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Airline Deregulation and Laissez-Faire Mythology: Economic Theory in Turbulence

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AIRLINE DEREGULATION AND LAISSEZ-FAIRE MYTHOLOGY: ECONOMIC THEORY IN TURBULENCE*

PAUL STEPHEN DEMPSEY**

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THIS article examines the effect of airline deregulation on the airline industry, its customers, and on the United States air transportation system. Specifically it compares the actual experience of the last decade against the promises that were made by those who successfully promoted the Airline Deregulation Act of 1978.¹

After a decade of airline deregulation:

- (1) concentration of national and regional market power is greater;
- (2) routes are more circuitous;
- (3) service is poorer;
- (4) labor-management relations have deteriorated; and,
- (5) air travel is less safe.

Contrary to widespread assertions, lower ticket fares have not accompanied these adverse effects. Adjusting for the impact of changes in inflation and fuel prices — which would have occurred with or without deregulation

¹ Airline Deregulation Act of 1978, Pub. L. No. 95-504, § 102, 92 Stat. 1705 (codified at 49 U.S.C. § 1302(a) (1982)).

— ticket prices today are at least 2.6 percent higher than they were before deregulation.

If ticket prices could be adjusted for the loss of convenience and productivity resulting from increased route circuitry, there would be an even greater disparity between pre and post deregulation pricing trends.

After an initial burst of competition and price cutting, a new pattern of monopolistic and oligopolistic market power, based on regional fortress hubs, emerged, erecting significant barriers to new entrants into the market. Thus, the comparatively vigorous price competition that characterized the industry during the years immediately following deregulation is unlikely to return. The regulated oligopoly which existed under regulation has been replaced with an unregulated oligopoly, with inevitable adverse effects on consumers.

Deregulation advanced neither economic nor equity goals. The assumptions upon which deregulation was based — that few scale economies existed in the field of aviation; that destructive competition in the industry was unlikely; that “contestability” of markets (the ease of potential entry) would discipline pricing — have proven false.

The time has come to reconsider the experiment of airline deregulation. Airline transport is too critical to the economy and the well-being of the general public to be abandoned for private concentrations of market power.

This article sets forth a legislative agenda for reform which attempts to steer a common sense course between heavy-handed regulation and *laissez-faire*. The legislative provisions include:

- (1) the establishment of an independent Federal Transportation Commission — immune from capture by any single transport industry — which would regulate the industry from a broader perspective than possible with the old regulatory system;

- (2) the prohibition of a single airline maintaining a dominant position at more than a single airport;

(3) price regulation directed at keeping fares within a *range* which would prohibit price-gouging in thin markets on the one hand, and predatory pricing to drive out new competitors on the other; and,

(4) regulatory or legislative changes directed at eliminating price discrimination, so that fare differences reflect cost differences and *not* differential market power.

I. INTRODUCTION

In the United States, deregulation has been more thorough-going in transportation than in other traditionally regulated sectors. Among the several modes of transport (e.g., air, rail, water, bus and motor), airlines have been subjected to more comprehensive deregulation than any other. This comprehensive deregulation began with the Airline Deregulation Act of 1978 (1978 Act)² which abolished the Civil Aeronautics Board (CAB), the federal regulatory agency controlling the industry during the previous four decades.

Proponents of deregulation assumed that it would create a healthy competitive environment, with many airlines offering a wide array of price and service options and a high level of safety. A decade or more of empirical evidence indicates that present realities disprove these sanguine expectations.

Before comparing the current state of affairs in the airline transport industry with the expectations of *laissez-faire* economists, it is necessary to review the political, legal and economic dimensions of airline regulation as well as the origins and consequences of the deregulation movement in the aviation industry. This article concludes that deregulation has caused unprecedented levels of concentration, discriminatory pricing, service deterioration and narrower safety margins. By 1989, consumers were paying 2.6 percent more to fly per mile than they would have

² *Id.*

had the prederegulation downward trend in the per mile charge for flying continued.

Yet, there are those who continue to defend airline deregulation despite its failures. One defender is Alfred Kahn, the principal architect of airline deregulation.³ A careful examination of his views may cause one to reject them in favor of increased regulation in its proper form. Finally, an analysis of the public interest in efficient and affordable transportation will illustrate the need for a new national transportation policy.

Since airline deregulation was the prototype for a decade of aggressive deregulation throughout the economy, the failures of airline deregulation may have wide implications. It would be a mistake, for instance, to take the experience of the early years of airline deregulation — when low, simply structured fares and dramatic competition from new entrants seemed to justify the wildest claims of its proponents — as a model of the benefits that deregulation can bring. These short-term gains were followed by medium and, arguably, long-term pain. If the airline experience can be generalized, the lesson would appear to be: “caveat deregulation.”

³ By the late 1980s, Kahn had become somewhat conciliatory about the problems that had emerged under deregulation, though he insisted that the DOT was largely to blame for these ills by, for example, approving every merger submitted to it, and not expanding airport capacity sufficiently. Nonetheless, Kahn noted, “There have of course been severe problems and reasons for concern even from the public’s standpoint: most prominently sharply increased congestion and delays, increased concentration at hubs, monopolistic exploitation of a minority of consumers, and possibly a narrowing of the margin of safety” Kahn, *Airline Deregulation — A Mixed Bag, But a Clear Success Nevertheless*, 16 *TRANSP. L.J.* 229, 251 (1988) [citation omitted] [hereinafter Kahn, *A Mixed Bag*]. To his credit, Kahn has also become quite candid about his and his compatriots’ failure to foresee the “explosion of entry, massive restructuring of routes, price wars, labor-management conflict, bankruptcies and consolidations and the generally dismal profit record of the last ten years.” Kahn, *Surprises of Airline Deregulation*, 78 *AM. ECON. REV.* 316 (1988) [hereinafter Kahn, *Surprises*]. This article explores Kahn’s prederegulation assumptions on contestability, concentration and predation, and contrasts them with his confrontation with the empirical results of deregulation.

II. ORIGINS OF AIRLINE REGULATION AND DEREGULATION

The transportation industry has come full circle from its genesis in an unrestrained *laissez-faire* economic environment to nearly a century of comprehensive governmental regulation of entry and rates and other corporate activities, and finally back to an unrestrained market economy.

Market failure gave birth to economic regulation. In the eyes of early advocates of regulation, transportation was particularly prone to alternating periods of "destructive competition" and blatant monopoly or oligopoly. Because of the tremendous economies of scale along many different dimensions exhibited by much of the transport sector, the out-of-pocket or marginal cost of providing service tends to lie far below its full or average cost.⁴ Unrestrained competition in these circumstances tends to drive the price down towards marginal cost, causing profits to disappear. Bankruptcies and mergers ensue as excess capacity is weeded out, and profitable monopoly or oligopoly inexorably emerges.

The restoration of market power may well be accomplished by a blatantly discriminating rate structure with price differences between different markets reflecting not relative costs, but the differing degree of competition. For example, a price structure that fills planes by segregating markets so that only the marginal customer pays a low fare while others pay fares far above cost, forestalls the losses associated with marginal cost pricing. This blatantly discriminatory price structure, however, injures the consumer. The segregation of business and pleasure markets, which deregulation has taken to new heights, would come as no surprise to early advocates of regulated transportation.

The consumer, under the circumstances, sees things go from bad to worse. Unstable packs of anemic, bankrupt

⁴ For example, given that a plane is flying between two cities with empty seats, the cost of filling one more seat is virtually nothing.

carriers become sleek, powerful price-discriminating monopolies or oligopolies. In the view of early advocates of regulation, these two phenomena, destructive competition and powerful monopolies, were simply two sides of the same coin. The purpose of regulation, under these circumstances, was to eliminate this Hobson's choice for consumers: preventing the potential threats to safety, service, and investment posed by destructive competition on the one hand, and the price-gouging and price discrimination associated with market power in a consolidated industry, on the other.

Price discrimination and destructive competition in the railroad industry prompted Congress to establish, in 1887, the first independent regulatory agency, the Interstate Commerce Commission.⁵ During the Great Depression, Congress concluded that the economic condition of the airline industry was highly unstable, and that a continuation of its anemic condition could imperil its tremendous potential to satisfy national needs for growth and development.⁶ In order to avoid the deleterious impact of what was variously termed "cutthroat," "wasteful," "destructive," "excessive," or "unrestrained" competition, and to avoid the economic chaos which had so plagued the rail and motor carrier industries, Congress sought to establish a regulatory structure for airlines similar to that which had been devised for these other "public utility" type industries.⁷ Thus, just three years after motor carriers were brought under the regulatory umbrella, Congress added airlines to the regulatory scheme, promulgating the Civil Aeronautics Act of 1938.⁸ In so doing, Congress created a new agency to regulate this in-

⁵ P. DEMPSEY & W. THOMS, LAW AND ECONOMIC REGULATION IN TRANSPORTATION 7-11 (1986).

⁶ See, e.g., Dempsey, *The Rise and Fall of the Civil Aeronautics Board—Opening Wide the Floodgates of Entry*, 11 TRANSP. L.J. 91, 95 (1979) [hereinafter Dempsey, *The Rise & Fall of the CAB*].

⁷ *Id.*

⁸ Civil Aeronautics Act, ch. 601, 52 Stat. 973 (1938) (codified at 49 U.S.C. §§ 1301-1542 (1988)).

dustry: the CAB.⁹

In the 1960s and early 1970s, economists published a generous volume of literature critical of economic regulation.¹⁰ Principal among their criticisms was that pricing and entry restrictions gave consumers excessive service, insufficient price competition, inflated airline costs, and denied the industry adequate profits. Senator Edward Kennedy chaired subcommittee hearings which served as the political incubator of regulatory reform. The Kennedy Report concluded that deregulation would allow pricing flexibility which would stimulate new and innovative offerings, allow passengers the range of price and service options dictated by consumer demand, enhance carrier productivity and efficiency, increase industry health, and result in a superior allocation of society's resources.¹¹

The movement in favor of reduced governmental presence found support on both ends of the political spectrum. America was infested by a mass psychology of antagonism toward government, stimulated on the right by the Great Society and the growth of government spending and taxation, and on the left by Watergate and the war in Vietnam. For once, both sides viewed government as an enemy, rather than a friend.

With the inauguration of Jimmy Carter as President in 1976, the deregulation movement enjoyed strong White House support. Carter appointed Cornell economics professor Alfred Kahn, Chairman of the Civil Aeronautics Board. Kahn criticized traditional CAB regulation as hav-

⁹ *Id.* The agency was initially named the Civil Aeronautics Authority.

¹⁰ See Hardaway, *Transportation Deregulation (1976-1984): Turning the Tide*, 14 *TRANSP. L.J.* 101, 106 n.17 (1985) (listing articles in note 17); see also L. KEYS, *FEDERAL CONTROL OF ENTRY INTO AIR TRANSPORTATION* (1951) (an early critic of airline deregulation); R. CAVES, *AIR TRANSPORT AND ITS REGULATORS: AN INDUSTRY STUDY* (1962); W. JORDAN, *AIRLINE DEREGULATION IN AMERICA: EFFECTS AND IMPERFECTIONS* (1970).

¹¹ *Oversight of Civil Aeronautics Board Practices and Procedures, Hearings Before the Subcomm. on Administrative Practice and Procedure of the Comm. on the Judiciary*, 94th Cong. 1st Sess. 3 (1975). See also Dempsey, *The Rise & Fall of the CAB*, *supra* note 6, at 118.

ing "(a) caused air fares to be considerably higher than they otherwise would be; (b) resulted in a serious misallocation of resources; (c) encouraged carrier inefficiency; (d) denied consumers the range of price/service options they would prefer, and; (e) created a chronic tendency toward excess capacity in the industry."¹²

As CAB Chairman, Kahn implemented a number of initiatives which liberalized entry and pricing. In the late 1970s, the immediate results of these relatively modest efforts at regulatory reform were quite positive. In the late 1970s, carriers stimulated new demand by offering low fares which filled capacity, and they consequently enjoyed robust profits. This early success of airline deregulation created a general euphoria in both Washington and the media, bolstering support for its widespread implementation.¹³

Working with the White House, Kahn put his charismatic personality solidly behind the legislative effort for reform. The predictions as to what deregulation would bring were quite optimistic, despite strong misgivings by

¹² P. DEMPSEY, LAW & FOREIGN POLICY IN INTERNATIONAL AVIATION 24 (1987) [hereinafter DEMPSEY, LAW & FOREIGN POLICY]. See also, Kahn, *The Theory and Application of Regulation*, 55 ANTITRUST L.J. 177, 178 (1986) [hereinafter Kahn, *Theory and Application*]; Kahn, *Transportation Deregulation . . . and All That*, ECON. DEV. Q. 91, 92 (1987) [hereinafter Kahn, *All That*].

¹³ See, e.g., Dempsey, *The International Rate and Route Revolution in North Atlantic Passenger Transportation*, 17 COLUM. J. TRANSNAT'L L. 393, 440-42 (1978). As a young CAB attorney, this author was also swept up in the movement, praising the benefits of partial deregulation:

The objective of [deregulation] has been to provide the consumer . . . with improved services at reduced fares. In general, the theory has been that increased competition among air carriers will lead to improved quality and an increased variety of services available to the public at competitive prices reasonably related thereto, and that the price elasticity of the passenger market will ensure more efficient utilization of capacity for the carriers and, consequently, increased revenue. Enhanced reliance upon competitive market forces has tended to lower air fares and stimulate innovative price/service options. It has also tended to fill empty seats and thereby increase carrier revenue. The policies appear to have had an affirmative impact upon both consumers and the regulated industry that serves them.

Id.

most of the industry.¹⁴ Kahn assured a skeptical public that the benefits of deregulation would be universally shared: "I am confident that . . . consumers will benefit, that the communities throughout the country, large and small, which depend upon air transportation will benefit, [and] that the people most closely connected with the airlines as a whole, their employees, their stockholders, their creditors, will benefit [as well]."¹⁵

Congress responded by promulgating the Air Cargo Deregulation Act of 1977 and the Airline Deregulation Act of 1978.¹⁶ Both Acts received overwhelming bipartisan support. The 1978 Act was intended to provide a gradual transition to deregulated entry and deregulated rates, although the CAB quickly dropped any notion of "gradual" deregulation under Kahn's successor, CAB Chairman Marvin Cohen. What had begun as a program of modest liberalization became an avalanche of abdication of responsible governmental oversight. Implementation of the new policy was immediate and comprehensive. The Deregulation Act also called for the "sunset" of the CAB in 1985, when its remaining responsibilities, including oversight of mergers in the industry, were transferred to an executive branch agency, the United States Department of Transportation (DOT).

III. CONSEQUENCES OF DEREGULATION FOR INDUSTRY STRUCTURE

A. *Allocative Efficiency, Competition, and Contestability*

Deregulation proponents believed that, freed from the shackles of government, the airline industry would become more competitive, providing the range of price and

¹⁴ While most of the airline industry opposed deregulation, it was supported by Federal Express and United Airlines (the largest airline in the free world).

¹⁵ *To Amend the Federal Aviation Act of 1958 to Improve Air Service and Provide Flexibility in Air Fares: Hearings on H.R. 11145 Before the Subcomm. on Aviation of the House Comm. on Pub. Works and Transp.*, 95th Cong., 2d Sess. 124 (1978) (statement of Alfred E. Kahn, Chairman, CAB) [hereinafter 1978 House Hearings].

¹⁶ For a general discussion of the Airline Deregulation Act of 1978, see P. DEMPSEY & W. THOMS, *supra* note 5, at 28-29.

service options dictated by consumer demand, tapping the elasticities of demand with lower prices, filling capacity, enhancing efficiency, and improving profitability.¹⁷ They also believed that neither safety nor small community access would unduly suffer.¹⁸

Deregulation supporters felt it unlikely that destructive competition, whose purported existence gave birth to regulation of this industry in the 1930s, would occur.¹⁹ But the apparent consensus among economists concealed a basic difference about what a "healthy competitive environment" required. An old joke has the borrower of a jar returning it broken and being asked to explain. He responds that he never borrowed it and, moreover, that it was broken when he got it. There is a similar conflict between the two views regarding deregulation as a stimulus for competition.

The 'traditionalist' view, whose adherents in the 1970s included many of the incumbent regulators, held that competitive pricing required a sizable number of competitors. Based on some academic studies which failed to find significant economies of scale²⁰ in the production of air

¹⁷ In the short run and with relatively modest liberalization, they were right.

¹⁸ See generally, Hardaway, *supra* note 10.

¹⁹ *Study on Federal Regulation: Prepared Pursuant to S. Res. 71 to Authorize a Study of the Purpose and Current Effectiveness of Certain Federal Agencies Before the Senate Comm. on Governmental Affairs*, 95th Cong., 2nd Sess. 13-15 (1978). The Senate Committee concluded: "Destructive Competitions" seems . . . unlikely in the cases of airlines and trucks." *Id.* Thus, the entire early theory of regulation is judged to have no application to one of the very industries whose preregulation experience it was designed to explain.

²⁰ Economies of scale are realized when increases in total production simultaneously decrease unit costs. As the scale of production grows, the enterprise becomes more efficient. The classic example of the phenomenon of economies of scale is the enormous cost savings experienced from producing automobiles on an assembly line rather than one car at a time. The cost savings resulting from economies of scale can be attributed to: (1) indivisibilities—a large capital-intensive piece of equipment operates most efficiently at full capacity; and, (2) division and specialization of labor—highly specialized labor is more productive labor.

A concept related to economies of scale is economies of scope. Economies of scope exist when a company can produce several different products more cheaply than a specialized firm can develop each particular product separately. W. BAUMOL, J. PANZAR & R. WILLIG, *CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE* 71 (1982). For example, it may be cheaper to produce pairs if

transport, they argued that a deregulated industry would have enough competitors to satisfy the traditional notion of workable competition. In the absence of any cost advantages of big firms over small, there would be no motive to merge to achieve such non-existent economies. This argument denied that the air transport industry was a "natural monopoly" (or oligopoly) due to falling unit costs. If costs do not fall over some dimensions, then the view that the industry is prone to destructive competition — the view which motivated early architects of airline regulation — is erroneous. Likewise, the tendency of prices to approach marginal cost, where there is unrestrained competition, does not suggest that smaller carriers will be driven out of business. Decreasing unit costs allows competitors to avoid losses. In short, because of the absence of economies of scale, big airlines will not be able to wipe out small airlines. Hence, the prolonged presence of a sizeable number of competitors is likely and there is no danger of monopoly.

A second argument for deregulation arises from the no-

items such as wheat and straw or beef and hide in one enterprise rather than in specialized firms. *Id.* at 76. See J. BAIN, *BARRIERS TO NEW COMPETITION* (1956); R. HEILBRONER & L. THUROW, *ECONOMICS EXPLAINED* (1982); and W. SHEPHERD, *THE ECONOMICS OF INDUSTRIAL ORGANIZATION* (1979).

A related concept is economies of density. By combining passengers and groups of passengers, an airline can carry the aggregation of passengers more cheaply than if it carried those passengers separately. Through careful scheduling of flights, consolidating operations and routing passengers through its "hub", an airline streamlines its system, making it more dense and thus more efficient. The "hub and spoke" scheme employed by all of the major airlines is testimony to this phenomenon. For example, an airline which carries 100 passengers in a single plane to a destination as opposed to carrying 50 passengers in two aircraft to that same destination is making use of economies of density. See A. FRIEDLAENDER & R. SPADY, *FREIGHT TRANSPORTATION REGULATION: EQUITY, EFFICIENCY, AND COMPETITION IN THE RAIL & TRUCKING INDUSTRIES* 285-86 (1980); A. LAMOND, *COMPETITION IN THE GENERAL-FREIGHT MOTOR CARRIER INDUSTRY* (1980).

As Melvin Brenner notes, the failure of researchers before deregulation to find size advantages in air transport was partly a result of regulation itself, which kept large firms from exercising their advantages vis-a-vis small firms. Hub and spoke methods used to capture network economies were postderegulation phenomena, when carriers were free to rationalize their route structures. And frequent flier benefits—with the obvious advantages they offer to large carriers—were of course postderegulation phenomena as well. See Brenner, *Airline Deregulation - A Case Study in Public Policy Failure* 16 *TRANSP. L. J.* 179, 186-88 (1988).

tion of "contestability."²¹ Some deregulation proponents did not deny that air transport had significant economies of scale, scope, density, or other natural monopoly characteristics. Rather, they insisted that these characteristics need not be a problem, because a natural monopolist would be forced to price at cost by the threat of potential entry. Thus, markets which were not competitive in the traditional sense of having many competitors might yet be "contestable" under certain conditions, conditions which the airline industry allegedly fulfilled.

There are three key assumptions to the theory. First, the potential entrant has access to the same technology as the incumbent (there are no absolute cost advantages for the incumbent). Second, entry into and exit from a particular market is costless — there are no "sunk" costs involved. Third, consumers respond to a price reduction on the entrants' part more quickly than incumbents can respond with a matching price cut. If these assumptions proved to be true, the mere threat of post-entry price-matching by the incumbent would not suffice to deter entry.

Unless prices always remain at cost, there would be an incentive for costless entry to grab some of the monopoly rent. The entrant would then enjoy a costless exit when the incumbent matched the entrant's lower price. In the airline example, the potential entrant could fly in his "capital on wings," grab the rent that could be captured by a slight undercutting of the incumbent, and then fly out when the incumbent actually matches costs. The move would avoid a price war and the associated losses altogether. This possibility would then force the natural monopolist to price at cost at all times.

Alfred Kahn's writing provides examples of both these

²¹ See W. BAUMOL, J. PANZAR & R. WILLIG, *CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE* (1982); see also Bailey & Panzar, *The Contestability of Airline Markets During the Transition to Deregulation*, 44 *LAW & CONTEMP. PROBS.* 125 (1981).

arguments, despite the logical tension between them.²² Because he was articulate and passionate about deregulation, we turn to him for instances of each. First, an analysis of traditionalism. A decade ago, Kahn dismissed fears that the industry would become highly concentrated. Large airlines, he argued, had no advantages over small airlines.

