers and the shippers in that market have very predictably pursued rates that are in their individual best interests.

As the megacarriers continue to struggle for market share in the LTL market, they offer very attractive and very selective concessions on inflated rates to the large shippers in the form of discounts. The shippers respond by playing one carrier against another, benefiting at least in the short run from the discriminatory pricing game played by the carriers. We have observed, however, that the LTL portion of the industry is going through an intense period of concentration, presently exhibiting the characteristics of an oligopoly. It is not unreasonable to suppose that rates will increase as shippers find themselves served by fewer and fewer LTL carriers.

The small shipper unable to provide the carrier with a large volume of traffic lacks the bargaining power to negotiate the level of discounts available to its larger shipper counterpart and winds up playing the inflated published rate. The result, of course, is price discrimination. Because discount agreements aren’t generally disclosed, the smaller shipper may often be unaware of the actual rate level at which freight is moving.

In the deregulated for-hire truckload and LTL markets, rate discrimination runs rampant as rate levels are determined by the relative levels of power that shippers and carriers exert in negotiations. In markets where the carrier has the most power, such as in remote areas off the major transportation corridors, rate levels will be quite high. In markets where there is intense competition, or where the shipper contingent exerts the majority of market power, rate levels will be very low with special “deals” cut for the most powerful shippers.

1. Deceptive Rates

Robert Wittenberg, Director of Marketing and Commerce for Gross Common Carrier, Inc. of Wisconsin Rapids, Wisconsin, outlined certain effects of deregulation in a presentation before the National Conference of State Transportation Specialists in June 1986. Wittenberg noted three scenarios in which shippers were demanding unusual practices of carriers, including discriminating and deceptive rate discounting: First, the shipper will request that the carrier increase class rates by 25%, and show these rates on the freight bill. The shipments move on a collect basis, then the carrier is required to refund the excess to the shipper. The
motor carrier is required by the shipper to deliberately misrepresent actual freight charges paid.

Second, the shipper bills the customer for the cost of the goods plus freight charges. The carrier is asked to cut a separate bill showing a low discount rate for presentation to the customer, and another with a higher discount for actual billing to the shipper.

Third, shipments move on a collect basis to small customers primarily in rural areas, with no discount shown on the freight bill and full charges to be collected from the consignee. A 45\% discount is then to be forwarded to the shipper at the end of each month.\(^{33}\)

The existence of discriminatory and deceptive pricing in interstate, deregulated commerce was confirmed by two New England-based carriers at the Duclos-Gordon Transportation Seminar held at Syracuse University in November 1988. Representatives from St. Johnsbury Trucking Co. of Holliston, Massachusetts and Stott & Davis Trucking Co. of Auburn, New York admitted some large shippers required them to charge consignees full, undiscounted rates, on freight collect shipments, then rebate to the shipper the difference between the discounted rate the shipper was actually charged and the full rate paid by the consignee.\(^{34}\) Both also stated the practice is discriminatory, unfair, and should be prohibited by law.

The deregulatory theorists' claim that the public benefits from lower freight rates is, in such cases, obviously false. The only one benefiting in this type of situation is the shipper possessing clout in the market.

2. \textit{Rate Comparisons}

Since 1983, the Interstate Commerce Commission (ICC) has approved ten general interstate tariff increases which total to a 51.3\% increase in rates. In that same time period, the Oregon Public Utility Commission has approved only three general increases, totaling 8.2\%. Washington, another regulated state, has granted five increases since 1983, totaling 20.9\%.

In both Oregon and Washington, rate increases are granted or denied on the basis of cost data obtained from a group of study carriers. In Oregon, rate increases have been approved on the basis of revenue need computations allowing the study group to earn a 15\% after tax return on equity capital. The large discrepancy between the level of increases allowed by the Oregon and Washington Commissions and that permitted by

\(^{33}\) \textit{R. Wittenberg, supra} note 20, at 15-16.

\(^{34}\) St. Johnsbury Trucking Co., Holliston, MA; Stott & Davis Motor Express, Inc., Auburn, NY (statement of representatives appearing during Duclos-Gordon Seminar in Transportation Regulation, Syracuse University (Oct. 31-Nov. 4, 1988)).
the ICC makes it apparent that motor carrier operating costs have nothing to do with a level of rates that receive "rubber stamp" approval.

Obviously, interstate tariff rates are greatly inflated and it is from this base that selective discounting has become such a popular marketing tool with big carriers and big shippers. The prejudiced extension of discounts, however, leaves some shippers paying the inflated rates while others receive preferential treatment. This form of price discrimination has not resulted in lower overall rates to the general public. Price discrimination has simply provided a vehicle for shifting the competitive advantage of reduced transportation rates to shippers with the most market power, while causing increased transportation costs to rural areas. Regulated Oregon rates, on the other hand, provide rate levels lower than the average discounted interstate rate levels, and those rates are nondiscriminatory.

Two recent Oregon studies have examined the gap between interstate and intrastate rates for LTL and household goods transportation, paying particular attention to the effects of selective discounting on actual freight charges. One study, conducted as a joint effort of the Oregon Department of Justice and the Oregon PUC, studied transportation charges for the movement of household goods. A second study, submitted to PUC by a major Oregon-based carrier, compared interstate and intrastate general commodity freight rates.

3. **Household Goods Rates**

In February 1988, the Financial Fraud section of the Oregon Department of Justice (DOJ) investigated the propriety of tariff rate discounting. The DOJ staff questioned whether Oregon consumers were being shortchanged by the disallowance of discounts in the intrastate transport of household goods. To examine interstate rates alongside intrastate rates, and to gauge the effect of interstate discounting, the PUC and the DOJ agreed to engage in a joint study.

Two major household goods carriers with terminals in Portland were selected for audit. More than 1,000 freight bills of interstate movements of household goods were reviewed to glean those that did not exceed 600 miles total from origin to destination. The low mileage interstate movements could then be re-rated at Oregon intrastate mileage rates, according to Oregon Draymen & Warehousemen’s Tariff 8-C.

The subsequent rate comparison focused on 25 household goods moves. Ten of the movements were for "national accounts," large companies that have arrangements with one carrier to move its employees. Interstate household goods tariff rates called for the ten moves to cost $20,676.07. Each of the accounts was awarded a discount, however,
reducing the total by 32% to $13,995.87. For the ten national account moves together, Oregon intrastate charges totaled $118.08 less than even the discounted interstate charges. The discounted interstate charges undercut the intrastate charge in only 3 of the 10 moves.

The other 15 movements selected showed an even wider gap between interstate and intrastate rates. Interstate household goods transportation rates called for the 15 moves to cost $23,626.05. The same weight of household goods, moving identical mileage at Oregon intrastate tariff rates, would have cost $14,707.12 (38% less). Interstate charges were discounted for 12 of these 15 shippers, reducing actual total charges by 33% to $15,936.06. The discounted interstate charges undercut the intrastate charge in only 4 of the 15 moves.

Overall, interstate household goods tariff rates called for the 25 moves to cost $44,302.12. The same weight of household goods, moving identical mileage at Oregon intrastate tariff rates, would have cost $28,584.91 (35% less). Interstate charges were discounted for 22 of the 25 shippers in the study, reducing actual charges by 33% to $29,931.93. Even after this discounting, intrastate rates were lower by a total of $1,347.02.

4. COMPANY X LTL FREIGHT RATE STUDY

In December 1987, the Oregon PUC received a rate study completed by a major Oregon-based carrier (referred to here as Company X). The study was submitted to spotlight the variance between interstate and intrastate rate levels. The carrier believed the marked difference would manifestly show the need for intrastate rate increases. In its introduction to the study, Company X stated:

We seldom hear anything positive about deregulation—at least not expressed by management of LTL trucking organizations. But the interstate market is now the most profitable market that (Company X) participates in.

The one advantage to less regulation of pricing in the interstate/intrastate market is the ability it has given us to increase rates in a fashion that protects the overall revenue level for business conducted. Even though discounting is very prevalent with large customers, we handle enough undiscounted business that the resulting return is kept in adequate position.\footnote{35}

To expose the dichotomy between interstate and intrastate rates, Company X selected one week of intrastate freight activity from October 1987. The freight bills used were for shipments wholly within Oregon, originally rated according to Pacific Inland Tariff Bureau Intrastate Tariff 399. In re-rating the bills at interstate levels, Company X used ICC Tariff

\footnote{35. Freight rate study submitted by Oregon-based motor carrier to the Oregon Public Utility Commission, Economic Regulation Division (Dec. 21, 1987), Appendix at 7.}
Most interesting was that portion of the study revealing the effect of rate discounting. Rate discounts normally extended to certain Company X shippers in interstate traffic were extended to those shippers in the re-rating exercise. A total of 44 shipments qualified for Company X discounts of interstate rates. Discount amounts ranged from 25-50%, but averaged 38%. Though interstate rates called for the 44 shipments to cost $3,710.44, rate discounting resulted in a net interstate charge of $2,306.43. This net charge was only $61.30 below the actual intrastate charges ($2,367.73). In 17 of the 44 individual shipments, discounting still left net interstate charges above intrastate charges. Thus, the effect of Company X’s interstate discounting was to merely reduce interstate charges to a point where they shadowed intrastate charges.

In re-rating ten other shipments, Company X applied its private interstate tariff rate agreements with two shippers. Similar to the negligible effect of rate discounting, the net effect of these special contracts was to place interstate charges for the ten shipments just $52.67 below intrastate charges.

In 161 other shipments during the week, Company X offered no rate discounts when re-rating the bills for interstate charges. Full interstate rates called for the 161 shipments to cost $18,451.53. Oregon intrastate charges totaled $11,670.86, 37% less.

5. INNOVATIVE PRICING

The proponents of deregulation promised deregulation would bring about “pricing innovations,” but aside from kickbacks and discounting (which is more of a selective marketing tool than a pricing innovation) much of the industry and the shipping public has failed to realize anything particularly new. What has occurred, however, is wider use of freight-all-kinds (FAK) rates, released value rates, off-peak rates, etc. at the interstate level. This type of pricing was around long before the Motor Carrier Act of 1980 and was published in many tariffs.

Oregon continues to meet the challenges set forth in the area of rates in a manner that satisfies the goals of the state transportation policy. In 1986, the Pacific Inland Tariff Bureau (PITB) submitted a proposal to institute a simplified, zip code tariff in Oregon. The proposal, as submitted, would have resulted in a number of increases and would have established rates discriminating against shippers in outlying areas. In essence, it would have created a condition similar to the one just described in the interstate market. The Oregon PUC worked with PITB on the proposal and the result was a simple, usable class rate tariff that was revenue neu-
tral, with no changes of import to rate levels in rural areas.36

The Oregon PUC has also worked closely with both shippers and carriers to ensure that both headhaul and backhaul shippers receive maximum benefit from known backhaul situations. Where possible, headhaul rates on truckload traffic have been approved which consider the revenue to be earned on specific return trip movements. The load factor for the round trip movement is increased, in these situations, and equitable rates are afforded both the headhaul and the backhaul shippers. The combination of headhaul and backhaul rates for the round trip total the minimum amount that will allow the carrier to recover the fully allocated costs of the round trip.

The Oregon legislature wisely proclaimed that the state transportation policy should promote safe, adequate, and economical service to the general public without unjust discrimination or destructive competitive practices. It has been clearly illustrated that deregulation promotes both rate discrimination and destructive competitive business practices, and is blatantly contrary to the public transportation policy set forth by the legislature. Regulation in Oregon continues to provide rate levels that are both compensatory and nondiscriminatory.

D. DEREGULATION AND SMALL COMMUNITIES

Paul Stephen Dempsey points to a general deterioration of service throughout the transportation industry, since the advent of federal deregulation, in his book The Social and Economic Consequences of Deregulation:

Nearly a decade has elapsed since the federal government launched its grand experiment in transportation deregulation. The outlines of a consistent trend are becoming visible in all deregulated industries—airlines, railroads, and trucking, bus and telephone companies. While deregulation has created a class of beneficiaries, small businesses and consumers in small towns and rural communities are not among them. Today, they pay higher prices for poorer service.37

A 1988 performance audit of the Colorado Public Utilities Commission reached conclusions similar to those of Dempsey. In the publication Performance Audit of the Public Utility Commission 14-15, the Colorado State Auditor said:

One clear pattern emerges from the studies on the impacts of deregulation in different public utility industries: small communities and rural areas have often paid a heavy price. Many small communities and rural areas have lost

37. P. DEMPSEY, supra note 2, at 59.
all of their passenger transportation services; many others have had their services reduced significantly. In addition, the costs of both passenger transportation and telephone services have increased, often substantially, in these areas. The implications of the loss of services and increases in costs to small communities are significant. Many of these communities are trying to attract new businesses and keep existing businesses and residents from moving away.38

Proponents of deregulation contend that if Oregon intrastate LTL traffic were deregulated, rural communities would still have United Parcel Service (UPS) or small package service by bus line. UPS, however, is a regulated LTL carrier of small packages and there is no reason to assume its service or rates would remain the same in a deregulated environment. And since deregulation of the bus industry, the majority of small Oregon communities are no longer served by bus lines.

ICC Chairman Heather Gradison, in a September 1986 letter to South Dakota Senator Larry Pressler, emphasized the negative impact the Bus Regulatory Reform Act of 1982 has had on service to small communities. Gradison noted that while 4,514 communities had lost bus service, only 896 had gained service. Small communities appeared to be most affected, as 3,432 of the towns losing service had a population of 10,000 or less.39

It is interesting to note that while theorists argue that deregulation would not curtail service to small communities, a 10-year program was introduced into the Airline Deregulation Act of 1978 to subsidize airline service to small communities. The program has not been very effective, as witnessed by more than 140 small towns that have lost air service, and its cost certainly is not consistent with the savings promised by economic deregulation.40

According to Dempsey, in The Social and Economic Consequences of Deregulation, the level of motor carrier service to small communities is not as obvious a problem, yet, as is price discrimination:

Because of the glut of capacity in the trucking industry, and the fact that the overwhelming majority of states continue to regulate intrastate motor carriage and enforce the common carrier obligation, we have not yet seen wholesale motor carrier abandonments of small communities. . . . Evidence already exists of widespread price discrimination against small shippers, particularly those in rural areas and small towns.41

It cannot be overemphasized that rural America today has only felt

---

38. COLORADO STATE AUDITOR, PERFORMANCE AUDIT, PUBLIC UTILITIES COMMISSION (Jan. 1988).
41. P. DEMPSEY, supra note 2, at 77.
the impact of interstate deregulation. It has yet to experience the impact
that intrastate deregulation would bring. Price discrimination on interstate
shipments to these communities already exists. Without the common car-
rier obligation to serve rural areas, and there would be none in a deregulated
environment, the wholesale abandonment that Dempsey describes
would be imminent.

Martin E. Foley, Executive Director of the National Motor Freight Traf-
fic Association, Inc., presented a report entitled *In the Matter of Regulation
of General Freight Transportation by Truck* to the California Public Utilities
Commission in October 1988. He summed up the manner in which the
financial distress brought about by deregulation continues to hamper the
economic growth of small communities:

Many small and rural communities simply do not have the traffic volumes or
are not located on major traffic lanes so as to render service to them attract-
ive or economical. A myth circulating at the time "deregulation" was being
pushed was that with freer entry, many small carriers would surface which
would fill any service void created by other carriers vacating those markets.
What was not realized was that in the deregulated environment those carri-
ers have the hardest time surviving. From 1984 through August 1987,
95.5% of all carrier failures, some 5,208 bankruptcies, have occurred
among the small-sized trucking companies, namely, those with operating
revenues under $1,000,000. The economic prospects for the future do not
look much brighter for the small-sized carriers. During the first six months of
1987, it is estimated that 30% of the carriers operated at a loss. As to the
smaller sized Class II carriers, the proportion operating at a loss was 34%...

Studies of the impact of "deregulation" on full service, less-than-truck-
load, interstate general commodity carriers have demonstrated similar seri-
ous problems for that segment of the industry. During the 9-year period from
1978 to 1986, over 54% of the carriers went out of business; 120,274 em-
ployees lost their jobs; and shipments decreased by 36%.

To the extent that service to small or rural areas is uneconomical, carri-
ers will have no incentive to service those points. Inasmuch as there is am-
ple evidence that small shippers are paying considerably higher rates under
deregulation, those able to bear such pricing, if service is available, will find
themselves reaching competitive markets at a cost disadvantage in relation
to their larger or better-located competitors.

The nexus between the competitive and financial environment created
by deregulation and the loss of service to small and rural areas cannot be
denied. Carriers struggling for their existence cannot handle traffic which
does not produce an adequate profit. On the other hand, small shippers at
such locations are at a disadvantage because they often cannot afford the
rates necessary to create an incentive for trucking companies to provide ser-
vice to those points.42

42. M. Foley, *In the Matter of Regulation of General Freight Transportation by Truck*, state-
ment before the California Public Utilities Commission (Oct. 27, 1988) at 31-33 (citing L. Batts,
1. DISCRIMINATORY RATES

Small communities in Oregon, as might be expected, exert little market power. They, too, suffer from the impact of rate discrimination. Within the motor carrier industry, it is a well-known fact that published interstate rates are between 30 and 40% above discounted rates extended to select shippers. Carriers regularly offer those rate discounts to preferred shippers as a marketing tool. In many cases, however, small communities along the Oregon coast or in the interior off major corridors are unable to avail themselves of these discounts on interstate shipments.

Buck Colleknon, general manager of TP Freight Lines, Inc., a regional carrier based in Oregon, reports several major national carriers interlining with TP are now frequently refusing to extend interstate discounts to the Oregon coastal area. Colleknon said they will only offer the discount if the traffic terminates at a point that they serve as a single-line carrier. In other words, if Yellow Freightslines, Roadway Express, Consolidated Freightways, or ANR have freight destined for the Oregon coast, the shippers will not receive a discount if the freight is interlined with TP.

Roadway Express cancelled all of its joint-line discounts in the early summer of 1988. Only Oregon freight to or from Portland is rated with the interstate discount. Other Oregon locations are left to either pay the inflated interstate rate or whatever negotiated rate their market position will yield, with the interline carriers serving their location.

Two other carriers, Risberg's Truck Line and Oregon Freightways also report that interstate discounts are not extended to interlined shipments. Late in 1988, Jerry Eiler President of Oregon Freightways said the practice had been going on for about a year and the trend was gaining intensity.

Of course, national interstate carriers serve very few areas off the major traffic lanes. Remote areas in Oregon are generally served by regional carriers with intrastate operating authority. The regional carriers offer the rural communities just, reasonable, and nondiscriminatory rates, as well as adequate service levels on intrastate freight. They are unable, however, to correct the interstate rate discrimination that forces these rural Oregon communities into a form of economic isolation.

The effect to rural Oregon, victimized by pricing discrimination, is to

---


43. Telephone conversations with Buck Colleknon, General Manager, TP Freight Lines, Inc. (Oct. 21, 1988).

44. Telephone conversation with Jerry Eiler, President, Oregon Freightways (Oct. 21, 1988).
stifle economic development and to promote mass urbanization. Industries located in these areas incur higher transportation costs than their counterparts located on major traffic lanes, placing them at a competitive disadvantage. As a result, it is difficult to attract capital for economic expansion or, in some cases, to retain capital that already exists in the community.

E. IMPACT ON TRUCK SAFETY

The Research and Analysis Section of the Oregon Public Utility Commission’s Transportation Safety Program has compiled statistics of accident and violation ratios based on averages for the years 1984 through 1987. Oregon carriers subject to both rate and entry regulation have a better safety record than private carriers, unregulated interstate carriers, or Oregon carriers subject only to entry regulation.

Accident records show Oregon rate and entry regulated carriers have a low total accident ratio, compared with their deregulated or partially-regulated counterparts. Their four-year averages also show them with fewer preventable accidents and fewer fatalities per 100 million miles:
ACCIDENT RATIOS OF MOTOR CARRIERS OPERATING IN OREGON

MILES = millions of miles traveled, four-year total.
TAR = total accident ratio, four-year average per million miles traveled.
PAR = preventable accident ratio, four-year average per million miles
FATALS = fatalities, four-year average per 100 million miles.

<table>
<thead>
<tr>
<th></th>
<th>MILES</th>
<th>TAR</th>
<th>PAR</th>
<th>FATALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intrastate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry &amp; Rate-Regulated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Commodities</td>
<td>894.5</td>
<td>1.34</td>
<td>0.65</td>
<td>4.65</td>
</tr>
<tr>
<td><strong>Entry Regulated Only</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logs, Poles, Piling</td>
<td>727.0</td>
<td>1.44</td>
<td>0.71</td>
<td>7.59</td>
</tr>
<tr>
<td>Sand &amp; Gravel</td>
<td>182.4</td>
<td>1.94</td>
<td>1.06</td>
<td>6.07</td>
</tr>
<tr>
<td><strong>Unregulated, Registration Only</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“B” Commodities</td>
<td>507.5</td>
<td>1.93</td>
<td>1.03</td>
<td>6.45</td>
</tr>
<tr>
<td>Private Carriers</td>
<td>1057.3</td>
<td>1.46</td>
<td>0.71</td>
<td>5.24</td>
</tr>
<tr>
<td><strong>Interstate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Commodities</td>
<td>1098.4</td>
<td>1.31</td>
<td>0.72</td>
<td>4.80</td>
</tr>
<tr>
<td>ICC-Exempt Commodities</td>
<td>165.4</td>
<td>2.00</td>
<td>1.05</td>
<td>5.23</td>
</tr>
<tr>
<td><strong>Motor Carrier</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry Average</td>
<td>1.50</td>
<td>0.76</td>
<td></td>
<td>5.55</td>
</tr>
</tbody>
</table>

Source: Research and Analysis Section, Transportation Safety Program, Oregon Public Utility Commission.

Oregon’s safety inspection records from 1984 through 1987 show rate and entry regulated carriers have fewer total violations per inspection, fewer critical violations, and a lower vehicle out-of-service percentage than their deregulated or partially-regulated counterparts:
VIOLATION RATIOS OF MOTOR CARRIERS OPERATING IN OREGON

<table>
<thead>
<tr>
<th>INSPECTS</th>
<th>TVR</th>
<th>CVR</th>
<th>OSV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrastate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry &amp; Rate-Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Commodities</td>
<td>7,908</td>
<td>2.91</td>
<td>0.711</td>
</tr>
<tr>
<td>Entry Regulated Only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logs, Poles, Piling</td>
<td>8,866</td>
<td>3.55</td>
<td>0.944</td>
</tr>
<tr>
<td>Sand &amp; Gravel</td>
<td>3,297</td>
<td>3.89</td>
<td>1.051</td>
</tr>
<tr>
<td>Unregulated, Registration Only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;B&quot; Commodities</td>
<td>5,313</td>
<td>3.95</td>
<td>1.019</td>
</tr>
<tr>
<td>Private Carriers</td>
<td>15,665</td>
<td>3.76</td>
<td>0.906</td>
</tr>
<tr>
<td>Interstate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Commodities</td>
<td>11,059</td>
<td>3.14</td>
<td>0.933</td>
</tr>
<tr>
<td>ICC-Exempt Commodities</td>
<td>2,163</td>
<td>3.88</td>
<td>1.072</td>
</tr>
<tr>
<td>Motor Carrier</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry Average</td>
<td>3.48</td>
<td>0.958</td>
<td>27.59</td>
</tr>
</tbody>
</table>

Source: Research and Analysis Section, Transportation Safety Program, Oregon Public Utility Commission.