In a 1978 House Subcommittee hearing, Congressman Roman Harsha asked Kahn whether deregulation would lead to destructive competition in which the large carriers would drive out the smaller ones and eventually lead to a monopolized market.²³ Kahn dismissed this fear on two grounds. First, he argued that cut throat competition would not occur because there are only a small number of carriers who compete in one market after another.²⁴ Second, Kahn pointed out that the stock value of the largest carriers sold at thirty-three to thirty-seven percent of book value.²⁵ To Kahn, this meant that investors did not believe that the big airline would swallow the little airline.²⁶

Similarly, in 1977 hearings before the House Subcommittee, Kahn said, "I do not honestly believe that the big airlines are going to be able to wipe out the smaller airlines, if only because every study we have ever made seems to show that there are not economies of scale."²⁷

True to his traditionalism, but contrary to his expecta-

²² That is, the tension between the fear of destructive competition driving smaller carriers out of business and the need for such competition to keep new entrants from joining the market. Restated, price wars are bad to the traditionalist because they drive the smaller carriers out of the market and thereby monopolize the industry; contestability argues that price wars are necessary to discourage new carriers from entering the market. The consumer benefits because of the natural incentive to keep prices fair. In short, destructive price competition drives the small carrier out of business while at the same time keeping new entrants out of the market.

²³ 1978 House Hearings, *supra* note 15, at 178.

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.* at 178-79.

²⁷ *Aviation Regulatory Reform: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation*, 95th Cong., 1st Sess. 1111 (1977) (herein after 1977 House Hearings).

tions, Kahn is not unconcerned about the substantial concentration that exists in air transport today. Kahn now admits that, in advocating deregulation, he misperceived the advantages large firms have in the airline industry²⁸ and underestimated the importance of economies of scale and scope.²⁹ Kahn has conceded that the advocates of deregulation were misled by the apparent lack of evidence of economies of scale.³⁰ In a 1988 *Transportation Law Journal* article, Kahn admitted that fares are likely to rise due to the disappearance of most of the price-cutting new entrants and the marked reconcentration of the industry.³¹ Similarly, in testimony before the Senate Commerce Committee in 1987, Kahn said: "The industry has become more concentrated at the national level because of mergers and airline failures, and that means . . . that price competition may well become less severe in the years ahead."³² Transportation simply has not turned out to be the ideal model of perfect competition that the traditionalist proponents of deregulation insisted it was. There appear to be significant economies of scale, scope and density, discussed in detail below.

For an example of the nontraditionalist view, which espouses that airline transport, while naturally concentrated, nevertheless exhibits "contestability," we again turn to Alfred Kahn. In the late 1970s, Kahn proclaimed that almost all of the airline industry's markets could support only a single, or at most, a few, carriers. Their natural structure, he concluded, is monopolistic or oligopolistic. Kahn asserted, however, that such a structure could nevertheless be conducive to highly effective competition "if only the government would get out of the

²⁸ Testimony of Alfred Kahn, California Public Utilities Commission 6247-48 (Jan. 31, 1989) [hereinafter Kahn Oral Testimony].

²⁹ *Id.* at 6201.

³⁰ Kahn, *Surprises*, *supra* note 3, at 318.

³¹ Kahn, *A Mixed Bag*, *supra* note 3, at 236. See also Hamburger, *Fares Rose With NWA's Dominance*, Minneapolis Star Tribune, Dec. 28, 1988, at 9-A.

³² *Safety and Re-Regulation: Hearings Before the Senate Commerce Comm.*, 100th Cong., 1st Sess. 155 (1987).

way; the *ease of potential entry into those individual markets, and the constant threat of its materializing*, could well suffice to prevent monopolistic exploitation."³³

Entry, or more precisely the *threat* of potential entry, would keep monopolists from extracting monopoly profits. This was the essence of the contestability theory.³⁴ Kahn advanced this theory on many occasions as Chairman of the Civil Aeronautics Board. Before another House Committee in 1977, Kahn testified, "[w]ere it not for Government restrictions, entry would be relatively easy"³⁵ In a recent interview, Alfred Kahn noted, "Certainly one of the assumptions behind airline deregulation was that entry would be relatively easy."³⁶

As with the traditionalist prediction of many competitors and few size economies, the actual deregulation experience has seemed to mock the nontraditionalists' scenario of "contestable" airlines markets as well. Kahn is more honest than most deregulation proponents in evaluating the theory of contestability, in the light of reality. In testimony delivered in 1987 before a subcommittee of the Senate Judiciary Committee, Kahn, far less enthusiastic about the possibility that contestability would prevent monopolies in the airline industry, concluded that while, yes, airline markets are relatively easy to enter, the

³³ Address by Alfred Kahn, New York Society of Security Analysts 24 (Feb. 2, 1978) [hereinafter Kahn Address] (emphasis supplied).

³⁴ 1977 House Hearings, *supra* note 27, at 1111. Kahn testified that:

[A] realistic threat of entry by new and existing carriers on the initiation of management alone is the essential element of competition.

It is only this threat that makes it possible to leave to management a wider measure of discretion in pricing. It is the threat of entry that will hold excessive price increases in check.

Id.

³⁵ *Economic Aspects of Federal Regulation in the Transportation Industry: Hearings Before the Task Force on Tax Expenditures, Government Organization, and Regulation of the House Comm. on the Budget, 95th Cong., 1st Sess. 19 (1977)* (testimony of Alfred Kahn, Chairman, CAB).

³⁶ Interview with Alfred E. Kahn, ANTITRUST 1988, at 4, 6 [hereinafter Kahn Interview]. According to Kahn, in deregulating the airlines "[w]e emphasized the contestability of airline markets and thought people would be well protected by the possibility of entry, because airplanes can move. Well, I think we exaggerated that. . . ." *Surprises, But Few Regrets*, 64 REASON 35-36 (1989).

potential entry of competitors is no substitute for competitors already there

Contestability is not a sufficient protection, in my opinion, and anybody who looks at the airline industry certainly knows that the likelihood and opportunity of entry, particularly by new carriers — low-cost, price-cutting carriers — has greatly diminished in recent years and is likely to remain much looser than before.³⁷

Both the traditionalists and the nontraditionalists were wrong. After a preliminary bout of classically destructive competition, deregulation has produced a highly concentrated oligopoly. Such concentration followed a rash of mergers and expansions directed at capturing scale economies, which the traditionalists denied existed. Further, contrary to the nontraditional view, it is increasingly clear that this oligopoly fails to act like a competitive firm because, while pricing at cost, it exploits its market power.

B. *Industry Economic Anemia*

Although destructive competition during the 1930s was a major rationale for economic regulation in the airline industry, deregulation's proponents insisted that deregulation would not create destructive competition. In a speech before the New York Society of Security Analysts in 1978, Kahn characterized the opposition to airline deregulation as a general fear that "when the CAB withdraws its protective hand from the doorknob, the door will open to destructive competition — to wasteful entry and cut-throat pricing — that will depress profits, render the industry unable to raise capital, and so cause a deterioration in the service it provides" ³⁸

Kahn saw the fear as unrealistic. Testifying before the House Public Works Committee, he insisted, "I just do

³⁷ *Airline Deregulation 1987: Hearing on Airline Deregulation and the Effect It Has Had on Airline Transportation in the United States Before the Subcomm. on Antitrust, Monopolies and Business Rights of the Senate Comm. on the Judiciary*, 100th Cong., 1st Sess. 10 (1987) (statement of Alfred E. Kahn, Professor of Political Economy, Cornell University) [hereinafter *Airline Deregulation 1987*].

³⁸ Kahn Address, *supra* note 33.

not see any reason to believe that an industry which is potentially rapidly growing, for which there is an ever-growing market, cannot prosper and attract capital."³⁹ Kahn scoffed at deregulation's proponents who believed that once the airline industry was deregulated, businessmen would "rush into markets pell-mell, en masse, without regard to the size of each, how many sellers it can sustain, and how many others may be entering at the same time."⁴⁰ In fact, however, as a decade of empirical evidence reveals, deregulation *has* brought about cut-throat pricing, a miserable level of industry profitability, insufficient capital to re-equip its aging fleet, and a deterioration of service.

Since deregulation began, the airline industry has suffered the worst economic losses in its history.⁴¹ This period of economic anemia began before the onset of the early 1980 economic recession and ascending fuel prices, and continued steadfastly after.⁴² While the bottom line has recently improved as the industry has become so highly concentrated, its average annual net profit margin over the last eleven years has been a meager 0.7 percent, compared with 4.5 percent for other U.S. industries.⁴³ Ten years after he implemented airline deregulation as President Carter's Chairman of the CAB, Alfred Kahn wrote, "There is no denying that the profit record of the

³⁹ *Aviation Regulatory Reform: Hearings on H.R. 11146 Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation*, 95th Cong., 2nd Sess. 133 (1978) [hereinafter *Hearings on H.R. 11146*].

⁴⁰ Kahn Address, *supra* note 33.

⁴¹ Brenner, *supra* note 20, at 200-01. "The eight years [1979-86] of deregulation comprise the worst financial period in airline history. The cumulative industry operations in those eight years generated a loss of over \$7 billion. . . ." *Id.* at 200.

⁴² See Dempsey, *Transportation Deregulation—On A Collision Course?*, 13 *TRANSP. L.J.* 329, 342-52 (1984) [hereinafter Dempsey, *Collision Course*].

⁴³ Ott, *Industry Officials Praise Deregulation, But Cite Flaws*, *AV. WK. & SPACE TECH.*, Oct. 31, 1988, at 88. In 1988, the industry's profit margin stood at 1.3 percent, compared to two percent a decade earlier. Stockton, *When Eight Carriers Call the Shots*, *N.Y. Times*, Nov. 20, 1988, § 3, at 1, col. 3. Alfred Kahn maintains that the airline industry's profit margin "fell to a puny 0.10 in the 1979-87 period." Kahn, *Surprises*, *supra* note 3, at 316 n.1.

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.”⁴⁴

Deregulation was largely premised on the assumption that there were no significant economies of scale or barriers to entry in the airline industry. Its proponents argued that new competitors would spring up to challenge the entrenched incumbents, and the industry would become hotly competitive. In the short run, more than 120 new airlines appeared, although most were small, commuter lines.⁴⁵ This flood of entry caused prices to spiral downward. While a short term boon for consumers, the price competition which emerged from deregulation was an unmitigated catastrophe for both the airline industry and, in the long run, consumers as well. Nearly 200 airlines have either gone bankrupt or been acquired in mergers since deregulation.⁴⁶ Currently, only seventy-four carriers remain.⁴⁷ Among the casualties are such darlings of deregulation as Air Florida, Freddie Laker's Skytrain, and Donald Burr's People Express. Alfred Kahn once pointed to these new upstart airlines as evidence that deregulation was a brilliant success. They all have since dropped from the skies. America West, and Midway remain, but they have a relatively insignificant share of the domestic air transport market.

The price wars, erosion of profitability, and industry shakeout occurring in the wake of deregulation provide a textbook illustration of the unique economic characteristics that make transportation inherently vulnerable to

⁴⁴ Kahn, *A Mixed Bag* *supra* note 3, at 248. Kahn recently said, "I found it distressing in the middle of this. I hated to be responsible for the industry suffering so. I wanted to be sure that it would always be financially healthy and able to attract capital." Kahn Oral Testimony, *supra* note 27, at 6247-48.

⁴⁵ *The Frenzied Skies*, Bus. Wk., Dec. 19, 1988, at 70, 72.

⁴⁶ Peline, *Bumpy Ride Under Deregulation*, San Francisco Chron., Oct. 28, 1988, at 21. One source estimates that 214 airlines have disappeared from the market. Hamilton, *Is the Airline Industry on the Verge of Going Global?*, Wash. Post, Dec. 11, 1988, at K6, col. 1.

⁴⁷ Peline, *supra* note 46, at 21.

price wars and excess capacity. Transportation firms sell what is, in essence, an instantly perishable commodity. Once an aircraft taxis down the runway, any unused capacity is lost forever. Empty seats cannot be warehoused and sold another day. This inevitably leads to distress sale pricing during weak demand periods or when excess capacity created by unlimited entry exists.

The short term marginal cost of adding another passenger to a scheduled flight is virtually nil — involving merely printing another ticket, heating another meal, and adding a few drops of fuel. Any ticket sold makes some contribution. Hence, strong incentives exist to sell empty seats for whatever will lure a body to fill them.⁴⁸ Carriers competing head to head spiral downward in destructive competition. In such circumstances, while carriers cover short-term marginal costs, fixed costs are necessarily ignored.

These rather unique and brutal characteristics of air transport led to distress sale pricing in the early 1980s following deregulation. To service this darkest financial period in the history of domestic aviation, carriers had no choice but to slash wages, trim service and maintenance, and defer new aircraft purchases. Deregulators insist on seeing air transport as just another industry. This insistence, an almost willful ignorance on their part of the historical experience of destructive competition in transportation, has had grave but perfectly predictable consequences.

Because airlines needed monopoly opportunities to stem the economic brutality of destructive competition, they merged and developed hub-and-spoke systems, giving them regional and city-pair market power. Firms facing extinction naturally seek out or create monopoly market opportunities to afford them the market power to raise prices. Thus, the large number of industry bankruptcies and mergers, and the growth of national and re-

⁴⁸ The difficulty airlines face is in managing yield in a way which lures passengers not otherwise likely to fly; hence, Saturday stay-over requirements, which are unappealing to business travelers.

gional (hub) concentration, owe their existence to the destructive competition unleashed by deregulation.

C. Concentration

1. National Concentration

The intense destructive competition resulting from deregulation has reduced the number of major competitors at the national level, through waves of bankruptcies and mergers, to the point that the airlines have become, in the words of Alfred Kahn, an "uncomfortably tight oligopoly."⁴⁹

Between 1979 and 1988 there were fifty-one airline mergers and acquisitions. More than twenty of those were approved by the DOT after 1985, when it assumed jurisdiction over mergers. Of fifteen independent airlines operating at the beginning of 1986, six had merged into megacarriers by the end of 1987. The six largest airlines increased their passenger share from 71.3 percent in 1978, to 79.2 percent in 1987.⁵⁰ The eight largest airlines accounted for eighty percent of the domestic market in 1978, and ninety-four percent in 1989.⁵¹

The DOT approved *every* airline merger submitted, after it assumed the CAB's jurisdiction over mergers, acquisitions and consolidations.⁵² The 1978 Act 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. . . ."⁵³ Unfortunately these admonitions fell

⁴⁹ Brenner, *supra* note 19, at 188.

⁵⁰ *Id.* at 187. Brenner's 1987 market share figures differ slightly from those in Chart II, *infra* note 62 and accompanying text, which are based on mid-1987 data.

⁵¹ *Deregulation Focus*, TRAFFIC WORLD (Dec. 5, 1988), at Supp. D, updated by *Happiness Is a Cheap Seat*, THE ECONOMIST, Feb. 4, 1989, at 68.

⁵² The DOT assumed the CAB's jurisdiction on December 31, 1984, pursuant to § 408 of the Federal Aviation Act.

⁵³ 49 U.S.C. § 1302(a)(7) (1979); see Dempsey, *The Rise & Fall of the CAB*, *supra* note 6, at 135.

on deaf ears at the DOT, which never met a merger it did not like.

For example, the DOT 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);⁵⁴ United's acquisition of Pan Am's trans-Pacific routes; American's acquisition of AirCal; Delta's acquisition of Western; Northwest's acquisition of Republic (itself a product of the mergers of North Central, Southern and Hughes Airwest); TWA's acquisition of Ozark; and USAir's acquisition of PSA and Piedmont.⁵⁵ The major mergers which have been consummated since deregulation are depicted on the following chart:⁵⁶

⁵⁴ 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 Dempsey, *Antitrust Law & Policy in Transportation: Monopoly Is the Name of the Game*, 21 GA. L. REV. 505, 538 (1987) [hereinafter Dempsey, *Monopoly*].

⁵⁵ To these mergers of passenger carriers, add the major air cargo acquisition of Seaboard by Flying Tigers, the recent acquisition of Flying Tigers by Federal Express, as well as the acquisition of Emery and Purolator by CF Air. Moreover, concentration levels in the passenger industry are even more pronounced when one recognizes that before deregulation, America had a healthy charter airline industry that enjoyed significant market share. Under deregulation, it has nearly vanished. See Brenner, *supra* note 19, at 185. In 1977, non-scheduled airlines had 43,397 domestic departures, compared with 18,577 in 1986. FEDERAL AVIATION ADMINISTRATION, AIRPORT ACTIVITY STATISTICS OF CERTIFICATED ROUTE CARRIERS 5-8 (1977); FEDERAL AVIATION ADMINISTRATION, AIRPORT ACTIVITY STATISTICS OF CERTIFICATED ROUTE CARRIERS 798-800 (1986).

⁵⁶ BUS. WK., Oct. 5, 1987, at 40; Wall St. J., Mar. 10, 1989, at A10; see also Valente and Rose, *Concern Heightens About the Airline Industry's March Toward Near Domination by Only a Few Major Carriers*, Wall St. J., Mar. 10, 1989, at A10.

CHART I — MAJOR AIR CARRIER MERGERS, ACQUISITIONS, PURCHASES AND CONSOLIDATIONS SINCE PROMULGATION OF THE AIRLINE DEREGULATION ACT OF 1978

		Market share*		
		1989	1988	1987
American	AMERICAN	16.6	15.2	13.8
Air Cal				
United	UNITED	16.2	16.4	16.9
Pan Am (transpacific routes)				
Texas International	TEXAS AIR	15.9	19.3	19.0
Continental				
New York Air				
Frontier				
People Express				
Britt				
PBA				
Eastern				
Braniff (Latin America)				
Rocky Mountain				
Delta	DELTA	13.3	12.0	12.2
Western				
Northwest	NORTHWEST	9.6	8.9	10.3
Republic				
North Central				
Southern				
Hughes Airwest				
TWA	TWA	7.2	7.4	8.2
Ozark				
Allegheny	US AIR	7.2	7.2	7.1
PSA				
Piedmont				
Empire				
Henson				
Pan Am	PAM AM	5.9	7.1	6.3
National				
Ransome				

* Percentage market share as measured by revenue passenger miles. Sources: Business Week, Oct. 5, 1987, at 40, and Wall Street Journal, Mar. 10, 1989, at A8.

Nor are these likely to be the last of the mergers. Carl Icahn, owner of TWA, has announced that he would like

to purchase another airline.⁵⁷ Pan Am has been mentioned as ripe for acquisition or bankruptcy. To stay aloft, Pan Am has already sold off its trans-Pacific routes and aircraft, its Inter-Continental Hotel chain, and its Manhattan skyscraper.

Eastern entered bankruptcy in early 1989. Even before bankruptcy, Eastern was the incredible shrinking airline, selling its east coast shuttle to Donald Trump, and its computer reservations system and other valuable assets to firms controlled by Frank Lorenzo's Texas Air.⁵⁸

With the globalization of air transport, the potential looms for the creation of *international* megacarriers. Already American, JAL and Qantas are trying to buy thirty-five percent of Air New Zealand; British Airways has acquired British Caledonian; SAS has purchased a ten percent interest in Texas Air; Swissair and Singapore Airlines each own five percent of Delta; Ansett of Australia holds ten percent of America West; JAL owns twenty percent of Hawaiian Airlines; KLM holds twenty-five percent of Northwest; and several European airlines have bought into United's Apollo/Covia computer reservations system.⁵⁹ Liberalization of air transportation in the European Economic Community scheduled for 1992 will likely increase levels of concentration across the Atlantic, and encourage more joint arrangements with United States carriers (although cabotage laws prohibit more than twenty-five percent foreign ownership of United States flag airlines).⁶⁰ By the end of the century, there may be as few as nine or ten global megacarriers.⁶¹ United States

⁵⁷ Valente, *Icahn Wants To Purchase Another Airline*, Wall St. J., Nov. 8, 1988, at A4.

⁵⁸ *The Boss They Love to Hate*, NEWSWEEK, Mar. 20, 1989, at 20, 22.

⁵⁹ Hamilton, *supra* note 46, at K1, K6; Dempsey, *Corporate Pirates Assault the Heavens—Leveraged Buy-Outs and the Airline Industry* DEPAUL BUS. L.J. (1989).

⁶⁰ See DEMPSEY, LAW & FOREIGN POLICY, *supra* note 11, at 78-79; see also Dempsey, *Aerial Dogfights Over Europe: The Liberalization of EEC Air Transport*, 53 J. AIR L. & COM. 615 (1988).

⁶¹ Stockton, *supra* note 43, at 3-6.

megacarriers already dominate the global aviation industry:

CHART II: WORLD'S TOP TEN AIRLINES, 1987⁶²

<u>Airline</u>	<u>Scheduled Passengers (m)</u>
American Airlines	59.1
United Airlines	55.2
Eastern Airlines	44.7
Continental Airlines	39.4
TWA	24.8
British Airways	19.1
Japan Air Lines	17.9
Lufthansa	16.9
Pan American	14.8
Alitalia	14.3

As a result of this concentration within the industry, many commuter airlines have disappeared because of their inability to compete with the big airlines. The few that remain are "captives" of the major carriers, serving them at their hubs.⁶³

2. Hub Concentration

Alfred Kahn blames the emergence of what he characterizes as an "uncomfortably tight oligopoly"⁶⁴ in domes-

⁶² THE ECONOMIST, Mar. 11, 1989, at 63.

⁶³ We are left with a situation aptly summarized by Morton Beyer:

The 11 major airlines have shrunk to eight; the eight former local service carriers are now two and they are trying to merge; the eight original low-cost charter airlines have been reduced to one, through bankruptcy and abandonment; 14 former regional airlines have shrunk to only four; over 100 new upstart airlines were certificated by the CAB and about 32 got off the ground and most of those crashed, leaving only a handful still operating; of the 50 top commuters in existence in 1978, 29 have disappeared

Today, the top 50 commuter carriers who constitute 90 percent of that industry are captives of the major carriers, in part or in total owned, controlled, and financed by the giant airlines and relegated to serving the big airlines at their hubs.

The Effect of Airline Deregulation on the Rural Economy, Hearing Before the Subcomm. on Rural Economy and Family Farming, 100th Cong., 1st Sess. 61-62 (1987).

⁶⁴ Kahn, *Despite Waves of Airline Mergers, Deregulation Has Not Been a Failure*, Denver Post, Aug. 31, 1986, at 3G.

tic air transportation on the DOT's permissive approach to airline mergers: "They have been *permitted* by a totally, and in my view indefensibly, complacent Department of Transportation It is absurd to blame deregulation for this abysmal dereliction."⁶⁵ Upon examination, however, of the deregulation-induced growth of 'fortress' hubs, it becomes clear that mergers and acquisitions alone cannot explain the growing concentration of the industry. Even without mergers, the trend was to reconfigure routes in such a way as to constitute a de facto parcelling out of airports among ostensible competitors. Lax anti-trust policy only aggravated this basic trend.

All but four *hub airports* are dominated by a single airline, controlling from sixty to sometimes eighty to ninety percent of landings, takeoffs, gates, and passengers.⁶⁶ Since deregulation, all major airlines have created hub-and-spoke systems, funneling their arrivals and departures into and out of hub airports where they dominate the arrivals, departures, and infrastructure.⁶⁷ While entry and exit regulation formerly constricted their geographic operations, deregulation freed airlines to leave competitive and smaller markets and consolidate their strength into regional hubs and city-pair market monopolies and oligopolies. The destructive competitive environment of deregulation led them to seek out monopoly opportunities to stem the hemorrhaging of dollars. Ironically, a lax antitrust policy may have saved the industry from a plethora of bankruptcies. As the dust settles from the initial maelstrom of deregulation, the horizon appears devoid of meaningful competition.

Clearly, the merger of Northwest and Republic resulted in sharply increased levels of concentration at Minneapolis/St. Paul and Detroit; the same happened at St. Louis when DOT approved the merger of TWA with Ozark Airlines. But as Chart III reveals, massive hub concentration

⁶⁵ Kahn, *A Mixed Bag*, *supra* note 3, at 234 (emphasis in original).

⁶⁶ See Chart III, *infra* note 68 and accompanying text.

⁶⁷ Dempsey, *Fear of Flying Frequently*, NEWSWEEK, Oct. 5, 1987, at 12.

occurred at a large number of cities where no merger had a significant impact.

CHART III: SINGLE CARRIER CONCENTRATION AT MAJOR AIRPORTS PRE AND POST DEREGULATION⁶⁸

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

*includes Piedmont

Excessive levels of concentration also emerged in the monopoly hubs of Charlotte (eighty-seven percent Piedmont), Chicago Midway (sixty-five percent Midway), Dallas Love (ninety-one percent Southwest), Dayton (sixty-four percent Piedmont), Newark (sixty-five percent Texas Air), and Raleigh (sixty-seven percent American), as well as the duopoly hubs of Atlanta (ninety-five percent Delta and Eastern), Chicago, (seventy-two percent American and United), Dallas (eighty-seven percent American and Delta), and Denver (eighty-nine percent Texas Air and United).⁶⁹

Even Chicago O'Hare and Atlanta Hartsfield are increasingly dominated by a single airline. In 1977, United had twenty-nine percent of all boardings in Chicago; by

⁶⁸ CONSUMER REPORTS, June 1988, at 362-67.

⁶⁹ Brenner, *supra* note 19, at 190; see also Ott, *Congress, Airlines Reassessing Deregulation's Impact*, AV. WK. & SPACE TECH., Nov. 9, 1987, at 163; Cushman, Jr., *Two Studies Conflict on Airline Fares*, N.Y. Times, June 7, 1989, at A14; Hamilton, *The Hubbing of America: Good or Bad?*, Wash. Post, Feb. 5, 1989, at H1, H2 col. 5 [hereinafter Hamilton, *Hubbing*].

1988, it had fifty-three percent.⁷⁰ Even before the bankruptcy of Eastern, Delta controlled sixty-two percent of Atlanta.⁷¹ Since Frontier was absorbed, first by People Express and then by Continental, no hub airport has enjoyed the three-carrier competition which theretofore existed at Denver.⁷²

Indeed, *the explanation for significant levels of hub concentration at all but Detroit, Minneapolis/St. Paul and St. Louis is not the DOT's generous approval of airline mergers, but simply the entry and exit opportunities unleashed by deregulation.* Carriers adopting particular cities as hubs increased frequencies and leased more gates, while incumbent airlines quietly exited in favor of market dominance opportunities of their own in other hub airports.⁷³ Freedom to enter and exit markets, the very heart of deregulation, is responsible for concentration at more hub airports than is the DOT's dereliction of its merger approval powers, abysmal though it is.⁷⁴ The CAB would certainly not have approved the widespread entry and abandonments which produced this massive hub concentration.

A study prepared by Dr. Julius Maldutis confirms the high levels of hub concentration resulting from deregulation. Maldutis reviewed concentration levels at fifty of the nation's busiest airports between 1977 and 1987, calculating the Herfindahl-Hirschman Index (HHI) for each.⁷⁵ The United States Department of Justice utilizes the HHI as its methodology for determining acceptable levels of concentration for antitrust review. It provides a measure based on squaring the market shares of individual firms, and adding them together. For example, a firm with a 100 percent monopoly would have an HHI of 10,000. Under

⁷⁰ *The Frenzied Skies*, *supra* note 45, at 72.

⁷¹ Hamilton, *Hubbing*, *supra* note 69, at H2, col. 5.

⁷² Dempsey, *Monopoly*, *supra* note 54, at 592-93.

⁷³ See Stockton, *supra* note 43, § 3, at 1, col. 3.

⁷⁴ Dempsey, *Deregulation Has Spawned Abuses in Air Transport*, AV. WK. & SPACE TECH., Nov. 21, 1988, at 147 [hereinafter Dempsey, *Deregulation*].

⁷⁵ *Hearings Before the U.S. Senate Comm. on Commerce, Science and Transportation on Airlines*, 100th Cong., 1st Sess. 172 (1987) (statement of Julius Maldutis).

the Justice Department's analysis, an HHI below 1,000 is unconcentrated; an HHI of between 1,000 and 1,800 is moderately concentrated. An HHI of above 1,800 is highly concentrated. By 1987, forty of these fifty airports had an HHI above 1,800; in other words eighty percent of these airports were highly concentrated. Moreover, Maldutis calculated the weighted average of concentration for all fifty airports, finding that it rose from an HHI of 2,215 in 1977, to 3,513 in 1987.⁷⁶ This corresponds to a fall in the number of "effective"⁷⁷ competitors in the average of the fifty airports from 4.51 in 1977 to 2.85 in 1987.

Hub concentration translates into escalating fares. As noted in the *New York Times*: "Passengers who live in a hub city and begin their flight there end up paying higher fares, in some cases fifty percent more than they would have had deregulation not occurred."⁷⁸ The General Accounting Office found that, after its merger with Ozark, TWA increased fares thirteen to eighteen percent on formerly competitive routes radiating from St. Louis.⁷⁹ A similar study compared fares in markets radiating from Minneapolis-St. Paul in which Northwest and Republic formerly competed, and found that rates rose between eighteen and forty percent.⁸⁰

In fifteen of the eighteen hubs in which a single carrier controls more than fifty percent of the market, passengers pay significantly more than the industry norm.⁸¹ A recent study by the DOT of nine hub airports concluded that fares at all but two increased faster between 1985 and 1988 than the 11.1 percent increase in the airline component of the Consumer Price Index:

⁷⁶ *Id.*

⁷⁷ This is the number of *equal-size* competitors that would produce the same Herfindahl index as is observed in a market. It is the reciprocal of the Herfindahl in proportionate form.

⁷⁸ Stockton, *supra* note 43, § 3, at 1, col.3.

⁷⁹ GENERAL ACCOUNTING OFFICE, AIRLINE COMPETITION: FARE AND SERVICE CHANGES AT ST. LOUIS SINCE THE TWA-OZARK MERGER 2, 3 (1988).

⁸⁰ Hamburger, *Fares Rose With NWA's Dominance*, Minneapolis Star Tribune, Dec. 1988, at 1A.

⁸¹ Hamilton, *Hubbing*, *supra* note 69, at H2, col. 1.

CHART IV: AIRLINE HUB MARKET SHARES AND PRICE INCREASES BETWEEN 1985 AND 1988⁸²

<u>Hub Airport</u>	<u>Dominant Carrier</u>	<u>Fare Increases</u>
Atlanta	Delta (62%)	5%
Charlotte	Piedmont (89%)	34%
Cincinnati	Delta (81%)	25%
Detroit	Northwest (62%)	27%
Minneapolis	Northwest (77%)	21%
Pittsburgh	USAir (80%)	-6%
Raleigh	American (67%)	35%
St. Louis	TWA (83%)	22%
Salt Lake City	Delta (77%)	26%

The General Accounting Office, in a study comparing 1988 fares at fifteen concentrated⁸³ hub airports with fares at thirty-eight unconcentrated airports, reported average fares twenty-seven percent higher at the hubs.⁸⁴ The higher fares at concentrated airports do not reflect a premium for nonstop service, since the average number of coupons per traveler at concentrated airports was nearly equivalent to that of the comparison, unconcentrated airports (2.26 v. 2.28 coupons). The difference persisted when average trip length was controlled, by excluding from the comparison group those airports where average trip length was significantly longer than for concentrated airports. The study concludes that neither a higher proportion of non stops nor a higher proportion of short-haul (and hence more costly) flights can explain the fare premium at concentrated airports. The study determined both that the increase in fares from 1985-1988 was generally greater at concentrated airports, and that the increase in fares was especially dramatic when a carrier established dominance during the period.⁸⁵ Finally, the study found that in thirteen of fifteen of the concentrated

⁸² *Id.* at H2, col. 5.

⁸³ Concentrated airports were defined as those where one airline handled at least 60 percent of enplanements.

⁸⁴ GENERAL ACCOUNTING OFFICE, AIR FARES AND SERVICE AT CONCENTRATED AIRPORTS (1989).

⁸⁵ This further confirmed the effect of concentration on fares, which had been

airports, the dominant carrier had higher fares, in some cases much higher than other carriers' fares at the same airport.

A recent study by Severin Borenstein⁸⁶ finds that the relationship between airport dominance and the level of fares stands up to sophisticated econometric analysis which controls for cost and quality effects on fares. His estimates conclude that "a 10 percent increase in the average endpoint enplanement share for an itinerary would lead to a 4.3 percent increase in average fare."⁸⁷

3. *City-Pair Concentration*

Many defenders of deregulation dismiss the concerns of critics about the unprecedented levels of *national* concentration permitted in the airline industry since deregulation on the grounds that the relevant markets are not national, but "city-pair" markets — the market for air transport between a particular pair of cities. Thus a Congressional Budget Office (CBO) study of airline deregulation⁸⁸ contends that:

While there has been a substantial increase in industry concentration since 1983, there has not been a corresponding increase in concentration at the market level. . . . The effective number of carriers serving [city-pair] markets of more than 200 miles with 25 or more passengers per day has grown from 2.4 carriers in 1983 to 2.5 carriers in 1987.⁸⁹

The CBO does not provide data on the earlier period (1978-1983), but characterizes the evidence as indicating a significant increase in competition over the period as a

documented in GAO's earlier study of airfares at St. Louis following the TWA-Ozark merger.

⁸⁶ INSTITUTE OF PUBLIC POLICY STUDIES, U. OF MICHIGAN, HUBS AND HIGH FARES: AIRPORT DOMINANCE AND MARKET POWER IN THE U.S. AIRLINE INDUSTRY (1988) [hereinafter HUBS AND HIGH FARES].

⁸⁷ *Id.* at 23.

⁸⁸ CONGRESSIONAL BUDGET OFFICE, POLICIES FOR THE DEREGULATED AIRLINE INDUSTRY (1988).

⁸⁹ *Id.* at 15-16.

whole. Since the latter part of the period saw an increase of a scant one-tenth of a competitor, a "significant" increase would have to have come in 1978-1983, prior to the post-1983 consolidation of the industry. Later, in its report, the CBO claims (without citation) that upon passage of the Airline Deregulation Act, "the average city-pair with non-stop flights was served by 1.4 carriers." Using this figure, it is clear that for all practical purposes, new entry had all but ceased by 1983. The "significant" increase in competition amounts to a change from an effective, but regulated, monopoly (1.4 competitors), to an unregulated duopoly in the average city-pair market. Given the doubts which have arisen on the score of the "contestability" of airline markets, and the ineffectual threat of potential entry designed to discipline incumbent carriers, it is difficult to take a great deal of solace in the "increased competition" in the average market for which deregulation is, by this measure, responsible.

Furthermore, problems exist with market definition. The figures presented above, and those used by most proponents of deregulation, pertain to the provision of single-carrier service between two cities, either nonstop or indirectly through connections over the carrier's hub. Depending upon the chosen perspective, this focus may be too narrow, or too broad.

From the vantage point that nonstop service has unique attractions making it a separate market when compared with connecting service, the direction of change in concentration in this narrower market is reversed. The effective number of carriers providing nonstop service *fell* in the period from 1983 to 1987 (the period for which the CBO study gives data) for the average city-pair market.⁹⁰ On the other hand, a broader definition of the market for air transport between two cities would need to include not only single-carrier connecting service but also interlining possibilities. These possibilities have been drastically re-

⁹⁰ *Id.* at 16.

duced in the deregulation period due to the rise of hub and spoking and the tendency toward hub dominance.⁹¹ An arbitrary market definition which *includes* single-carrier connecting flights but *excludes* interline connections, biases the resulting picture of changes in concentration by showing more competition.

Like the CBO, Alfred Kahn insists that the airline industry is more competitive post deregulation because there are now fewer monopoly *city-pair* markets. This is purportedly true despite the increase in industry concentration.⁹² Chart 5 supports this claim:

CHART V: NUMBER OF CITY-PAIRED MARKETS RECEIVING SERVICE BY ONE OR MORE SCHEDULED CARRIERS⁹³

No. of Carriers	Number of Markets	
	Oct. 1978	July 1988
1	4,093	3,481
2	899	1,054
3	233	413
4	80	192
5	21	83
6	14	45
7	9	22
8	6	14
9	2	4
10+	2	6
TOTAL	5,359	5,314

The same caveats, however, made with regard to CBO's argument, also apply here. While it is true that the overall number of monopoly markets has fallen since deregulation, under regulation, a monopolist cannot extract monopoly rents from buyers because its rates are required by

⁹¹ Kahn, *A Mixed Bag*, *supra* note 3, at 233 n.7 (Kahn recognizes the bias in the figures he presents towards overstating the increase in competition post-1978 due to their exclusion of interlining).

⁹² Kahn, *Surprises*, *supra* note 3, at 319.

⁹³ Department of Transportation, *Analysis of Official Airline Guide Data*, TRAFFIC WORLD, Dec. 5, 1988, at Supp. B.

law to be "just and reasonable." Neither telephone companies nor electric utilities can charge monopoly rates despite their monopoly positions because their rate and service levels are regulated by governmental agencies. An unregulated monopoly, however, can charge whatever price the market will bear.

In 1978, the Civil Aeronautics Board limited single firms, which dominated seventy-six percent of America's city-pair markets, to charging "just and reasonable" rates and to earning no more than a reasonable return on investment. In 1988, monopoly carriers in nearly two-thirds of America's city-pair markets charged whatever the market would sustain. While the 1978 Act was before Congress, Kahn urged that "[n]o automatic upward [pricing] freedom should be allowed in markets dominated by a single carrier."⁹⁴ Today, nearly two-thirds of our nation's city-pairs are unregulated monopolies.

Like monopolies, duopolies are not hotbeds of competition. Two firms may implicitly agree to lethargic price and service competition, enjoying, in effect, a "shared monopoly." In 1978, ninety-three percent of America's markets were *regulated* monopolies or duopolies. In 1988, eighty-five percent of American's markets were *unregulated* monopolies or duopolies. Statistically, these figures suggest an improvement in pricing freedom. Today, however, no government agency protects the public against monopoly pricing and the extraction of monopoly profits.

Thus, whether we look at national, airport, or city-pair measures of concentration, empirical experience appears to have refuted the traditionalist argument for deregulation. Economies of size (scale, scope and density), the putative absence of which was at the heart of the traditionalist case for deregulation, seem to be pervasive. Former DOT Assistant Secretary Matthew Scocozza recently confessed, "[t]o be very honest, in 1978 we envisioned that there would be a hundred airlines flying to

⁹⁴ Kahn, *A Mixed Bag*, *supra* note 3, at 232.

every major hub."⁹⁵

4. *Contestability Mythology Debunked*

For several reasons, it is unlikely that a new entrant will emerge to rival the megacarriers. First, the infrastructure of gates, terminal facilities, and landing slots has been consumed. Sixty-eight percent of our airports have no gates to lease to a new entrant.⁹⁶ Even if a current tenant would be willing to lease a gate to an upstart airline, the incumbent could nevertheless exact monopoly rents for its lease. For example, at Detroit, Northwest Airlines charges sublessee Southwest Airlines eighteen times what Northwest itself pays for the space. The decision of DOT to allow carriers to buy and sell landing slots means that the deeper-pocket carriers can purchase market share and thereby enjoy market power to reap monopoly profits.⁹⁷

Second, United and American, the largest airlines, own the largest computer reservations systems (CRS), from which ninety percent of tickets are sold.⁹⁸ This accounts for seventy-seven percent of passenger bookings. Such vertical integration offers the incumbent airlines the potential to enjoy various forms of system bias (including screen bias, connecting point bias, and database bias).⁹⁹ The General Accounting Office has concluded that the airline-owned systems are so dominant that they stifle competition in the industry.¹⁰⁰ An airline which owns a CRS has a thirteen to eighteen percent greater likelihood

⁹⁵ *The Frenzied Skies*, *supra* note 45, at 73.

⁹⁶ See Hardaway, *supra* note 10, at 49.

⁹⁷ *Id.*

⁹⁸ United sold half of its Appollo/Covia system for \$500 million in 1988 to US Air and four foreign airlines. O'Brian, *Delta, AMR's American Airlines Plan to Merge Counter Reservations Systems*, Wall St. J., Feb. 6, 1989, at B10, col. 3. TWA had previously sold half of its CRS to Northwest Orient. In addition, Eastern's system had been transferred to a Texas Air subsidiary for a paltry \$100 million. Castro, *Eastern Goes Bust*, TIME, Mar. 20, 1989, at 52.

⁹⁹ Sanders, *The Antitrust Implications of Computer Reservations Systems*, 51 J. AIR L. & COM. 157, 180-83 (1985).

¹⁰⁰ Hamburger, *Fighting Back Begins as Costs Go Up, Up and Away*, Minn. Star Tribune, Dec. 24, 1988, at 6A [hereinafter Hamburger, *Fighting Back*].

of selling its tickets through its system.¹⁰¹

Moreover, the advantage of being listed in the computer as having an "on line" connection with one of the major airlines has led forty-eight of the fifty small air carriers to affiliate themselves with the megacarriers, renaming their companies and repainting their aircraft in megacARRIER colors.¹⁰² Ninety percent of the 31.7 million passengers who flew aboard regional airlines in 1987 were carried aboard code-sharing airlines.¹⁰³ Sophisticated computers give airlines the ability to adjust the number of seats for which discounts are offered on an hourly basis, depending on passenger demand.¹⁰⁴ As a result of such computerization, the small carriers have become, in effect, franchisees of the large carriers, and are therefore an unlikely source of new competition. Small carriers are furthermore declining in number. The regional airlines, peaking at 246 in 1981, dwindled to 168 by 1987.¹⁰⁵

Third, large airlines have more attractive frequent flyer programs. These programs serve to capture business travelers, the most lucrative segment of the market. Once business travelers are committed to a carrier's frequent flyer program and have accumulated mileage, they often prefer that carrier over its rivals, even when the rival offers lower fares. This is especially true since most business travel is paid for not by the individual flying, but by his or her firm.

The loyalty created by frequent flyer programs insures that a new airline will find it difficult to find a niche. Even customers who have not previously accumulated frequent flyer mileage with the incumbent will be less willing to accumulate future mileage with a new carrier offering full travel to decidedly less exotic destinations. For example,

¹⁰¹ *Id.* (Statistics were quoted by Michael Levine).

¹⁰² Renamed companies, for example, are United Express, Continental Express, and American Eagle.

¹⁰³ *Dereg's Falling Stars*, OAG FREQUENT FLYER, Aug. 1988, at 28.

¹⁰⁴ GENERAL ACCOUNTING OFFICE, AIRLINE COMPETITION: IMPACT OF COMPUTERIZED RESERVATIONS SYSTEMS — (1986).

¹⁰⁵ *Dereg's Falling Stars*, *supra* note 103.

should a small local airline find a major airport with sufficient capacity to establish a hub, could such an airline (Air Omaha, for example) lure passengers away from its rivals' frequent flyer programs and free trips to Hawaii, when it could only offer a free weekend in Cedar Rapids?

Not only are the frequent flyer programs creating passenger loyalty, but commission overrides¹⁰⁶ are generating loyalty among travel agents.¹⁰⁷ Thus, both passenger and agents often prefer a more expensive, established airline to a discount carrier. Indeed, the travel agent has been given an incentive to engage in fraud. For example, suppose the consumer calls and asks whether there is a flight on Carrier A at noon. There is, but the agent is working toward commission overrides on Carrier B this month. How easy it would be for the agent to say, "Sorry, the noon flight is sold out. But I can get you a seat at 1:30 on Carrier B."

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 severe concessions in terms of labor wages and work rules. Some airlines, including Continental, Eastern, and TWA, have effectively crushed their unions. Others, including United, American, and Delta, have established two-tier pay scales, with B-grade pay for newly hired employees. The margin of labor cost and productivity between a new entrant and an established airline has thus been significantly narrowed.

Fifth, incumbents have shown that they will not sit idly by while new airlines rob them of their market shares. When new entrants offer lower fares, the incumbents almost always match them. This destroys the new rival carrier for a number of reasons. For example, suppose a new

¹⁰⁶ Commission overrides are bonuses paid by a carrier to agents who generate a predetermined target revenue level for the carrier.

¹⁰⁷ See Rose, *Travel Agents' Games Raise Ethics Issue*, Wall St. J., Nov. 23, 1988, at B10, col.2. Domestic commission overrides range from one percent to five percent above the standard nine percent to ten percent commission. International bonuses can be several times the standard eight percent commission. *Id.*

carrier such as Air Omaha calculates that if it offers a \$49 fare between Omaha and Minneapolis, it will fill about seventy percent of its seats, because the incumbent, Northwest, does not offer a comparable fare.¹⁰⁸ Due to lower labor costs and the use of leased, relatively old equipment, Air Omaha's break-even load factor is a modest fifty-five percent.¹⁰⁹ Air Omaha begins operations and rolls in a healthy profit, right?