Analysis of the National Accident Sampling System (1981-85) data indicates that nearly 2 of every 5 motor vehicle accidents involve a heavy truck belonging to a carrier not regulated by the ICC. In Oregon, the highest at-fault accident rate belongs to ICC-exempt interstate carriers for each of the years 1984 through 1986. The deregulated carriers and those subject only to entry regulation are the ones having a deleterious effect on Oregon highway safety, not the Oregon carriers subject to rate and entry regulation.

Even though they deny it as a product of deregulation, theorists recognize that the motor carrier safety record is continuing to deteriorate. However, they see increased safety inspections, rather than economic regulation, as the solution. According to Nicholas Glaskowsky:

... it is no coincidence that the deregulators now call loudly for much stiffer safety inspection and regulation of the trucking industry. This demand is cer-

45. Office of Technology Assessment, supra note 27, at 99.
tainly praiseworthy, but one may also note that it is a tacit admission of the existence of a growing safety problem in the motor carrier industry clearly related to deregulation.47

Vehicle inspections and safety programs apply equally to all carriers, regulated or not. Based on Oregon accident and inspection records, it is unlikely that the stepped-up safety inspection program proposed by the deregulation theorists will be an acceptable substitute for economic regulation if the safety record of ICC-exempt and partially-regulated carriers is to be restored.

1. DEREGULATION AND MOTOR CARRIER SAFETY

The number of heavy truck accidents (those with gross vehicle weights in excess of 26,000 pounds) has increased steadily over the past few years, reaching, according to the Office of Technology Assessment (OTA), an estimated 278,322 accidents nationwide in 1986. The accident rate for trucks between 10,000 and 25,999 pounds has also increased, but not as rapidly as the increase in the heavy truck accident rate.48 Figures presented to the Interstate Commerce Commission by the American Insurance Association indicate the accident rate for interstate truckers increased from 2.65 accidents per million miles in 1983 to 3.06 per million miles in 1984, then to 3.39 per million miles for the first half of 1985.49

Many are concerned that the financially ailing motor carrier industry is not capable of being a safe industry, and recognize that the financial distress of the industry is a product of deregulation. Proponents of deregulation, however, argue there is no connection between economic deregulation and the deteriorating safety record of the industry. These theorists attempt to rationalize their opinion by asserting that the Motor Carrier Act of 1980 (MCA) only opened rate and entry competition and did not directly change any existing safety requirements such as drivers' hours-of-service limitations or insurance requirements. Economic deregulation, they insist, is a separate issue from the safety problem existing in the industry today.

To those directly involved with motor carrier operations, the connection between the poor financial condition of motor carriers resulting from deregulation and motor carrier safety is very obvious: Any condition that tends to depress the profitability of a motor carrier will have a definite and negative impact on the safety of that carrier's operation.

47. N. GLASKOWSKY, supra note 8, at 32.
48. OFFICE OF TECHNOLOGY ASSESSMENT, supra note 27, at 85.
49. N. GLASKOWSKY, supra note 8, at 32.
In his book, The Social and Economic Consequences of Deregulation, Dempsey commented:

... some deregulation proponents dogmatically insist that no one has proven conclusively that economic deregulation causes safety deterioration (and anyway, nothing as handsome as deregulation could give birth to so grotesque an offspring). One is reminded of the argument by the tobacco companies that no one has conclusively established that cigarettes cause cancer. No one has been able to step forward with conclusive evidence to prove (or for that matter, disprove) either proposition. Nonetheless, public policy suggests that the burden of proof ought reasonably be placed on the constituency which, common sense suggests, is harming innocent people.50

Deregulation seems to have worsened the overcapacity problem in the for-hire motor carrier industry. Severe rate competition has resulted, and caused financial distress for many carriers. As the carriers cut costs in order to survive, they reduce wages, hire owner-operators, operate older vehicles, cut maintenance and force drivers to work longer hours. High operating ratios, diminished levels of vehicle maintenance, longer work hours, increased use of owner-operators, and an aging vehicle fleet have all been linked, either directly or indirectly, to the continuing decline in motor carrier safety.

The excess capacity that was brought about by unrestricted entry lowered both the efficiency and profitability of the industry. The Office of Technology Assessment made some astute observations about the effects of overcapacity on motor carrier safety in its report, Gearing Up For Safety:

Overcapacity leads to price discounting and shrunken profit margins, creating difficult economic trade-offs for decisions about investment in safety-related equipment and safety-conscious hiring and scheduling practices. Competition, increased operating costs, and low, erratic profit margins create a need to control costs that can lead to shortchanging safety-related driver training, truck maintenance, and equipment improvements. Carriers are, in general, interested in safety, but they will measure investments in new safety equipment and technologies against tangible economic rewards. Cost and safety trade-offs are particularly problematic for owner-operators and small carriers, who have to generate revenue regularly to stay in business and may have no regular operations base or maintenance facility.51

In spite of its findings that link the financial health of carriers to some of the leading causes of accidents, and its recognition that overcapacity is one of the reasons for deterioration of the financial health of the industry, the OTA was unable to “clearly link economic regulation and motor carrier safety.” It concluded:

... the economic success of a carrier has an identifiable effect on the opera-

50. P. DEMPSEY, supra note 2, at 100-101.
51. OFFICE OF TECHNOLOGY ASSESSMENT, supra note 27, at 27.
tions and fleet condition; in fleets having financial difficulties, vehicles are not as well maintained and equipment tends to be older. However, the absence of good data from the period before economic deregulation, the effects on all business activity of the 1982 recession, and the many changes in carrier operations that occurred as the result of other governmental policy decisions, all lead OTA to conclude that no clear link can be established between changes in economic regulation and motor carrier safety.\textsuperscript{52}

Few are apt to disagree with the OTA's observations that economic deregulation has had a major negative impact on the financial condition of the motor carrier industry. It is also a reasonable supposition that many other economic factors have played a part in this financial deterioration. Quantifying the impact of economic deregulation as compared to these other factors in the pre- and post-deregulation eras might be difficult, if not impossible, but that is what would be necessary to establish a statistically "clear link" between the changes in economic regulation and motor carrier safety. However, to deny that such a link exists, whether or not it is absolutely "clear," would be preposterous.

The financial distress that deregulation forced upon the motor carrier industry has also made it necessary for carriers to pay the lowest wages possible in their ongoing struggle for survival. In \textit{Testimony of the California Trucking Association on the Correlation Between Regulation and Public Safety}, the CTA reported truck drivers' wages dropped from $6.50 per hour in 1979 to just over $4.50 per hour by 1985, a decrease of over 30%. During the same time period, factory workers' wages increased just over 15%.\textsuperscript{53}

Low wages in the deregulated motor carrier industry have attracted untrained, inexperienced, unqualified drivers. At least one study has found that high accident rate carriers have a disproportionate number of truck accidents in which the driver was under 30 years of age and had less than 2 years of experience.\textsuperscript{54} Analysis of the National Accident Sampling System (NASS) data indicates the level of training of the driver is an important factor in heavy vehicle accidents.\textsuperscript{55}

After presiding over hearings before the California Public Utilities Commission in 1985, which resulted in reinstatement of rate regulation in that state, Administrative Law Judge William Turkish summarized some of his observations in his report:

We believe truck highway safety depends not merely on the adoption of a public safety program and police enforcement of such program, but also to

\begin{footnotes}
\item[52.] \textit{Id.} at 10.
\item[53.] Correlation Between Regulation and Public Safety, \textit{supra} note 18, at 4 & 5 (Exhibits 5 and 6).
\item[55.] \textit{Office of Technology Assessment, supra} note 27, at 89.
\end{footnotes}
the degree of commitment of the trucking firms' owners and drivers as well as the independent owner-driver in allocating the necessary resources, priority, and attention to safety measures, as well as to the regulatory climate created by the policies of the Commission through its program of economic regulation.

The evidence in this record is clear that indiscriminate and noncompensatory rate reductions have placed carriers in a position where, in order to survive and protect their investments, they feel compelled to drive long hours, operate at excessive speeds, cut back on their truck maintenance and equipment replacement programs, and drive on bald, recapped, or defective tires. The creation of a regulatory climate in which carriers have the opportunity to earn sufficient revenues to earn a profit on their investment and not be subjected to competitive throat-cutting is the single most effective manner in which economic regulation can contribute to highway safety. . .56

Dabney T. Waring, Jr., Director of Cost Research for the Motor Common Carrier Associations, participated in hearings before the California Public Utilities Commission in March and April 1988. Waring commented on the manner in which deregulation has brought economic distress to the industry, and explained how the resulting erosion of carriers' financial condition had a negative impact on their safety record:

[T]wo aspects of deregulation that impact profitability and thus highway safety, are relaxed entry restrictions and unfettered rate competition. Open entry results in excess capacity which means less than full-vehicle loads and empty miles. Further, the excess capacity creates the pressure to reduce rates which, absent regulatory restraint, quickly and easily reach non-remunerative levels. The effect on safety can show up in many ways. When profits are down or absent, cash flow will dry up. Of all the uses of funds (salaries, fuel, rent, debt payments), the one that is most easily postponed is maintenance. The next alternative is to attempt to economize on labor either by lower wages or by getting more for the wage dollar which means either working harder, driving faster or working more hours per day. These are the ingredients for a deterioration in highway safety. . .57

2. **PRE-MCA CARRIERS VS. POST-MCA CARRIERS**

Prior to deregulation, entry restrictions caused carriers to operate near capacity. Between July 1980 and the end of 1985, there was a net increase of approximately 16,000 new entrants into the industry; and addition of 89%.58 The new entrants provided an oversupply of capacity and increased the number of empty miles operated. This combination has driven load factors down and reduced rates to unreasonably low levels. The excess capacity is frequently offered at rates below a com-

---

57. Waring, Jr., *supra* note 28, at 11.
pensatory level, and those rates often divert backhaul traffic away from existing full-service carriers. The excess capacity brought about by de-regulation did not create more efficient operations. Quite to the contrary, it is one of the major causes of the increased number of empty truck miles and declining load factors that plague the industry today.

The safety record of the new entrants is significantly worse than that of established carriers. An article entitled Safety Performance of Pre-MCA Motor Carriers, 1977 Versus 1984 appeared in the Spring 1988 issue of the Transportation Journal. The article, authored by Thomas Corsi, Philip Fanara, Jr., and Judith Jarrell, noted that a previous study conducted by Corsi and Fanara found:

. . . based on the accident experience during 1985 and 1986 of 837 new entrants and 1,082 established carriers . . . a statistically significant (at the .01 level) difference in the number of accidents per million vehicle miles between new entrants and established carriers. Moreover, established carriers were found to have had an average accident rate of 1.3 accidents per million vehicle miles, while the comparable average among the new entrants was 1.65 per million vehicle miles—27% higher. . . .

[T]he study showed that without data on entrants from other time periods, it could not be concluded that the post-MCA entrants are worse (or better) than were entrants at other times in terms of the overall safety record. However, the MCA intensified the accident rate problem by facilitating an unprecedented increase in the number of new entrants. . . .

Examining a different data base, the Corsi article concludes:

. . . among all the established carriers taken together, the accident rate fell from an average of 1.37 accidents per million vehicle miles in 1977 to 1.29 accidents per million vehicle miles in 1984—a statistically significant (at the .06 level of confidence) decline. However, this decline was due largely to the influence of the strong decline in accident rates among General Freight Truckload carriers. For these carriers, there was also a statistically significant (at the .01 level) decrease in mean accident rate from 1.68 accidents per million vehicle miles in 1977 to a comparable level of 1.27 in 1984. In other industry segments, the mean accident rate remained essentially unchanged. . . .

From the Corsi article, it appears that the established carriers who survived deregulation had about the same safety record before and after the MCA, but the new entrants who arrived on the scene as a result of the MCA were responsible for a significant increase in the number of motor carrier accidents.

Both regulatory advocates and deregulatory theorists seem to agree that the adoption of the MCA has caused financial distress within the industry. The theorists argue this is good because only the efficient carriers

59. Id. at 30 (emphasis added).
60. Id. at 32-33.
will survive. Regulatory advocates argue the deterioration of the financial health of an infrastructure industry is not in the public interest. No matter who is right in this debate, both sides agree the financial condition of many carriers is rapidly going downhill. The Corsi article statistically linked the safety performance of the study group, involved in accidents in 1977 and 1984, to the financial condition of those carriers:

The most interesting difference in the significance of individual coefficients between 1977 and 1984 is that in 1984 the coefficient for carrier operating ratio is significantly and positively linked to accident rate, while in 1977 no such significant linkage existed. Thus, in the post-MCA era carrier increases in operating ratio or worsening of operating position was significantly linked with an increase in its accident rate.

Despite claims to the contrary that deregulation and safety concerns are unlinked, it is clear that some firms operating in the new competitive environment in a precarious financial situation have significantly higher accident rates than do those not in financial distress. This relationship or linkage is new to the competitive post-MCA environment.61

3. OWNER-OPERATORS

Professor Garland Chow of the University of British Columbia conducted a study entitled Deregulation, Financial Condition and Safety in the General Freight Trucking Industry. His study confirms Dabney Waring’s view that the distressed financial condition of the motor carrier has a direct impact on the level of motor carrier safety:

The carrier which eventually goes bankrupt spends less on safety and maintenance, has older equipment, and depends on owner-operators more than carriers not going bankrupt. As these financially distressed carriers approach their eventual demise, they spend even less on safety, on new equipment, and more on subcontracted line haul. However, we did not find similar relationships among non-financially distressed carriers. The aggregate conduct of the general freight segment of trucking is generally consistent with the hypothesis that safety performance deteriorates with the declining health of the industry. Less is spent on safety and on maintenance and the fleet ages.62

Rita Bontz, President of the Maryland Independent Truckers and Drivers Association of Baltimore, Maryland, testified before the U.S. House of Representatives in 1985 regarding deregulation and the effect of an increased usage of owner-operators in transportation service:

We believe the Congress intended to improve the trucking industry and to rid it of unnecessary and burdensome regulations when it enacted the Motor Carrier Act (of 1980). But the implementation of the Act has generated an

61. Id. at 35-36.
‘anything goes’ attitude which has severely damaged safety on the nation’s highways and caused many reliable trucking companies and owner-operators to go out of business. And when we lose experienced truckers and companies everyone feels the loss in the quality of service and the diminishing safety on the highways.

Truck owner-drivers . . . are more in demand by motor carriers because they can avoid high labor costs and shift many operating costs to us while obtaining reliable, safe transportation of freight. Unfortunately, the carrier, in an effort to survive the fierce and predatory competition, has cut freight rates to a point where we are often operating at a break-even point or marginal profit. In some cases, we operate below cost as we struggle to ‘hang on until things get better.’

Because of the economic situation facing owner-drivers, many are forced to push themselves beyond their physical limits and in some cases truckers skimp on maintenance and particularly on the much needed replacement of equipment—the effects of which are reflected in the growing problems in safety on the highways.63

In Testimony of the California Trucking Association on the Correlation Between Regulation and Public Safety, presented before the California Assembly Utilities and Commerce Committee in October 1986, the CTA reported that the amount of traffic contracted out to subhaulers (owner-operators) increased from just under 18% in 1978 to more than 28% in 1985.64

The Portland Oregonian newspaper investigated the state of the motor carrier industry in a series of articles appearing early in 1987. The Oregonian concluded motor carrier safety had been jeopardized by deregulation, especially by the surge of new carriers, price cutting, deferred maintenance, and the hiring of untrained drivers.65 In one article, Jack Wayne Peterson, one-time Oregon Trucking Association Driver-of-the-Year, commented on the subject of safety:

. . . What the trucking industry has now is a lot of people with a down payment for a truck, and they go out and do their thing. . . You got people out there driving too many hours with not enough rest. Most are independents driving their own trucks, but some are working for a company, like me. There are companies that push their drivers to break the rules. I’m not talking just about little fly-by-night outfits either. Some big companies are doing it. . . There are guys driving singles to Los Angeles in 23 hours. There’s no way you can do that legally. Most of them do it because they have to—

64. Correlation Between Regulation and Public Safety, supra note 18, at 15 (Exhibit 16).
make payments on their trucks.66

While Chow’s study found the carrier going bankrupt depends more
on owner-operators than those not going bankrupt, the Corsi study found
a correlation between the use of owner-operators and the accident rate,
and confirmed the use of owner-operators has increased since the MCA.
According to Corsi:

In both the 1977 and 1984 equations, owner-operators use (as measured by
vehicle miles rented with driver as a portion of total vehicle miles) is posi-
tively and significantly (at the .01 level) linked to accident rates. As carrier
use of owner-operators increases, there is a corresponding increase in acci-
dent rates. This finding confirms an earlier result based on 1981 data that
was noted by the authors in an earlier paper.

That the linkage between owner-operator use and higher accident rates
existed prior to the passage of the MCA and has continued throughout the
transition period is a particularly significant finding. The basis for this lon-
titudinal linkage is multidimensional, involving the owner-operator’s perceived
need to violate hours-of-service regulations to meet minimum financial needs
as well as inability to either replace equipment in a timely fashion or repair it
on a regular basis. The longstanding owner-operator safety problem has
been intensified in the post-MCA environment because of their greater use
by carriers who view owner-operators as an effective method of lowering
costs or improving productivity in comparison, primarily, with union em-
ployee drivers.67

Deregulation, then, has been identified as a major reason for the sub-
stantial increase in the number of owner-operators on the highway, and a
direct relationship has been established between the use of owner-opera-
tors and higher accident rates.

4. **AGE OF FLEET**

There can be no doubt that declining profit margins and dwindling
cash flow have had a negative impact on the equipment replacement poli-
cies of motor carriers. An aging fleet is one of the consequences of eco-


1987, at B5.
68. OFFICE OF TECHNOLOGY ASSESSMENT, supra note 27, at 88.
<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>7.3</td>
<td>3.9</td>
<td>17.7</td>
<td>100</td>
</tr>
<tr>
<td>1971</td>
<td>7.3</td>
<td>4.0</td>
<td>18.3</td>
<td>99</td>
</tr>
<tr>
<td>1972</td>
<td>7.2</td>
<td>4.0</td>
<td>19.7</td>
<td>92</td>
</tr>
<tr>
<td>1973</td>
<td>7.0</td>
<td>4.0</td>
<td>21.3</td>
<td>85</td>
</tr>
<tr>
<td>1974</td>
<td>7.0</td>
<td>4.1</td>
<td>23.3</td>
<td>81</td>
</tr>
<tr>
<td>1975</td>
<td>6.9</td>
<td>4.4</td>
<td>24.8</td>
<td>80</td>
</tr>
<tr>
<td>1976</td>
<td>7.0</td>
<td>4.8</td>
<td>26.5</td>
<td>82</td>
</tr>
<tr>
<td>1977</td>
<td>6.9</td>
<td>5.1</td>
<td>28.2</td>
<td>82</td>
</tr>
<tr>
<td>1978</td>
<td>6.9</td>
<td>5.5</td>
<td>30.5</td>
<td>82</td>
</tr>
<tr>
<td>1979</td>
<td>6.9</td>
<td>5.9</td>
<td>32.6</td>
<td>82</td>
</tr>
<tr>
<td>1980</td>
<td>7.1</td>
<td>6.5</td>
<td>35.2</td>
<td>84</td>
</tr>
<tr>
<td>1981</td>
<td>7.5</td>
<td>7.2</td>
<td>36.1</td>
<td>90</td>
</tr>
<tr>
<td>1982</td>
<td>7.8</td>
<td>7.9</td>
<td>37.0</td>
<td>97</td>
</tr>
<tr>
<td>1983</td>
<td>8.1</td>
<td>8.5</td>
<td>38.1</td>
<td>101</td>
</tr>
<tr>
<td>1984</td>
<td>8.2</td>
<td>9.6</td>
<td>40.1</td>
<td>109</td>
</tr>
<tr>
<td>1985</td>
<td>8.1</td>
<td>10.7</td>
<td>42.4</td>
<td>115</td>
</tr>
<tr>
<td>1986</td>
<td>8.0</td>
<td>11.5</td>
<td>44.8</td>
<td>117</td>
</tr>
<tr>
<td>1987</td>
<td>8.0</td>
<td>11.8</td>
<td>47.3</td>
<td>113</td>
</tr>
</tbody>
</table>

(1) Average age, all trucks.
(2) Number of trucks, in millions, 12 years and older.
(3) Number of trucks in use, in millions.
(4) Ratio of number of trucks 12 years and older to total trucks in use, 1970 = 100.


Waring made the following observations regarding the table:

...the average age (of equipment) which hovered around seven years or less in the late seventies has risen to eight years or more in mid-eighties and the number of trucks aged 12 years or more has more than doubled in that period. Further, the proportion of these old trucks to the total has risen about 40% in that period. This is one of the consequences of rate cutting and the ensuing economic pressure. It has an impact on highway safety ... and sooner or later impacts economic efficiency.69

While the investment in new equipment declined, and the average age of the motor carrier fleet increased, the amount spent on vehicle maintenance per mile declined. In its publication Motor Carrier Annual Report, Class I & II Carriers, Financial & Operating Statistics, Total, General Freight Carriers, the American Trucking Association compiled maintenance expense and mileage data, and converted the maintenance expense amounts to constant dollars by using the GNP deflator. The resulting expense figures were divided by the number of vehicle miles oper-

69. Waring, Jr., supra note 28, at 5.
ated. The computed cost per vehicle mile was then indexed with 1976 = 100:

**INDEX OF MAINTENANCE EXPENSE PER MILE**

(1976 = 100)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>100</td>
</tr>
<tr>
<td>1977</td>
<td>95</td>
</tr>
<tr>
<td>1978</td>
<td>86</td>
</tr>
<tr>
<td>1979</td>
<td>91</td>
</tr>
<tr>
<td>1980</td>
<td>98</td>
</tr>
<tr>
<td>1981</td>
<td>97</td>
</tr>
<tr>
<td>1982</td>
<td>92</td>
</tr>
<tr>
<td>1983</td>
<td>87</td>
</tr>
<tr>
<td>1984</td>
<td>84</td>
</tr>
<tr>
<td>1985</td>
<td>83</td>
</tr>
<tr>
<td>1986</td>
<td>79</td>
</tr>
</tbody>
</table>


Waring commented on the declining trend and the statistical accuracy of the table:

Statistically, the index declined at a rate of 1.7% per year from 1976 to 1986, with the assurance of a “t” test of well under 1% that the trend is not due to chance. However, for the period 1980 to 1986, the fact of a decline in maintenance is even more dramatic; the annual rate of decline was 3.6%, again with the “t” test well under 1%.\(^7\)

While the information, compiled from a data base of all Class I and Class II general freight carriers, indicates that less is spent per mile for maintenance, Corsi made an additional discovery for a group of Class I and Class II carriers with accidents reportable to the Bureau of Motor Carrier Safety. The Corsi data base consisted of statistics on accident rates for 1,216 carriers in 1977 and 937 carriers in 1984. Both the 1977 and the 1987 groups had reportable accidents in their group year, and all carriers in both groups had been certificated prior to passage of the MCA. The Corsi article reported:

... consistent in both 1977 and 1984 equations is that carrier maintenance expenses per vehicle mile traveled are significantly (at the .05 level in 1977 and at the .01 level in 1984) positively linked to accident rate. While at first glance this finding might seem counter-intuitive since maintenance expenses might be viewed as accident-prevention behavior, upon further reflection, it is clear that higher carrier maintenance expenses per vehicle mile are indicative of carriers with an aging vehicle fleet in need of significant, repeated repair. The maintenance expenses per vehicle mile variable is reflecting the

\(^7\) Id. at 6, n.6.
known association between older equipment and higher accident propensity...