Wrong. Northwest will match the \$49 fare, and Air Omaha's load factors will drop well below its break-even load factor. Northwest can not only withstand the loss generated by the lower fare because of its deeper pocket, but the discount fare will actually cost it little, since it will only be offered to passengers traveling between the two points. Northwest has a major hub in Minneapolis, and most of its passengers travel to or from points beyond — in industry jargon, they constitute "beyond-segment feed." As such, they are not offered the bargain fare. Thus, only a portion of Northwest's passengers enjoy the discount. Moreover, many of the business travelers in the city-pair market will be willing to pay more than \$49 because they have accumulated mileage in Northwest's frequent flyer program. Air Omaha must eventually exit this particular market because ordinarily only a carrier with a hub at the flights destination can successfully challenge a rival at the rival's hub.

Finally, more than 150 airlines have failed since 1978. Many of these have been pushed into bankruptcy by the predatory behavior of their larger rivals. As a result, investor confidence in new airline ventures has largely evaporated.¹¹⁰ Hence, significant new entry is highly unlikely

¹⁰⁸ In this example, Air Omaha's load factor of 70% would be above industry average which in 1984 and 1988 ranged between 59% and 62%. AMR CORPORATION, ANNUAL REPORT 9 (1989).

¹⁰⁹ In contrast, United's break even load factor between 1986 and 1988 ranged between 62% and 64%. UNITED AIRLINES CORPORATION, ANNUAL REPORT 1 (1988).

¹¹⁰ See Russell, *Flying Among the Merger Clouds*, TIME, Sept. 29, 1986, at 56-57.

in the deregulated airline industry.¹¹¹ Incumbent carriers' dominance of gates, terminal space, landing and takeoff slots, computer reservations systems, and the most attractive frequent flyer programs make it unlikely that new entrants will emerge to challenge the megacarriers. In fact, no major carrier has emerged since 1985.¹¹²

More and more observers are concluding that the postderegulation airline industry is not "contestable" in the market theory sense¹¹³ because entry barriers are pervasive, especially in hub airports. As one commentator noted:

[e]ntry into the industry by new carriers seems remote, and entry onto new routes is far more difficult than many envisioned it would be with deregulation. Many airline observers thought that the 1978 deregulation of pricing and entry would make airline markets "contestable." That is, airlines could engage in "hit-and-run" entry into each other's markets in response to profit opportunities — simply by shifting a plane from one route to another. Instead the evidence compiled in the USAir-Piedmont record, as well as a large body of solid research by economic and legal scholars in the past three years, demonstrates that incumbent airlines are frequently able to charge higher prices on routes where other carriers face barriers to entry.¹¹⁴

Deregulation's nontraditionalist proponents, just as traditionalists and scale economy adherents, overestimated the competitive nature of the industry. As Charles Rule, Assistant Attorney General directing the Antitrust Division of the Department of Justice, recently observed, "[M]ost airline markets do not appear to be contestable, if they ever were. . . . [D]ifficulties of entry, particularly on city pairs involving hub cities, mean that hit-and-run entry

¹¹¹ See Dempsey, *Monopoly*, *supra* note 54, at 590.

¹¹² Hamburger, *supra* note 80, at 9A.

¹¹³ See generally Levine, *Airline Competition in Deregulated Markets: Theory, Firm Strategy, and Public Policy*, 4 YALE J. ON REG. 393 (1987).

¹¹⁴ Guerin-Calvert, *Hubs Can Hurt on Shorter Flights*, at *Crowded Airports*, Wall St. J., Oct. 7, 1987, at 34, col. 4.

is a theory that does not comport with current reality."¹¹⁵ Even Kahn acknowledged that, while easy entry was one of the major assumptions behind airline deregulation, "we never thought that [legally free entry] would provide adequate protection in markets that are naturally monopolistic or oligopolistic — that just won't support more than one or two carriers."¹¹⁶ Kahn further admitted that ideologues had irresponsibly justified airline deregulation by emphasizing the concept of "contestability," despite clear evidence of a paucity of new entrants.¹¹⁷

But even if new entry is unlikely, the underlying issue remains: Is the high level of concentration which has emerged in the airline industry under deregulation a cause for concern? After all, even though Coke and Pepsi dominate the soft drink industry, we still have price competition between them. Although many other American industries are dominated by huge firms, transportation is unique in the way it impacts the economy. As Melvin Brenner put it:

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

¹¹⁵ Rule, *Antitrust and Airline Mergers: A New Era*, 57 TRANSP. PRAC. J. 62, 68 (1989) (speech before the International Aviation Club, Washington, D.C., March 7, 1989). On January 1, 1989, the Justice Department took over the largely latent airline merger authority of DOT. *Id.* at 62 n.5. Mr. Rule's recognition of market reality appears to be a breath of fresh air over his DOT counterpart's blind faith in market theory.

¹¹⁶ Kahn Interview, *supra* note 35, at 7.

¹¹⁷ *Id.* Kahn conceded:

that the idealogue [sic] began simplistically to parrot the word "contestability" as though it were a substitute for looking at the realities, even if the realities were manifestly changing, even if survival of the new entrants was becoming more and more questionable, as more and more of them were going out of business, and even as it became clear that domination of hubs was increasingly unchallengeable by new entrants.

Id.

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.¹¹⁸

IV. PRICING

Kahn once argued that deregulation would bring about cost-based pricing. After a decade of deregulation, however, prices seem to reflect the level of competition in a particular market, not costs. As demonstrated in the preceding section, there appears to be a negative correlation between the level of competition and price, with markets having fewer competitors exhibiting higher prices.¹¹⁹

Admittedly, competition has enabled some users (particularly passengers with flexible schedules in major airline markets) to enjoy lower prices. 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.¹²⁰ But individuals flying to small

¹¹⁸ Brenner, *supra* note 19, at 189.

¹¹⁹ See E. BAILEY, D. GRAHAM & D. KAPLAN, *DEREGULATING THE AIRLINES* (1985); Call & Keeler, *Airline Deregulation, Fares, and Market Behavior: Some Empirical Evidence*, in *ANALYTICAL STUDIES IN TRANSPORT ECONOMICS* 221 (A. Daugherty ed. 1985); Graham, Kaplan & Sibley, *Efficiency and Competition in the Airline Industry*, 14 *BELL J. ECON.* 118 (1983); Moore, *U.S. Airline Deregulation: Its Effect on Passengers, Capital, and Labor*, 29 *J. L. & ECON.* 1 (1986); Morrison & Winston, *Empirical Implications and Tests of the Contestability Hypothesis*, 30 *J. L. & ECON.* 53 (1987).

¹²⁰ According to the industry, in 1977, the airlines carried 240 million passengers; in 1987, they carried 447 million passengers. These figures, however, may exaggerate the public enthusiasm for flying under deregulation. First, the figures themselves may distort the number of passengers flying by counting ticket coupons. Postderegulation hub and spoking often creates two coupons, whereas prederegulation nonstops produced one. Second, the graying of America has moved a larger block of America's population into the more affluent 35-65 age group, which has always flown more. Third, the fare wars of the early 1980s stimulated new traffic, building air transport into the lifestyles of Americans, and addicting them to it. Many continue to fly although prices have increased. Finally, the price wars of the early 1980s destroyed the intercity bus industry, leading to the merger of Greyhound and Trailways and the cancellation of several thousand small towns from bus networks.

towns and last minute travelers, such as business persons and people needing immediate flights home for funerals or other emergencies, are ineligible for these discounts.¹²¹ Deregulation inevitably eradicates some of the important benefits derived from the traditional scheme of economic regulation, including the prohibition against price discrimination.¹²²

Moreover, the unprecedented concentration resulting from massive bankruptcies and mergers threatens to make the low prices enjoyed in large, competitive markets a short-term phenomenon. In fact, as shown below, the aggregate benefits from fare reductions may very well have reached zero in 1988. Holding fuel prices constant, the real yield or revenue per passenger mile (a commonly used measure of average fares) paid in 1988 matched what a projection of the prederegulation (downward) trend would have given for that same year. This reflects a one-time drop in yield immediately following deregulation coupled with a slower rate of decline of fuel-adjusted real revenues per passenger mile after deregulation than before. The steep rate of decline projected from the prederegulation downward trend in fuel-adjusted fares "caught up" with the real yield in 1988, despite increases of approximately thirteen percent in real terms immediately following deregulation. The gains from deregulation have proven short-lived; indeed, they are already a thing of the past. A preliminary estimate for 1989 indicates that consumers are paying 2.6 percent more in airfares than prederegulation downward trend projections.

Public opinion polls reflect growing consumer irritation with the deregulated airline industry. In 1984, when consumers were asked, "Should airlines be allowed to raise or

¹²¹ Ott, *supra* note 43, at 89.

¹²² See Wagner & Dean, *A Prospective View Toward Deregulation of Motor Common Carrier Entry*, 48 ICC PRAC. J. 406, 413 (1981); see also, Wagner, *Exit of Entry Controls for Motor Common Carriers: Rationale Reassessment*, 50 ICC PRAC. J. 163, 172-73 (1983).

lower their fares on their own, or should they be required to get government permission?," only thirty-five percent believed that airlines should be required to get the government's permission. As consumers became more acquainted with deregulation, however, they became less enamored with it. In 1987, when asked the same question, almost half were willing to opt for increased government rate regulation.¹²³ Even Kahn has admitted that it may be time to consider price ceilings in markets dominated by a single carrier.¹²⁴

A. *Cross-Subsidization and Price Discrimination*

Prior to deregulation, cross-subsidization existed to some extent within the air 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, and provide just and reasonable rates to both. Deregulation was designed to end this internal cross-subsidization on grounds that such wealth redistribution created allocative inefficiency.

Under deregulation, cross-subsidization appears merely to have been reversed in direction, rather than eliminated. Carriers now impose higher rates in their monopoly and oligopoly markets to cross-subsidize the losses incurred as a result of the intense competitive battles being waged for market share in dense traffic lanes.¹²⁵ For example, re-

¹²³ McGinley, *Bad Air Service Prompts Call for Changes*, Wall St. J., Nov. 9, 1987, at 29, col. 5-6.

¹²⁴ *Ex-Official Suggests Lid on Air Fares*, Rocky Mtn. News, Nov. 5, 1987, at 100. Said Kahn, "I don't reject the idea as a matter of principle. If price gouging gets bad enough, consumers will demand and deserve protection." Hamburger, *Fighting Back Begins as Costs Go Up, Up and Away*, Minneapolis Star Tribune, Dec. 24, 1988, at 6A. See also, Kahn, *Surprises*, *supra* note 3, at 320; Carroll, *Higher Fares, Better Service Are Forecast*, USA Today, Oct. 24, 1988, at B1.

¹²⁵ Brenner, *Are Airlines Off Course?*, Wall St. J., Feb. 1, 1989, at A15, col.2 (E.ed.). As Melvin Brenner noted:

cently the airline rate from Dubuque to Chicago was \$1 per seat mile, while the fare from Los Angeles to New York was 3.3 cents per seat mile.¹²⁶ In 1987, a round trip coach ticket between International Falls, Minnesota, and Minneapolis/St. Paul was eighty-six cents per seat mile; between Washington, D.C. and Minneapolis/St. Paul, the fare was twenty-seven cents per seat mile. The trip from St. Louis to Madison, Wisconsin, cost \$225 one way, while a ticket from New York to Los Angeles via St. Louis was only \$199.¹²⁷ These fares take from those who fly to or from small towns and give to those who fly from large cities. In the short-term, passengers flying in dense, competitive markets enjoy a windfall. The carriers which are ultimately victorious in the price wars stand to reap significant economic rewards once the dust has settled and the competition has been eliminated.

B. Price Savings

Many proponents of deregulation claim that deregula-

[D]eregulated airline pricing until now has reflected substantial distortion of normal market forces, resulting from what in foreign-trade parlance would be called "dumping. . . ."

Carriers are more likely to engage in dumping in the "other fellow's" market—i.e., any route where the price-cutting carrier has had little participation. As prices are cut below full cost on the more intensely competitive routes, carriers have found it necessary to compensate for this by boosting prices above full cost on other routes. Some passengers end up paying more than the cost of their transportation, in order to subsidize the below-cost bargains enjoyed by other passengers.

Id. at A13.

¹²⁶ *The Effect of Airline Deregulation on the Rural Economy: Hearing Before the Subcomm. on Rural Economy and Family Farming of the Sen. Comm. on Small Business*, 100th Cong., 1st Sess. 81 (1987) (testimony of John J. Nance)[hereinafter Nance Testimony].

¹²⁷ Dempsey, *Fear of Flying Frequently*, NEWSWEEK, Oct. 5, 1987, at 12. The complete disconnection of relative price from relative costs is apparent from a comparison of Delta's flights from Oakland to Salt Lake City versus Oakland to Phoenix. The latter flights stop in Salt Lake, Delta's hub, but cost much less than the former. Obviously, the leg from Salt Lake to Phoenix cannot have negative costs, even considering the lower unit costs of flying longer distances. The level of competition in the Oakland to Phoenix market (comparatively high) versus Oakland to Salt Lake (low) is the explanation. Unfortunately for Delta, they have not figured out a way to stop Salt Lake City-bound travelers from buying tickets to Phoenix and getting off in Salt Lake, throwing away the unused coupon.

tion has been successful by pointing to the significant price reductions enjoyed by consumers during the past decade. Kahn, for example, claims that inflation-adjusted fares have dropped thirty percent since 1976. Lesser savings are alleged by former DOT Secretary, James Burnley, who claimed that, by 1988, inflation-adjusted fares had dropped thirteen percent since deregulation.¹²⁸ Both estimates preceded the demise of Eastern, when fares began to increase significantly, and Kahn employs a base year two years prior to promulgation of the 1978 Act.

According to the Air Transport Association, real yields (revenues per passenger mile) have fallen twenty-eight percent since 1977, when Kahn took over at the CAB and began to allow more flexible pricing by the airlines (see Column 1 of Table 1 below). This appears to be an impressive achievement indeed, until compared with the historical record prior to deregulation and the behavior of the price of jet fuel. This sobering comparison clearly shows the emptiness of attributing the reduction in real fares since 1977-78 to deregulation, as displayed in Table 1.

First, note that real yields fell in the period prior to deregulation as well. From 1967-1977 they fell at an annual average rate of 1.7 percent per year, compared to the post-deregulation (1978-1988) per year rate of decline of 2.4 percent. On the surface, it appears that deregulation increased the rate of decline. Attributing, however, the *entire* decline to deregulation ignores the pre-existing downward trend.¹²⁹ In fact, air fares have been declining at about the same rate for more than forty years — a long-term trend preceding deregulation by several decades.¹³⁰

¹²⁸ *Airline Deregulation Under Fire*, Denver Post, Sept. 23, 1988, at 4A. "Average fares, adjusted for inflation, have declined 13 percent in the 10 years of free-market travel." *Id.* Burnley, *Soaring Air Travel in Unfettered Skies*, Wash. Times, Oct. 31, 1988, at 4-D.

¹²⁹ Melvin Brenner has made this point for eight years since deregulation. Brenner, *Rejoinder to Comments by Alfred Kahn*, 16 TRANSP. L.J. 253, 254-55 (1988).

¹³⁰ Work, Morse, Gallagher & Gregg, *Better Buys, Crowded Skies*, U.S. NEWS AND WORLD REP., Oct. 31, 1988, at 50-51.

Even the more moderate claim, however, of an accelerated rate of decline in prices after deregulation is questionable according to the figures in column 2 of Table 1. Real yields (prices) fell in the ten year period prior to deregulation despite a doubling of the real cost of fuel, while the somewhat higher rate of postderegulation decline occurred contemporaneously with a twenty-five percent decline in the real price of fuel. During the entire period, fuel constituted anywhere from twelve percent of costs, in the early 1960s, to thirty percent after the second oil shock, and back down to fifteen to sixteen percent in recent years.¹³¹ Thus, a percentage change of between twelve and thirty percent (depending on the year) in real fuel prices occurring during a given period is not a result of the regulation or deregulation of the airline industry. The third column of Table 1¹³² takes this into account by omitting from the real yield series the changes that were solely attributable to changing real fuel prices.¹³³ The result, exhibited in column 3, shows that *holding fuel prices constant*, the real price of air travel fell more rapidly (an annual average percentage decline of 2.7 percent) in the period prior to deregulation than after deregulation (a decline of 2.0 percent). Roughly, real yields would have fallen one percentage point more a year (seventeen percent of 5.9) had it not been for the average 5.9 percent increase in real fuel prices during the period 1967-1977; whereas real yields would have fallen .4 percent less per year (about fourteen percent of 2.8) had it not been for a gratuitous 2.8 percent annual *decline* in real fuel prices during the 1978-1988 period.

The fuel-adjusted series shows what the average American senses about deregulation but what the unadjusted data obscure — the enormous “front loading” of the

¹³¹ AIR TRANSPORT ASSOCIATION, AIRLINE COST INDEX (1989).

¹³² Air Transport Association and author's calculations. See Appendix, *infra*.

¹³³ Real fuel prices are calculated for a given year as the product of the fuel share of all cash expenses in the previous year and the contemporaneous percentage change in real fuel costs—see the Appendix for details.

gains of deregulation. From 1977 to 1978 and from 1978 to 1979, fuel-adjusted real yields fell ten and twelve percent respectively. Not until 1988 did real yields fall another ten percent — an annual average percentage decline of only .9 percent. The unadjusted data obscure this by making the first few years of deregulation, which coincided with the second oil shock, look worse than they were; while the latter part of the period, when real fuel prices plummeted, looks much better than it actually was. Note, too, that from 1985 to 1988, fuel-adjusted real fares actually rose — the only three year period during twenty-one years when this was so.

The apparent difference in the rate of decline of real revenues per passenger mile before and after deregulation was tested for statistical significance using regression techniques.¹³⁴ The *unadjusted* real yield series falls significantly faster after deregulation than before (at a continuously compounded annual rate of 3.1 percent from 1978 to 1988 compared with 1.5 percent from 1967 to 1977).¹³⁵ The fuel-adjusted series, on the other hand, falls at a significantly faster rate *before* deregulation — at 2.7 percent from 1967 to 1977 versus 1.9 percent from 1978 to 1988.¹³⁶ Instead of falling twice as quickly after deregulation, as the unadjusted numbers would suggest, real airline yields per passenger mile fell at a thirty percent slower rate *after* deregulation. The regressions also suggest that deregulation was responsible for a one-time reduction in fares on the order of thirteen percent, as Figure 1¹³⁷ shows. By 1988, however, due to the slower rate of decline of real fares, all the gains of this one-time shift had been dissipated. In other words, by 1988 consumers were paying “net” prices (net of the effects of

¹³⁴ See Appendix, *infra* for the detailed results.

¹³⁵ The rates reported here differ from those in Table 1 because they are least-squares growth rates, first, and because they are continuously compounded annual growth rates, second.

¹³⁶ See Appendix, *infra*.

¹³⁷ Air Transport Association and author's calculations.

¹³⁸ *Id.*

fuel) exactly equal to what they would have paid had prederegulation trends continued. By comparison, Figure 2¹³⁸ shows the prederegulation trend compared with actual when only "gross" prices, unadjusted for fuel cost changes, are examined. Again this is dramatically misleading as an indicator of consumer gains, attributing to deregulation what is really a result of lower oil prices. The case for a gain to consumers from deregulation based on the twenty-eight percent fall in unadjusted real yields since 1977 is vacuous, to put it charitably.

The industry's use of revenue per passenger mile as a measure of consumer prices also presents a significant methodological distortion. Consumers, who in 1988 were paying in real terms net of fuel exactly what they paid prior to deregulation per passenger mile, were, overall flying more miles to make the same trip after deregulation than before. Thus, a decline in revenue per passenger mile may represent only an increase in miles for making the same trip, with no reduction — or even an increase — in the price of the trip. Hub and spoking has significantly increased circuitry in air travel, thereby lengthening the distance between origin and destination. Many (if not most) passengers who do not begin or end their trip in a hub airport have to fly more miles to get to their destination than they did before deregulation. Estimates of this

¹³⁹ S. MORRISON & C. WINSTON, *THE ECONOMIC EFFECTS OF AIRLINE DEREGULATION* 22-23 (1986). Morrison and Winston give 5.4 percent as an estimate of increased travel time post-deregulation, which they attribute partly to increased circuitry, partly to increased congestion. *Id.* The percentage increase in mileage due to circuitry may be very different, of course. Since so much of travel time is takeoff and landing, increased mileage per trip will not add proportionately to travel time. Hub and spoking, however, also increases takeoffs and landings per trip, which goes in the other direction. Taking 5.4 percent as an estimate of increased mileage amounts to treating these opposing factors—arbitrarily—as a wash. Airline consultant Ted Harris estimates increased trip distance post-deregulation of 30 percent. Henwood, *Deregulation and Beyond*, *ECON. NOTES*, Nov.-Dec. 1989.

¹⁴⁰ Travelers may be forced to fly through, for example, Minneapolis on Northwest, through Atlanta on Delta, through St. Louis on TWA, through Dallas on American, through Denver on United, and so on.

¹⁴¹ Kuttner, *Plane Truth*, *NEW REPUBLIC*, July 17, 1989, at 21, 22.

TABLE 1
Yield and Fuel Price Indices
(1978=100)

	Real Yield (revenue per passenger mile)	Real Fuel Prices	Fuel Adjusted Real Yields
1967	129.2	55.9	143.8
1968	123.5	54.1	138.0
1969	121.7	50.9	137.1
1970	117.3	47.0	133.4
1971	117.7	46.2	134.2
1972	114.3	46.3	130.3
1973	112.3	47.7	127.6
1974	116.2	82.1	120.9
1975	111.0	90.2	113.3
1976	110.1	92.5	111.9
1977	109.3	99.3	109.5
1978	100.0	100.0	100.0
1979	94.2	131.7	88.0
1980	104.9	180.1	90.0
1981	106.9	189.8	90.3
1982	95.9	168.6	84.0
1983	91.9	148.0	83.3
1984	91.8	135.7	84.9
1985	85.4	124.0	80.7
1986	77.5	140.7	79.1
1987	76.5	81.6	78.4
1988	78.4	74.9	81.4
Growth Rates:			
1967-77	-1.7	5.9	-2.7
1978-88	-2.4	-2.8	-2.0

effect range from five to thirty percent for the average trip.¹³⁹ For example, the loss of prederegulation Boston-San Francisco nonstop flights means that some travelers in the market have no choice but to fly through a hub.¹⁴⁰ The prederegulation Boston-San Francisco passenger yield was for fewer miles (2,429 to be exact) than the postderegulation Boston-Dallas-San Francisco trip (3,024 miles, or 24 percent longer).¹⁴¹ Due to the greater circuitry, consumers paid more in 1988 than they would have paid projecting the prederegulation trend. The same net price per passenger mile amounted to a higher charge to go from point A to point B. Quantitatively, this effect would mean that the price of a trip in 1988 would be higher by five to thirty percent — the range reflecting the wide range in estimates of increased circuitry noted above.

In addition to more circuitous flights, deregulation ap-

Figure 1

**Fuel-Adjusted Real Yields (1967-88)
Actual vs. Pre-deregulation Trend**

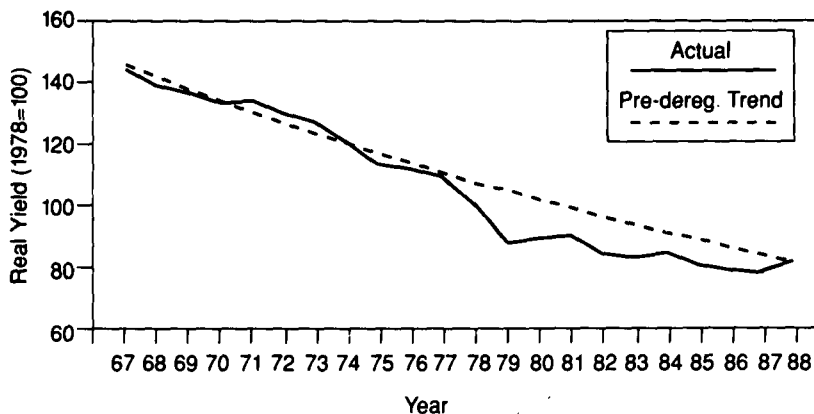
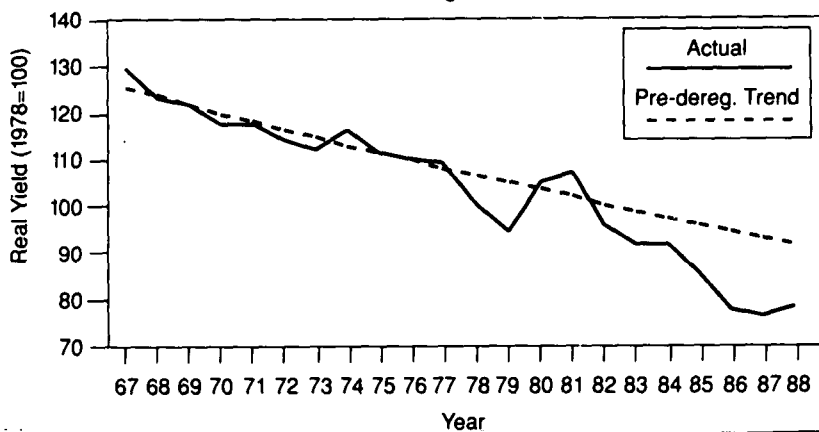


Figure 2

**Real Yields (1967-88)
Actual vs. Pre-deregulation Trend**



pears to have encouraged a roller coaster ride of high and low fares — fares which change on an hourly basis, and include a labyrinth of restrictions, including nonrefundability. This instability of the rate structure is reflected in the following chart.

CHART VI: AIR FARE CHANGES UNDER DEREGULATION¹⁴²

<u>Year</u>	<u>Number of Fare Changes</u>	<u>Net Price Changes</u>
1982	4,611,888	-4%
1983	6,532,728	-2%
1984	6,090,834	+4%
1985	10,624,574	-3%
1986	20,255,405	-7%
1987	49,369,278	+2%
1988	48,241,972*	+7%**

*annualized

**estimate

Hence, the choice among a bewildering array of fares has undoubtedly made the acquisition of information for consumers more difficult and more costly. Transaction costs for both producers and consumers appear to have grown sharply under deregulation. The nonrefundable tickets consumers are forced to forfeit must be added on top of the price they pay for air travel.

The twenty-eight percent fall in real yields that has occurred since deregulation would have occurred under regulation as well.¹⁴³ A widely-cited study of deregulation by Steven Morrison and Clifford Winston of the Brookings Institution¹⁴⁴ alleges that deregulation is responsible for a thirty percent real fare reduction. This is suspiciously close to the actual reduction, a reduction that cannot properly be attributed to deregulation. They claim, however, to be doing a "counter-factual" analysis

¹⁴² Sheeline, *Airfares: Up, Up . . . and Down Again?*, FORTUNE, Dec. 19, 1988, at 9.

¹⁴³ Given, that is, the same fall in real fuel prices as occurred under deregulation and projecting the prederegulation trend behavior of real yields net of fuel costs.

¹⁴⁴ S. MORRISON & C. WINSTON, *supra* note 139.

in making their estimate, asking what deregulation did to fares, holding all other factors constant. If they had actually done so, their estimate would not be subject to criticism. Their estimate, however, does *not* hold all other factors constant. In particular, it does not hold time constant, a crucial consideration in industries which become more efficient over time and where a time trend proxies the secular gain in efficiency. The airline industry is such a progressive sector. Thus, both the naive attribution of the actual reduction in real fares since 1977 to deregulation, and the more sophisticated "counter-factual" analysis of Morrison and Winston, are misleading. The average real fare per mile was not lower in 1988¹⁴⁵ as a result of deregulation. The real fare per trip was actually higher (by as much as thirty percent) due to the greater circuitry attributable to hub and spoking. Moreover, the volatility and associated transaction costs were higher as well. In addition, the good passengers were buying prior to deregulation is not the same good we buy today — it is significantly lower in quality, adding insult to injury.

C. *Quality Disintegration: Ticket Restriction and Delays*

The average fare reductions seen during deregulation are a reflection not of lower unrestricted first class or coach fares, but of the enormous increase in discounting (from 48.2 percent of all revenue passenger miles in 1979 to ninety-one percent in 1988).¹⁴⁶ The discount fare, however, is a lower-quality good in many respects. Many discount fares are burdened, for example, with time restrictions of various sorts, advance purchase requirements, and nonrefundability. If instead of looking at the average fare paid regardless of quality, one were to treat each fare category as a different good — which goes too far in the other direction, but is instructive nonetheless — the behavior of fares appears *dramatically* worse under de-

¹⁴⁵ Furthermore, the average 1989 real fare per mile is estimated to be 4.6 percent higher.

¹⁴⁶ AIR TRANSPORT ASSOCIATION, AIR TRANSPORT 1989 (1989).

regulation. Indeed, *full* fares have risen 156 percent since 1978, double the rate of growth of the Consumer Price Index. As noted by Brenner, "Getting a fifty percent discount is no bargain, when it's calculated from a list price that was first raised 200 percent or more."¹⁴⁷

The Bureau of Labor Statistics (BLS), in the air transport component of the Consumer Price Index (CPI), prices a fixed bundle of fares in different fare categories — first class, discount first class, coach and discount coach — to construct an index of air fares.¹⁴⁸ Figures 3¹⁴⁹ and 4¹⁵⁰ show the behavior of this index over the period 1967-1988 after adjusting for inflation and, for Figure 4 only, for changes in real fuel prices. The index rises dramatically after deregulation in both cases. Prior to deregulation, this index of airfares was either flat or falling, depending on whether the measure is adjusted for fuel price changes. In either case, however, *real fares rose fifty percent after deregulation*. Given that the mix of discounted versus undiscounted traffic has remained roughly flat (at ninety percent) in recent years,¹⁵¹ the postderegulation behavior of this mix-held-constant measure of airfares does not augur well for consumers in the future.

The changing mix of air travel towards discounted fare categories thus entails some deterioration in quality. Perhaps more important, however, is the increase in delays and schedule uncertainty that pertains to flying, in any category, under deregulation. The opportunity cost of air travel — the time we lose stranded at airports, imprisoned in aircraft, or routed through circuitous hub connections

¹⁴⁷ Brenner, *Airline Deregulation—A Case Study in Public Policy Failure*, 16 *TRANSP. L.J.* 179 (1988).

¹⁴⁸ Bureau of Labor Statistics.

¹⁴⁹ *Id.*

¹⁵⁰ Telephone interview with Doug Henwood, editor of the *LEFT BUSINESS OBSERVER*. Doug Henwood has been a voice crying in the wilderness about the disparity between this data and usually-cited industry data. See Henwood, *supra* note 136. The author also wishes to thank Dale Smith of the Bureau of Labor Statistics, who kindly provided the data and patiently explained the methodology employed to get it.

¹⁵¹ AIR TRANSPORT ASSOCIATION, *supra* note 143.

Figure 3
Real Airfares
(1967-88)

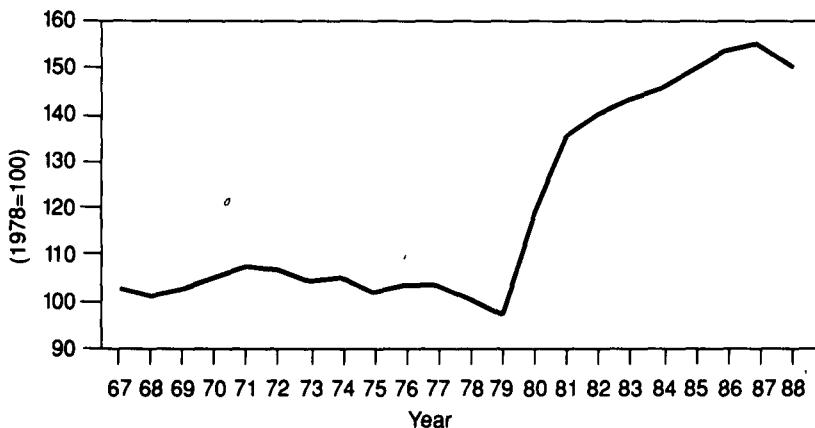
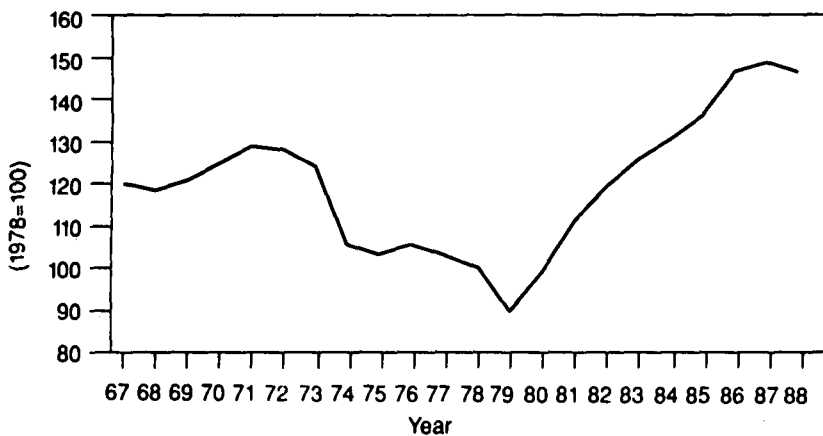


Figure 4
Fuel-Adjusted Real Airfares
(1967-88)



— seems to have increased significantly under deregulation. The widely acclaimed Brookings Institution study on airline deregulation by Steven Morrison and Clifford Winston alleged that consumers save \$6 billion annually as a result of deregulation. This alleged savings is 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.”¹⁵² Of the \$6 billion, approximately \$4 billion is attributable to these alleged opportunity cost *savings*.¹⁵³ Ample reason exists to doubt that consumers have saved *anything* from lower fares, let alone \$2 billion. Overall, the study maintained that airline service had not declined since deregulation began, but because of additional frequencies, had actually improved. Ostensibly, business travelers save time because they have more frequencies from which to choose. Most business travelers, if polled, would find such an assumption implausible.

By focusing on the number of flights in larger markets as the dominant measure of airline service, the Brookings Study appears to have missed the effect that most real-world flyers see. Whatever the improvements in the rate structure since deregulation, the consensus is that service has declined significantly. While consistently measured data on delays over a long time period is not available, the epidemic of delays which pervades the airline industry seems actually to have imposed significant opportunity costs, not benefits. Because of the undependability of airline schedules, many business travelers find that they must arrive in a city the evening before a business meeting in order to ensure timeliness.¹⁵⁴ Moreover, the delays experienced at congested airports constitute the other side of the coin of the frequency improvements in thin

¹⁵² S. MORRISON & C. WINSTON, *supra* note 136, at 35.

¹⁵³ *Id.*

¹⁵⁴ *Gridlock!*, TIME (Sept. 12, 1988), at 52, 55.

markets noted by Brookings. Both the decline in service and delays due to congestion result, arguably, from the same phenomenon: the move to hub and spoking. As Brenner notes:

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.¹⁵⁵

Many airlines amended their schedules in 1988 to incorporate anticipated delays. Initially, this brought an "improvement" in on-time performance by airlines, as measured by the FAA.¹⁵⁶ Despite this scheduling effort, delay figures in late 1988 were significantly higher than the year before.¹⁵⁷ Moreover, delays for the first nine months of 1989 were twenty-two percent higher than the same period the preceding year.¹⁵⁸

Even accounting for lost time, for which there is some equivalent dollar measure, we do not take into account the other, less measurable, costs to society of deregulation. The aggravation and anxiety many travelers suffer because of delays, congestion, and a narrower margin of safety cannot easily be calculated. The Brookings study in fact explicitly omitted the psychic costs to the actual business traveler; the study's measure encompasses only the monetary "savings" to the *businesses* that employ the increasingly harried travelers.¹⁵⁹

¹⁵⁵ Brenner, *supra* note 20, at 223.

¹⁵⁶ The FAA counts only nonmechanical delays of more than 15 minutes in its measurements.

¹⁵⁷ Dahl & Valente, *Airline Delays Rise Sharply After Earlier Improvement*, Wall St. J., Nov. 23, 1988, at B1, col. 5.

¹⁵⁸ Winans, *Flight Delays Surge; Airlines Blamed by FAA*, Wall St. J., Nov. 3, 1989, at B1, col. 6.

¹⁵⁹ See S. MORRISON AND C. WINSTON, *supra* note 139, at 16. In their model, "[T]he mode choice by pleasure travelers is based on utility-maximizing behavior;

D. *The Emerging Oligopoly*

The price benefits many consumers enjoyed under deregulation were a short-term phenomenon.¹⁶⁰ The trend under airline deregulation seems to be toward an oligopoly of megacarriers. Prices fell sharply during the first several years of deregulation, a reflection of the downward pricing spiral of head-to-head, destructive competition. As carriers became adept at seizing monopoly market opportunities by merging and creating hub dominance, and, as weaker rivals fell into bankruptcy, prices began to surge upward. Since early 1988, coach fares in many markets have increased by more than fifty percent.¹⁶¹ Between September 1988 and February 1989, the largest carriers announced four fare increases, and, since Eastern's bankruptcy in March 1989, several more carriers have increased fares.¹⁶²

The data on revenue per passenger mile for 1989 imply an estimated rise in inflation-adjusted yields of .94 percent for the year. At the same time real fuel prices rose by 7.74 percent, and the fuel share of costs was about 14.5 percent. Adjusting for fuel price increases places the increase in fuel-adjusted real yields at .17 percent¹⁶³ — an historical outlier. (Compare Figure 1.) Since real fares net of fuel trended downward prior to deregulation at 2.7

the choice by business travelers on *cost-minimization behavior by their firms.*" *Id.* (emphasis added).

¹⁶⁰ Paradoxically, higher ticket prices are a mixed blessing. The unprecedented economic anemia created by deregulation deprived the airline industry of sufficient resources to replace aging aircraft. As the skin peeled off the aging jets, a chilling realization swept over the industry that it may be time to retire them. Higher profits will enhance the industry's ability to retire old aircraft and spend more on maintenance. While there is no guarantee that airline executives will so invest their healthier profits, if we are to avoid a series of aviation catastrophes, they need to do both.

¹⁶¹ Rose & Dahl, *Skies Are Deregulated, But Just Try Starting a Sizeable New Airline*, Wall St. J., July 19, 1989, at A1, col. 6.

¹⁶² See *Happiness Is a Cheap Seat*, THE ECONOMIST, Feb. 4, 1989, at 68.

¹⁶³ Estimate based on the percentage change 1988-1989 in the year-to-date nominal yield through October and the percentage change 1988-1989 in an average monthly fuel prices through October, from ATA; and the monthly average through October for the CPI from the BLS. See Appendix, *infra* for details.

percent a year, and consumers in 1988 paid the same real yield net-of-fuel they would have paid had the prederegulation trend continued, it follows that in 1989 consumers are estimated to be paying roughly 2.6 percent more than they would be paying under the prederegulation trend per mile. Thus, anywhere from ten to thirty-six percent more per trip will be paid, given the range of estimates for the effect of deregulation on circuitry.

Even without the estimated 1989 data, the effect of consolidation in the industry appears in the behavior of the annual percentage change in fuel-adjusted real yields before and after deregulation, graphed in Figure 5.¹⁶⁴ Before deregulation, real yields were decelerating slightly, but not significantly. Deregulation, after a one-time drop in the rate of change, has imparted a significant upward trend to the series, with the percentage increase in yields going up by .84 percent each year after deregulation, instead of the .13 percent drop seen prior to deregulation.¹⁶⁵

The principal opportunities for low prices in the 1990's will be for discretionary travelers taking one-stop flights (via hubs) between large cities at off-peak times.¹⁶⁶ The average air passenger in 1989 is paying roughly 2.6 percent more per mile than he or she would have paid without deregulation. Furthermore, this differential is growing. Passengers are flying more miles than they would have flown prior to deregulation; passengers are flying in fare categories with more restrictions; and, passengers seem to be experiencing more actual delays than they would have prior to deregulation. In short, passengers are paying more and enjoying it less. In addition, service has deteriorated along many dimensions.

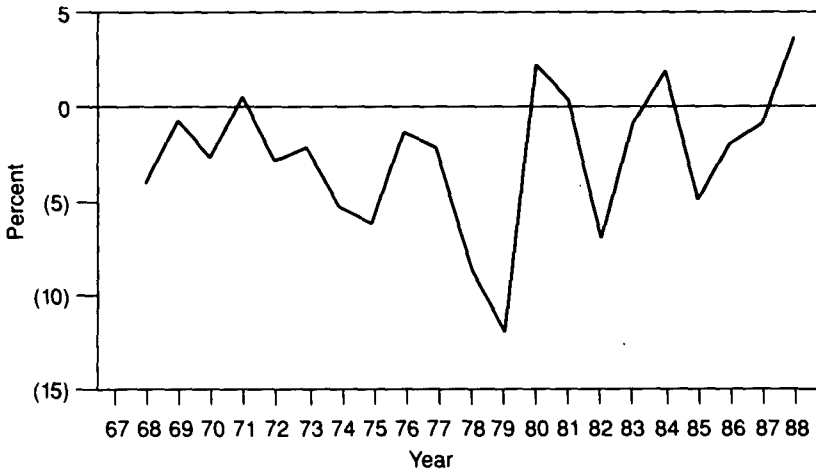
¹⁶⁴ Air Transport Association and author's calculations.

¹⁶⁵ See Appendix, *infra*, at Table A-1, equation 4.

¹⁶⁶ Pelline, *supra* note 46, at 8.

Figure 5

**Percent Change in Real Fuel-Adjusted Fare
(1967-88)**



V. SERVICE

A. Small Community Service

Transportation deregulation has meant isolation for many of America's rural communities. While deregulation has created a class of beneficiaries, consumers in small towns and rural communities are not among them. Today, in many instances, small town consumers pay much higher prices for poorer service.¹⁶⁷ With the elimi-

¹⁶⁷ See Dempsey, *The Dark Side of Deregulation: Its Impact On Small Communities*, 39 ADMIN. L. REV. 445 (1987). After promulgation of the Staggers Rail Act of 1980, more than 1,200 communities lost all rail service. *Id.* at 451 n.26. Following the enactment of the Bus Regulatory Reform Act of 1982, more than 4,500 communities lost bus service, while fewer than 900 gained bus service. *Id.* at 461. Even Kahn saw a need for economic regulation to protect service to small communities, saying, "I'm not sure I would ever have deregulated the buses because the bus is a lifeline of many small communities for people to get to the doctor or to the Social Security office." Kahn Oral Testimony, *supra* note 27, at 6337.

nation of entry and exit regulation, airlines have been free to reduce their level of service to less lucrative communities and focus their energies and equipment on more profitable market opportunities.¹⁶⁸ The result of airline deregulation "is that many small communities have experienced a drastic reduction or deterioration in air service."¹⁶⁹ In the first year of deregulation, 260 cities suffered a deterioration in air service, a disproportionate number of them being small towns.¹⁷⁰ Seventy of the communities receiving some service now receive no service.¹⁷¹ In the first two years of deregulation more than 100 communities lost all scheduled service.¹⁷²

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."¹⁷³ This is a surprising consequence of deregulation, since section

¹⁶⁸ As one source noted:

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 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 in small communities are significant. Many of these communities are trying to attract new businesses and keep existing businesses and residents from moving away.

COLORADO STATE AUDITOR, PERFORMANCE OF THE PUBLIC UTILITIES COMMISSION 39 (1988).

¹⁶⁹ Note, *Airline Deregulation and Service To Small Communities*, 57 N. D. L. REV. 607 (1981). "One of the most controversial results [of airline deregulation] is that many small communities have experienced a drastic reduction or deterioration in air service." *Id.* at 608.

¹⁷⁰ See CIVIL AERONAUTICS BOARD, REPORT ON AIRLINE SERVICE, FARES, TRAFFIC, LOAD FACTORS AND MARKET SHARES 43-50 (1979).