The multiple regression results linking higher carrier maintenance per vehicle mile expenses with significantly higher accident rates in 1977 and 1984 suggest that carriers with rapid increases in their maintenance per vehicle mile expenses are most likely to be failing to replace their aging vehicle fleets and, hence, are increasing their accident probabilities. Thus, firms with significant increases in maintenance expenses might very well be dangerously lengthening their equipment age. . .71

The Class I and Class II general freight carriers, as a group, spend less per vehicle mile on maintenance as they try to cut costs. The accident study group probably also deferred maintenance costs up to some point in time. However, as their fleet continued to age, they were forced into rapidly increased repair expenditures just to keep operating. It appears that the carriers with older equipment, who have deferred maintenance expenses to save money and who are currently spending heavily on repairs to stay on the road, are the ones most prone to accidents.

5. "THE CALIFORNIA REPORT"

In spite of indisputable evidence linking deregulation to a decline in motor carrier safety, theorists cite "The California Report" to uphold their contention that the link doesn't exist. The "Report" is a Joint Legislative Report (JLR) of the California Public Utilities Commission and the California Highway Patrol completed after the California Commission re-regulated intrastate trucking in 1986.72 The report is, at best, highly controversial. It contends that accident rates have actually decreased over a ten-year period and that they were highest in 1977, before de facto federal deregulation.

A number of issues have been raised which challenge the validity of the JLR. The report is accused of grossly overstating mileage estimates because those estimates are based on diesel taxes paid and make no allowance for the fuel consumption of pickups or vans registered as "trucks," or for automobiles. A comparison of California Department of Motor Vehicles Reports of registered diesel-powered vehicles at December 31, 1977 and May 29, 1987 reveals that the total number of diesel-powered vehicles in that state increased from 71,307 to 236,792. Of the 165,491 additional diesel vehicles registered by May 29, 1987, only 3,678 of that increase were tractors. The remainder were autos, pickups, stationwagons, and vans. Diesel tractors accounted for 90.7% of the total number of diesel-powered vehicles registered in California at Decem-

71. Corsi, Fanara, & Jarrell, supra note 59, at 34.
72. JOINT LEGISLATIVE REPORT, AB 2678, FINAL REPORT ON TRUCK SAFETY, CALIFORNIA PUBLIC UTILITIES COMMISSION AND THE CALIFORNIA HIGHWAY PATROL (Nov. 1987).
ber 31, 1977, but only 18.8% of that total at May 29, 1987. 73

The JLR even suggests its mileage estimates might be understated because new equipment is more fuel efficient. It fails to take into account the aging fleet of registered vehicles, nor recognize Department of Transportation statistics showing the average miles per gallon of trailer combination trucks was virtually unchanged between 1977 and 1986.

While there are a number of other problems with the California Report's integrity, as to its weak methodology, an equally serious problem was raised as to its premise. Gerald O'Hara, California Teamsters Public Affairs Council Director, criticized the study in a December 1987 letter to the California PUC:

At this point, we feel that the staff's conduct with respect of the safety study reveals a level of barely concealed ideological support for one particular side of a political dispute which so strains its credibility as a neutral entity, that we have severe doubts as to its commitment to discharge its statutory enforcement obligations. 74

O'Hara explained in-depth concerns with the politically-motivated conclusions reached by the report's authors, and some of the methodological failures in the study:

In effect, the study's hypothesis is a calculated, if unsophisticated, exercise in rhetorical legerdemain: by failing to uphold its premise, the proponents of deregulation can claim they have "debunked the safety myth."

Having set up a straw man, the study then knocks it down with plainly insufficient data." 75

It appears any position supported with quotes from, or reference to, the "California Report" should be examined with caution.

73. Id. at 78-79 (Exhibits A & B) (comments of Charles Lawlor, President, Di Salvo Trucking).


75. Id. at 3.
APPENDIX

GRADING REGULATED MOTOR CARRIER SERVICE—PORTLAND TO EUGENE

In a random survey conducted by the staff of the Oregon PUC Transportation Program in the fall of 1988, Oregon general freight shippers and receivers were asked to grade the level of motor carrier service existing between Portland and Eugene. The survey was conducted to provide the Commission with information regarding current regulated service in that Interstate 5 traffic lane. Two motor carriers seeking authority to operate argued there is a need for additional service, while existing authorized carriers argued they provide adequate service now. Though Commission policy, in authority application cases, has considered surveys to be insufficient evidence of the need for additional service or the adequacy of existing service, staff saw a random survey as a means of providing information important to the debate.

A list of Portland businesses shipping freight to Eugene, and Eugene businesses receiving freight from Portland, was compiled from two weeks of freight bills supplied by three major carriers. From the total list of 730 shippers and 482 receivers, 103 were randomly-selected from each. In the end, the survey consisted of responses from a total of 75 of the randomly-selected shippers and 72 of the receivers. A summary of the results follows:

<table>
<thead>
<tr>
<th>Primary Business Activity:</th>
<th>Shippers</th>
<th>Receivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retailing</td>
<td>9%</td>
<td>31%</td>
</tr>
<tr>
<td>Wholesaling</td>
<td>32%</td>
<td>10%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>31%</td>
<td>17%</td>
</tr>
<tr>
<td>Services</td>
<td>4%</td>
<td>17%</td>
</tr>
<tr>
<td>Combinations of Above</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Others</td>
<td>5%</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Shipment Destination/Origin:</th>
<th>Shippers are Destined</th>
<th>Receivers: Shipments Originate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Statewide</td>
<td>15%</td>
<td>34%</td>
</tr>
<tr>
<td>Regional</td>
<td>55%</td>
<td>16%</td>
</tr>
<tr>
<td>Nationwide</td>
<td>21%</td>
<td>40%</td>
</tr>
<tr>
<td>Combination of Above</td>
<td>5%</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regularly Use:</th>
<th>Shippers</th>
<th>Receivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Carrier</td>
<td>32%</td>
<td>28%</td>
</tr>
<tr>
<td>2 Carriers</td>
<td>40%</td>
<td>35%</td>
</tr>
<tr>
<td>3 Carriers</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>4 or more Carriers</td>
<td>11%</td>
<td>19%</td>
</tr>
</tbody>
</table>
Require Freight Service from Portland to Eugene:

<table>
<thead>
<tr>
<th>Service Rating</th>
<th>Shippers</th>
<th>Receivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>23%</td>
<td>32%</td>
</tr>
<tr>
<td>2-4 Times per Week</td>
<td>34%</td>
<td>34%</td>
</tr>
<tr>
<td>Weekly</td>
<td>18%</td>
<td>10%</td>
</tr>
<tr>
<td>Monthly/Seasonally/Irregularly</td>
<td>25%</td>
<td>24%</td>
</tr>
</tbody>
</table>

General Quality of Service:

<table>
<thead>
<tr>
<th>Quality Grade</th>
<th>Shippers</th>
<th>Receivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>35%</td>
<td>31%</td>
</tr>
<tr>
<td>Quite Good</td>
<td>47%</td>
<td>40%</td>
</tr>
<tr>
<td>Adequate</td>
<td>16%</td>
<td>24%</td>
</tr>
<tr>
<td>Minimally Acceptable</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Two of the survey's questions were similar in that they asked respondents to assign a number in an evaluation of four aspects of general freight motor carrier service from Portland to Eugene:

1. Adequacy of time schedules.
2. Timely and reliable pick-up service.
3. Timely and reliable delivery service.
4. Settlement of loss and damage claims.

In the first question, respondents were asked to evaluate the importance to their firm of each of the four aspects of motor carrier service. In the second question, respondents were asked to rate how well the existing service meets the needs of their firm. In each of the two questions, respondents assigned a number from 1 to 10 to each of the aspects, with 10 indicating the greatest importance or the most favorable rating. By comparing the numbers assigned in answering the first four-part question with those assigned in answering the second, the survey provides a gauge of the adequacy of motor carrier service. The numbers assigned each of the aspects indicate whether the level of service exceeded the degree of importance to the firm, equaled importance, or fell short of importance:

ADEQUACY OF TIME SCHEDULES

<table>
<thead>
<tr>
<th>Service Rating</th>
<th>Shippers</th>
<th>Receivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceeds Importance</td>
<td>22%</td>
<td>10%</td>
</tr>
<tr>
<td>Equals Importance</td>
<td>48%</td>
<td>66%</td>
</tr>
<tr>
<td>Falls Short of Importance</td>
<td>30%</td>
<td>24%</td>
</tr>
</tbody>
</table>

TIMELY AND RELIABLE PICK-UP SERVICE

<table>
<thead>
<tr>
<th>Service Rating</th>
<th>Shippers</th>
<th>Receivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceeds Importance</td>
<td>11%</td>
<td>22%</td>
</tr>
<tr>
<td>Equals Importance</td>
<td>53%</td>
<td>60%</td>
</tr>
<tr>
<td>Falls Short of Importance</td>
<td>36%</td>
<td>18%</td>
</tr>
</tbody>
</table>
TIMELY AND RELIABLE DELIVERY SERVICE

<table>
<thead>
<tr>
<th>Service Rating</th>
<th>Shippers</th>
<th>Receivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceeds Importance</td>
<td>6%</td>
<td>10%</td>
</tr>
<tr>
<td>Equals Importance</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>Falls Short of Importance</td>
<td>34%</td>
<td>35%</td>
</tr>
</tbody>
</table>

SETTLEMENT OF LOSS AND DAMAGE CLAIMS

<table>
<thead>
<tr>
<th>Service Rating</th>
<th>Shippers</th>
<th>Receivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceeds Importance</td>
<td>28%</td>
<td>19%</td>
</tr>
<tr>
<td>Equals Importance</td>
<td>39%</td>
<td>51%</td>
</tr>
<tr>
<td>Falls Short of Importance</td>
<td>33%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Income Taxation of Interstate Motor Carriers: A Need for Equity and Uniformity

BENJAMIN N. HENSZEY*
JOHN E. TYWORTH**

TABLE OF CONTENTS

I. INTRODUCTION ......................................................... 281
II. BACKGROUND .......................................................... 282
III. NEXUS ................................................................. 286
IV. APPORTIONMENT ..................................................... 288
V. MOTOR CARRIER VIEWS ............................................... 290
   Table 1. Profile of Motor Carriers Surveyed ..................... 291
   Table 2. How Important Is the State Income/Franchise Tax Issue To
   Your Company? ...................................................... 292
VI. CONCLUSIONS ........................................................ 294
VII. APPENDIX A .......................................................... 295
VIII. APPENDIX B .......................................................... 308

I. INTRODUCTION

In 1977, the United States Supreme Court's holding in Complete Auto Transit, Inc. v. Brady1 clearly established the Constitutional right of

---

* Professor of Business Law, Department of Business Logistics, The Pennsylvania State University, University Park, PA 16802.
** Associate Professor of Business Logistics, Department of Business Logistics, The Pennsylvania State University, University Park, PA 16802.
states to tax business conducted in interstate commerce. The Court identified four criteria that had to be satisfied for a state tax on interstate commerce to pass Constitutional scrutiny: (1) the activity taxed must have a substantial nexus with the taxing state, (2) the tax must be fairly apportioned, (3) the tax should not discriminate against interstate commerce, and (4) the tax should be fairly related to the services provided by the state. 2 Historically, the nexus criterion, which inevitably runs into the fourth criterion, 3 and apportionment have proven to be the most troublesome for interstate businesses.

This result is especially true for today's interstate motor carrier industry, which is faced with a multiplicity of state apportionment formulas that lead to inequitable and confusing results. Because the courts have chosen to ignore the fair apportionment issue, it remains for the states and the motor carrier industry to resolve the question.

This article first introduces the nexus and apportionment issues in a broad historical context. Next, it analyzes selected state statutory law, as well as regulations and case law related to the nexus issue, including the proposed trucking regulation drafted by the Multistate Tax Commission. It then, using the same sources, examines the methods for apportioning income to a state after a nexus has been established. The article closes with a presentation and discussion of the results of a questionnaire sent to 500 randomly selected motor carriers.

II. BACKGROUND

Nexus refers to the level of activity that must exist within a taxing jurisdiction before the jurisdiction can impose a tax. As a fact-bound issue, 4 nexus requires some "definite link, some minimum connection, between a state and the person, property or transaction it seeks to tax." 5 Nexus clearly exists where a business is incorporated and headquartered in a particular state such that its legal and commercial domicile are in that state. 6 However, nexus may not exist where a business has no clear physical presence in a state. That is, the business does not own property, maintain an office or storage facility, or have employees who reside in the taxing state. For example, in the area of use tax collection, the United States Supreme Court found that an out-of-state mail order seller that maintained no office, had no agents or solicitors, owned no property and had no telephone listing in the state, but shipped merchandise into the

---

2. Id. at 280.
4. Id.
6. See id. at 345 for a summary of activities which create nexus.
state, lacked sufficient nexus to be a collector of that state’s use tax.\(^7\)

In the income tax area, the United States Supreme Court’s response to a series of 1959 cases alarmed the business community. The Court concluded in *Northwestern States Portland Cement Co. v. Minnesota*\(^8\) that nexus existed where the taxpayer’s only activities in the taxing state consisted of regular and systematic solicitation of orders for the sale of its products. The orders were accepted, filled and delivered by the seller in and from its home office in another state. To facilitate its business in the taxing state, the seller leased a sales office which was run by an employee who was also a district manager. The nexus requirement was not the controlling question, presumably because of the leased sales office and employees in the taxing state. The Court focused upon the fourth criterion, "whether the state has given anything for which it can ask return,"\(^9\) and concluded that the taxing state had given opportunities, provided protection and conferred certain benefits on the out-of-state taxpayer so as to provide Constitutional justification for the tax. Shortly thereafter, the Court refused to address a state income tax by denying certiorari in *Brown-Forman Distillers Corp. v. Collector of Revenue*\(^10\) and *International Shoe Co. v. Fontenot*.\(^11\) In *Brown-Forman*, the only connection with the taxing state was the presence of "missionary men." In *International Shoe*, the only connection with the taxing state was the regular and systematic solicitation by out-of-state salesmen in the taxing state. Taxpayer owned automobiles and samples were the only property in the taxing state.

Fearing that such marginal connections as mere solicitation or the presence of salesmen in a taxing state would produce nexus, the business community pressured Congress into passing Public Law 86-272.\(^12\) Public Law 86-272 prohibits states from imposing an income tax on out-of-state sellers of tangible personal property in two situations. The first tax-free activity involves solicitation by out-of-state employees of sellers where the orders are approved and filled outside the taxing state.\(^13\) The second tax-free activity involves the use of "independent contractors" where the out-of-state seller solicits through an independent contractor

---

9. Id. at 465.
whether or not that person maintains an office in the taxing state.\textsuperscript{14} Public Law 86-272 addressed and resolved many of the nexus issues dealing with only one specific area, solicitation of goods, in the broad spectrum of interstate taxation of income.\textsuperscript{15}

The same uncertainties that faced out-of-state sellers of goods who solicited in a taxing state currently face motor carriers who in some manner use the highways of a taxing state. The very nature of the motor carrier business gives rise to the uncertainties because, more often than not, the only presence a motor carrier has in the taxing state is pass-through use of the state’s highway system. For example, even though a motor carrier uses a state’s highway system, it may not be incorporated in the taxing state and its legal or commercial domicile may not be in the taxing state. Such uncertainty results in part from diverse statutory and regulatory nexus requirements established by the states and a lack of agreement between the motor carrier industry and the state and local taxing authorities as to what represents a "fairly apportioned tax."

Historically, the United States Supreme Court has given the states wide discretion in determining the parameters of a "fairly apportioned tax." As a result, most states have opted to apportion income from a multi-state business based upon a three-factor formula consisting of in-state to in-state and out-of-state property, payroll and sales.\textsuperscript{16} Nevertheless, in the case of Moorman Mfg. Co. v. Bair,\textsuperscript{17} the Supreme Court allowed Iowa’s single factor apportionment formula, based solely on sales, to stand over taxpayer’s vigorous due process and commerce clause objections. The Court clearly recognized that duplicative taxation might occur where different states use different formulas; but, it continued to adhere to the principle that a state’s apportionment formula will not be disturbed unless the taxpayer has "proved by 'clear and cogent' evidence that the income attributed to the state is in fact 'out of all appropriate proportion to the business transacted . . . in that state,' or has 'led to a grossly distorted result.'"\textsuperscript{18} The Moorman Court concluded by suggesting that Congress resolve the fairly apportioned question. "It is to that body, and not this Court, that the Constitution has committed such policy decisions."\textsuperscript{19}

Other significant distortions in apportionment formulas abound. For

\textsuperscript{16} See Multistate Corporate Tax Almanac at 182-186 (W.A. Raabe ed. 1987).
\textsuperscript{18} Id. at 274.
\textsuperscript{19} Id. at 280.
example, several states use two factor formulas or arbitrarily weigh certain factors all of which tend to favor the state.\textsuperscript{20} \textit{Sjong v. State Dept. of Revenue}\textsuperscript{21} is a case in point. Mr. Sjong, a resident of the state of Washington, was a commercial crab fisherman. His fishing vessel was licensed, registered, and harbored in Washington with Seattle as its designated home port. Sjong fished exclusively in the international waters surrounding Alaska and entered Alaskan ports only for the purpose of selling his catch to local processors and obtaining supplies. Sjong estimated he made no more than 20 to 30 trips into Alaskan ports per year. In applying the standard three-factor formula to his corporate net income, the Department calculated the property factor on the basis of the "port-day" method which consists of a ratio based on the number of days spent in ports inside Alaska to the total number of days spent inside and outside Alaska. The definition of "port-days" excluded idle time between fishing seasons, but included time spent stocking and leaning the vessel, delivering fish, and taking on additional supplies during the fishing season. Mr. Sjong argued that the "voyage-day" method would be a fairer approximation of the property factor because it apportions net income based on the number of days in Alaska to the total number of days inside and outside Alaska. In addition, the Department calculated the payroll factor to be 100 percent based on the contention that the earnings of the fishing crew were directly dependent upon the sale of the crab catch to an Alaskan processor. Mr. Sjong contended that because the property and payroll factors were weighted in favor of the Department, 85 to 92 percent of his income was allocated to Alaska when in fact more than 95 percent of his business activity was outside Alaska. The apportionment method, he argued, was manifestly unfair. Similar to the United States Supreme Court, the \textit{Sjong} court recognized that weighted factors can produce a heavily distorted result, but it stated that "[o]ur task is not to determine whether this formula is the best method of apportioning income, but merely whether it is fairly calculated to assign to the state that portion of net income reasonably attributable to the business done in the state."\textsuperscript{22}

Today the interstate motor carrier industry is faced with the same dilemma as that which existed in the \textit{Sjong} case, the primary difference being the mode of transportation. The interstate motor carrier is faced with a multiplicity of apportionment formulas some of which disproportion-

\textsuperscript{20} For example, West Virginia uses a two-factor formula which includes property and payroll; Colorado uses a two-factor formula which includes property and sales; Missouri allows for a use of a single factor. Other states such as Connecticut, Florida, New York, Ohio and Wisconsin double weight the sales factor. See "Multistate Corporate Tax Almanac," \textit{supra} note 16, at 183.

\textsuperscript{21} 622 P.2d 967 (Alaska 1981).

\textsuperscript{22} \textit{Id.} at 977.
ately weight the property factor and incorporate the use of in-state to out-of-state mileage.

III. Nexus

A number of state courts have accepted the argument that pass-through use of a state’s highways, without additional contact, is sufficient to establish nexus. An Oregon court agreed with the state’s argument that pass through use provides the “economic setting” which contributes towards income production. The same court speculated that the United States Supreme Court would reach the same conclusion. More recently, a Virginia court concluded that “[t]he taxpayer’s use of the Virginia highway system, enjoyment of police protection, and like benefits, are sufficient to furnish the requisite nexus for taxation.” Furthermore, it may not be necessary to quantify the value of the benefit conferred by the taxing state.

It is clear that the primary nexus issue in the motor carrier industry is whether non-stop use of a state’s highways subjects the motor carrier to the taxing jurisdiction of that state. Many states do not have any court decisions dealing with the non-stop use of their highways. They rely upon a combination of administrative rulings or regulations that vary widely from state to state. The result is bound to produce confusion and uncertainty in the motor carrier industry and may lead to industry behavior that produces inefficient, solely tax motivated results. A motor carrier, for example, may decide to extend the length of its route to avoid the possibility of being subject to the taxing jurisdiction of a state.

As seen from a state survey conducted by the authors in Appendix A, the states have taken a variety of positions with respect to motor carrier nexus. On one end of the spectrum are states which have specifically announced, whether by statute, regulation, or ruling, that non-stop use of their highways will not establish nexus. The rationale is that non-stop use does not constitute doing business in the state. For example, an Indiana regulation provides that “[i]ncome from transportation between a point in Indiana and a point outside Indiana, or from outside Indiana into and across the state to a point outside Indiana is not taxable.” However, based upon the benefits conferred argument, there appear to be no Constitutional barriers to states imposing an income tax on pass-through use

26. Ind. Reg. 6-2-1-7(a) (060)a.
of their highways by motor carriers.\textsuperscript{27}

On the other end of the spectrum are states which, primarily through administrative interpretations or rulings, have taken the position that non-stop use of state highways in a regular and continuing manner is sufficient to constitute "doing business" as defined by statute. For example, as noted in Appendix A, Ohio and Minnesota, have recently adopted such a position. Some states indicate that they do not have any cases, rulings, or decisions relating to interstate motor carriers, yet they argue, based upon a literal reading of their statutory definition of "doing business," that non-stop use of their highways is included in that definition. Iowa is such a state. In Iowa, "[t]he term "doing business" is used in a comprehensive sense and include(s) all activities or any transactions for the purpose of financial or pecuniary gain or profit"\textsuperscript{28} (emphasis added).