¹⁷¹ Meyer, *Section 419 of the Airline Deregulation Act: What Has Been the Effect On Air Service to Small Communities?*, 47 J. AIR L. & COM. 151, 180-81 (1981).

¹⁷² Havens & Heymsfeld, *Small Community Air Service Under the Airline Deregulation Act of 1978*, 46 J. AIR L. & COM. 641, 673 (1981).

¹⁷³ Stephenson & Beier, *The Effects of Airline Deregulation on Air Service to Small Communities*, 20 TRANSP. J. 54, 57 (1981).

419 of the Airline Deregulation Act of 1978¹⁷⁴ provided for a ten year program of federal subsidies in an attempt to preserve essential air service to small communities.¹⁷⁵

Kahn insists that small communities have not suffered under deregulation. He points out that not a single community receiving certificated¹⁷⁶ service in 1978 has lost service.¹⁷⁷ The Essential Air Services (EAS) program has assured subsidies to many small communities.¹⁷⁸ The Department of Transportation, however, has recently announced its intention to drop a number of small cities from the EAS program. Absent the subsidies, deregulation would likely have deprived most of these communities of all service. Cities not previously certificated were ineligible for the subsidies. Hence, the EAS program may have hastened the abandonment of the small towns served by noncertificated commuter airlines. As the large carriers left the small cities over which they held operating authority for denser markets, the commuter airlines shifted their operations to take advantage of the new subsidies and exited towns ineligible for subsidies.

In many small towns, the larger airlines have disappeared and have been replaced by smaller commuter carriers, offering inferior levels of comfort, convenience, and safety. Small towns have seen a reduction in flights to all but medium and large hub cities.¹⁷⁹ From 1977 to 1984,

¹⁷⁴ 49 U.S.C. § 1302(a) (1982).

¹⁷⁵ *Id.* § 1389.

¹⁷⁶ For those communities losing service, i.e., there was no requirement that these communities be served *prior* to deregulation as there was for communities with so-called "certificated" service.

¹⁷⁷ Kahn Oral Testimony, *supra* note 28, at 6247.

¹⁷⁸ GENERAL ACCOUNTING OFFICE, DEREGULATION 31-32 (1985) [hereinafter GAO REPORT]. Under section 419 of the Airline Deregulation Act of 1978, small community subsidies were to last until 1988, when they were extended by Congress. See *supra* note 1, § 419 (stating the guidelines for compensation with regard to small community air service). In 1985, 142 communities were receiving subsidized service under the EAS program. GAO REPORT, at 31-32. In 1989, the DOT announced its intention to eliminate subsidies to several cities. No doubt, most will lose air service altogether if federal economic subsidies dry up. *Id.*

¹⁷⁹ As used in this commentary "hub" and "non-hub" do not refer to carrier hubs but to the definitions in the airport classification scheme used by DOT. In

flights between small hubs declined 2.9 percent; flights between small and nonhub cities fell 16.9 percent; and, flights between nonhub cities dropped 6.9 percent.¹⁸⁰

Deregulation has also caused the transportation network to shrink. In 1978, 515 nonhub communities were receiving air service. By 1987, 313 (60.8 percent) nonhub communities experienced declines in flight frequency, 144 (28 percent) lost all service, and only thirty-two (6.2 percent) enjoyed new service.¹⁸¹ In 1978, nonhubs accounted for twenty-three percent of all departures. In 1987, they were responsible for only sixteen percent. In 1978, nonhubs had 29,543 flights a week; in 1987, 29,271.¹⁸² Clearly, since deregulation, a qualitative deterioration of service to small communities has occurred.¹⁸³ With the use of smaller aircraft, some communities enjoy more frequent departures, but suffer a decrease in the number of seats.¹⁸⁴ By 1987, seats per week in flights from smaller communities had dropped 17.4 percent, reflecting the departure of pre-deregulation jet aircraft, and their replacement with post-deregulation turboprop aircraft.¹⁸⁵ Paradoxically, the nation's transportation system is shrinking at a time when its population is increasing.

Many passengers complain that the smaller, unpresurized aircraft used by the commuter airlines are less comfortable.¹⁸⁶ Passengers also appear to be dissatisfied

that scheme, a hub airport is an airport that handles at least one percent of all enplanements nationwide.

¹⁸⁰ *Deregulation Focus*, *supra* note 51, at Supp. B.

¹⁸¹ See CIVIL AERONAUTICS BOARD, REPORT ON AIRLINE SERVICE, FARES, TRAFFIC LOAD FACTORS, AND MARKET SHARES 32 (Sept. 1, 1984). This data is no longer reported by the CAB, but has been updated to June, 1987 using information reported in the Official Airline Guide. OFFICIAL AIRLINE GUIDE (June 1, 1987); see also A. GOETZ, THE EFFECT OF AIRLINE DEREGULATION ON AIR SERVICE TO SMALL AND MEDIUM-SIZED COMMUNITIES: CASE STUDIES IN NORTHEASTERN OHIO 35 (1987) (Ph. D. Dissertation).

¹⁸² Goetz & Dempsey, *Airline Deregulation Ten Years After: Something Foul in the Air*, 54 J. AIR L. & COM. 927, 946-47 (1989).

¹⁸³ See GAO REPORT, *supra* note 178, at 73.

¹⁸⁴ *Id.*; Meyer, *supra* note 171, at 181.

¹⁸⁵ Meyer, *supra* note 171, at 181.

¹⁸⁶ Oster, Jr. & Zorn, *Deregulation and Commuter Airline Safety*, 49 J. AIR L. & COM. 315, 316 (1984).

with the service schedules and flight delays associated with commuter airlines.¹⁸⁷ Commuter airlines are certainly less safe. Depending upon how the records are measured, commuter airlines have a safety record from three to thirty-seven times worse than those of established jet airlines.¹⁸⁸ Author John Nance summarized the reasons for the deterioration of safety resulting from the substitution of inferior commuter carrier service for scheduled airlines:

The [commuter airlines] are usually less sophisticated, less well equipped, largely unpressurized, and much smaller than main-stream 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 or not.

In addition many 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 in the first airline job of their career.¹⁸⁹

Service in small communities is also highly unstable. Service is often suspended until a replacement can be found for carriers who have declared bankruptcy.¹⁹⁰ Even deregulation proponent Thomas Gale Moore admits that forty percent of small communities have suffered both a loss of air service and a disproportionate increase in ticket prices since deregulation began.¹⁹¹ Similarly, Professor

¹⁸⁷ See Ahmed, *Air Transportation to Small Communities: Passenger Characteristics and Perceptions of Service Attributes*, 39 TRANSP. Q. 15, 21 (1984).

¹⁸⁸ See Oster, Jr. & Zorn, *Airline Deregulation, Commuter Safety, and Regional Air Transportation*, 14 GROWTH AND CHANGE 3, 7 (1983).

¹⁸⁹ Nance Testimony, *supra* note 126, at 81-82.

¹⁹⁰ Kihl, *The Impacts of Deregulation on Passenger Transportation in Small Towns*, 42 TRANSP. Q. 243, 248 (1988).

¹⁹¹ Moore, *U.S. Airline Deregulation: Its Effects On Passengers, Capital, and Labor*, 29 J.L. & ECON. 1, 15, 18 (1986).

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."¹⁹² Assessing the quantitative and qualitative impacts of deregulation, one commentator noted that "smaller communities are receiving markedly worse air service than existed prior to deregulation."¹⁹³

The loss of service has had an unhealthy ripple effect on the economy of these communities. In addition to increasing transportation costs for companies already doing business in small communities, deregulation has made those communities unattractive for the location of new business.¹⁹⁴ A survey of executives of the 500 largest American corporations reveals that eighty percent would not locate in an area which did not have reasonably available scheduled airline service.¹⁹⁵

B. *Big Community Service*

Not only has airline service into and out of small towns deteriorated, the national system of air travel appears to have declined significantly in quality from the high levels enjoyed prior to deregulation. Even travelers who can get a super-saver fare find that the product they buy today is inferior to that which they could purchase before deregulation. Kahn again gives us "before" and "after" snapshots. Testifying before the House Budget Committee in 1977, Kahn summarized the state of the airline industry prior to deregulation as follows:

[t]he industry has under regulation experienced a very satisfactory growth. I don't think it can be denied that airline

¹⁹² Addus, *Subsidizing Air Service to Small Communities*, 39 TRANSP. Q. 537, 549 (1985).

¹⁹³ Meyer, *supra* note 171, at 182; *see also*, S. TOLCHIN & M. TOLCHIN, *DISMANTLING AMERICA: THE RUSH TO DEREGULATE* 245-46 (1983).

¹⁹⁴ Meyer, *supra* note 171, at 175.

¹⁹⁵ *The Economic Impact of Federal Airline Transportation Policies on East Tennessee: Hearing Before the Sen. Comm. on the Budget*, 99th Cong., 1st Sess. 12-13 (1985) (testimony of Eugene Joyce).

service has been widely extended, that the quality is good, and it is a matter of historical fact that the real price of airline service has declined in the last four decades, and that is a very satisfactory record.¹⁹⁶

In contrast, Kahn made the following observations of the nature of airline service ten years later:

The quality of the air travel experience has, however, clearly deteriorated — congestion, delays, and customer complaints have increased sharply in recent years — and deregulation bears a large part of the responsibility.¹⁹⁷

On a more popular level, 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."¹⁹⁸

Flying has become a rather unpleasant experience. The planes are filthy, delayed, cancelled, and overbooked. Luggage disappears and the food is processed cardboard. Chronic delays, missed connections, and circuitous routing are all products of hub-and-spoking, adopted by every major airline. Hub-and-spoking was pioneered for *packages*, by Federal Express. Human beings subjected to hub-and-spoking since deregulation are much less enthusiastic about it than the inanimate objects changing planes in Memphis every night without complaint.

In a recent survey, fifty percent of the consumers interviewed said that airline service had declined since deregulation. Less than twenty percent said service had improved. Among the complaints were late departures,

¹⁹⁶ *Economic Aspects of Federal Regulation on the Transportation Industry, Hearings Before the Task Force on Tax Expenditures, Government Organization, and Regulation, House Budget Comm.*, 95th Cong., 1st Sess. 18 (1977).

¹⁹⁷ A. KAHN, *THE ECONOMICS OF REGULATION* xxii (1988). Kahn, however, has been inconsistent on this subject, saying in 1986, "in most instances the quality—and especially the variety [of service]—has sharply improved [under deregulation]." Kahn, *Theory and Application*, *supra* note 11, at 179. Kahn also criticized the "widespread but nevertheless erroneous popular supposition" that the quality of service had deteriorated. *All That*, *supra* note 11, at 97.

¹⁹⁸ Rowen, *Airline Service Has Gone to Hell*, *Wash. Post*, July 23, 1987, at A21 col. 1; see also, Dempsey, *Consumers Pay More to Receive A Lot Less*, *USA Today*, July 16, 1987, at 8A.

crowded seating, long check-in lines, unappetizing food, overbooked aircraft, and unacceptably long waits for baggage.¹⁹⁹ Another survey, of 15,000 frequent flyers, found even more negative attitudes toward the impact of deregulation. Sixty-eight percent said that deregulated air service was "less convenient and enjoyable." Only nineteen percent thought it more convenient and enjoyable.²⁰⁰ Still another survey, of 461 members of the Executive Committee (a group of corporate presidents and chief executives), revealed that thirty-six percent had lost job efficiency because of air travel delays.²⁰¹ 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.

These results parallel those of the United States Department of Transportation. DOT data reveal that consumer complaints about airline delays, lost baggage, cancellations, refunds on discounted tickets, and inadequate availability of nonsmoking seats have soared in recent years.²⁰² Reaching a low of 7,326 in 1983, complaints filed against United States airlines with the DOT skyrocketed to 40,985 in 1987.²⁰³

¹⁹⁹ *The Big Trouble With Air Travel*, CONSUMER REPORTS, June 1988, at 362, 363.

²⁰⁰ Brenner, *supra* note 19, at 223.

²⁰¹ *Gridlock!*, *supra* note 149, at 55.

²⁰² Brenner, *supra* note 19, at 215.

²⁰³ See CIVIL AERONAUTICS BOARD CONSUMER COMPLAINT REPORT 13B (1982), Coleman, *No Silver Lining Expected to Brighten Airlines' Stormy Skies*, MARKETING NEWS, vol. 21, no. 20, Sept. 25, 1987, at 1, col. 1. 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).

Consumer abuse does not stop with miserable service. Without government oversight, airlines freely engage in bait-and-switch advertising, deliberate overbooking, unrealistic scheduling, and demand based flight cancellations.²⁰⁴

Why has the deregulated market failed to correct this deterioration in service? Some have suggested that service deterioration is attributable to the decline in profitability of firms caused by the "destructive competition" unleashed by deregulation.²⁰⁵ Hence, carriers have not had the resources to staff flights with more flight attendants than the FAA minimum, to staff ticket counters or baggage areas adequately, to provide better food, to avoid deliberate overbooking or unrealistic scheduling, to buy new aircraft or even to clean them properly. While some airlines are worse than others, the decline appears to be nearly universal.

Another explanation of the market's failure may be found 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; he can pull it off the shelf, turn it over, and make some assessment of its quality. When a consumer buys a service like transportation, its quality, beyond providing for the mere movement of the traveler's body from point A to point B, is

* 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. at col. 3; see also DEPARTMENT OF TRANSPORTATION AIR TRAVEL MONTHLY CONSUMER COMPLAINT REPORT 1 (1988).

²⁰⁴ As the 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 passengers." McGinley, *Bad Air Service Prompts Call for Changes*, Wall St. J., Nov. 9, 1987, at 29, col. 3.

²⁰⁵ See Brenner, *supra* note 20, at 201.

amorphous. The consumer is purchasing a "credence good," a product for which quality is important but difficult to assess prior to consumption.²⁰⁶

When booking a flight, most consumers do some price shopping. Where a competitive alternative exists, some measure of price competition under deregulation may exist, and those who price shop usually opt for the lower fare (although frequent flyer mileage programs and travel agent commission overrides may militate against the lowest price). Travelers who have been through the ordeal of a hub connection may ask for a nonstop if available, or a one-stop, if not. Some may also shop for a convenient departure. Beyond that, few consumers ask

(1) what kind of aircraft is being flown, how old is it, and when was it overhauled and cleaned; (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, and will I be offered a magazine, pillow, cup of coffee or bag of peanuts; (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 before they purchase their tickets, the market has not responded to consumer desires for better service.²⁰⁷

VI. SAFETY

Because of the destructive competition unleashed by

²⁰⁶ C. SMITH, JR., C. SMITHSON & D. WILFORD, *MANAGING FINANCIAL RISK* (1989).

²⁰⁷ The U.S. Department of Transportation has authority to protect consumers from many of these evils, including deliberate overbooking, unrealistic scheduling, and fraudulent ("bait and switch") advertising. The Reagan Administration's DOT, unfortunately, was reluctant to do much of anything to correct market failure.

deregulation, overall industry financial performance during the first decade of deregulation declined to the point of inadequacy, despite the fact that the recession of the early 1980's abated, and fuel prices fell. Poor or nonexistent profits create in management a natural tendency to curtail costs. Among those which can be significantly diminished are maintenance costs (including mechanic's wages), spare or replacement parts, and idle aircraft time lost during inspections and maintenance. A decade of economic anemia naturally deprived carriers of the resources to re-equip with new aircraft, or maintain the wide margin of safety the public previously enjoyed. As observed by Professor Frederick Thayer, deregulation is both inefficient and dangerous.²⁰⁸

Since deregulation, the average age of our nation's aircraft fleet has grown sharply (see Chart VII). Expenditures for maintenance and the number of mechanics per aircraft have been reduced. The number of near-misses has soared. The father of airline deregulation, Alfred Kahn, now admits that the margin of safety has "possibly" narrowed since 1978.²⁰⁹ Although fatality statistics mercifully have not yet reflected this diminished margin, every other measure of safety paints a different picture.

In 1987, America endured the largest number of aircraft accidents since 1974.²¹⁰ Since deregulation began, the cockpit crew members fly with less experience, and hiring standards and the duration and quality of training have declined.²¹¹ For example, in 1983, a prospective pi-

²⁰⁸ Rowen, *Airline Deregulation Doesn't Work*, Wash. Post, Apr. 8, 1982, at A27, col. 5.

²⁰⁹ Kahn, *A Mixed Bag*, *supra* note 3, at 251; Kahn, *All That*, *supra* note 12, at 98 (Kahn noted that the pressure created by competition exerted "on carriers to reduce prices and costs, may be inducing them also to cut corners on safety . . .") In response to a question as to whether the margin of safety had narrowed under deregulation, Kahn conceded, "No one can deny that, under the pressure of competition, we may be walking on a thinner margin." *Interview With Alfred Kahn*, USA Today, Oct. 5, 1988, at 13A.

²¹⁰ *Air Safety Record Worst Since '74*, Chicago Tribune, Jan. 13, 1988, at 5.

²¹¹ Thomas & McGinley, *Airlines' Growth, Pilot Shortage Produce Least Experienced Crews In Nine Years*, Wall St. J., Nov. 20, 1987, at 32 col. 3.

lot needed 2,300 hours of flight time and uncorrected 20/20 vision to be hired by one of the major airlines. Today, one needs only 800 hours of flight time and (for all but one airline) correctable vision. Moreover, commuter carriers require a mere 100 hours of experience. Consequently, the number of pilots with fewer than 2,000 hours of flight time soared from two percent in 1983, to fourteen percent in 1988.²¹²

The economic anemia unleashed by deregulation has caused management to push pilots to fly more hours with less rest. While working longer for less pay may increase productivity, it can also induce fatigue, which has a negative impact upon safety. Between 1982 and 1988, fatigue accounted for two operational errors per week — errors such as pilots falling asleep in the cockpit, landing on the wrong runway, or wandering out of assigned flight paths.²¹³

Ninety-seven percent of airline pilots believe that deregulation has had an adverse impact on airline safety.²¹⁴ 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."²¹⁵

Legitimate concerns have also been raised over the problem of the age and poor maintenance of jets flown by unhealthy airlines that lack the financial resources to re-equip with modern aircraft, or properly maintain their ag-

²¹² Valente, *United's Flight 811 Showed How Vital Capable Pilots Can Be*, Wall St. J., Mar. 1, 1989, at 1, col. 1. A 26 year old individual with less than 37 hours of flight time in a DC-9 piloted the Continental Airlines DC-9 that crashed in Denver during a takeoff in a snowstorm in 1987. The captain had only 33 hours of DC-9 experience. *Id.* Knox, *Policy Shift Silent Factor in Crash?*, Rocky Mountain News, Oct. 4, 1988, at 1-B, 2-B. Prior to deregulation, 80 percent of the nations pilots had experience as military pilots. Today that number is only 50 percent. *Id.*

²¹³ *Fatigue Blamed for Dangerous Pilot Errors*, Denver Post, Sept. 12, 1988, at 3A, col. 1.

²¹⁴ Duffy, *View From Cockpit Is Clearly Negative*, Denver Post, Dec. 7, 1987, at 2E.

²¹⁵ *Id.*

ing fleets.²¹⁶ The commuter airline industry, plagued continuously by bankruptcies, is of particular concern as used, recycled aircraft dominate the fleets of the smaller carriers.²¹⁷

The intense competition unleashed by deregulation has deprived many carriers of the resources with which to replace their aging fleets of aircraft. As a consequence, the average age of the industry's jets grew twenty-one percent since 1979 to 12.53 years in 1988.²¹⁸ Today, more than half the 2,767 jets in service are sixteen years old or older.²¹⁹ Chart VII provides the average aircraft ages of the ten major carriers as of March 31, 1989.

CHART VII: AIRLINE FLEET AVERAGE AGES IN YEARS²²⁰

<u>Airline</u>	<u>Average</u>
American	9.4
Continental	11.0
Eastern	13.8
Delta	8.7
Northwest	14.1
Pan Am	12.8
TWA	14.3
United	13.6
USAir	9.0
Piedmont	9.0

While aging aircraft require intensive and costly maintenance,²²¹ America's airlines are spending less. Meanwhile their fleets grow steadily older. Resources devoted by commercial airlines to aircraft maintenance fell thirty

²¹⁶ Welling, *The Airlines' Dilemma: No Cash to Buy Fuel Efficient Jets*, BUS. WK., Sept. 27, 1982, at 65; P. DEMPSEY, LAW & FOREIGN POLICY, *supra* note 11, at 90.

²¹⁷ Dempsey, *Collision Course*, *supra* note 42, at 354 n.100.

²¹⁸ Valente, Harris, Jr. & McGinley, *Should Airlines Scrap Their Oldest Planes for Sake of Safety?*, Wall St. J., May 6, 1988, at 1, col. 6.

²¹⁹ *Id.* In 1988, 28 percent of the U.S. fleet was more than 20 years old. It is anticipated that by the year 2000, that number will reach 40 percent.

²²⁰ Wall St. J., Mar. 31, 1989, at B1, col. 2.

²²¹ Valente, Harris Jr., & McGinley, *supra* note 218, at 15, col. 1.

percent during deregulation's first six years.²²² More recent data indicate that airline spending on maintenance fell from nearly thirteen percent of operating expenses in 1977, to eight percent in 1982. By 1988, this number had only partially recovered to eleven percent.²²³ A survey of commercial airline pilots reveals that almost half believe that their companies defer maintenance for an excessive period of time.²²⁴ As Chart VIII reveals, the number of mechanics per aircraft has declined more than ten percent on average for the major airlines in the past five years:

CHART VIII: NUMBER OF MECHANICS PER AIRCRAFT²²⁵

<u>Airline</u>	<u>1982</u>	<u>1987</u>
American	16.6	15.6
Continental	14.6	13.0
Delta	21.3	14.9
Eastern	22.1	16.9
Northwest	11.6	12.4
Pan Am	27.4	28.2
Piedmont	13.0	9.7
TWA	30.9	25.7
United	17.8	21.2
USAir	12.4	11.8
AVERAGE	18.77	16.94

Between 1978 and 1987, departures for major airlines increased by twenty-seven percent.²²⁶ With airlines funneling their flights into "hub and choke" bottlenecks and scheduling takeoffs and landings through narrow windows of time and space, the flight paths of the nation's major airports are heavily congested during peak periods. Near misses are soaring.²²⁷ There were 311 near misses during

²²² Fishcetti & Perry, *Our Burdened Skies*, 23 IEEE SPECTRUM 79 (1986).