Somewhere in the middle of the spectrum are states which have adopted a "de minimus" nexus standard such as that recently proposed by the Multistate Tax Commission. Its proposal does not require income apportionment to a state if a trucking company neither:

a. owns nor rents any real or personal property in this state, except mobile property; nor

b. makes any pick-ups or deliveries within this state; nor

c. travels more than 25,000 mobile miles within this state; provided that the
total mobile property miles traveled within this state during the income
tax year does not exceed 3 percent of the total mobile-property miles
traveled in all states by the trucking company during that period; nor

d. makes more than 12 trips into this state.\textsuperscript{29}

As shown on Appendix A, Virginia and Idaho have adopted a similar position with some modification. Virginia, for example, has increased the minimum miles to 50,000 Virginia miles, and the percentage of Virginia miles to total miles to not more than 5 percent. The number of round trips (12) into Virginia is the same.\textsuperscript{30}

Interstate motor carriers who use a state's highways, whether pass-through or otherwise, derive some benefit or economic advantage from that state. At the very least, the state has provided a necessary bridge from one point to another. Therefore, the states generally have by case, statute, regulation, ruling or policy concluded that nexus exists even for limited use of their highway system. (As noted above, even those states

\begin{itemize}
\item \textsuperscript{27} See supra notes 9, 16-18 and accompanying text. Similarly, the Department of Revenue in Pennsylvania has established policy that does not subject to corporate taxation pass through motor carriers but, based upon Complete Auto Transit, Inc. v. Brady, Inc., 430 U.S. 274, 97 S. Ct. 1076, 51 L. Ed. 2d 326, \textit{reh'g denied}, 430 U.S. 976, 97 S. Ct. 1669, 52 L. Ed. 2d 371 (1977), it believes that it has the right to do so.
\item \textsuperscript{28} IAC 730-52.1(1)a.
\item \textsuperscript{29} Multistate Tax Commission Proposed Trucking Regulation, Reg. IV.18.(g).(5)a.
\item \textsuperscript{30} Virginia Reg. § 630-3-417.B.
\end{itemize}
that do not choose to tax such use clearly recognize they have the right to do so.) It seems reasonable to conclude that even though nexus theoretically exists in every case of pass-through use, practical limitations dictate some form of "de minimus" exception. The Multistate Tax Commission ("Multistate") and Virginia approaches are good examples. They serve in part to reduce the tax compliance and other costs for the small or occasional user who would not benefit extensively from the taxing state. On the other hand, the more substantial user presumably receives a larger proportionate benefit for which payment should be made. And at the very least, they establish a definite basis for establishing nexus.

There appears to be no sound rationale for choosing between the Virginia and Multistate "de minimus" standards except for the obvious fact that motor carriers would prefer the former and states the latter. An argument can be made, however, for lower standards in states which have high maintenance costs and relatively extensive road networks and, conversely, higher standards for states which have low maintenance costs and relatively small road networks.

IV. APPORTIONMENT

It is clear from Appendix B that most of the states apportion business income from interstate motor carriers by applying the standard three factor formula (property, payroll and sales). It is also apparent that without modification, even if uniformly applied by all the states, distortion could easily result. For example, as pointed out by the authors of a recent article questioning the use of a three factor formula,

if a company has $1 million of property in State A, $1 million of payroll in State B, and $1 million of sales in State C, it is merely coincidence if one-third . . . of the company’s income is economically "earned" in each state.31

For the motor carrier industry, the problem is magnified because the property and payroll factors are literally mobile and as a result, it becomes difficult to ascertain with any certainty exactly where a company’s income is "economically earned."

To take the characteristics of the motor carrier industry into account, many states have opted for a one factor mileage formula. In Florida, for example, the income attributable to transportation services is apportioned to that state by multiplying the adjusted federal income by a fraction, the numerator of which is the "revenue miles" within Florida and the denominator of which is the "revenue miles" everywhere. Florida defines a revenue mile as the transportation of one passenger or one net ton of freight a

31. See Brown, Leegstra and Looram, Unitary Tax: At the Crossroads?, 3 J. St. Tax 237, 246 (1985) where the authors use the same example and note that "as a measure of productivity (i.e., income) the reasonableness of the formula breaks down when the various steps in the production/distribution/marketing stream are separated.
distance of one mile for consideration.\textsuperscript{32} Using an extreme example, the obvious problem with such a formula is that if a company was headquartered in a neighboring state where all of its property and personnel were located, and 90 percent of its road use was in Florida, Florida would allocate to itself 90 percent of adjusted federal income.

As noted in Appendix B, most of the states apportion interstate motor carrier income based upon a three-factor formula subject to a variety of modifications relating directly to highway use (i.e., revenue miles, freight miles, ton miles or some other term denoting distance traveled). In general, states using the three-factor formula, subject to variations, treat each of the factors as follows:\textsuperscript{33}

\textbf{THE PROPERTY FACTOR}

Fixed properties such as buildings, land, terminal facilities, equipment, and trucks and cars used locally are assigned at cost to the state in which such facilities are located. The cost of movable equipment used in interstate transportation is assigned to the taxing state based upon total miles traveled in the state to total miles traveled everywhere. Rented property is sometimes valued at some multiple of its rental rate. Due to a lack of uniformity many problems are apparent among the states. Two such problems are methods of valuing property (cost, adjusted cost, average cost, fair market value) and the rate at which rented property is to be capitalized if indeed it is to be capitalized (some states and the Multistate Tax Commission Trucking Regulation proposal use a multiple of 8).

\textbf{PAYROLL FACTOR}

Compensation of employees assigned to fixed locations within the state is assigned to that state. Compensation of employees operating interstate transportation equipment is assigned to the taxing state based upon miles traveled in that state in relation to miles traveled everywhere. The Multistate Tax Commission Trucking Regulation proposal divides payroll connected to interstate transportation based upon the "ratio which mobile property miles in the state bear to the total mobile property miles." A "mobile property mile" is defined as "the movement of a unit of mobile property a distance of one mile whether loaded or unloaded."\textsuperscript{34} The states generally do not make a distinction between loaded and unloaded miles.

\textsuperscript{32} FLA. STAT. § 214.72(2)(a).

\textsuperscript{33} For examples of the property, payroll and sales factors discussed below, see for Ohio, Special Instruction 21 to O.R.C. Sections 5733.05 and 5733.07. For Idaho, Idaho Reg. 27.4.18.g. For New Jersey, N.J.A.C. 18:7-8.10. And for Indiana, Inc. Reg. 6-3-2-2(1) (020).

\textsuperscript{34} Multistate Tax Commission Proposed Regulation, Reg. IV.18.(g),(3). (ii).B.3. and 18 IV.18.(g),(3).(ii).c.
SALES FACTOR

The sales factor used by states which apply the three-factor formula appears to be fairly uniform. Revenues from transportation are assigned to a state based on the total miles traveled in that state in relation to total miles traveled everywhere.

At the state level, it appears that use of a three-factor formula modified by miles traveled in the taxing state to miles traveled everywhere is the preferred method of apportioning business income from interstate motor carriers. However, even within that context, distortion can easily occur. For example, different factors are given different weights, property may be valued differently, etc. What is clear is that there is a need perceived by both the states and the business community to resolve this problem. The sentiments of the business community are discussed in the following sections of this article.

V. MOTOR CARRIER VIEWS

SURVEY METHODOLOGY

In April 1987, a questionnaire was mailed to 500 randomly selected motor carriers to ascertain their views about nexus standards, apportionment formulas, and compliance issues. All Class I and II motor carriers of property on file with the ICC, except for the five categories of motor carriage engaged mostly in intrastate operations, constituted the population of interest. The five categories are as follows: dumping, armored service, retail store delivery, local delivery service, and hauling ores (not including coal). Altogether, the carriers excluded represent less than 2 percent of the Class I and II carriers on file.35

A stratified random sample was taken by sorting the population of carriers into the nine American Trucking Association’s regions and then selecting a random sample from each region.36 The proportional allocation method was used to determine the sample size of each group.37 To address the problem of nonresponse bias, a second questionnaire was sent to the carriers that did not respond within the first four weeks.

A total of 134 usable questionnaires were returned for a response rate of 27 percent. The first and second mailings produced 110 and 24 responses, respectively. An analysis of the two sets of responses, which included standard statistical tests, revealed no substantive differences. This result, as well as the exploratory nature of the survey, allays con-

36. Id. at ii-iii.
37. W. MENDENHALL, ELEMENTARY SURVEY SAMPLING 64 (1971).
cerns about nonrespondents having different views and provides the rationale for consolidating both sets of responses for the analysis.

**Findings**

Table 1 presents a profile of operating characteristics for the carriers

<table>
<thead>
<tr>
<th>TABLE 1. PROFILE OF MOTOR CARRIERS SURVEYED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic</td>
</tr>
<tr>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Region</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>Class</td>
</tr>
<tr>
<td>I</td>
</tr>
<tr>
<td>II</td>
</tr>
<tr>
<td>Legal Form</td>
</tr>
<tr>
<td>Common</td>
</tr>
<tr>
<td>Contract</td>
</tr>
<tr>
<td>Commodity</td>
</tr>
<tr>
<td>Agricultural commodities</td>
</tr>
<tr>
<td>Building materials</td>
</tr>
<tr>
<td>Forest products</td>
</tr>
<tr>
<td>General freight</td>
</tr>
<tr>
<td>Heavy machinery</td>
</tr>
<tr>
<td>Household goods</td>
</tr>
<tr>
<td>Liquid petroleum products</td>
</tr>
<tr>
<td>Refrigerated liquidated products</td>
</tr>
<tr>
<td>Refrigerated solid products</td>
</tr>
<tr>
<td>Specific commodities</td>
</tr>
</tbody>
</table>

*Population (N) = 1,812
+ Responses (n') = 134

that responded to the questionnaire in relation to the entire population of carriers. The sample carriers appear to offer a representative cross-section of the different regions, as well as the other groupings shown in the table.

*Importance of the State Income Tax Issue.* Table 2 shows that 80
TABLE 2. HOW IMPORTANT IS THE STATE INCOME/FRANCHISE TAX ISSUE TO YOUR COMPANY?

<table>
<thead>
<tr>
<th>Importance</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely important</td>
<td>36</td>
</tr>
<tr>
<td>Very important</td>
<td>44</td>
</tr>
<tr>
<td>Neither important or unimportant</td>
<td>11</td>
</tr>
<tr>
<td>Not very important</td>
<td>8</td>
</tr>
<tr>
<td>Unimportant</td>
<td>1</td>
</tr>
</tbody>
</table>

percent of the respondents believe the state income/franchise tax issue is either very important or extremely important to their companies. Relatively few (9 percent) indicated the issue was not very important or was unimportant, while the rest of the respondents (11 percent) were neutral.

Despite the importance of this tax issue to the sample carriers, a large majority (79 percent) indicated they would not modify routes to avoid certain states that tax interstate operations. The other 21 percent said they would avoid certain states, citing in particular: Colorado, Illinois, Indiana, Michigan, Montana, Ohio, Pennsylvania, New York, and Virginia. The respondents, however, were almost evenly split (47 percent "yes") on the question of whether the income tax issue is a significant element in planning the location of terminals or the scope of operations.

When the motor carriers were asked if the Multistate Tax Commission "de minimus" standards were acceptable, 53 percent said "yes", 47 percent said "no." None of the respondents criticized the first part of the formula (property). Some carriers recommended changes to the second part (pickup/delivery), but most comments focused on part three (travel).

Several carriers raised strong objections to the use of the word any in the second part of the formula that says "makes any pick-ups or deliveries within this state." These carriers argued that "any" is inconsistent with the notion of "substantial" nexus. For example, only one pickup or delivery should not constitute substantial nexus. It was recommended that pickups or deliveries should exceed a certain threshold to establish nexus, such as 3 percent of the total.

The respondents' comments about the third part of the formula, which addresses the issue of travel in a state, questioned the appropriateness of the travel factor, the measure of travel, and the threshold levels. The respective recommendations included: (1) the elimination of the travel factor altogether, because nexus standards ought to apply only in the states where a carrier has offices and terminals; (2) the substitution of

either ton-miles or revenue-miles for mobile-property miles to obtain a more accurate measure of the level of activity in a state; and (3) the use of higher thresholds for "substantial" nexus—specifically, raising 25,000 mobile property miles in a state to a 100,000 threshold and increasing the 3 percent threshold of total mobile property miles traveled in all states to 5 percent.

**Apportionment.** As previously discussed, the Multistate Tax Commission has recommended a three-factor formula for apportioning business income attributable to a state for tax purposes. The three factors are property, payroll, and sales (revenue).

A slight majority (52 percent) of the respondents found the apportionment formula acceptable and offered no comments. The main thrust of the commentary by the 48 percent of the carriers that responded was to eliminate the three-factor approach and replace it with a simplified mileage type formula. In addition, the respondents voiced several other concerns as follows:

1. The revenue factor would permit multiple taxation of the same revenues. Suppose, for example, that an interstate motor carrier earns $100 for a 500 mile shipment in parts of states A (200 miles) and B (300 miles) and that a 3 percent tax rate exists for both states. Multiple taxation would occur if both states levied the 3 percent tax on the total revenue ($100), rather than first apportioning that revenue, say, in direct proportion to the miles traveled in the state (40 percent for A and 60 percent for B).

2. The use of "pass-through" miles in the measure of mobile property miles will increase the tax level or exposure. This concern appears to involve a misconception. Pass-through miles affect the percentage of the total taxable income apportioned to a state. If all states have the same tax rate, a carrier’s tax liability is not affected by the inclusion or exclusion of pass-through miles. With nonuniform tax rates, the inclusion of pass-through miles in the mileage formula may actually decrease the carrier’s total tax liability. For example, a high proportion of pass-through miles in a state with low tax rates will reduce a carrier’s total tax liability.

3. The revenue taxed by a state should relate directly to the revenue earned in that state and not to the revenue earned outside of that state. For example, windfall earnings generated in State A should not be subject to taxation in State B, unless there is a direct connection between activities in State B and the windfall. The problem, then, is how to measure taxable revenue directly attributable to a state.

4. The mileage formula permits double taxation of operations since carriers pay fees for miles traveled on turnpikes, while also counting those miles in a mileage based apportionment formula. Ordinary citizens,
however, must pay state income taxes, as well as fees, when using turnpikes.

Compliance. The carriers' comments about compliance underscored four key issues. First, the respondents clearly indicated that the lack of uniformity in nexus standards and apportionment formulas was the most important single issue. The specific problem areas cited were: (1) the definition of state taxable income, (2) the difference in filing dates and extensions, and (3) the task of calculating estimated payments.

Second, the respondents expressed reservations about recordkeeping difficulties, especially for (1) measuring and "tracking" intrastate vehicle miles, (2) measuring the value of leased equipment in the property factor when using owner-operators, and (3) keeping separate books. When asked if they keep separate sets of books to distinguish between interstate and intrastate revenues, 53 percent of the carriers said "no" and 47 percent said "yes."

Third, there was concern about the complexity of the three-factor apportionment formula and the lack of uniformity of provisions among the states. Fourth, some respondents thought many small operators would not comply and would escape detection. They noted that enforcement would be difficult for states when dealing with individual truckers or independent contractors.

VI. Conclusions

Recent case law has virtually eliminated previous Constitutional barriers to the imposition of income taxes on interstate motor carriers. As the states have moved into this new tax territory, they have created many different paths to nexus standards and apportionment formulas. The resulting patchwork of standards and formulas is the principal reason why motor carriers identified this as one of the major problems in the state taxation of motor carrier income.

As a number of courts have recognized, the problem can only be resolved by effective legislation that, ideally, will be adopted by all the states. Competing interests—both among the states and between the states and the motor carrier industry—make it unlikely for any legislative model to satisfy all parties. Nonetheless, it appears that all parties are in basic agreement that a reasonable "de minimus" standard is required. It also appears that a three-factor formula is preferred. Regardless of what method or formula is adopted, the key is uniformity, if for no other reasons than to simplify compliance responsibilities, reduce costs, and to create certainty.
APPENDIX A

[The information contained in Appendix A represents a compilation of responses by the states to an "Interstate Motor Carrier State Income/Franchise Tax Questionnaire" prepared by the authors and dated September 30, 1985. The citations and other information presented is as received from the states.]

I. With respect to an out-of-state (foreign) motor carrier, which of the following, if any, is sufficient to establish nexus for purposes of imposing your state income and/or franchise tax:

<table>
<thead>
<tr>
<th></th>
<th>(1) Non-stop (passing-through) use of your state highways</th>
<th>(2) Minimal use of your highways</th>
<th>(3) Interstate pickups and/or deliveries</th>
<th>(4) Intrastate pickups and deliveries in conjunction with interstate activities</th>
<th>(5) Some combination of questions (1)-(4)</th>
<th>(6) Some other activity</th>
<th>(7) Explanations for questions (1)-(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>—</td>
</tr>
<tr>
<td>Alaska</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(5) Any combination of (1)-(4).</td>
</tr>
<tr>
<td>Arizona</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(6) Any activity other than the mere solicitation of orders or passing through on highways.</td>
</tr>
<tr>
<td>Arkansas</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td>California</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>(1)-(4) Depends upon economic rather than physical relationship, i.e., has California provided the economic setting out of which taxpayer can reap a profit.</td>
</tr>
<tr>
<td></td>
<td>(1) Non-stop (passing-through) use of your state highways</td>
<td>(2) Minimal use of your highways</td>
<td>(3) Interstate pickups and/or deliveries</td>
<td>(4) Intra-state pickups and deliveries in conjunction with interstate activities</td>
<td>(5) Some combination of questions (1)-(4)</td>
<td>(6) Some other activity</td>
<td>(7) Explanations for questions (1)-(6)</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------------</td>
<td>------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Colorado</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>(3) Other than in Colorado. (6) Conducting business through a Colorado office.</td>
</tr>
<tr>
<td>Connecticut</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>(3)-(4) Depends on regularity and frequency, and whether done in conjunction with other activities.</td>
</tr>
<tr>
<td>Delaware</td>
<td>No</td>
<td>No</td>
<td>Yes/No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>(3)-(5) Based upon response to a questionnaire where facts and circumstances are evaluated on a case-by-case basis.</td>
</tr>
<tr>
<td>Florida</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>(3)-(4) Pickup and/or deliveries within Georgia.</td>
</tr>
<tr>
<td>Georgia</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>N/A</td>
<td>—</td>
<td>(2) 50,000 or more miles in Idaho or Idaho mileage is 5% or more of total mileage.</td>
</tr>
<tr>
<td>Idaho</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>Yes</td>
<td>(6) Any activity without the scope of 15 U.S.C. Section 381 (Public Law 86-272).</td>
</tr>
<tr>
<td>Illinois</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Non-stop (passing-</td>
<td>(1)</td>
<td>Minimal use</td>
<td>Interstate pickups</td>
<td>Intrastate pickups and/or</td>
<td>Some combination of</td>
<td>Some other</td>
<td>Explanations for</td>
</tr>
<tr>
<td>through) use of</td>
<td>(through) use of your</td>
<td>of your highways</td>
<td>pickup and/or deliveries in</td>
<td>deliveries in conjunction</td>
<td>questions (1)-(4)</td>
<td>activity</td>
<td>questions (1)-(6)</td>
</tr>
<tr>
<td>your state highways</td>
<td>state highways</td>
<td></td>
<td>with interstate activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indiana</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(2)-(3) Taxable for</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>adjusted gross and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>supplemental net</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>income. Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>of minimum miles in (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>not specified. Indiana</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reg. 6-3-2(b)(020) and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6-3-2-2-(1)(020).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4) Taxable for gross,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>adjusted gross and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>supplemental income.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Indiana Reg. 6-2-1-7(a)(060).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iowa</td>
<td>Yes</td>
<td>—</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(1)-(4) Based upon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue determination.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) Non-stop (passing-through) use of your state highways</td>
<td>(2) Minimal use of your highways</td>
<td>(3) Interstate pickups and/or deliveries</td>
<td>(4) Intrastate pickups and deliveries in conjunction with interstate activities</td>
<td>(5) Some combination of questions (1)-(4)</td>
<td>(6) Some other activity</td>
<td>(7) Explanations for questions (1)-(6)</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------------</td>
<td>-------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Kansas</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
<td>(2) Requires interstate motor carrier to avail itself of Kansas services and benefits. The relevant inquiry is whether the carrier actually stopped in Kansas.</td>
</tr>
<tr>
<td>Kentucky</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>(3)-(4) Requires interstate motor carrier to have either: (1) a legal or commercial domicile in Kentucky, or (2) own or lease property or have an employee in Kentucky. The interstate or intrastate pickup or delivery of goods within Kentucky are sufficient to meet the jurisdictional test KRS 141.040.</td>
</tr>
<tr>
<td>Louisiana</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>(5) Any combination.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(1) Non-stop (passing-through) use of your state highways</th>
<th>(2) Minimal use of your highways</th>
<th>(3) Interstate pickups and/or deliveries</th>
<th>(4) Intrastate pickups and deliveries in conjunction with interstate activities</th>
<th>(5) Some combination of questions (1)-(4)</th>
<th>(6) Some other activity</th>
<th>(7) Explanations for questions (1)-(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maine</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>(1), (3), (4)-(5) Yes, if regular or frequent presence in the state as opposed to casual or occasional use of state roads. Regular or frequent is when at least 12 trips are made into Maine in a period of 12 months or less of business operation.</td>
</tr>
<tr>
<td>Maryland</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>(5) Once deliveries or pickups are made, the carrier has established nexus. (6) If the motor carrier owns property in Maryland, and if an individual is soliciting sales in Maryland.</td>
</tr>
<tr>
<td>State</td>
<td>(1) Non-stop (passing-through) use of your state highways</td>
<td>(2) Minimal use of your highways</td>
<td>(3) Interstate pickups and/or deliveries</td>
<td>(4) Intrastate pickups and deliveries in conjunction with interstate activities</td>
<td>(5) Some combination of questions (1)-(4)</td>
<td>(6) Some other activity</td>
<td>(7) Explanations for questions (1)-(6)</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------</td>
<td>---------------------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-------------------------------------------</td>
<td>------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>(5) Owning or renting property such as a warehouse.</td>
</tr>
<tr>
<td>Michigan</td>
<td>—</td>
<td>—</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>(6) Qualifying to carry on or do business in Massachusetts or exercising of the corporate charter MGL Ch. 63 Section 39.</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>N/A</td>
<td>(2) No arbitrary minimum.</td>
</tr>
<tr>
<td>Mississippi</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>(5) Any combination of (1)-(4).</td>
</tr>
<tr>
<td>Missouri</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>(3)-(4) Based upon &quot;doing business&quot; in Mississippi which in part means &quot;(t)he regular rendering of service to clients or customers in Mississippi.&quot; State Tax Commission § 27-7 7-23(D).</td>
</tr>
</tbody>
</table>