²²³ Knox, *supra* note 212, at 2B.

²²⁴ Duffy, *supra* note 213, at 2E.

²²⁵ Valente, *How Much Is Spent to Maintain Planes?*, Wall St. J., July 19, 1988, at 31, col. 6.

²²⁶ *Skies Safe Today, But Turbulence Is Brewing*, Rocky Mountain News, May 4, 1988, at 37.

²²⁷ Dempsey, *Cross Your Fingers, Hope Not to Die*, Chicago Tribune, Aug. 28, 1987, at 28.

1982, 475 in 1983, 589 in 1984, 758 in 1985, 840 in 1986, and 1,058 during 1987.²²⁸ The number of near misses has also skyrocketed in terms of incidents per 100,000 flight hours.²²⁹ Further, one out of every five commercial pilots experienced a near-miss during a recent two-year period, and only twenty-five percent of those were reported to the FAA.²³⁰

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 11,500 striking members of the Professional Air Traffic Controllers Organization (PATCO), leaving the FAA with only one-third of its work force, and the Federal Aviation Administration (FAA) has yet to fully replace them.²³¹ Not only is the system understaffed, but many airports and navigational facilities are equipped with obsolete and aging equipment. The FAA is reputed to be the largest user of vacuum tubes in the world. Operational errors, or mistakes by controllers, increased by twenty percent during the first half of 1987 over the same period one year earlier.²³²

Public and media concern over the trimmed margin of safety has caused the FAA to become more vigilant in enforcing its safety regulation, something it was lethargic in doing during the early years of the Reagan Administration. The FAA levied significant fines on major airlines by the end of the Reagan Administration.²³³ The FAA dis-

²²⁸ *Increasing Near-Midair Incidents Spur Drive to Improve ATC Performance*, Av. Wk. & SPACE TECH., AUG. 24, 1987, AT 21-23, (updated by DOT Total Near Midair Collision (NMAC) Reports (Sept. 30, 1988)).

²²⁹ In 1981, there were 317 hazardous midair incidents (or 0.66 per 100,000 flight hours), 85 critical incidents (0.18 per 100,000), and 230 potential incidents (0.48 per 100,000 hours). The corresponding figures for 1986 were 642 (1.46), 163 (0.37), and 473 (1.07). *Deregulation Focus*, *supra* note 51, at Supp. C.

²³⁰ *1 in 5 Airline Pilots Has Had Near Collision*, Denver Post, Dec 24, 1987, at 2, col. 1; see also, *Increasing*, *supra* note 228, at 127.

²³¹ Morgenthau, *Year of the Near Miss*, NEWSWEEK, July 27, 1987, at 20, 22.

²³² Molinari, *How Safe Is the Air Traffic Control System?*, USA Today, Nov. 1987, at 12, 13.

²³³ McGinley, *Fifteen Airlines Face FAA Fines Totaling About \$6.5 Million for Alleged Violations*, Wall St. J., May 12, 1988, at 4, col. 2.

covered 63,191 safety violations by airlines in 1987, compared to only 28,864 in 1984.²³⁴ Nonetheless, a recent report prepared by the Office of Technology Assessment (OTA) charged that the FAA must improve its safety precautions.²³⁵ The report found the FAA understaffed in the number of inspectors, controllers and technicians it employs, and maintaining inadequate programs to improve the performance of aircraft crews, air-traffic controllers and mechanics. The OTA urged the FAA to continue surprise inspections, and in particular, to engage in comprehensive supervision of the commuter airline industry "during the shakeout expected over the next few years."²³⁶

The OTA report also criticized the airline industry. Although all airlines profess adherence to high safety standards, the report found 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 new slots."²³⁷ The OTA concluded that "while airline officials are concerned about safety, financial considerations drive many industry decisions and will continue to do so as long as strong competition exists among the airlines."²³⁸

The economic strains created by the intense price competition unleashed by deregulation have had a deleterious effect upon carrier safety.²³⁹ There are two reasons why

²³⁴ Ott, *supra* note 43, at 89.

²³⁵ U. S. Congress, Office of Technology Assessment, *Safe Skies for Tomorrow: Aviation Safety in a Competitive Environment*, OTA-SET-381 (1988) [hereinafter OTA Report on Airline Safety].

²³⁶ *Id.* at 15.

²³⁷ McGinley, *Congressional Report Warns Air Safety May Be Imperiled Without Swift Action*, Wall St. J., July 28, 1988, at 28, col. 3.

²³⁸ OTA, Report on Airline Safety, *supra* note 235, at 13. "[M]any airlines have lowered hiring standards, [and] increased pilot and mechanic duty time." *Id.* at 12.

²³⁹ Dempsey, *Collision Course*, *supra* note 42, at 352.

this has not led to higher fatality levels. First, the aircraft themselves are over-engineered. Even if maintenance is deferred and a critical system fails, usually a back-up system will fill the void until the plane can land. Even if the plane becomes a convertible, as did the Aloha Airlines 737 in Hawaii, a good pilot can still land it safely. Second, there is a higher level of vigilance in the cockpit than there ever has 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 economic imperatives of deregulation might otherwise suggest.²⁴⁰ The restoration of monopoly, which appears to be an accomplished fact in the industry, should ease the pressure to cut corners on safety which results from destructive competition, as well as allowing for purchases of new jets. Consumers, however, will be paying a tribute to a private monopoly in order to obtain a level of safety taken for granted prior to deregulation.

VII. REREGULATION: DARE WE SPEAK IT?

After a decade of deregulation many of the essential presumptions advanced by free market economists regarding the nature of an unregulated airline industry have proven incorrect. Neither the "traditionalist" expectation that an absence of economies of size would insure a large number of competitors, nor the nontraditionalist expectation that markets which were naturally monopolistic or oligopolistic would nevertheless be contestable due to low barriers to entry and an absence of sunk entry costs has been fulfilled.²⁴¹

²⁴⁰ Dempsey, *Deregulation*, *supra* note 74, at 147, 151.

²⁴¹ Many economists have been honest enough to admit that many of the fundamental assumptions upon which deregulation theory rested were specious. For example, Professor Michael Levine, formerly a deputy of Alfred Kahn at the CAB

Deregulation produced an anemic industry of megacarriers providing poor service and highly discriminatory pricing. Emerging oligopolies and monopolies, as well as the associated tapping of market power pullulate the anemic condition of the industry.²⁴² Potential entry seems to be a weak force for discipline on incumbents due to barriers which are both natural, such as the need to sink costs in advertising one's service and strategic, such as the creation of frequent flyer programs which attract passengers and effectively differentiate the carrier's product. Some barriers have both an innocent and strategic component. For instance, hub-and-spoking creates efficiency for the public despite the enhanced travel circuitry for which it is responsible. Hub-and-spoking, however, also deters new entry which enhances its value to incumbent carriers, but not to the public. Consolidation and associated higher prices may improve the health of the industry, but increasingly, consumers must forego the deep discounts (except in extremely circumscribed conditions) of which deregulation's proponents have been so proud. In fact, in 1989, consumers paid some 2.6 percent more for air travel than they would have paid had the prederegulation downward trend in real fares continued.

Kahn, although a poor prophet, concedes that problems have emerged under deregulation. He admits that many of the fundamental assumptions upon which deregulation was based were either overstated or erroneous, including the nonexistence of economies of scale and

and Texas Air executive, recently wrote: "Deregulation has not brought about its benefits because deregulated markets work flawlessly or approximate the results of perfect competition or perfect contestability. This has surprised economists and analysts such as myself who expected the airline system once deregulated to exhibit near-textbook degrees of competition." Levine, *The Legacy of Airline Deregulation: Public Benefits, But New Problems*, AV. WK. & SPACE TECH., Nov. 9, 1987, at 161.

²⁴² Deregulation allows major airlines to forego competition in smaller markets. Those airlines "consolidate their strength into regional, hub and market monopolies and oligopolies." Dempsey, *Deregulation supra* note 74, at 147. In fact, all but four airports in the United States are controlled by a monopoly. *Id.*

scope, as well as of contestability.²⁴³ Kahn has also said that many predictions as to how deregulation would affect the transportation industry, labor, and the public they serve, were overly optimistic.²⁴⁴ Nonetheless, he continues to maintain that, on balance, airline deregulation has been a success.²⁴⁵

When asked whether the turmoil in the deregulated skies alarms him, Kahn, quite surprisingly, answered, "It is what we intended because we knew that competition leads to turmoil, that competition is turmoil, and that if you want predictability and neatness and stability, regulate."²⁴⁶ Perhaps by "turmoil" he meant the weeding out of inefficient operators through a process of social Darwinism. Unfortunately, the destructive competition unleashed by deregulation negatively affected both the efficient and inefficient, for it is only the very large and very strong that survive with any significant market share.

If one must choose between the "turmoil" of the recent past with all its bankruptcies, discrimination and concentration, and "predictability, neatness and stability," certainly the better choice is the latter. In the real world, however, the task is not so much to choose between economic abstractions but to fashion an enlightened approach to bring about the positive attributes of healthy competition, which include productivity, efficiency, and a range of price and service options responsive to the demands of consumers. This must be accomplished while protecting the public against market failure.

Kahn, on occasion, suggests that the government should become more involved in the airline industry. Some problems, he acknowledges, which have emerged "urgently cry out for at least some government remedies."²⁴⁷ For example, Kahn has called for more stringent

²⁴³ Kahn Oral Testimony, *supra* note 28, at 6247.

²⁴⁴ *Id.*

²⁴⁵ Kahn, *A Mixed Bag*, *supra* note 3, at 230-31.

²⁴⁶ Kahn Oral Testimony, *supra* note 28, at 6245.

²⁴⁷ *Air Travel Altered by Deregulation*, Denver Post, Oct. 31, 1988, at 9C.

antitrust and safety regulation. He also acknowledged the need for additional consumer protection and some control over the power of the railroad monopolies. Finally, Kahn has even conceded that some sort of pricing regulation may be appropriate to deal with predatory behavior by large firms, and that it may be time to consider price ceilings.²⁴⁸ Nonetheless, the transportation industry and the public it serves would have been spared much of the "turmoil," if the fundamental assumptions upon which the deregulators relied had not proven specious, and had deregulation not been implemented so aggressively.

There are essentially four alternatives for the protection of economic and social values in an important privately owned infrastructure industry such as the transportation industry. They are:

1. Heavy Handed Regulation;
2. Regulatory Reform ("Light Handed," Enlightened Economic Regulation);
3. Economic Deregulation and Antitrust Regulation; and
4. *Laissez-Faire*.

This writer has consistently maintained that the first alternative can be just as debilitating to the infrastructure and the public it serves as the last alternative.²⁴⁹ The CAB of the early 1970s tended to restrict pricing flexibility and prohibit route rationalization and new entry. Neither rigid governmental control (such as that which existed at

²⁴⁸ *Ex-Official Suggests Lid On Air Fares*, Rocky Mountain News, Nov. 5, 1987, at

100. CAB Chairman, Kahn lobbied for price ceilings. As he recently noted:

The original deregulation bill retained a rate regulatory ceiling on any routes in which a single carrier accounted for 90 percent or more of the business. As Chairman of the Civil Aeronautics Board, I testified on behalf of a unanimous board which had adopted the posture of favoring deregulation, that the ceiling trigger should be changed to 70 percent. We believed that while entry should be legally free and would be relatively easy, we never thought that would provide adequate protection in markets that are naturally monopolistic or oligopolistic—that just won't support more than one or two carriers.

Kahn Interview, *supra* note 36, at 6-7.

²⁴⁹ See Dempsey, *The Rise & Fall of the CAB*, *supra* note 6, at 94.

the CAB in the early 1970s) nor anarchy (which we have today) is a desirable alternative. The responsible choice is thus either alternative two or alternative three. This author suggests that alternative two, enlightened regulation, is the better approach.²⁵⁰ Kahn, on the other hand, prefers alternative three.²⁵¹

Kahn suggests that antitrust laws are an adequate substitute for economic regulation in protecting the public interest in a number of forums. They are not. As a result of deregulation, the railroads, airlines, bus and motor carriers are now more highly concentrated than at any time in their history. The move toward merging stems from the destructive competitive environment of deregulation, and the economic anemia created by traffic dilution. Facing the alternative of a merger or eventual bankruptcy, carriers hemorrhaging dollars quite logically choose the former option.

Antitrust laws are not an effective deterrent against such consolidations. While no single airline merger enjoys antitrust immunity under Section 414 of the Federal Aviation Act, no one has filed a private antitrust action in opposition. Nor is it clear that traditional antitrust remedies are socially desirable in cases where significant real economies of size, scope and density exist, such as in the air transport industry.

Plaintiffs have employed neither civil nor criminal antitrust opportunities to challenge predatory behavior by larger transportation firms. Contemporary case law concerning predation generally does not favor the plaintiff.²⁵²

In addition to the lack of political will exhibited by the United States Department of Justice during the last dec-

²⁵⁰ Dempsey, *Market Failure and Regulatory Failure As Catalysts for Political Change: The Choice Between Imperfect Regulation and Imperfect Competition*, 46 WASH. & LEE L. REV. 1 (1989) [hereinafter Dempsey, *Market Failure*].

²⁵¹ Kahn appears to have a particular aversion to economic regulation, describing regulators as "typically very anal." Kahn Oral Testimony, *supra* note 28, at 6246.

²⁵² See, e.g., *Matsushita Elect. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986).

ade in pursuing antitrust violations other than price fixing, several disincentives to the use of antitrust by private parties exist as a civil means of correcting market failure. Such disincentives include the high cost and consumption of time in pursuing an antitrust action, the significant evidentiary hurdles, and the fact that contemporary case law is not particularly sympathetic to plaintiffs alleging predation. An aggrieved party stands a better chance of prevailing if he follows on the coattails of a successful government civil or criminal action, in part because of the assembling of a complex evidentiary record. In any event, the lack of contemporary Justice Department enthusiasm for areas of antitrust other than price fixing makes such an alternative less feasible. Building such a record from scratch can be extremely expensive. Moreover, criminal antitrust enforcement may be an inappropriate approach to the airline industry with its significant natural monopoly characteristics and susceptibility to destructive competition. Nor do the antitrust laws provide any protection against pricing or service discrimination. This is due to the fact that the Robinson-Patman Act is inapplicable to the airline industry because the Act prohibits discrimination in the sale of goods, not services.

Hence, antitrust is an inadequate substitute for responsible economic regulation in protecting public interest values of assuring a healthy, competitive environment and advancing social objectives which do not find a high priority in a *laissez-faire* regime. Kahn is critical of what he refers to as the "ideologues of *laissez-faire*."²⁵³ Kahn's alternative, however, is not pragmatically available at this point in our legal history, and even if it were, it would probably not be desirable. Stripping away economic regulation inevitably subjects the industry and the public it serves to the fourth alternative, *laissez-faire*.

The net result of deregulation is that the five member Civil Aeronautics Board is now replaced by the Chief Ex-

²⁵³ *Airline Deregulation 1987*, *supra* note 37, at 64.

ecutive Officers of the largest airlines. Using the era of the railroad robber barons as an example, it is evident that the transportation industry is subject to too many social and economic externalities to leave it to the manipulation of a handful of unconstrained monopolists. The quasi-public utility nature of the transportation industry suggests the need for enlightened regulation in the public's interest.

It is time to roll back deregulation, re-establish the appropriate role of government in leveling the playing field, correct market failure, and protect those economic and social interests which do not find a high priority in a *laissez-faire* regime. Enlightened regulation provides an equitable balance of public interest objectives with market imperatives in those singular cases where the market alone produces socially undesirable results. Ideally, it can be designed to steer the delicate course between *laissez-faire* (and hence market failure) and heavy-handed regulation.²⁵⁴

VIII. PUTTING THE AIRLINES BACK ON COURSE: A MODEST LEGISLATIVE AGENDA

To suggest a need for reform of deregulation is not to say that we need to return to the tight-fisted regulatory regime of the early 1970s.²⁵⁵ Such a move would be impossible in any event, because of the profound structural changes that have occurred. CAB chairman Kahn, true to his promise stated: "We will so scramble the eggs that no one will be able to put them back into their shells again."²⁵⁶ The American public, however, needs enlight-

²⁵⁴ Dempsey, *Market Failure*, *supra* note 250, at 3.

²⁵⁵ Dempsey, *The Rise & Fall of the CAB*, *supra* note 6, at 173-74.

²⁵⁶ Having scrambled the eggs, it is a bit obscene for Kahn to now claim that if deregulation is a failed experiment, we can simply re-regulate. Kahn said, way back in 1977-78, I recognized the possibility that the price competition we expected deregulation to release would prove to be only temporary, with the industry eventually settling back into non-price-competitive oligopoly; my response was that there was no reason for the government to continue systematically to suppress competition

ened governmental supervision to correct for market failure and achieve desirable social benefits.

Congress also acknowledges the need for reform. The 100th Congress attempted such reform by proposing an air travelers' "Bill of Rights." The bill would have required airlines to publish statistics summarizing delays, number of passengers bumped, lost bags, and other consumer complaints. This spurred the lethargic DOT to promulgate regulations providing for monthly disclosure of consumer information, and announce possible sanctions including modest penalties for flights cancelled for reasons other than mechanical problems or weather. The Essential Air Service subsidies for small towns have also been extended.

The larger questions must now be considered: entry, pricing, antitrust, small community access, safety, consumer protection and regulatory reorganization.

A. *Entry*

The most difficult question — whether entry should be regulated — should be addressed first. A good argument could be made that thin air transport markets capable of supporting only a single carrier are similar to natural monopolies, and thus should be limited to a single regulated firm much like local electric, telephone and gas distribution markets. Since only one firm can survive, it is wasteful to have two or more airlines fight it out to the death.

If entry regulation is imposed, monopoly pricing must, of course, be constrained. Hence, rate regulation is essential. But limiting entry induces lethargy over the long term. To prevent this, the regulatory agency might issue a certificate for a specific term of years, and be willing to replace the incumbent with a more vigorous firm at the end of its term if the incumbent appears inefficient and uneconomical.

in the first place; and if indeed that eventually ever came to pass, that would be the time to consider re-regulating.

Buckley, *Airlines Invite Talk of Regulation*, Rocky Mountain News, July 6, 1989, at 35.

Spokes between rival carrier hubs may be, oddly enough, natural duopolies. Since only carriers with beyond-segment feed into the city-pair market can ordinarily survive, those without a hub in least at one of the end points will likely fail.

A more difficult question with no apparent solution is whether entry should be limited in other markets. Enhanced competition undoubtedly benefits consumers (at least in the short run) as carriers enter into a competitive war of price discounting. Current competition, however, seems to be destructive in nature. Allowing competition to go unchecked causes carriers to hemorrhage dollars unduly, slash service, defer maintenance and replacement of aged equipment, and spiral downward into bankruptcy or, as an ultimate alternative, merge into larger and larger firms.

Kahn advocates the repeal of the cabotage laws so that foreign airlines can compete in domestic markets. This only reintroduces the problems of destructive competition from which the industry is only now escaping, while creating additional national security concerns. To place this proposal into perspective requires one only to imagine a world in which there had never been cabotage laws. Specifically, suppose the United States' domestic air passenger or cargo industry had in 1938 been dominated by Lufthansa and Japan Air Lines.

Similar to local distribution of electric power, gas and telephone services, airline hubs provide certain system distribution efficiencies and economies of scale. As efficient monopolies, they should therefore be allowed to exist. MegacARRIER domination of multiple hubs, however, reduces the likelihood of new entry, pricing, and service innovations.

Imposing a limit on the number of hubs a carrier may dominate is one means of enhancing national and city-pair competition while recognizing to some extent the true efficiency advantages associated with hub and speaking. Assume, for example, that Congress passed a law

prohibiting an airline from dominating more than sixty percent of the gates, landings, takeoffs and passengers at more than a single airport, thereby limiting the airline to a monopoly at only one airport.

Further assume that an airline with such a hub monopoly would also be prohibited from having more than twenty-five percent of the gates, landings, takeoffs and passengers at any other airport. Several benefits result from such a situation. Carriers are forced to divest themselves of all hubs but one. For example, Northwest Airlines (which today dominates the hubs of Minneapolis/St. Paul, Detroit and Memphis) might be split into three smaller carriers: Northwest, hubbed in Minneapolis; Air Michigan, hubbed in Detroit; and Air Memphis, hubbed in Memphis. Similarly, the other megacarriers are likely to split or spin off lesser hubs. Importantly, city-pair competition improves and the national system avoids domination by a handful of gargantuan airlines.

Moreover, Air Memphis might eventually find its growth opportunities saturated on spokes radiating from Memphis. Such a situation might encourage expansion into other nonhub markets, thereby restoring some of the nonstop service that deregulation eradicated. Of course, for the same reasons that price ceilings are imposed upon electric, gas, and telephone monopolies, they must also be imposed upon airline monopolies to prohibit the extraction of monopoly rents.

B. Pricing

Free market economists predicted that pricing under deregulation would reflect carrier costs. Rates instead tend to reflect the level of competition in a given market. Many markets are so thin that they can only support a single carrier. In fact, today, only a single airline serves nearly two-thirds of America's city-pair markets. Many are like natural monopolies, for which economic regulation has long been recognized as a legitimate remedy.

The imposition of government regulation prohibits the

extraction of monopoly or oligopoly rents. An industry-wide mileage-based formula could be devised as a benchmark to assess the reasonableness of rates, and bring down those rates which cannot be cost justified. Of course, such a calculation must reflect the lower per mile cost of relatively short trips.

Congress should impose regulation of rates only in circumstances in which the airline maintains a sufficient market share so that it is in a position to exert market power. Thus, rate review might only be imposed upon complaint of consumers, or in city-pair markets in which the offending airline has more than forty percent of the market (or an appropriate threshold percentage determined under the Herfindahl-Hirschman index), and where the rate in question exceeds an industry measure of fully allocated costs plus, for example, fifteen percent. The airline charging the allegedly excessive rate should carry the burden of proof. The parties and the agency reviewing the rate should be placed under tight time deadlines, and the agency should be given the power to order refunds of excess fares collected and to order the rate lowered when circumstances so require.