(2) No minimum.  
(5)-(6) Varied.
<table>
<thead>
<tr>
<th></th>
<th>(1) Non-stop (passing-through) use of your state highways</th>
<th>(2) Minimal use of your highways</th>
<th>(3) Interstate pickups and/or deliveries</th>
<th>(4) Intrastate pickups and deliveries in conjunction with interstate activities</th>
<th>(5) Some combination of questions (1)-(4)</th>
<th>(6) Some other activity</th>
<th>(7) Explanations for questions (1)-(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montana</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>(2) No minimum total miles requirement.</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>(2) Assumes routine continual contact with Nebraska.</td>
</tr>
<tr>
<td>Nevada</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>(5) Any combination of (1)-(4).</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(6) Any activity in Nebraska from which income is derived unless otherwise exempted by federal statute.</td>
</tr>
<tr>
<td>New Jersey</td>
<td>No</td>
<td>—</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>Does not assess an income or franchise tax.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6) Doing business, employing or owning capital or property or maintaining an office in the state N.J.S.A. 54:10A-2.</td>
</tr>
<tr>
<td></td>
<td>(1) Non-stop (passing-through) use of your state highways</td>
<td>(2) Minimal use of your highways</td>
<td>(3) Interstate pickups and/or deliveries</td>
<td>(4) Intrastate pickups and deliveries in conjunction with interstate activities</td>
<td>(5) Some combination of questions (1)-(4)</td>
<td>(6) Some other activity</td>
<td>(7) Explanations for questions (1)-(6)</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------------</td>
<td>-------------------------------</td>
<td>-----------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>--------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>New Mexico</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>Yes</td>
<td>(1)-(2) If multistate tax commission proposed trucking regulation is approved and adopted, New Mexico would answer questions (1) and (2) yes.</td>
</tr>
<tr>
<td>New York</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>(6) Resident employees maintain warehouse contracting agent, broker or representative within New Mexico, or other facilities within the state.</td>
</tr>
<tr>
<td>North Carolina</td>
<td>—</td>
<td>—</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>(6) Property in state. New York Tax Law Ch. 60, Art. 9, Sec. 183 and 184.</td>
</tr>
<tr>
<td>North Dakota</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>—</td>
</tr>
<tr>
<td>Ohio</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>(1)-(2) Although the question is currently under review, Ohio appears to adopt the position that use of its highways as a &quot;bridge&quot; state probably does not discriminate against interstate commerce. Doing business, or owning or using property in Ohio, or holding a certificate of compliance is sufficient contact. ORS Sec. 5733.01.</td>
</tr>
<tr>
<td>---------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>----</td>
<td>----</td>
<td>(5) If both interstate and intrastate activities are carried on, this would be a sufficient nexus.</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>(6) Where a company utilizes some method of local distribution.</td>
</tr>
</tbody>
</table>
## APPENDIX A (continued)

<table>
<thead>
<tr>
<th></th>
<th>(1) Non-stop (passing-through) use of your state highways</th>
<th>(2) Minimal use of your highways</th>
<th>(3) Interstate pickups and/or deliveries</th>
<th>(4) Intrastate pickups and deliveries in conjunction with interstate activities</th>
<th>(5) Some combination of questions (1)-(4)</th>
<th>(6) Some other activity</th>
<th>(7) Explanations for questions (1)-(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>(1)-(5) Each of these activities would be sufficient to constitute &quot;doing business&quot; in Oregon for income tax purposes. ORS 150-318.020(2).</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>(5) Some combination of nonstop (passing-through) Pennsylvania and either interstate pickups and/or deliveries or intrastate pickups and deliveries in conjunction with interstate activities. 72 P.S. § 7401.</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
<td>—</td>
</tr>
<tr>
<td>South Carolina</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>(6) Terminal located within the state. Does not assess a personal or corporate income tax.</td>
</tr>
<tr>
<td>South Dakota</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>—</td>
</tr>
<tr>
<td>Tennessee</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>(5) Only interstate activities with pickup and delivery in Texas.</td>
</tr>
<tr>
<td>Texas</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(1) Non-stop (passing-through) use of your state highways</td>
<td>(2) Minimal use of your highways</td>
<td>(3) Interstate pickups and/or deliveries</td>
<td>(4) Intrastate pickups and deliveries in conjunction with interstate activities</td>
<td>(5) Some combination of questions (1)-(4)</td>
<td>(6) Some other activity</td>
<td>(7) Explanations for questions (1)-(6)</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------</td>
<td>----------------------------------</td>
<td>-----------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Texas (cont.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utah</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>(2) Mileage important only as it relates to apportionment formula.</td>
</tr>
<tr>
<td>Vermont</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>—</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Virginia</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>(2) Lesser of 50,000 miles or 5% of total miles and no more than twelve round trips into Virginia.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(5) Twelve round trips into Virginia.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6) Ownership of any real or tangible property (except vehicles) located in Virginia Code § 58.1-417, Virginia Reg. § 630-3-417.</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>----------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Non-stop (passing-through) use of your state highways</td>
<td>Minimal use of your highways</td>
<td>Interstate pickups and/or deliveries</td>
<td>Intrastate pickups and deliveries in conjunction with interstate activities</td>
<td>Some combination of questions (1)-(4)</td>
<td>Some other activity</td>
<td>Explanations for questions (1)-(6)</td>
</tr>
<tr>
<td>Washington</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Does not assess an income or franchise tax.</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>(3) As long as there is no originating traffic point, connecting traffic point, terminating traffic point, or transfer to a connecting carrier within the District.</td>
</tr>
<tr>
<td>West Virginia</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>(5) As long as there is an originating traffic point, connecting traffic point, terminating traffic point as transfer to a connecting carrier within the District.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6) Receiving income from District sources.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6) Interstate transportation in conjunction with &quot;minimal activities&quot; in West Virginia.</td>
</tr>
<tr>
<td></td>
<td>(1) Non-stop (passing-through) use of your state highways</td>
<td>(2) Minimal use of your highways</td>
<td>(3) Interstate pickups and/or deliveries</td>
<td>(4) Intrastate pickups and deliveries in conjunction with interstate activities</td>
<td>(5) Some combination of questions (1)- (4)</td>
<td>(6) Some other activity</td>
<td>(7) Explanations for questions (1)-(6)</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>(5) Interstate and intrastate pickups and deliveries. Must exceed minimum standards of Public Law 86-272. Wisconsin Tax Bulletin #36, p. 15. Does not impose any form of income tax.</td>
</tr>
<tr>
<td>Wyoming</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX B

[The information contained in Appendix B represents a compilation of responses by the states to an "Interstate Motor Carrier State Income/Franchise Tax Questionnaire" prepared by the authors and dated September 30, 1985. The citations and other information presented is as received from the states.]

II. If nexus is established, apportionment of total business income from an interstate motor carrier operation is accomplished through:

<table>
<thead>
<tr>
<th></th>
<th>(1) An apportionment which includes:</th>
<th>How Weighted</th>
<th>(2) In-state mileage to total mileage</th>
<th>(3) Some other activity</th>
<th>(4) Comment given for questions (1)-(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Payroll Property Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>Yes Yes Yes</td>
<td>—</td>
<td>Yes</td>
<td>No</td>
<td>(1) Only if all are present.</td>
</tr>
<tr>
<td>Alaska</td>
<td>— — —</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(2) Most frequently used method.</td>
</tr>
<tr>
<td>Arizona</td>
<td>— — —</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Arkansas</td>
<td>Yes Yes Yes</td>
<td>Equally</td>
<td>Yes</td>
<td>(2) When carrier has taxable nexus in Arkansas without situs or tangible assets there.</td>
<td></td>
</tr>
<tr>
<td>California</td>
<td>Yes Yes Yes</td>
<td>Equally</td>
<td>—</td>
<td>(1) Property and payroll factors based upon &quot;ton miles&quot; or &quot;actual miles.&quot; Sales factor based upon &quot;revenue miles&quot; per informal audit guidelines.</td>
<td></td>
</tr>
<tr>
<td>Colorado</td>
<td>Yes Yes Yes</td>
<td>Equally</td>
<td>No</td>
<td>No</td>
<td>(1) Taxpayer can make an election between two formulas: a two factor formula (property and sales) or a three factor formula (payroll, property and sales). C.R.S. 39-22-203.</td>
</tr>
<tr>
<td>State</td>
<td>Payroll</td>
<td>Property</td>
<td>Sales</td>
<td>How Weighted</td>
<td>In-state mileage to total mileage</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>----------</td>
<td>---------</td>
<td>--------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sales Double Weighted</td>
<td>—</td>
</tr>
<tr>
<td>Delaware</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Equally</td>
<td>—</td>
</tr>
<tr>
<td>Florida</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td>Georgia</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Idaho</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>Yes</td>
</tr>
<tr>
<td>Illinois</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Indiana</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Equally</td>
<td>—</td>
</tr>
<tr>
<td>State</td>
<td>Payroll</td>
<td>Property</td>
<td>Sales</td>
<td>How Weighted</td>
<td>In-state mileage to total mileage</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>----------</td>
<td>-------</td>
<td>----------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Iowa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Kansas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Kentucky</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sales Double Weighted</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4) Comment given for questions (1)-(3)</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>----------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payroll</td>
<td>Property</td>
<td>Sales</td>
<td>How Weighted</td>
<td>In-state mileage to total mileage</td>
</tr>
<tr>
<td>Louisiana</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>No</td>
</tr>
<tr>
<td>Maine</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Equally</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) An apportionment which includes:</td>
<td>(2) How Weighted</td>
<td>(3) In-state mileage to total mileage</td>
<td>(4) Some other activity</td>
<td>(5) Comment given for questions</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------</td>
<td>------------------</td>
<td>--------------------------------------</td>
<td>-------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Maryland</td>
<td>Payroll: Yes, Property: Yes, Sales: Yes</td>
<td>Equally</td>
<td>Yes</td>
<td>No</td>
<td>(1)-(2) If substantial property is permanently located in Maryland (terminals, etc.) and there is substantial payroll from Maryland based employees, a three-factor formula is used. If only a small amount of property is permanently located in Maryland and a few employees, a single factor formula based on sales, is used comparing Maryland mileage to total mileage.</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Payroll: Yes, Property: Yes, Sales: Yes</td>
<td>Sales Double</td>
<td>—</td>
<td>—</td>
<td>(1)-(3) There is currently being drafted a regulation that will more reasonably determine taxable income. It is being drafted pursuant to MGL Ch. 63 Sec. 38(j).</td>
</tr>
<tr>
<td>State</td>
<td>(1) Payroll</td>
<td>(1) Property</td>
<td>(1) Sales</td>
<td>(2) How Weighted</td>
<td>(2) In-state mileage to total mileage</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>--------------</td>
<td>-----------</td>
<td>------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mississippi</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>—</td>
<td>Yes</td>
</tr>
<tr>
<td>Missouri</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>Yes</td>
</tr>
<tr>
<td>Montana</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>Yes</td>
</tr>
</tbody>
</table>

(1) Generally, each factor is based upon "miles traveled in Minnesota to miles traveled everywhere."

(2) Mississippi "revenue ton miles" to "total revenue ton miles." Mississippi Regs. - Income Tax 1.27-7-23(7)(k)(3).

(1)-(2) Generally, each factor is based upon "miles traveled within Montana to total miles traveled everywhere." Admin. Rules of Montana 42.16.1229.
### APPENDIX B (continued)

<table>
<thead>
<tr>
<th>(1) An apportionment which includes:</th>
<th>(2) How Weighted</th>
<th>(3) In-state mileage to total mileage</th>
<th>(4) Some other activity</th>
<th>(4) Comment given for questions (1)-(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll</td>
<td>Property</td>
<td>Sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nebraska</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Equally</td>
</tr>
</tbody>
</table>

(2) However, in computing the factors of the apportionment formula, portions of an employee driver's wages and of the value of mobile property, such as a truck, may be assigned to Nebraska based on the number of Nebraska miles to total miles if permission is requested by the taxpayer and permission is granted.

Nevada | N/A | N/A | N/A | N/A | N/A |

Does not assess an income or franchise tax.

New Hampshire | — | — | — | — | — |

New Jersey | Yes | Yes | Yes | Equally | Yes | — |

(2) Receipts factor based upon "revenue miles" in New Jersey to total "revenue miles." N.J.A.C. 18:7-8.10.

New Mexico | Yes | Yes | Yes | Equally | Yes | — |

(2) Used to calculate each of the factors in (1) except for real property owned or rented in New Mexico and for resident employees in which case actual figures are used.
<table>
<thead>
<tr>
<th></th>
<th>(1) An apportionment which includes:</th>
<th>(2) In-state mileage to total mileage</th>
<th>(3) Some other activity</th>
<th>(4) Comment given for questions (1)-(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Payroll</td>
<td>Property</td>
<td>Sales</td>
<td>How Weighted</td>
</tr>
<tr>
<td>New York</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>North Carolina</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>North Dakota</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Equally</td>
</tr>
</tbody>
</table>

(1) The factors are segregated as to mobile and non-mobile. The mileage ratio is applied to drivers' payroll, mobile property, and trucking revenue to assign amounts to North Dakota. Situs payroll, property and sales are added to the amounts determined using the mileage ratio to determine total North Dakota payroll, property and sales, which is then divided by payroll, property and sales everywhere to determine the apportionment factor.
<table>
<thead>
<tr>
<th>State</th>
<th>Payroll</th>
<th>Property</th>
<th>Sales</th>
<th>How Weighted</th>
<th>In-state mileage to total mileage</th>
<th>Some other activity</th>
<th>Comment given for questions (1)-(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sales Double Weighted</td>
<td>Yes</td>
<td>No</td>
<td>(1)-(2) All factors can be based upon &quot;total miles traveled&quot; in state to total miles everywhere. ORS 5733.05, Special Instruction Number 21.</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>Yes</td>
<td>No</td>
<td>(1) Payroll: drivers by mileage; property: interstate transportation property by mileage. Sales: interstate mileage to total mileage.</td>
</tr>
<tr>
<td>Oregon</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Equally</td>
<td>Yes</td>
<td>—</td>
<td>(1)-(2) Based on the proportion of &quot;revenue miles&quot; traveled in Oregon to total &quot;revenue miles.&quot; OAR 150-314. 280(G).</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>—</td>
<td>No</td>
<td>Yes</td>
<td>(3) Total &quot;revenue miles&quot; in Pennsylvania to total &quot;revenue miles&quot; everywhere 72 P.S. 7401(3)(2)(b)(1) (Supp.).</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Equally</td>
<td>No</td>
<td>Yes</td>
<td>(3) Average inbound/outbound revenue.</td>
</tr>
<tr>
<td>South Carolina</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>—</td>
<td>Yes</td>
<td>No</td>
<td>—</td>
</tr>
</tbody>
</table>
### APPENDIX B (continued)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th></th>
<th>(2)</th>
<th></th>
<th>(3)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Payroll</td>
<td>Property</td>
<td>Sales</td>
<td>How Weighted</td>
<td>In-state mileage to total mileage</td>
<td>Some other activity</td>
</tr>
<tr>
<td>South Dakota</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Tennessee</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
### APPENDIX B (continued)

<table>
<thead>
<tr>
<th></th>
<th>(1) An apportionment which includes:</th>
<th>(2) How Weighted</th>
<th>(3) In-state mileage to total mileage</th>
<th>(3) Some other activity</th>
<th>(4) Comment given for questions (1)-(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>Payroll Yes</td>
<td>Property Yes</td>
<td>Sales Yes</td>
<td>Equally</td>
<td>No</td>
</tr>
<tr>
<td>Utah</td>
<td>Payroll Yes</td>
<td>Property Yes</td>
<td>Sales Yes</td>
<td>Equally</td>
<td>Yes</td>
</tr>
<tr>
<td>Vermont</td>
<td>Payroll Yes</td>
<td>Property Yes</td>
<td>Sales Yes</td>
<td>Equally</td>
<td>Yes</td>
</tr>
<tr>
<td>Virginia</td>
<td>Payroll No</td>
<td>Property No</td>
<td>Sales No</td>
<td>—</td>
<td>Yes</td>
</tr>
</tbody>
</table>
## APPENDIX B (continued)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Payroll</td>
<td>Property</td>
<td>Sales</td>
<td>How Weighted</td>
</tr>
<tr>
<td>Washington</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Equally</td>
</tr>
<tr>
<td>West Virginia</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>—</td>
</tr>
<tr>
<td>State</td>
<td>Wisconsin</td>
<td>Wyoming</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>An apportionment which includes:</td>
<td>Payroll</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How Weighted</td>
<td>Sales</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-state mileage to total mileage</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Some other activity

(2) Average of two ratios: first acquired property receipts for carriage in Wisconsin to total gross receipts from carriage in Wisconsin (‘ton miles’ of acquisition); second, property receipts for carriage elsewhere in Wisconsin to total gross receipts from carriage in Wisconsin (‘ton miles’ of in-state travel).

(3) Average of two ratios: first, gross receipts for property from carriage in Wyoming to total gross receipts from carriage everywhere (‘ton miles’ of in-state travel); second, gross receipts for property from carriage elsewhere to total gross receipts from carriage everywhere (‘ton miles’ of in-state travel).

(4) Column given for questions (1)-(3).

(5) Property.
Anti-Competitive Aspects of Airline Ownership of Computerized Reservation Systems

PAM FAIR*

TABLE OF CONTENTS

I. PRIMARY PURPOSES OF THE AIRLINE Deregulation ACT OF 1978 ......................................................... 322
II. EXPANDED CARRIERS AND NEW ENTRANTS .................. 323
III. BENEFITS V. BURDENS OF Deregulation ......................... 323
IV. ECONOMIC CONSIDERATIONS AFTER Deregulation ............ 327
V. ORIGINS AND GROWTH OF CRS VENDORS .......................... 328
VI. CRS TICKETS ISSUED AND BOOKINGS MADE ..................... 329
VII. INCREASED PASSENGER BOOKINGS FOR VENDOR AIRLINES THROUGH SYSTEM BIAS AND VERTICAL INTEGRATION .......... 331
VIII. SCREEN BIAS .......................................................... 333
IX. CONNECTING POINT BIAS .............................................. 334
X. DATABASE BIAS .......................................................... 335
XI. RELEVANT MARKETS AND MARKET CONCENTRATION ............ 336
XII. CRS EXPANSION IN THE UNITED STATES AND ABROAD ........ 340
XIII. POSSIBILITIES FOR REGULATION ................................. 342

* Ms. Fair is a student at the University of Denver College of Law. She will receive her J.D. degree in June 1989. After sitting for the Colorado bar examination in July 1989, Ms. Fair will be associated with the Denver law firm of Pryor, Carney and Johnson, where she has worked for four years, specializing in the area of commercial litigation. Ms. Fair is a private pilot and a former journeyman air traffic controller at the FAA’s En Route Traffic Control Center in Albuquerque, New Mexico.
This article focuses on the contributions that airline ownership of computerized reservation systems ("CRSs") have made and continue to make toward the dominant market positions enjoyed by certain survivors in the post-deregulation domestic airline industry. Also explored will be current attempts—via mergers, consolidations and link-ups—to avoid threatened regulation or divestiture of airline-owned CRSs and to create global CRS alliances.

In order to fully understand the manner in which CRSs have impacted the airline industry, it is necessary to first consider the development of CRSs in relation to deregulation of the airline industry, with particular attention given to the primary policy considerations which fueled the deregulation movement.

I. PRIMARY PURPOSES OF THE AIRLINE DEREGULATION ACT OF 1978

In the hearing and consideration process which subsequently led to passage of the Airline Deregulation Act of 1978, it was generally determined that the system of regulation in effect at that time had encouraged certain practices which allowed for the misallocation of resources in the airline industry. Proponents of deregulation believed that, if allowed to freely flourish through removal of all regulatory constraints, the competitive marketplace would correct the problems which were perceived to exist in the then-existent regulated airline environment. The primary specific perceived short-comings which deregulation and the Act were designed to address and correct were high air fares, carrier inefficiency, limitations on options available to the flying public and the tendency toward excess capacity in which proponents of deregulation believed regulation encouraged the airlines to engage.

The remedy [to problems caused by regulation] is for the [Civil Aeronautics] Board to allow both new and existing firms greater freedom to lower fares and ... to obtain new routes. This freedom should lead the airlines to offer service in fuller planes at substantially lower prices, a form of service that most consumers desire.

The potential and actual problems posed by market concentration in a deregulated airline industry were largely ignored by proponents of deregulation, under the guise of the theory of the contestable market. Under its contestability reasoning, deregulators believed that even a highly concentrated airline market would behave competitively if the significant cost

3. Id. (quoting Senate Subcommittee on Administrative Practice and Procedures, at 3 (Comm. Print 1976)).
barriers to entry and exit were removed. "Deregulators believed regulated industries would become contestable once barriers to entry and curbs on abandoning unprofitable markets were removed." However, the majority of proponents of deregulation apparently failed to comprehend or appreciate the level of creativity to which airline management and their driving competitive forces would rise in the quest for a permanent spot on the deregulated industry's horizon.

II. EXPANDED CARRIERS AND NEW ENTRANTS

The deregulation movement had as its nucleus the application of new economic theories to regulatory practices, which resulted in the widespread notion that the airline industry had become stagnant and inefficient and, as such, required the influx of vast numbers of new and smaller entrants to the market in order to breathe life back into the allegedly ailing industry. As a result of this notion, a major provision of the 1978 Act allowed for phased-in entry of new carriers to the market, and new route authority was freely granted by the Civil Aeronautics Board. In September 1979, for example, the CAB granted new authority to seventeen airlines for new routes serving twenty-one cities. Consequently, intense competition arose among the established trunk carriers, regional carriers, and the new entrants which started from scratch with little capital and used aircraft, but with relatively low labor costs. All of this occurred in an environment in which there were vast differences in the costs of doing business in the industry, with, on the one hand, the established carriers which were accustomed to operating within the safe harbor of CAB protection, and, on the other, aggressive new or expanding carriers determined to establish a competitive edge and to set the air transportation industry on a bold new course.

III. BENEFITS V. BURDENS OF Deregulation

The subject of the present hotly contested debate, after ten years of deregulation in the airline industry, is whether the goals allegedly addressed by deregulation were best served by the lifting of all regulatory restraints on the industry, and whether deregulation has produced the results which were promised by the proponents of deregulation. While

5. Id.
8. Fahy, supra note 6, at 153.
those engaging issues are generally beyond the scope of this article, some significant points on the subject should be noted.

It is generally believed, by deregulation proponents and detractors alike, that deregulation has brought some significant benefits to the traveling public, to airlines able to adapt, to the national economy and to members of the workforce who are willing to work at competitive, albeit perhaps reduced, wages.\textsuperscript{10} It is also generally believed that the operating efficiencies of the airlines that have survived to date have surpassed even the most optimistic predictions made prior to deregulation.\textsuperscript{11}

However, other ills which deregulation was designed to correct, such as high prices, limitations on options and tendencies toward excess capacity have not been comparably improved, and many industry analysts contend that those problems have actually grown worse under deregulation. For instance, while increased competition during the first few years of deregulation did, in fact, bring about lower prices—primarily through the lower fare service offered by new entrants\textsuperscript{12}—the ability of the established carriers to compete at virtually every price level, in addition to offering better service and more amenities, forced many of the new entrants to abandon their no-frills concepts or to withdraw from particular markets or from the system altogether. (Since deregulation, 198 new carriers came into being, but at least 160 carriers have gone out of business.)\textsuperscript{13} And, as pointed out by Melvin A. Brenner in his recent case study on the effects of deregulation, new entrants to the airline industry had their “most favorable ‘window of opportunity’ in the early years of deregulation—before the existing carriers brought labor costs into line, expanded their route networks, or consummated their various mergers. Conditions for new firms will never again be as favorable.”\textsuperscript{14}

While a recent report by the Federal Trade Commission indicates that airline deregulation has saved consumers “$100 billion in the years since it took effect,”\textsuperscript{15} it cannot generally be said that airline prices are lower across the board in 1989 than they were in 1978, although some figures indicate that, viewed on a whole and as compared to the 5.9% annual increase in the consumer price index since 1978, real airline fares in 1987, for instance, were 11.4% below 1978 fares.\textsuperscript{16} It is, indeed, possi-

\begin{thebibliography}{9}
\bibitem{11} Welles, \textit{supra} note 4, at 50.
\bibitem{14} Brenner, \textit{supra} note 12, at 194.
\bibitem{15} Deregulation Said to Save Airline Consumers Billions, Wall St. J., Feb. 9, 1988, at 8, col. 3.
\bibitem{16} Jones, \textit{supra} note 13, at 19.
\end{thebibliography}
ble for today’s traveler to take advantage of tremendous savings in fares, as compared to pre-1978 fares, on those routes and in those fare structures which remain competitive. However, many airlines participating in competitive pricing—which often requires offering seats at prices below the average cost for that airline—have felt compelled to raise prices substantially on less competitive routes in order to compensate for “losses” from competitively priced fares. In fact, according to a study published by the ENO Foundation in 1985, and the study’s updated figures published in 1987, while fares on certain routes may have decreased as much as 20% since 1978, the fares on other non-competitive routes have increased by as much as 200%!

While the accuracy of such figures may be debatable, they are presented in an effort to counterbalance the widely held notion that the majority of post-deregulation fares have gone down.

Despite truly valid indications of genuine savings to the air traveler since deregulation, it is important to consider the potential airline fare structure of the future, since rapid concentration and consolidation of the airline industry has given “rise to the fear of ever-increasing fares.” With the on-going trend toward mergers and further market concentration, incentives for true competition among the remaining few megacarriers will undoubtedly diminish, as each carves out and becomes more content with its share of the industry pie. As Dr. Alfred E. Kahn has so astutely observed, “When you have the same six carriers meeting each other in market after market, there is danger of softer competition.” In such an atmosphere, it seems unlikely that future fares will decrease.

In the area of options offered to the flying public, one benefit since deregulation is the expansion of “single-airline, limited-stop service” between most medium-sized to large cities in the country. However, the airlines’ hub and spoke system and the resulting airline dominance at airport hubs has served to significantly reduce the choices that are available to much of the traveling public, and in many cases has also caused a corresponding increase in fares on exclusive or near-exclusive routes. Julius Maloditis, airline analyst for Salomon Brothers, contends that airline dominance at airport hubs “is the most prominent recent development of airline regulation.” In fact, in a 1987 report by Mr. Maldutis, he noted

---

18. Id. at 196-97.
20. Jones, supra note 13, at 18 (quoting Julius Maloditis of Solomon Brothers).
21. Welles, supra note 4, at 52.
that the 10 most concentrated airports "have one airline that has garnered more than a 66% passenger enplanement share." 24 More recent figures relied on by Melvin A. Brenner indicate that at five principal hub airports, one-carrier domination exceeds 75% of available passengers. 25 (Additional comments by Mr. Maldutis, made in November 1987 before the Senate hearings on deregulating the airline industry, were as follows: "Consumers believe that the industry is characterized by massive delays, lost luggage, surly employees, poorly maintained equipment, unsafe and crowded skies, misleading advertising, unavailability of low fares—the list goes on and on."). 26

Other post-deregulation complaints include those from residents of communities that have completely lost airline service, since those residents are now denied easy access to the deregulated airline system. Between 1978 and 1984, a staggering 114 communities totally lost scheduled air service, while only 23 communities gained such service. 27 At least 410 small communities have suffered the loss of jet airline service 28—a service which may not have been replaced by commuter airlines. In all, estimates are that by 1984, "225 airports had suffered more than a 50 percent decline in available seats, including some 119 airports that lost service completely." 29

With respect to the airlines' pre-deregulation tendency to overschedule and waste excess capacity, this practice "has continued undiminished under deregulation." 30 Most airlines continue to engage in scheduling practices which exhibit the apparent policy decision that high levels of service frequency are more desirable than fewer flights operating at greater passenger capacity. 31

Many extremely significant results of airline deregulation either were not envisioned or were not given proper consideration by those who originally wrestled with the potential benefits and problems facing the industry and the nation prior to deregulation. As Michael E. Levine notes: "[W]e had underestimated the ingenuity of the industry in the search for protection from the rigors of competition. Computer reservation systems, hub-and-spoke route systems, frequent-flyer programs and others all were invented by airlines as ways to find shelter from market forces." 32

24. Id. at 163.
28. Id.
29. Id. at 456.
30. Brenner, supra note 12, at 204.
31. Id.
32. Levine, supra note 10, at 161.
Frequent-flyer programs may have been created in response to new low-cost entrants to the market. But airline size and the established positions of the seasoned carriers in the market at the time of deregulation were marked factors in the development of hub-and-spoke systems and of airline-owned computer reservation systems. Subsequently, the developments of hub-and-spoke systems and of CRSs have had a pronounced effect on the ability of airlines to effectively compete in the deregulated airline environment. Alfred Kahn, one of the most avid promoters and supporters of deregulation, recognized at least by 1986 the “enormous competitive advantage” big carriers have due to the “development and exploitation” of computerized reservation systems.33

The analysis below explores the method by which computer reservation systems have helped the dominant U.S. airlines achieve and maintain their dominant positions in the deregulated airline industry.

IV. ECONOMIC CONSIDERATIONS AFTER Deregulation

To offset some of the economic disadvantages created by the entry of new low-cost carriers into the previously regulated market, after deregulation the more senior carriers turned their attention to their well-established distribution and computerized reservation systems, where they found a competitive advantage over their fledgling rivals. Because of the extensive development of these systems and the wide-spread travel agent contacts and arrangements already established, the older carriers found that they actually had distribution costs which were lower than many of the newcomers.34

However, because of the numerous cooperative agreements—especially with regard to rate regulation—which had existed under CAB regulation, the established carriers discovered that they had, in effect, been forced to subsidize some of the distribution costs of the new and growing carriers with which they now found themselves competing.35 This subsidization took place, according to the established carriers, primarily through the substantial costs which those carriers had borne in developing their CRSs and distribution networks.

As a direct result of the recognition by the major established carriers that their so-called subsidization of new carriers could not continue in the deregulated free market environment, the competitive focal points in the airline industry became the distribution and reservation systems. The shift from route and fare competition to “systems” competition has been a

34. Fahy, supra note 6, at 153.
35. Id.
subtle one, and many industry analysts did not fully grasp until recently the potential for profound impact such a shift would have on the structure of the domestic airline industry. This impact is especially significant in light of the success the older carriers have achieved to date in resisting attempts to re-regulate the industry. And, it is now becoming apparent that airline-owned computer reservation systems will have a tremendous impact on shaping the future of the international air transportation industry.

V. Origins and Growth of CRS Vendors

Computerized reservation systems—which consist of central databases with periodically updated information, feeding to terminals of subscribing travel agencies and carriers—originated as in-house tools with which airlines kept track of internal flight information, schedules, and other data. During the early 1970s, the industry tried but failed to establish a single-industry CRS for use by all travel agent representatives. After the last of such attempts failed in 1976, United, American and TWA began offering their own computer services to travel agents via lease agreements; Eastern and Delta joined the CRS market in 1981.

The current airline-owned CRS vendors in the United States and their systems are:

- **SABRE**, owned by American Airlines, which by most accounts is the world’s largest privately owned computer system;
- **APOLLO/COVIA**, founded by United Airlines, but now owned by United, US Air, and four European carriers—British Airways, Swissair, KLM and Alitalia;
- **PARS Marketing Corp.**, created by Trans World Airline but now owned jointly by TWA and Northwest Airlines, Inc.;
- **System One**, owned by System One Holdings, Inc., a subsidiary of the Texas Air Group (which includes Continental, Eastern and others); and,
- **DATAS II**, owned by Delta Airlines.

A recent joint venture agreement between American and Delta has been reached, in which SABRE and DATAS II will be merged into a new company. Delta will pay American $650 million for participation in the new system, pending Justice Department and Department of Transportation approval. The new system will be marketed as a global CRS, and

---

37. Fahy, *supra* note 6, at 158.
40. Id.
ownership positions will be offered to U.S. airlines with no current CRS interests, and perhaps to foreign carriers and other businesses, at a price of $20 million per 1% share.\textsuperscript{41} The new venture has been valued at approximately $2 billion, and, if approved, will combine SABRE's 37% of the domestic CRS market share with DATAS II's 6%, for control of an estimated 43% of the domestic CRS market.\textsuperscript{42}

\section*{VI. CRS TICKETS ISSUED AND BOOKINGS MADE}

According to figures available as of December 1987, approximately 40\% to 45\% of \textit{all} tickets issued by U.S. travel agents are issued through American's SABRE system, about 33\% are through United's APOLLO system, and 15-16\% of such U.S. tickets issued are through System One.\textsuperscript{43} Of all airline tickets sold in the U.S., at least 57\% are sold through computer reservation systems.\textsuperscript{44} While figures vary, there is little doubt that since deregulation, the percentage of domestic airline tickets issued by travel agents has increased substantially; 1985 figures indicate as much as 86.4\% of all domestic and international tickets issued were issued by travel agents,\textsuperscript{45} and 95\% of U.S. travel agents are "hooked up" to a CRS.\textsuperscript{46}

Most industry estimates concur that travel agency automation systems are responsible for booking approximately 80\% of all airline reservations in the U.S.\textsuperscript{47} Additionally, by virtue of their access to CRSs, travel agents can provide a multitude of other services to travelers, including issuing tickets and boarding passes, making car and hotel reservations, selling package tours and issuing travelers checks and flight insurance. The ramifications of airline ownership of travel-related enterprises, such as hotels and car rental agencies, should become increasingly significant with the realization of the importance of the CRS to the overall travel industry, and with the realization that the \textit{primary tool} of the industry—the CRS—is directly controlled by the actual competitors in the airline and travel industry. These ramifications become even more significant in light of an appreciation for the methods with which a CRS can be biased in favor of its carrier owner or "host vendor." Such are the aspects of the

\begin{thebibliography}{9}
\bibitem{Shifrin1} Shifrin, \textit{supra} note 39, at 94.
\bibitem{Id} \textit{Id.} at 414, n.95.
\bibitem{Shifrin3} Shifrin, \textit{supra} note 43, at 51.
\end{thebibliography}
CRS controversy which most seriously implicate anticompetitive concepts.

Aside from their obvious value as useful industry tools, airline-owned computer reservation systems are "attractive profit centers in their own right."48 The five U.S. carrier-owned systems cost a total of over $1.5 billion to develop, but the healthy return on the investment apparently justifies the cost. It is alleged that American Airlines, for example, earns more from ticket commissions from its CRS than it does from its flight operations.49

The capacity of these systems is equally staggering. According to 1986 figures reported in The Wall Street Journal, American Airlines' SABRE system had at that time 50,000 terminals in 12,000 travel agency offices, containing 17.5 million airline fares, with schedules of 650 airlines around the world and the ability to make reservations on more than 300 of those airlines.50 Since those figures concerning SABRE were reported in 1986, American upgraded its system to include 5 mainframe computers running in parallel, with the capacity to drive over 100,000 terminals.51 Current estimates indicate that the proposed SABRE-DATAS II merger will create a system with 79,600 terminals in approximately 17,000 travel agencies.52 System growth in capacity for processing information is also astounding. For instance, in 1983, United's APOLLO system was processing approximately 400 transactions per second; that same system now handles up to 1,150 transactions per second.53

The typical travel agency office pays a CRS vendor anywhere from $500 to $1,000 per month for rental fees for terminals and printers.54 Those rental fees include all inquiries and reservations made, but the agency additionally pays approximately 10 to 15 cents per unit for ticket and printing costs. The travel agency, on the other hand, derives its income primarily from a percentage commission on airline tickets sold, cars rented and hotel rooms booked. The CRS vendor may also pay an additional flat rate for each flight segment booked through its system.55

"From the beginning, the competition among the airline networks has been one part technological, two or three parts contractual and manipula-

49. Id.
51. Id.
52. Shifrin, supra note 39, at 94.
53. Garretson, United Subsidiary Begins Migration to Distributed Net, P.C. WEEK, Jan. 19, 1988, at C1, C8.
54. Helitiwell, supra note 38, at C4.
55. Id.
tive. Travel agencies have not escaped the manipulative contractual practices of the CRS vendors. In fact, one of the most active legal battlefields in the airline industry at present involves CRS vendor attempts to either enforce contracts with travel agents seeking to switch CRS vendors, or CRS vendor attempts to woo agencies away from current vendors, with incentives such as offers to pay all damages incurred in breaching CRS contracts. (For instance, System One is currently defending more than 80 travel agencies in lawsuits with SABRE or APOLLO/COVIA, as part of System One’s offer to defend agencies when they breach CRS contracts to change to System One.)

The 1984 government rulemaking directed at removing bias from computer reservation systems also addressed CRS-travel agency contractual arrangements, ruling that such contracts longer than five years were not permitted. However, some of the more creative vendors attempted to circumvent the five year contractual cap by forcing agencies to rollover their contracts to new five year terms each time a new piece of equipment was added. Such practices were terminated in the face of threatened government intervention, but the daring practices themselves—and the numerous lawsuits the vendors have brought against travel agencies for breaches and against each other for encouraging those breaches—indicate the airlines’ view of the importance of computer reservation systems to the airlines’ competitive positions in the industry.

VII. INCREASED PASSENGER BOOKINGS FOR VENDOR AIRLINES THROUGH SYSTEM BIAS AND VERTICAL INTEGRATION

Early on in the course of initial leasing by airlines of their CRS services to travel agents, the airlines recognized that such automation of travel agencies would result in increased air transportation business for the CRS vendor/airline. The “special relationship” which developed between the CRS vendor and travel agent resulted in a natural tendency for the agent to make more passenger bookings on flights of its CRS vendor/carryer. Additionally, agents leasing automated systems understandably had more confidence about a CRS vendor’s information concerning

56. Id.
57. Id.
60. Hellwell, supra note 38, at C4.
61. Id.
its own flights.\textsuperscript{63} (The Department of Transportation has dubbed the positive effects of this "ongoing mutually supportive business relationship" the "halo effect.")\textsuperscript{64}

In exploring the potential of travel agents' use of CRSs, vendors and industry analysts began to learn about something which is now commonly known as "system bias." System bias involves the manipulation of flight information on a CRS terminal so that the displayed flight information subtly favors the CRS vendor/carrier's flights.\textsuperscript{65} System bias has been recognized in at least three different forms—screen bias, connecting point bias and database bias. CRS vendors allegedly use bias to increase the number of bookings which are made on their flights.\textsuperscript{66} The Department of Transportation and the Government Accounting Office refer to these additional bookings attributable to airline ownership of a CRS as "incremental revenues" and contend that CRS vendor airlines have "continued to earn substantial incremental revenues even after the CAB's [1984] anti-screen bias rule took effect."\textsuperscript{67}

The air transportation industry is generally composed of three levels or categories of activities: air transportation services, reservation information distribution, and air transportation sales.\textsuperscript{68} An airline-owned CRS represents a vertical integration of air transportation services and reservation information distribution.\textsuperscript{69} Through this type of vertical integration, an air carrier that owns a computer reservation system can favorably influence its competitive advantage in the market by using its information distribution processes (its CRS) to increase its transportation sales and revenues, transferring income from non-CRS vendor airlines to CRS vendor airlines and from minor to major CRS vendor airlines.\textsuperscript{70} The DOT has estimated that system bias, combined with high booking fee charges, results in the transfer of over half a billion dollars annually to the two major

\textsuperscript{63} Id.

\textsuperscript{64} Competition in the Airline Computerized Reservation System Industry; Hearings Before the Subcommittee on Aviation of the House Committee on Public Works and Transportation, 100th Cong., Second Sess. (September 14, 1988) (testimony of Victor S. Rezendes, Associate Director, Government Accounting Office, Resources, Community and Economic Development Division) [hereinafter cited as "1988 Hearings."]

\textsuperscript{65} Saunders, supra note 36, at 180 (citing Review of Airline Deregulation and Sunset of the Civil Aeronautics Board: Hearings Before the Subcommittee on Aviation of the House Committee on Public Works and Transportation, 98th Cong., 1st Sess. 40, 66-77 (1983) [hereinafter cited as "1983 Hearings."]

\textsuperscript{66} Id. at 181.

\textsuperscript{67} 1988 Hearings, supra note 64, at 8.

\textsuperscript{68} Saunders, supra note 36, at 181.

\textsuperscript{69} Cohen, The Antitrust Implications of Airline Deregulation, 28 ANTITRUST BULL. 131, 152 (1982).

\textsuperscript{70} 1988 Hearings, supra note 64, at 8-9.
CRS vendors—SABRE and APOLLO/COVIA. As simply stated recently by the G.A.O. to the Subcommittee on Public Works and Transportation, "[t]he airline that owns a CRS is also able to sell more airline tickets by virtue of its CRS ownership." Therefore, the use of bias in a vertical integration has obvious and sweeping economic and anticompetitive implications.

VIII. SCREEN BIAS

Screen bias is the type of bias which has historically caused the greatest controversy. When searching for flight information, a travel agent can generate several screens of information concerning flights for a particular requested route. While a potential passenger might hope that the agent would review all relevant screens before making a booking recommendation, in practice, it is estimated that 70% to 90% of all bookings are made off the first screen viewed—50% off the first line. Since CRSs can be programmed to ensure that flights of a particular carrier appear first on the screen, CRS vendor/carriers have a tremendous motivation and temptation for making sure that information concerning their own flights appears before all other flight information on their systems. In fact, CRSs can be so drastically manipulated and biased in favor of the vendor's flights that even exact matches of a consumer's request may not appear on the CRS terminal screen ahead of a vendor's flight which does not so closely match. Agents are well aware of such biases, but allegedly may tend to book less desirable flights in order to save time and money.

As previously mentioned, 1984 government rulemaking concerning CRSs was directed at removing bias from the systems. The main thrust of the rule was to attack preferential display formats. The rule prohibits loading the computer display information based on carrier identification, and the rule require CRS vendors to "apply the same standards of care and timeliness to loading information concerning participating carriers as it applies to the loading of its own information." While blatant screen bias undoubtedly decreased after promulgation of the rule, complaints have continued that the two largest vendors—American and United—still

71. Id. at 8.
72. Id. at 5.
73. Saunders, supra note 36, at 180 (citing 1983 Hearings, supra note 65, at 67).
74. Id. at 182.
76. Saunders, supra note 36, at 182.
manipulate their displays to favor their own flights.\textsuperscript{79} In fact, the U.S. District Court for the Central District of California recently denied defendants' motions for summary judgment on Continental Airlines' $1 billion racketeering, mail and wire fraud claims against American and United and their CRSs, which claims allege that American and United preferentially display their own fares and schedules while suppressing those of competitors.\textsuperscript{80}

IX. CONNECTING POINT BIAS

With the explosive growth of the airline hub-and-spoke system, the resulting carrier dominance at particular airports, and increased competition among CRS vendors for travel agent contracts, connecting point bias may be the most influential bias-based tool presently at a CRS vendor's disposal.

Specifically, connecting point bias can be used to design systems so that vendors' hubs are the most prominent or only connecting points displayed, subordinating or ignoring different connecting points of competing carriers.\textsuperscript{81} Screen bias can be overcome by an agent who continues to view additional screens; connecting point bias is virtually undetectable to agents and cannot be avoided in a system in which it is incorporated.\textsuperscript{82}

Connecting points are used, of course, to construct a departure-to-destination flight plan when a non-stop or direct flight is not available. Connecting point bias involves the ability of the CRS vendor to exclude key connecting points which would require booking on another airline. Vendors actively utilizing connecting point bias in their systems use their own major hubs as the primary connecting points for the vast majority of flights, systematically excluding as connecting points the bases and hubs of competing airlines.\textsuperscript{83} No CRS can include all possible connections for every flight, so most CRSs use a limited number of possible connecting points in association with particular departure and arrival points.\textsuperscript{84}

The unwary traveler, seeking to book a connecting flight along a logical geographic route, is potentially at the mercy of a travel agent using a CRS which has incorporated connecting point bias into its system. Neither the traveler nor the travel agent may be aware that both are relying on flight information which is biased in favor of an airline's preferred connecting points. It is quite possible that more logical choices may not be considered for the traveler because bias has caused those choices to

\textsuperscript{79} Helliwell, supra note 38, at C4.
\textsuperscript{80} In Re Air Passenger Computer Reservations Systems Antitrust Litigation, No. MDL 667 ER (C.D. Cal. Feb. 17, 1989.)
\textsuperscript{81} Saunders, supra note 36, at 182-83 (citing 1983 Hearings, supra note 65, at 73).
\textsuperscript{82} Id. at 183.
\textsuperscript{83} Id.
\textsuperscript{84} Id. at 182.
appear in such inferior positions that they may never be viewed by the agent. In such a case, the traveler may simply be informed that no other options exist for connecting flights, other than the ones which favor bookings on the CRS vendor airline.

X. DATABASE BIAS

Database bias involves the withholding of information or the failure to incorporate information into a system's database in a timely fashion, thereby allowing the system to reflect inaccurate information. This sort of bias is the direct result of control over the processing of or failure to process information.

It seems reasonable to assume that the use of database bias has decreased somewhat with the recent widespread availability of direct access to airline databases—a feature which is now commonly offered to travel agents. Direct access, introduced by System One, allows a travel agent to "reach through" its vendor's reservation system to access directly the databases of airlines and to compete in "real time" with agents of that airline. Without direct access to other databases, a travel agent attempting to book a reservation can be "bumped" by another agent attempting to make an identical contemporaneous booking, if the other agent has direct access, or is "directly connected" to the appropriate database. Currently, at least 22 airlines—including all those owning reservation systems—offer the direct access option through System One, which promotes the feature heavily.

With such powerful tools in their hands, it is easy to see why CRS vendor/carriers are so interested in widespread use of their CRSs, to the exclusion of as large a percentage of other CRSs as possible. Without system bias, a carrier will be assured a greater number of bookings on its airline from users of its system, due to a natural tendency to book on the vendor airlines' flights. With system bias, the possibilities for increasing bookings and for securing a competitive advantage in the marketplace are astounding.

* * * * *

It might be assumed that once a CRS vendor's dominance of travel agent users reaches a certain point, monopolization by the vendor would be relatively easy to show. This is not the case, however, due primarily to the ability of vendor/carriers to avoid definitive showings of monopoly or oligopoly in the airline industry via creative manipulation of analyses of

85. id. at 183.
86. Hellwell, supra note 38, at C4.
87. id.
88. id.
not only relevant product markets, but especially of relevant geographic markets.

XI. RELEVANT MARKETS AND MARKET CONCENTRATION

The relevant product market for the CRS industry has been called the "air transportation computer reservation services" market,\textsuperscript{89} despite arguments by American and United that the relevant product market is "airline ticket distribution services."\textsuperscript{90} Valid arguments can be made for both of these views, as well as other product market definitions. However, determinations of market power and concentration in the CRS industry (and in the airline industry in general) do not depend much upon the particular product market definition used. A much more significant impact on determinations of CRS (or airline) market power and concentration result from the application of different definitions of the relevant geographic market. As demonstrated below, drastically differing answers to questions of market concentration are possible depending on whether one views the relevant geographic market as national or regional.

For example, no CRS vendor's share of the "air transportation computer reservation services" market is alarmingly great when viewed on a national basis,\textsuperscript{91} and facially, no great significance attaches to airline ownership of CRSs under such an examination. However, there appears to be a distinct correlation between regions of the country where a CRS vendor offers a large number of flights, and regions of the country where the majority of its CRSs are used.\textsuperscript{92} Therefore, to analyze accurately true CRS market concentration, it may be necessary to define the relevant product market in two ways—in combined air carrier service/computer reservation system terms, and then to view that product market within the confines of regional relevant geographic markets.

In support of such a market analysis, consider the fact that CRS vendors do not even market their systems in geographic areas where they do not have substantial flight activity. Indeed, they normally require at least the prospect of a high volume of sales before they will permit a travel agency to subscribe to their services.\textsuperscript{93} For instance, in Denver, where United has a hub, United's APOLLO/COVIA is responsible for a 76% share of the airline ticket sales market, whereas in the Dallas-Fort Worth area, where American is the dominant air carrier, American's SABRE enjoys a 91% share of the same market.\textsuperscript{94}

\textsuperscript{89} Cohen, supra note 69, at 152.
\textsuperscript{90} Saunders, supra note 36, at 167 n.79.
\textsuperscript{91} Id. at 170.
\textsuperscript{92} Id. at 168; see also Levine, supra note 44, at 464.
\textsuperscript{93} Saunders, supra note 36, at 168.
\textsuperscript{94} 1988 Hearings, supra note 64, at 3-4.
As measured by the traditional anticompetitive yardstick—the Herfindahl-Hirschman Index ("HHI")—one can analyze relevant market statistics (reflected below) on a national basis and conclude that the U.S. airline industry is not overly concentrated. However, an analysis of the same statistics by region or by airport indicates phenomenal concentration in the industry. Consequently, it is puzzling and disturbing that this alternative regional analysis apparently has not been given more careful consideration by government agencies charged with responsibility for overseeing anticompetitive aspects of the airline industry.

According to Department of Transportation figures, the U.S. airline industry for the period 1977-1987 included 27 domestic carriers which operated with a share of 1% or greater in the U.S. markets. And, according to market share broken down by airline based on enplanements at all U.S. airports for the period of 1977-1987, the greatest market share of any one airline for any relevant year was 14.98% (United in 1978). The highest HHI for the entire ten-year period based on enplanements at all airports is 1,303 (1987).

With such figures in mind, consider now the following Department of Transportation categorizations with respect to levels of concentration in the national air system:

— an HHI score below 1,000 indicates little concentration;
— between 1,000 and 1,800 indicates moderate concentration; and
— above 1,800 means there is high concentration.

Obviously, an HHI score of 1,303 (referenced above) as a high figure for the U.S. airline industry from 1977-1987, using a national relevant geographic market definition, would indicate only moderate market concentration under the above DOT categorizations.

However, examination of the HHI by individual airport for the same ten-year period yields incredibly different results. For instance, the lowest HHI for 1987 for any of 50 U.S. airports for which figures were compiled is 1,208 (Las Vegas); the highest HHI is an unbelievable 10,000 (Dallas Love Field, which is almost totally dominated by Southwest Airlines). The weighted average of all HHI figures for all 50 airports for 1987 is 3,531—significantly higher than the DOT’s standard of “above 1,800” which qualifies for the designation of “high concentration.”

Notwithstanding such compelling statistical information which would

96. Id. at 82.
97. Id. at 81.
98. Id.
99. Id. at 131.
100. Id. at 82.
101. Id.
seem to indicate incredible market concentration by region or by airport in the domestic airline industry, air carriers seeking merger approval since deregulation apparently have faced little opposition by the government to the use of a national relevant geographic market definition for purposes of such merger determinations.\textsuperscript{102} Government adoption of a national market definition is perhaps due to the existence in the airline industry of many traditional market definition factors which support use of a national geographic market definition, such as the national planning and operational aspects of the airline business.\textsuperscript{103}

However, the factor which may be most significant to both the government's acceptance of a national market definition for the airline industry and the government's resulting opinion that market concentration levels for merger purposes have been and are acceptable is the Department of Transportation's undying faith in the ability of the free market system to flourish, even in the face of overwhelming anticompetitive activity. ("Faith in the ineluctable benevolence of the free market is most devout at the Transportation Department, the Interstate Commerce Commission; and the Federal Communications Commission, which are charged with overseeing the process of deregulation.")\textsuperscript{104}

Salomon's Julius Maldutis goes so far as to suggest that use of a national market definition has led (or permitted) the Department of Justice (in its previous advisory capacity to the DOT in airline merger matters) to misapply the Herfindahl-Hirschman Index to all previously approved post-deregulation airline merger determinations, resulting in reliance on erroneous information about the true levels of market concentration which existed at the times all such mergers were approved.\textsuperscript{105} As Mr. Maldutis told a recent Senate committee studying the effects of air carrier mergers on the airline deregulation picture, [it is] "very tempting to say that no mergers should have been approved," due to the already high levels of concentration in the airline industry.\textsuperscript{106}

Under a national market definition, the market shares for CRS vendors are relatively low,\textsuperscript{107} and undoubtedly fall short of a finding of monopoly power under traditional monopoly tests.\textsuperscript{108} While market share figures for CRS vendors change dramatically under a regional market analysis (Department of Justice figures from over three years ago indicate that there were 29 urban areas were a CRS vendor had more than a 40%

\textsuperscript{102} See, e.g., Flint, supra note 95, at 84.
\textsuperscript{104} Welles, supra note 4, at 51.
\textsuperscript{105} Flint, supra note 95, at 84.
\textsuperscript{106} Id.
\textsuperscript{107} Saunders, supra note 36, at 170; see also, 1988 Hearings, supra note 64, at 3.
\textsuperscript{108} United States v. Aluminum Company of America, 148 F.2d 416 (2nd Cir. 1945).
Anti-Competitive Aspects

share of the market, with a 70% market share for one CRS vendor in at least five of those same areas)—it is likewise unlikely that regional CRS market concentrations would satisfy the test for a showing of monopoly power.

Nevertheless, serious study and consideration are undoubtedly warranted into the effects of high regional market air carrier concentration, and high airline-owned CRS concentration in corresponding regional markets. Findings made from such study and consideration should give even the most fervent airline deregulation proponent cause for at least a modicum of concern as to the wisdom of the last few years of regulatory decisions which impacted the airline industry. When high levels of regional concentration are coupled with the significant barriers to entry in the present airline industry—which are so great that only one new air carrier entrant, People Express, was able to gain more than a 1% share of the market since deregulation—the realistic prospects for future healthy growth and competition in the airline industry are bleak, especially if the current practices of anticompetitive activity through airline-owned computer reservation systems are allowed to continue unchecked.

As a matter of independent consideration, totally separate from antitrust considerations, the potential effect of a highly concentrated regional airline market on the relevant region and/or community should also be examined from the point of view of that region or community, due to the potential for harm to the community which could result from the presence of a dominant air carrier in the region.

Other industries, even when comprised of only a few large firms, do not usually end up with a one-supplier monopoly in specific local markets. But this can happen in air transportation.

Moreover, because of the nature of transportation, a local monopoly can do greater harm to a community than could a local monopoly in some other industry. This is because transportation is a basic part of the economic/social/cultural infrastructure, which affects the efficiency of all other business activities in a community and the quality of life of its residents. The ability of a city to retain existing industries, and attract new ones, is uniquely dependent upon the adequacy, convenience, and reasonable pricing of its airline service.

As of January 1, 1989, jurisdiction over airline antitrust matters shifted from the DOT to the Department of Justice, although DOT retains jurisdiction over CRS issues. It remains to be seen whether or not the

111. Welles, supra note 4, at 53.
Department of Justice will take a different, tougher approach than did the DOT in policy making decisions and in other activities which address anti-trust issues in the deregulated airline industry. With the G.A.O. currently studying approximately 15 airports where one airline has more than a 60% market share, or where two airlines have more than an 85% market share, and with Department of Justice economists studying airline concentration and its possible impact on fares, the methodology for such analyses will probably be the same, "[b]ut the conclusions could differ."114

XII. CRS EXPANSION IN THE UNITED STATES AND ABROAD

The increasing scrutiny of airline mergers, market concentration factors and airline ownership of CRSs which has taken place over the last few years has undoubtedly impacted the tactics employed by CRS owners in recent maneuverings occurring and alliances forming in the airline CRS world. Airline CRS expansion has manifested itself in a wide variety of forms recently. For instance, while CRS vendors seem to be constantly updating their systems in order to improve and expand capacities for functioning as reservation systems, some vendors have also begun to explore other possibilities for uses of the systems. United, for example, through its information systems subsidiary, Covia, Corp., has begun to integrate all its systems, such as baggage handling and flight planning, as well as flight, hotel and car reservations provided through APOLLO, into the vast and advanced APOLLO/COVIA distributed network.115 This undertaking by United is requiring the replacement of approximately 60,000 terminals used by travel agents subscribing to APOLLO.116

SABRE meanwhile has developed its own integrated PC software, which runs on IBM hardware, for use by travel agents subscribing to SABRE. SABRE hopes to sell as many as 50,000 copies of the software, which is called SabreWorks.117 A similar user-friendly subscription travel service—EAASY SABRE—is also available to PC owners through most public networks, allowing individual travelers to join travel clubs and to book their own air, hotel and car rentals.118

And PARS, with an aggressive marketing campaign, has recently begun offering to subscribers additional services such as a geographic information database, information on international educational, cultural and social exchange programs, world-wide luxury motor home rentals, and

114. Id. at 89-90 (quoting the Justice Department’s Gloria Hurdle).
116. Id.
bookings of temporary office and conference facilities for business travelers.\footnote{119}

However, without doubt, the area of CRS expansion which encompasses the most formidable and aggressive activity by domestic vendor/carriers is their all out push to penetrate and perhaps set the pace for the European and Far Eastern computer reservation systems markets. The U.S.-European battle has been termed a "dogfight," with the possibility of enormous spoils or gains.\footnote{120} Until recently, European national airlines working in alliances formed to protect themselves\footnote{121} had been successful in holding back the push by U.S. airlines to significantly penetrate the European CRS market.\footnote{122} American Airlines, furious over what it considered restrictive practices, sued British Airways for allegedly restricting American from the United Kingdom's CRS market.\footnote{123} American and British Airways recently settled their dispute privately, with DOT approval, to the dismay of other U.S. carriers that feared their own competitive positions in the European market would be undermined by American's then-developing relationship with British Airways and by America's agreement to provide British Airways with valuable information on U.S. CRS practices in exchange for a market position in the United Kingdom and in Europe.\footnote{124} Perhaps in response to fears of that developing alliance, United last year sold 49.9% of COVIA to the USAir Group, Inc. and to the four European airlines (British Airways, KLM, Swissair and Alitalia) that make up Galileo, one of the two European CRSs.\footnote{125} (Additional shareholders in Galileo include Aer Lingus, Austrian Airlines, Olympic Airways, Sabena and TAP Air Portugal.)\footnote{126} Galileo originally estimated that it would spend $120 million developing its system and projected hook-up of existing member databases to a central system by mid-1989.\footnote{127}

The other European CRS group is called Amadeus, with its head office in Madrid, development facilities in Nice and operations center in Munich.\footnote{128} Amadeus plans on spending $270 million to bring its centralized
system on-line by July of 1989. Amadeus' primary partners are Air France, Iberia, Lufthansa and SAS, and the Amadeus system is incorporating System One software into its development.

Just as the U.S. airlines failed to do years ago, the 21 member Association of European Airlines failed to agree on the development of a single European air carrier computerized reservation system. The formation of the two above-referenced separate European CRS groups is the result of that failure.

Despite initial facially cooperative agreements by U.S. carriers, seemingly directed at development of separate European reservation systems, it now appears that U.S. CRS vendors intended to penetrate the European market with their own systems as quickly as possible, before the Europeans and British had time to fully develop their systems. In fact, some industry analysts envision a PARs and System One merger, and a move toward the creation of three worldwide systems—

COVIA/Galileo;
System One/PARS/Amadeus, along with Abacus in Asia (Cathay Pacific, Singapore Airlines, and China, Malaysian and Philippine Airlines), and Gemini in Canada; and
SABRE/DATAS II and some sort of Pacific alliance with Japan Air Line and Qantas.

If this is true, Europe, Asia and the Pacific will merely be different battlegrounds on which the U.S. carrier/vendors will wage the same wars they have waged against each other at home, since the obstacles to CRS competition and barriers to entry for the CRS market which are posed by the sophisticated U.S. systems do not change significantly with the crossing of territorial boundaries. The recent activities toward consolidation by the major CRS vendors supports such a view and brings the air carrier industry closer to the day of the global airline reservation system.

XIII. POSSIBILITIES FOR REGULATION

While airline bashing has become a popular and lively activity on Capitol Hill and in most segments of the country as well, few seriously recommend a return to the day of full regulation of the airline industry. As Michael E. Levine has observed:

We should not attempt to scourge the industry by antitrust fire and storm in

129. Id.
131. Etheridge, supra note 48, at 84-4.
132. Id. at 84-5.
order to create the utopian world of perfect competition many of us hoped for.

. . . [A] sensible response to the deregulated world would accept generally that deregulation has made the airline system very much better, in particular ways that have surprised us all, while also recognizing that those improvements have been brought at the expense of a new set of problems, at least a few of which may be amenable to correction.\footnote{134}

Areas of the airline industry which most directly impact consumer protection issues will undoubtedly be the first areas to which reregulation or closer government supervision are directed, if that does in fact occur. For instance, recent government requirements concerning airline participation in a flight on-time/delay reporting procedure may be one of the first steps in that direction. Procedures for monitoring airframe safety inspections, gathering information, supervising and/or correcting problems in the areas of labor protection and lay-offs after mergers, flight cancellations and lost baggage can also be expected.\footnote{135}

As previously mentioned, an on-going formal DOT investigation is taking place to consider problems with carrier-owned computer reservation systems,\footnote{136} but other indications are that Congress is seriously considering or has already decided to force carriers to divest the systems.\footnote{137} Ironically, fears of reregulation or forced divestiture of CRSs may have encouraged U.S. CRS vendors to step-up plans for CRS mergers and involvement in global systems. This may in turn create an environment even more anticompetitive than reregulation proponents could have imagined. Nonetheless, any reluctance to reregulate the industry in some fashion has apparently been waning on Capitol Hill, as Senate Commerce Committee Chairman Ernest Hollings expressed earlier last year: "If our hearings lead us to the conclusion that we must act on some form of reregulation—then we will not hesitate."\footnote{138}

The need for some sort of closer and more careful supervision of or direction to the airline industry is apparent. The question is whether Congress and the appropriate agencies will be able to address the problems of the industry quickly and effectively, without engaging in emotional, knee-jerk reactions which sacrifice long-term and rational solutions to larger problems, in exchange for immediate attention to and results in areas of lesser importance. Additionally, the ability of the FAA to effectively solve its dilemmas in the areas of the aging domestic fleet, air traffic control, airport expansions and overall safety issues will directly affect the success or failure of increased industry supervision or reregulation.

\footnote{134} Levine, \textit{supra} note 22, at 162-63.  
\footnote{135} Jones, \textit{supra} note 25, at 18.  
\footnote{137} Jones, \textit{supra} note 25, at 18.  
\footnote{138} \textit{id}.
Perhaps more importantly, government and industry analysts' divergent views of the benefits and burdens flowing from deregulation of the airline industry will weigh heavily in determinations concerning areas of the industry which call for reregulation. Simply stated by a DOT spokesman recently, "Depending on one's point-of-view regarding [specific areas of industry concern], deregulation is either succeeding or failing." 139

139. Scocozza, supra note 136.
Essay

Air Service to Small Communities
Since Deregulation

CELESTE R. GAMACHE*

TABLE OF CONTENTS

I. INTRODUCTION .............................................. 345
II. REGULATION OF AIRLINES PRIOR TO THE ADA .......... 346
III. THE AIRLINE Deregulation ACT OF 1978 ............... 347
   A. CONCERNS AND PREDICTIONS ......................... 347
   B. SMALL Community AIR SERVICE ..................... 350
IV. THE EFFECT OF THE ADA ON SMALL COMMUNITIES ....... 352
   A. REPLACEMENT Service ............................... 353
   B. DEPARTURES VS. SEATS ............................ 354
   C. COMMUTER Service ................................ 355
V. OLD Problems, NEW Provisions .......................... 357
VI. CONCLUSION .............................................. 358

I. INTRODUCTION

The three most important industries to the growth of a societal infrastructure are transportation, communication and energy.¹ For any society to flourish, it must first have a solid infrastructure to support it. The economic growth of a society is particularly dependent on a reliable transportation system. Senator Jim Sasser recently pointed out:

[1]In the 19th century... if you lived in an area of water or river transportation, you flourished. Along came the railroad and it appeared to have the power of economic life or death over cities...

Now, a strong case can be made that air service has the same impact

* Ms. Gamache is a June 1989 graduate of the University of Denver College of Law. She is a private pilot, a member of the Lawyer-Pilots Bar Association and the Civil Air Patrol.
on economic development of a region that river traffic or rail access had in an earlier era.2

Because of the importance of transportation in our society, the government first regulated this industry in 1887 with the Act to Regulate Commerce. This legislation gave the newly formed Interstate Commerce Commission jurisdiction to regulate the railroads and protect consumers against price and service discrimination.3 Thus, transportation was the first industry to be regulated and now has been the first industry to be significantly deregulated. The Airline Deregulation Act of 1978 (ADA)4 was implemented to reduce governmental regulation and place "maximum reliance on competitive forces and on actual and potential competition. . . ."5 One of the most controversial issues of airline deregulation was its potential impact on small communities.

This paper will briefly examine the experience of small communities' air service. Specifically, it will examine (1) regulation prior to the ADA, (2) sections of the ADA devoted to small community service, (3) the impact the ADA has had on small community service.

II. REGULATION OF AIRLINES PRIOR TO THE ADA

The origin of airline regulation was the Civil Aeronautics Act of 1938.6 A major aspect of this Act was to create a new agency, the Civil Aeronautics Administration, which was later renamed the Civil Aeronautics Board (CAB). The CAB was given the authority to regulate all commercial activities of interstate air carriers, including entry into the industry, rates, fares, safety and subsidy payments to promote civil aviation. The regulations were not designed to promote competition which would allow the CAB "to foster sound economic conditions in air transportation, promote adequate economical and efficient service by air carriers at reasonable charges and develop competition to the extent necessary to assure the sound development of an air transportation system."7 The regulatory scheme set out by the CAB was basically unchanged for forty years until deregulation.8 The Federal Aviation Act of 1958 reaffirmed the role of the CAB and

3. P. DEMPSEY & W. THOMS, supra note 1, at 11.
8. id. at 5.
created another new agency, the Federal Aviation Administration (FAA). The FAA took over the safety functions of the CAB.

The Civil Aeronautics Act of 1938 provided for a subsidy program to facilitate service to small communities. This subsidy program was initially to facilitate mail service, not passenger service. Later, it became evident that this subsidy was as much for passenger service as it was for mail service. In the Federal Aviation Act of 1958, the subsidies for mail and passengers were separated. Under Section 406, a local service carrier subsidy was implemented to insure the continuation of passenger service to small communities.

The intrastate commuter air carriers were not subject to the regulations of the CAB. This also meant they were not eligible for the subsidy under Section 406. As interstate airlines procured larger and larger aircraft, it became less profitable to serve small communities. As the large airlines left these markets, the intrastate commuters filled the gap. The use of the smaller aircraft by commuters was more economical in these markets than the larger aircraft. The success of a few commuter airlines was part of the impetus for some of the provisions in the ADA.

III. THE AIRLINE DEREGULATION ACT OF 1978

The small communities were very vocal in their opposition to the ADA. Many concerned citizens testified before legislative committees on their fears of losing air service and the adverse impact it would have on their communities. The supporters of deregulation countered that the ADA adequately addressed these fears and contained sufficient provisions to insure continued service to small communities.

A. CONCERNS AND PREDICTIONS

During the legislative hearings on the ADA, much attention was focused on the small, intrastate carriers in California, Florida and Texas. These carriers, which were not subject to CAB regulation, were able to offer service at approximately half of what the interstate carriers were required to charge. But, these examples did not calm the fears of small communities worried about deterioration in service as a result of the ADA.

---

12. Id. at 738 (Section 406).
The small communities were concerned the airlines would be attracted to the large, more profitable markets

'like sharks to the smell of blood.' This would undermine one of economic regulation's most important objective—that companies cross-subsidized losses incurred in serving rural or small users of the service with profits earned from more lucrative market opportunities, so as to ensure that the largest number of consumers enjoy access to the system at a reasonable price.\(^{15}\)

The small communities argued that when the airlines moved into these larger markets, they would compete for passengers primarily by reducing fares. As fares dropped, there would be less money available to cross-subsidize the routes to the small communities. With this reduction in profits due to the increased competition in the large markets, the airlines would cut service or abandon their less profitable service to small communities.\(^{16}\)

Opponents of deregulation took this a step further and argued the price competitions could lead to predatory pricing.\(^{17}\) One airline would continue to lower fares, forcing the competitors to follow suit. This has been described as a "bleeding contest,"\(^{18}\) where the competitors hemorrhage dollars to lower fares and attract passengers. This destructive competition would cause airlines to abandon routes or file bankruptcy. With all competition wiped out, the remaining airline could then charge monopolistic prices.

The supporters of deregulation downplayed the fears voiced by the small communities. Senator Edward Kennedy characterized the fear of losing service to small communities as a "red herring strewn along the path to reform."\(^{19}\) The supporters felt the increased competition would be in the public interest. Prior to deregulation, planes were flying almost fifty percent empty. The supporters contended lower fares due to the increased competition would result in fuller planes. Therefore, the airlines would not lose their profits or go into bankruptcy as predicted by the opponents. Lower fares in the large markets also were predicted to increase the demand for air travel to and from the small communities, thus the service to those communities should increase, not decrease.\(^{20}\)


\(^{16}\) Id. at 155.


\(^{18}\) S. TOLCHIN & M. TOLCHIN, DISMANTLING AMERICA: THE RUSH TO DEREGULATE 243 (1983) [hereinafter S. TOLCHIN & M. TOLCHIN].


\(^{20}\) Hearings on the Oversight of the Civil Aeronautics Board Practices and Procedures
Air Service to Small Communities

The supporters of deregulation believed that the predatory pricing would be impossible under deregulation because predatory pricing is only successful if a competitor, once driven out of the market, would not reenter it. Since aircraft are mobile, carriers could reenter new markets at will. This threat of new competition would keep the airlines from raising prices to predatory levels. Supporters of deregulation felt there were no "economics of scale" in the airline industry so there was nothing to prevent the small carriers from competing with the large carriers.

The cross-subsidization argument advanced by the opponents of deregulation was not accepted by the supporters of deregulation. The supporters felt that there was not a significant amount of cross-subsidization taking place and was only a "smokescreen" used by the large airlines. Their argument was that large airlines were losing very little in the small markets while regulation was maintaining artificially high fares in the large markets creating windfalls for the large airlines. The supporters of deregulation also argued that the Section 406 subsidy program was not effective in protecting air service to small communities because it did not guarantee service. The ADA, on the other hand, does guarantee service and so would serve the interests of the small communities.

Even if the major carriers left the small markets, Congress would encourage the use of commuters as replacements for small communities through the subsidy program under Section 419 of the ADA. It was felt the small commuter airlines could better serve small communities. The small, commuter aircraft would be more fuel efficient than the larger aircraft. Since the commuters use smaller aircraft, they would fill a higher percentage of their aircraft per flight, covering more of their costs. Therefore, commuters would need less of a subsidy to serve the small communities. The CAB estimated if all subsidized service was transferred to commuter airlines, the annual subsidy cost after seven years would be reduced to $21 million from the $77 million of 1977.

---

22. Any cost advantages enjoyed by the large carriers because of their size are offset by the increased costs and inflexibility of managing a large, complex system. Meyer, supra note 16, at 157 n.35.
24. Id.
B. SMALL COMMUNITY AIR SERVICE

Section 419 of the ADA is devoted specifically to maintaining service to small communities.\textsuperscript{28} The policy statement of the ADA states there will be a "maintenance of a comprehensive and convenient system of continuous scheduled interstate . . . service for small communities and for isolated areas in the United States, with direct Federal assistance where appropriate."\textsuperscript{29} The ADA guarantees essential air transportation to all eligible points\textsuperscript{30} for ten years which began on October 24, 1978.\textsuperscript{31} Essential air transportation is defined as:

scheduled air transportation of persons to a point provided under such criteria as the Board (Civil Aeronautics Board) determines satisfies the needs of the community concerned for air transportation to one or more communities of interest and insures access to the Nation's air transportation system at rates, fares and charges which are not unjust, unreasonable, unjustly discriminatory, unduly preferential, or unduly prejudicial. . . .\textsuperscript{32}

The minimum level of service was set at two round trips, five days per week, or the level of service provided by air carriers to such point based on the schedules of such air carriers in effect in 1977, whichever is less.\textsuperscript{33} The guidelines set by the CAB to determine essential air transportation include: the number of designated hubs, specific airports, equipment, frequency of flights, maximum available capacity to be guaranteed by the Board, time of flights, number of stops permitted, load factor standard and overflights.\textsuperscript{34} In determining which hub is serviced, the CAB will consider: the extent to which the hubs provide access to the national air transportation system; the commercial, geographic, and political ties of the hubs to the eligible point; the traffic levels to the hubs; the distance of the hubs from the eligible point; and the size of the hubs.\textsuperscript{35} If an eligible point has ties to two hubs, service to both hubs may be approved, but in no case will essential air service be to more than two hubs.\textsuperscript{36} The CAB does not require any specific type of aircraft, but does require the aircraft to have two engines and be operated by two pilots, meet FAA safety standards and be sufficient to accommodate the passengers and baggage at the eligible point.\textsuperscript{37}

\begin{itemize}
  \item \textsuperscript{28} 49 U.S.C. § 1389 (1982).
  \item \textsuperscript{29} 49 U.S.C. § 1302(a)(8) (1982).
  \item \textsuperscript{31} 49 U.S.C. § 1389(a)(3)(B) (1982). Section 419 has been amended by Pub. L. No. 100-223, Title II, § 202(b)(1), 101 Stat. 1508, effective October 1, 1988. These amendments will be discussed later in the paper.
  \item \textsuperscript{32} 49 U.S.C. § 1389(f) (1982).
  \item \textsuperscript{33} 49 U.S.C. § 1389(f)(1) (1982).
  \item \textsuperscript{34} 14 C.F.R. § 388 (1988).
  \item \textsuperscript{35} 14 C.F.R. § 388.2 (1988).
  \item \textsuperscript{36} Id.
  \item \textsuperscript{37} 14 C.F.R. § 398.4 (1988).
\end{itemize}
Prior to termination, suspension or reduction to an eligible point, any certified or subsidized carrier must give ninety days notice to the CAB (now the DOT). If the carrier is not certified or subsidized, then it is required to give only a thirty day notice to the CAB prior to exit. If the termination or reduction of service by a carrier would cause the level of service to the community to drop below the point previously determined to be essential, then the carrier will not be allowed to terminate or reduce service. The carrier will be required to continue to serve the community while the CAB searches for a replacement carrier. If a replacement carrier has not been found at the end of the notice period, the CAB shall require the carrier to continue to serve the community for another thirty days. The CAB may continue to require the carrier to serve the community for subsequent thirty day periods until a replacement carrier is found. If a carrier is required to continue service beyond the thirty or ninety day notice period, the carrier will be compensated for any losses incurred in continuing service while the search for a replacement carrier continues.

After January 1, 1983, a carrier may file an application to replace a

38. 49 U.S.C. § 1389(a)(3)(A) (1982). This section provides:
No air carrier shall terminate, suspend, or reduce air transportation to any eligible point below the level of essential air transportation established by the Board . . . unless such air carrier—(A) if such air carrier—(i) holds a certificate . . . , or (ii) does not hold such a certificate, but is receiving compensation . . . has given the Board, the appropriate State agency or agencies, and the communities affected at least ninety days notice prior to such termination, suspension, or reduction. . . .

Id. The ADA contained a sunset provision, 49 U.S.C. § 1551(b)(1)(E) (1982 & Supp. IV 1986), whereby most of the CAB’s authority was transferred to the Department of Transportation on January 1, 1985. Any reference to CAB action in this paper has now been transferred to the DOT.

if such air carrier does not hold such a certificate and is not receiving compensation . . . has given the Board, the appropriate State agency or agencies, and the communities affected at least thirty days notice prior to such termination, suspension, or reduction.

Id.

40. 49 U.S.C. § 1389(a)(6) (1982). This section provides:
[i]f an air carrier has provided notice to the Board . . . of such air carrier’s intention to suspend, terminate, or reduce service to any eligible point below the level of essential air transportation to such point, and if at the conclusion of the applicable period of notice the Board has not been able to find another air carrier which provided such notice to continue such service to such point for an addition 30-day period, or until another air carrier has begun to provide essential air transportation to such point, whichever first occurs. If at the end of such 30-day period the Board determines that no other air carrier can be secured to point essential air transportation to such eligible point on a continuing basis, either with or without compensation, then the Board shall extend such requirement for such additional 30-day periods . . . as may be necessary to continue air transportation. . . .

Id.

subsidized carrier, either under the old or ongoing program, to any eligible point. The applicant carrier must show the granting of its application will result in substantial improvement in air transportation or decrease the amount of compensation required to continue service to the eligible point. Great weight will also be given to the opinions of the communities affected.

Under the ADA, commuter airlines, which were formerly exempt from CAB regulation, were brought under the regulation of the CAB and, of course, eligible for the subsidy. The commuters also were required to conform to the safety standards set by the FAA.

IV. THE EFFECT OF THE ADA ON SMALL COMMUNITIES

Many of the provisions of the ADA were designed to insure the continuation of service to small communities, but this has not been enough. Since deregulation, many of the major trunk line carriers "are dropping unprofitable 'puddle jumps' to concentrate on the big-buck, long-haul business." In the years since the passage of the ADA, the fears expressed by small communities prior to the ADA seem to have been justified. Deregulation has been described as a "natural experiment;" a natural experiment which has "shot down more planes than the Red Baron." For example, prior to deregulation, the CAB would deny an abandonment by a carrier only if it felt it was not in the public interest. Between 1960 and 1975, the CAB approved only 173 abandonments, or 9.6 per year. In the first two years of deregulation, abandonments rose to more than 50 per year. But, since deregulation, a CAB report estimated that between June 1978 and June 1984, 225 communities had service decline by 50% or more including some 119 that lost air service com-

44. Id.
46. 49 U.S.C. § 1389(c)(2)(A-B) (1982). This section provides: [the Board shall not provide any compensation . . . to any commuter air carrier . . . unless the Board determines that such commuter air carrier—(A) is fit, willing, and able to perform such service; and (B) that all aircraft which will be used to perform such service and all operations relating to such service will conform to safety standards established by the Administrator . . .
47. Id.
48. The Puddle Jump Problem, NEWSWEEK (October 23, 1978), at 75 [hereinafter The Puddle-Jump Problem].
51. The Dark Side, supra note 15, at 455.
air service to small communities completely. Although the ADA was designed to protect small communities from total abandonment of air service as much as possible, it does not protect small communities from partial abandonments. In many communities, only a minimal level of service has been implemented to cover the service abandoned by a major carrier. But this minimum satisfies the "essential service level" prescribed by the ADA.

A. REPLACEMENT SERVICE

Replacement service to small communities has not always occurred without disruption. Many small communities have experienced lapses in service between the time one carrier terminates service and another begins service. For example, in Clinton, Iowa, a carrier terminated service in July 1985 and replacement service did not begin until September 1985. Some communities have experienced a rapid turnover in carriers which is very disruptive. In Modesto, California, there have been five changes in airlines since deregulation. Fourteen schedule changes occurred in only eighteen months.

These disruptions in air service can have an adverse impact on a small community's economy. As one businessman noted, "[w]hen they cut you off from service . . . they cut you off from the rest of the world—and the rest of the world from you." If a community does not have accessible air transportation, eighty-eight percent of the top 500 firms in America would not locate their facilities in that area. Without adequate, convenient and reasonably priced air service, a community's ability to retain existing industries or attract new ones is diminished. A comprehensive analysis of this problem was stated by Susan and Mark Tolchin:

The real problem with economic deregulation is that the transportation system . . . is a national resource, affecting many industries. A bankrupt

\[ \footnotesize \text{52. M. Brenner, J. Leet, E. Schott, Airline Deregulation 98 (1985) [hereinafter M. Brenner].} \]

\[ \footnotesize \text{53. Note, Airline Deregulation and Service to Small Communities, 53 N. Dak. L. Rev. 607, 627 (1981) [hereinafter Note].} \]


\[ \footnotesize \text{55. M. Brenner, supra note 52 at 101.} \]

\[ \footnotesize \text{56. The Puddle-Jump Problem, supra note 48, at 75.} \]

\[ \footnotesize \text{57. Dempsey, The Dark Side, supra note 15, at 458.} \]


\[ \footnotesize \text{Deregulation has brought inconveniences to many and a sense of isolation to others, touching the lives of businessmen wanting connections to the national transportation system, and of the vacationers . . . . threat of further air service losses, at least disruptions, at the scheduled conclusion of federal subsidies, has been an additional psychological blow to communities seeking to develop or even maintain current status . . . .} \]

\[ \footnotesize \text{Ott, Upper Midwest Mulls Service Options, AV. WEEK & SPACE TECH., July 12, 1982 at 35, 36 [hereinafter Ott].} \]
airline can leave a city without adequate air transportation, damaging that city's ability to compete in the business community and reducing the quality of life for its residents . . . . A bankrupt airline . . . represents upheavals with such enormous impact that some measure of public protection is more than justified.\textsuperscript{59}

### B. DEPARTURES VS. SEATS

One of the areas supporters of deregulation point to as an indicator of the success of deregulation is increase in the number of departures from small communities. From 1978 to 1987, non-hubs\textsuperscript{60} experienced only a one percent decline in departures, while small hubs experienced a forty-two percent increase in departures.\textsuperscript{61} This sounds impressive and implies that there has not been any decrease in service, but, the real indication of the actual level of service to a community is the number of seats available to that community. During the same period of 1978 to 1987, the number of seats available to passengers at non-hubs declined by seventeen percent whereas the number of seats available to passengers at medium and large hubs increased by sixty-six percent.\textsuperscript{62} In Salem, Oregon, the number of departures rose by over forty-six percent from 1978 to 1980 but, the number of seats available declined by nearly thirty-five percent.\textsuperscript{63} So, while the number of departures from small communities may be up, the number of seats actually available to small communities has declined.

The reason the number of seats has declined is the increased use of the smaller commuter airlines in replacing large airlines. The use of commuter aircraft has also been a source of complaint by small communities. Commuter airlines feel they must "persuade travelers that the dark ages of aviation haven't descended just because the big, deregulated trunk lines have stopped flying jetlines in many marginal markets."\textsuperscript{64} The small communities counter that "[n]o matter how you look at it . . . if you have lost service, it seems that you're going back to the aviation of the

\textsuperscript{59} S. Tolchin & M. Tolchin, supra note 18, at 250. A similar conclusion was reached by William Wills, General Manager of the TVA:

There is an important trend in economic development . . . toward greater growth in the non-manufacturing or service sector, especially in the higher-technology industries. These firms rely . . . heavily on recent technological advances in communications and information systems, and good air service has become an essential ingredient in their location decisions. Air service is as important to these firms as electricity and telephone communications; and in this sense, air service should be considered a public utility . . . .

\textsuperscript{60} A hub is defined as "any point enplaning more than 0.05 percent of the total enplane-

\textsuperscript{61} Kahn, Airline Deregulation—A Mixed Bag, But a Clear Success Nevertheless, 16 TRANSP. L.J. 229, 247 (1988).

\textsuperscript{62} Brenner, supra note 58 at 210-211.

\textsuperscript{63} Meyer, supra note 16 at 182.

\textsuperscript{64} Id. at 172-173.
1930's.\textsuperscript{65} The ADA only guarantees quantity, not quality. As stated earlier, the ADA does guarantee a minimum level of essential service but, it does not guarantee that small communities will receive the same quality of air service.\textsuperscript{66} The small communities discovered this fact very quickly and have made their views on commuter service public.

C. Commuter Service

Small communities have made four main objections to commuter service: (1) the lack of amenities, (2) the inconvenience of travel, (3) fares, and (4) the safety record of commuters.\textsuperscript{67} Small communities have lost the aspects of service which can make air travel comfortable and appealing.\textsuperscript{68} Many of the commuter airlines do not offer amenities the larger airlines offer. Many commuters are so small that they do not allow passengers to stand up during travel. There are no stewardesses, stewards or meals.\textsuperscript{69} Many passengers complain that small unpressurized aircraft are less comfortable, especially when flying at higher altitudes.\textsuperscript{70} Commuters usually fly at a lower altitude than the larger carriers which subject their passengers to much more turbulence.\textsuperscript{71} All of these factors combine to make the flight on the commuter aircraft less pleasurable than on larger aircraft.

The convenience of air travel to and from small communities also has declined. Due to the hub-and-spoke\textsuperscript{72} operations of airlines, there are fewer direct flights to and from small communities making air travel more circuitous for many passengers.\textsuperscript{73} Because only a limited number of aircraft can land at an airport at any one time, many of the larger hubs have only a limited number of landing slots available. Most of those slots belong to the major airlines. The commuter airlines cannot acquire the slots or find them too costly to acquire.\textsuperscript{74} As a result, the commuter airlines cannot get into the major airports at convenient times or are forced to use

\textsuperscript{65} Ott, supra note 58 at 40.


\textsuperscript{67} Note, supra note 53, at 630.

\textsuperscript{68} Ott, supra note 58, at 36-39.

\textsuperscript{69} Meyer, supra note 16, at 173-174.


\textsuperscript{71} Meyer, supra note 16 at 174.

\textsuperscript{72} In the hub and spoke operation, an airline will fly most planes through its "hub" airport and then send them on to their destination airport. See E. Bailey, D. Graham & D. Kaplan, DEREGULATING THE AIRLINES 73-79 (1985).

\textsuperscript{73} Dempsey, The Dark Side, supra note 15 at 456.

\textsuperscript{74} Kihl, supra note 54 at 252.
secondary airports. Thus, passengers from small communities are forced to deal with less convenient service.

The third area where small communities have been adversely impacted is fares. "As a result of deregulation . . . fares for traveling between small points have increased rapidly; and commuter air carrier fares are reported to be particularly high in most cases." 75 Since deregulation, there has not emerged a consistent pattern of fares per mile. For example, a ticket from New York to Norfolk cost 13 cents per mile while a ticket from St. Louis to Cincinnati cost 53 cents per mile even though these two routes are within eleven miles of the same distance. 76 The fares for the New York-Norfolk route are about 19% below the 1978 fares while fares for the St. Louis-Cincinnati route are 231% above the 1978 fares. 77 These discriminatory pricing practices have been described as "outrageous" or "nightmarish." 78

Deregulation was expected to halt any cross-subsidization taking place between the large and small markets. It seems the cross-subsidization has merely been reversed, not eliminated. 79 As carriers wage fare wars in the large markets to attract passengers, small communities pay higher fares for poorer service to subsidize the losses the airlines are losing in the battles in these large markets. "In short, some parts of the public get bargains, while other passengers are subsidizing those bargains by the steep escalation in their fares." 80 Without competition or regulation to bring fares back into line, these discriminatory pricing practices will continue.

The final area which worries small communities is commuter safety. Some statistics show that the safety records of the commuters are three to thirty times worse than those of the larger carriers. 81 These statistics are based on passenger miles. The greatest risk of an accident is during takeoffs and landings. Commuters make many more takeoffs and landings but amass fewer miles than the long-haul carriers which will have only one takeoff and landing but amass many miles. 82 If a comparison is done based on departures, commuters have 0.94 fatalities per 100,000 departures while large airlines have 1.55 fatalities per 100,000 depa-

75. Addus, Subsidizing Air Service to Small Communities, 39 TRANSP. Q. 537, 549 (1985).
76. M. BRENNER, supra note 52 at 37.
77. Id. See also, Brenner, supra note 58 at 198.
80. Brenner, supra note 58 at 198.
81. Dempsey, Intrastate Transportation, supra note 70 at 20.
82. Oster, Jr. & Zorn, supra note 26, at 325-326.
Although these statistics are persuasive, the overall public sentiment still views commuters as less safe.

V. OLD PROBLEMS, NEW PROVISIONS

The previous sections of the ADA have been in effect since the advent of airline deregulation in 1978. The end of the ten year period has past, therefore, beginning October 1, 1988, the amended Section 419 of the ADA took effect. This section will highlight only the changes to Section 419 discussed in the previous section.

In looking at the new provisions of the ADA discussed earlier, many of the provisions seem to address the complaints of the small communities under the "old" ADA. The new Section of the ADA seems to be more specific than the old Section 419. The definition of basic essential air service has been amended to address many of the most common complaints of the small communities. Basic essential air service is now defined as:

scheduled air transportation of person and cargo to a hub . . . which has convenient connecting or single-plane air service to a substantial number of destinations beyond such airport. Such transportation shall include, at least the following elements: (A)(i) . . . 2 round trips 6 days per week, with not more than 1 intermediate stop on each flight; . . . (B) flights at reasonable times taking into account the needs of passengers with connecting flights at such airports and at rates, fares and charges which are not excessive when compared to the generally prevailing fares of other air carriers for like service between similar pairs of points; . . . (D) service which accommodates the estimated passenger and cargo traffic at an average load factor . . . ; (E) service provided in an aircraft with at least 2 engines and using 2 pilots . . . ; (F) in case of service which regularly exceeds 8,000 feet in altitude, service provided with pressurized aircraft.85

It is evident from this definition that this new section codifies many sections set in place by the CAB through the administrative process. It also seems to take into account the needs of the community and is responsive to the complaints small communities have lodged against deregulation and commuter airlines in the last ten years.

There are other provisions in the new Section 419 which demonstrate the greater emphasis on the needs of small communities. In several places, the new Section 419 states that the Secretary of Transportation must consider the views of the community before making a decision.86 The new Section 419 allows small communities to submit plans to the Secretary as to what they feel is essential air service for

83. J. MEYER, supra note 50 at 153.
86. Id. at 49 U.S.C. § 1389(b)(1)(A) and (b)(3)(A)(iv).
them.\textsuperscript{87} The Secretary must consider several factors before selecting a carrier to provide basic essential air service. These factors include the carrier's (i) reliability; (ii) contractual and marketing arrangements made with larger carriers at the hub airport; (iii) interline arrangements with larger carriers; and (iv) preferences to actual and potential users . . . at the eligible point . . . .\textsuperscript{88} Communities who are not eligible for the subsidy also have the opportunity to submit a plan to the Secretary and possibly get some subsidy for air service.\textsuperscript{89}

The procedure to terminate services is similar except that all carriers must give ninety days notice.\textsuperscript{90} Although there are two situations in which a carrier must only give a thirty day notice before termination, suspension or reduction in service. The first occurs if a community has submitted a proposal to the Secretary for enhanced essential air service to a level or type it feels is appropriate.\textsuperscript{91} The second occurs if a community has submitted a plan to the Secretary for compensated air transportation.\textsuperscript{92}

The new provisions under Section 419 seem to be responsive to the complaints lodged by small communities and seem to be striving to better serve their needs. Only time will tell if these new provisions will alleviate their complaints and improve their plight to retain convenient and affordable air service. The results will be interesting to observe.

VI. CONCLUSION

It has been ten years since the Airline Deregulation Act was implemented. The ADA was designed to insure essential air service to small communities. Many provisions were specifically included to guarantee that small communities would continue to receive air service after deregulation. But this was not enough to calm the concerns of small communities about losing service. Many of these concerns have become realities and small communities are struggling to cope.

The realities many small communities are facing today are those concerns they voiced prior to deregulation. In many small communities, the major carriers have abandoned the routes to their communities in favor of the more lucrative large markets. These small communities have been forced to deal with the small commuter airlines. Sometimes they have

\textsuperscript{87} id. at 49 U.S.C. § 1389(c).
\textsuperscript{88} id. at 49 U.S.C. § 1389(b)(3). These sections also indicate the current trend of commuter airlines to become affiliated with large airlines. Today 48 of the 50 small air carriers affiliate themselves with the megacarriers. Dempsey, And the Band Played On, supra note 79, at 53.
\textsuperscript{89} 49 U.S.C. § 1389(d).
\textsuperscript{90} 49 U.S.C. § 1389(b)(2).
\textsuperscript{91} 49 U.S.C. § 1389(c)(2).
\textsuperscript{92} 49 U.S.C. § 1389(d)(6).
had to deal with several successive airlines and deal with lack of airline service after an abandonment until a replacement carrier is found.

The problems the small communities have had with air service are numerous. The fares charged today are much higher than the fares prior to deregulation. The fares charged for travel between small communities is higher than the fares for the same distance between two larger hubs. Because many small communities are being served by commuters now, the number of seats available has decreased. There is a decline in service in that commuter airplanes may not have stewards or stewardesses, food or restrooms. Many passengers are also concerned about commuter safety. These problems have not been easy for communities to deal with and these communities will continue to voice their complaints until their needs are met.

Now there is a new Section 419 of the ADA. Many of the changes seem to address the complaints the small communities have voiced over the past ten years. Hopefully these changes will provide better service to the small communities to make a stronger transportation system in this country.