The range of rates should include a ceiling and a floor to prohibit predatory pricing and pricing below fully compensatory levels. Even Kahn recognizes the propensity of airlines to engage in predatory behavior. According to Kahn, "the airline industry clearly demonstrates the dangers of permitting unrestricted responses by incumbents to counter competitive entry, particularly with selective, pinpointed, or targeted price reductions."²⁵⁷ Pricing

²⁵⁷ Kahn Interview, *supra* note 36, at 7. Kahn continued, "The nature of entry is not independent of the policies of the incumbents If you know that if you enter a market you will immediately be met on the nose or even under the nose, that will affect your willingness to enter." *Id.* Kahn has more recently noted that, "I take perverse satisfaction in having predicted the demise of price-cutting competitors like World and Capitol Airways if we did nothing to limit the predictable geographically discriminatory response of the incumbent carriers to their entry" Kahn, *Surprises*, *supra* note 3, at 319.

In fact, the CAB did not heed Kahn's warning. Rather than restricting the competitive response of the incumbents, the Board allowed them to match the intro-

services below costs to drive a competitor out of the industry should be circumscribed.

Regulation can protect smaller competitors from the predatory practices of larger rivals. Judicial antitrust remedies typically only award economic compensation to those injured by such anticompetitive conduct, and do not restore the lost competitor to the market. For example, Sir Freddie Laker, victorious in an out of court settlement with predatory defendant aircraft manufacturers and competing airlines, did not reenter the transatlantic market in which he pioneered bargain basement "no frills" service.²⁵⁸ Thus, consumers' interest in a competitive environment often remains unvindicated by antitrust remedies. In contrast, economic regulation can keep the market flush with small and medium size competitors engaged in a healthy competitive battle, disciplining the costs and prices of their larger rivals.

The inherent tendency of airlines to engage in destructive competition (because of the instantly perishable nature of the service sold and the extremely low short-term marginal costs of production) also provides a legitimate economic rationale for economic regulation. Within this "zone of reasonableness" between the aforementioned price ceiling and floor, market forces should establish the

ductory fares of World and Capitol. As neither airway could sustain the losses, both exited from not only the transcontinental market, but from scheduled passenger service altogether.

In a recent article, Kahn expounded upon the problem of allowing a competitor to be driven from the market via predatory means:

As for the increasingly respectable view among economists that predation is nothing to worry about—why incur the cost of driving a rival from the market when you're unlikely to be able to sustain monopoly profits because rivals can always reenter?—my answer then was and still is: Does anybody really think that new price competitors will come to the consumer's rescue as promptly as their defunct predecessors? As I once heard Irwin Stelzer observe, a hiker might not pay much attention to a "no trespassing" sign standing alone, but if he sees the field behind it littered with bodies of previous trespassers, it's reasonable to suppose he will respect it.

Kahn, *Deregulatory Schizophrenia*, 75 CALIF. L. REV. 1059, 1067 (1987).

²⁵⁸ See Dempsey, *The International Rate and Route Revolution in North Atlantic Passenger Transportation*, 17 COLUM. J. TRANSNAT'L L. 393 (1978).

rate charged. Carriers with lower costs or offering lesser service ought to be able to offer their product to consumers at a relatively lower price.

Price discrimination should also be contained at least between markets. The Robinson-Patman Act prohibits price discrimination in the sale of goods. In 1914, when the legislation was enacted, the public perceived little need for a prohibition against price discrimination in the sale of services for the service sector constituted a relatively small segment of the American economy, and regulatory agencies circumscribed price discrimination in the infrastructure industries.

The status of the industry today is quite different. The regulatory agencies established to prohibit discrimination no longer perform such a function. Moreover, today's economy is dominated by the service sector. Thus, it is time to consider either amending the Robinson-Patman Act to prohibit discrimination in the sale of services, or re-establishing the regulatory mechanism for its prohibition.

While carriers should be free to manage yield to fill seats which otherwise might fly empty by offering a range of fares to lure customers who might not otherwise fly, discrimination between markets based on the existence of competitive alternatives, rather than costs, should be circumscribed. Today, a passenger flying from Washington to Cleveland via Detroit pays less than a passenger seated beside him flying from Washington to Detroit.²⁵⁹ The first rate regulation provisions ever promulgated by Congress in 1887 included a prohibition against a railroad charging a customer more for a shorter haul than a longer haul on the same line in the same direction. Such a provision would do much to cure the inverse relationship between price and costs in the airline industry.

²⁵⁹ See G. BROWN, *THE AIRLINE PASSENGER'S GUERRILLA HANDBOOK: STRATEGIES & TACTICS FOR BEATING THE AIR TRAVEL SYSTEM* (1989).

C. *Antitrust*

Related to Robinson-Patman and other pricing questions are the myriad of antitrust issues which have arisen under deregulation. As noted earlier, in the decade following promulgation of the Airline Deregulation Act of 1978, fifty-one airline mergers occurred.²⁶⁰ In three and one-half years, the Department of Transportation approved each of the twenty-one mergers submitted to it.

Congress should amend the legislation governing airline mergers and acquisitions so as to make mergers more difficult for competing carriers to consummate. Furthermore, statutory criteria for mergers should be tightened to emphasize antitrust concerns. Of course, prohibitions against monopoly pricing will do much to ameliorate the problems created by concentration.

The dominance of incumbents is facilitated not only by their strangle hold over the "fortress hubs," but also by the consumer loyalty generated by the free mileage awarded under frequent flyer programs. Congress should consider a tax on such benefits to discourage the use of such programs. As Borenstein notes, the tax-free nature of the frequent flyer benefit tends to discourage monitoring of the agent (the employee receiving benefits) by the principal (employer). In effect, businesses pay higher fares than they otherwise would and are reimbursed by the taxpayers.²⁶¹ Congress should also consider the divestiture of Computer Reservations Systems (CRS) owned by airlines because opportunities for anti-competitive conduct of their owners are, quite simply, excessively abundant.

D. *Small Community Access*

Even if perfect competition existed in transportation (and it does not), society frequently views the achieve-

²⁶⁰ Carroll, *Higher Fares, Better Service Are Forecast*, USA Today, Oct. 24, 1988, at 2B.

²⁶¹ HUBS AND HIGH FARES, *supra* note 86.

ment of objectives other than allocative efficiency as warranting some sacrifice of the latter. One public policy objective that may be enhanced by economic regulation is an equitable geographical distribution of the opportunity to participate in economic growth. Traditionally, prohibitions against rate discrimination required carriers to price their services to small communities at or just below 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 monopolistic exploitation.

Adam Smith recognized that the width and breadth of the market — the crucial mechanism for extending the division of labor in his vision — is determined in part by the price and availability of transportation services.²⁶² Quite simply, 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. In order to have a healthy economy, all communities, large and small, must have nondiscriminatory access to the transportation infrastructure. If a small town 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 firms are the veins and arteries through which commerce flows. This feature gives the transportation firms 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.

If we are to abandon any notion of entry regulation and cross-subsidization at the federal level (and perhaps we should not), then government subsidies for small community access should not only be continued, but expanded, to provide improved airline service. If the pragmatic

²⁶² A. SMITH, *AN INQUIRY INTO THE NATURE OF CAUSES OF THE WEALTH OF NATIONS* 19-23 (1985 ed.).

political realities of budget deficits preclude sufficient subsidies for air service, then entry and exit regulation should be reconsidered. Establishing a service territory for which a carrier is responsible can be an effective mechanism for assuring adequate service to small towns and rural communities.

E. *Consumer Protection*

Prior to deregulation of the airline industry, the Civil Aeronautics Board provided comprehensive oversight of consumer related airline policies.²⁶³ Today, government regulations govern only two areas of potential abuse: overbooking and lost or damaged baggage. In all other areas of consumer liability, the airlines themselves unilaterally dictate the rules. Unfortunately, the judiciary has been less than enthusiastic about picking up the pieces of the shattered regulatory regime of consumer protection.²⁶⁴

Deliberate overbooking is a practice which has received the federal government's seal of approval. Carriers routinely book reservations for more passengers than they have seats, assuming some passengers will be "no shows." When there are more passengers than seats, airlines are obliged to ask for volunteers, sometimes bribing them with free flight coupons. If the airline cannot coerce a sufficient number of passengers to surrender their seats voluntarily, and thus fails to get passengers with confirmed reservations to their destinations within an hour of the schedule, the airline is obliged to fly "bumped" passengers to their destinations as quickly as possible and pay them a penalty of the one-way ticket price, to a maximum of \$200. If the airline cannot get bumped passengers to their destinations within two hours, the airline must pay an additional penalty. To qualify, the passenger must have checked in on time, have a confirmed reservation, be

²⁶³ *Airlines Reluctant to Disclose Rules*, Wall St. J., Oct. 6, 1988, at B1, col. 3.

²⁶⁴ See P. DEMPSEY & W. THOMS, *supra* note 5, at 268-73.

flying on an aircraft seating sixty or more passengers on a domestic trip, and be denied boarding due exclusively to overbooking.²⁶⁵

It seems highly unfair for the airline to sell a consumer a nonrefundable ticket when the "confirmed reservation" turns out not to be confirmed at all. Airlines deliberately sell more tickets than they have seats, and the "confirmed reservation" can be yanked away at will, leaving the consumer stranded. If the airlines are concerned about passengers booking more reservations than they use, let them insist that passengers guarantee their reservations with a credit card, as do hotels. Only if the reservation is guaranteed should the ticket be nonrefundable.

Government regulations place a ceiling on liability for lost or damaged luggage on domestic flights at \$1,250 per person. Treaties limit liability on international flights to \$20 per kilogram.²⁶⁶ All other liability rules of airlines are required to be set forth in their unilateral "Conditions of Contract of Carriage." Many of these rules are patently unfair to consumers.

For example, while some airlines allow passengers up to forty-five days to file a complaint regarding lost or damaged luggage, others require that passengers file within only a few hours after landing.²⁶⁷ Airlines can cancel reservations for any passenger who fails to check in within ten minutes of takeoff.²⁶⁸

With hub-and-spoke systems becoming the dominant means of air transport, many consumers find that delays may cause them to miss their hub connections. Even when the delay is the fault of the airline, as in the event of a mechanical breakdown or a late crew, several carriers deny liability for any additional meals or hotel bills the passenger may incur as a result of the missed connection.

²⁶⁵ *Airline v. Consumer: Your Rights*, CONSUMER REPORTS TRAVEL LETTER, Apr. 1989, at 40 [hereinafter *Airline v. Consumer*].

²⁶⁶ *Id.*

²⁶⁷ Dahl, *Obscure Airline Rules Trip Up Travelers*, Wall St. J., Oct. 6, 1988, at B1, col. 3.

²⁶⁸ *Id.*

If the delay is the airline's fault, most will arrange alternative transportation to the passenger's destination. Most will not do so if the delay is due to weather or air traffic.²⁶⁹

Several other areas exist where governmental oversight would be prudent. For example, penalties for market-inspired flight cancellations should be increased and made mandatory. Carrier liability for missed connections resulting from flight delays should be imposed. Travel agent commission overrides, which provide an incentive for consumer fraud, should be outlawed. Width across seats and distance between them should be designated so that an average-sized person can enjoy a comfortable flight on a long trip without having his knees jammed against the seat in front of him. The market seems capable only of providing sardine-can travel.

Moreover, the government must intervene to protect consumers against false and misleading advertising. "Bait and switch" is a pervasive problem. An airline advertises, for example, a \$199 fare to Orlando; when the consumer calls she is informed that those seats are sold, but there is a bargain immediate-purchase, nonrefundable, Saturday-stay-over seat available for \$479. The \$199 fare might have been available for only a very few seats, yet the fine print often fails to explain the restrictions adequately.

Consumer protection demands sensible advertising regulation. Tighter airline advertising regulation has been endorsed by the Attorneys General of more than forty states.²⁷⁰ Ample jurisdiction exists under of the Federal Aviation Act²⁷¹ to protect the public against unfair and deceptive competitive practices, if only the Department of Transportation would exercise it.

F. *Safety*

An important public policy objective which can be pro-

²⁶⁹ *Airline v. Consumer*, *supra* note 265, at 40-41.

²⁷⁰ *Tightening of Ad Rules for Airlines Supported*, Rocky Mountain News, Dec. 15, 1987, at 13B.

²⁷¹ 49 U.S.C. § 411 (1982).

moted by regulation is enhanced margins of safety. 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.

In order to deal with the problems of safety which have arisen under deregulation, certain things must be done. The air traffic control system should be refurbished. The Federal Aviation Administration needs to restaff the traffic control system beyond the pre-PATCO strike levels of 1981 and FAA equipment needs to be updated and upgraded.

Congress should devote sufficient resources to building new airports and expanding existing ones. No new major airport has been built in the United States since 1974, when Dallas/Ft. Worth International Airport was constructed. Since then, national air traffic has doubled and will double again by the end of the century. Despite this exponential growth in traffic, only two new major airports are being planned. One is in Denver; the other, in Austin. Local opposition to noise, congestion, and pollution exists to hinder new airport expansion and development. Perhaps it is time to consider federal legislation pre-empting local opposition to regional airport construction.²⁷²

Congestion at hub airports can be reduced by regulating landings and takeoffs and by imposing peak period landing fees.²⁷³ This will help flatten out usage somewhat, and reduce congestion. Landing fees should also reflect the opportunity costs of delay, which would suggest that a higher landing fee should be imposed upon small aircraft, and a smaller fee imposed upon larger air-

²⁷² Of course, compensation for legitimate loss of property values should be paid.

²⁷³ To the extent that landing fees do not reflect full social costs, the efficiency of hub and spoking may be partly illusory because hub and spoking utilizes, intensively, peak period airport facilities, and the private cost of this resource lies below its social cost due to subsidization.

craft, thereby favoring the larger number of human users of finite public resources.

Enhanced safety requires that more attention be paid to the economic health of firms, for deferred maintenance seems to be associated with economic anemia. Not only are economically unhealthy carriers suspect, but those purchased by corporate raiders are also of concern. For example, the Consumer Federation of America has accused Carl Icahn of using TWA's profits to finance his raids on other firms rather than ploughing back profits into badly needed new aircraft.²⁷⁴ Frank Lorenzo also stripped Eastern of essential assets.²⁷⁵

Hence, the regulation of carrier fitness in licensing should be taken more seriously by the Department of Transportation. The Federal Aviation Administration should keep a keener eye on aircraft and pilot qualifications. If that proves inadequate to increase the margin of safety over the long term, then more comprehensive regulation which enhances the economic health of the industry may be required. Safety can never be decoupled from economic health.

G. *A New Independent Federal Transportation Commission*

Much of what is wrong with deregulation is the fault of the implementing agencies due to their zeal in embracing *laissez-faire* ideology. The statutes which ordained deregulation called for gradual entry and pricing liberalization, yet their interpretation by the regulatory agencies has bordered on irresponsible. Much of that is attributable to White House dominance and the executive's strong ideological agenda. Because White House domination of the DOT should have easily been foreseen, Congress was asking for trouble when it transferred the remaining regu-

²⁷⁴ Answer of the Consumer Federation of America to the Petition of the International Federation of Flight Attendants, DOT Docket No. 45792. In March, 1989, TWA finally placed an order for several Airbus Industry aircraft.

²⁷⁵ Dempsey, *Corporate Pirates Assault the Heavens—Leveraged Buy-Outs and the Airline Industry*, 2 DEPAUL BUS. L.J. 79-86 (1989).

latory responsibilities of the CAB during its "sunset" to the DOT.²⁷⁶

Many critics allege that after the initial euphoria of public interest protection wears off in the first decade or two of their existence, regulatory commissions tend to favor the interests of the industry they regulate. This result is a natural phenomenon: while other groups may come and go, the well-financed regulated industry is the one constituency consistently before the agency pleading its case and seeking relief.

A related problem follows from the fact that former Commissioners are often recruited by the industry to serve as executive officers. Ironically, this phenomenon appears under deregulation as well. For example, Alfred Kahn, Mike Levine and Phil Bakes of the deregulationist CAB and Elliot Seiden of the Reagan Justice Department's Antitrust Division subsequently joined Frank Lorenzo's Texas Air empire.

In the final analysis, there are important regulatory functions to be performed by government, and we have to create a mechanism to perform them without undue political and ideological bias. In order to avoid the capture problem, the regulatory functions pertaining to all transportation should be swept into a new *Federal Transportation Commission*. Those functions formerly carried out by the CAB and now the DOT for airlines, by the ICC for rail and motor carriers, by the Federal Maritime Commission for ocean carriers, and by the Federal Energy Regulatory Commission for pipelines could be carried out by an independent federal agency outside the executive branch. An agency with jurisdictions over airlines, motor carriers, bus companies, pipelines, railroads, and domestic and international water carriers would be difficult to capture by any single firm or transport mode.

To enhance its independence, the new Federal Trans-

²⁷⁶ P. DEMPSEY, *LAW & FOREIGN POLICY*, *supra* note 12, at 234-39 (discussing problems involving executive branch control).

portation Commission should be comprised of at least seven members appointed by the President, with the advice and consent of the Senate, to serve staggered, six year terms. They should be selected from a list of candidates prepared by a blue ribbon panel of industry, labor, and consumer members appointed by Senate and the President, thereby enhancing the Constitutional mandate of legislative advice and consent. By calling upon an independent body to recommend potential candidates for nomination, we can reduce the propensity of some Presidents to fill Commissions with political cronies.

The skills and competence of the men and women who serve will, in the final analysis, determine how well broader social needs are fulfilled. Potential Commissioners should be selected on the basis of their competence, skill and neutrality on the issues they will confront. They must have a deep and abiding respect for the law and the supremacy of the legislative branch in defining the parameters within which they shall administer the regulatory function. It is not just the substantive law, which defines the agency's jurisdictional limits, to which there must be fidelity, but also the procedural and evidentiary requirements of due process, for the agency will inevitably be quasi-judicial in nature. It must be filled with individuals who possess judicial temperament. As Joseph Eastman, Franklin Roosevelt's Transportation Coordinator, said: "The important qualifications [of a Commissioner] are ability to grasp and comprehend facts quickly, and to consider them in their relation to the law logically and with an open mind. Zealots, evangelists, and crusaders have their value before an administration tribunal, but not *on it*."²⁷⁷

Legislation must necessarily be drawn broadly. Statutes cannot be drafted with perfect precision because of both problems of practical politics and the limitations of the English language. Additionally, some flexibility is desira-

²⁷⁷ Remarks by Honorable Joseph B. Eastman, Silver Anniversary Celebration Held in His Honor (Feb. 17, 1944), reprinted in Eastman, *Twelve Point Primer*, 16 *TRANSP. L.J.* 175, 177 (1987).

ble to enable the Commission to address new challenges as they arise. Nevertheless, Congress should make more of an effort to tighten the agency's discretion and identify more precisely its jurisdictional parameters. Congressional committees should perform more rigorous oversight hearings more often, raking appointed officials over the coals when they stray beyond Congressional intent. The judiciary should also look closely at the orders and rules emanating from regulatory agencies and strike down more on grounds that they are *ultra vires*.²⁷⁸ Legislative and judicial checks and balances should be employed to pull the agency to the center, away from the extremes of either heavy-handed regulation, or rampant deregulation.

In order to avoid political bias, no more than a simple majority of commissioners should be members of a single political party. In order to alleviate the likelihood of White House domination of the agency's affairs, the Commission should be free to elect its own Chairman. In order to avoid pro-industry bias, strict restrictions should be placed on the ability of Commission members to work for the regulated industry when they leave the Commission.

Improved process will vastly improve the regulatory function. In fact, had a neutral and responsible regulatory agency without a strong ideological agenda implemented deregulation during the past decade, it is quite likely that the results would have been significantly less onerous.

A suggestion that there is an appropriate role for a regulatory agency should not be construed to mean that we need to return to the rigid regulatory regime of the late 1960s and early 1970s. The period of modest regulatory reform of 1976-78 proved that both the industry and the public it serves can benefit significantly from enlightened regulation. Allowing carriers modest pricing flexibility so they could tap the elasticities of demand and fill capacity

²⁷⁸ An act is *ultra vires* if its enactment is beyond the scope of the power of the enacting body.

proved to be a win-win situation for both the airlines and consumers.

Moreover, not 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 parameters within which the firms may lawfully operate. Regulation at the margins, while allowing privately owned firms to satiate consumer demands, is all that is required. Government should set the parameters, not the particulars, of lawful behavior.

IX. CONCLUSIONS

During the 1980s, deregulation swept not only through transportation,²⁷⁹ but also through the other infrastructure industries. Telecommunications, broadcasting, cable television, banking, oil and gas, securities, and to a lesser extent, electric utilities all were released from the grip of rigid regulation. But 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. The flower has lost its bloom. As the American people have had more experience with the grand experiment in deregulation, they have become less enamored of it.

Recently, the *Wall Street Journal* asked Americans to identify the industries in which they had most, or least,

²⁷⁹ Legislation deregulating transportation was not confined to aviation. 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.

confidence.²⁸⁰ The largest number by far, forty-three percent, said they had the least confidence in the airline industry.²⁸¹ The disapproval ratings for the industries that followed — insurance (twenty-seven percent), banking (twenty-three percent), oil and gas (twenty-two percent), and stockbrokers (twenty-two percent) — were not nearly as high as that for airlines.²⁸² Congress has not passed a major deregulation bill in recent years, and is considering various reregulation proposals for a number of industries too hastily deregulated. Targeted industries include banking, securities, and those transport modes which have experienced the most comprehensive deregulation — railroads and airlines.

The experience with airline deregulation — the stark juxtaposition between what was promised and what was delivered — ought to make future deregulators pause. Neither traditionalist predictions of many competing carriers nor nontraditionalist predictions of a few competitors constrained by the threat of entry to conduct themselves like the textbook perfect competitors, have been borne out.

In the early years of deregulation, new low cost airlines emerged to rival the established carriers. But where have all the flowers gone? Where are the Donald Burrs and Sir Freddie Lakers today, with their discount prices and spartan service? The spartan service survived, but the new entrepreneurs have fled a ruthlessly predatory economic environment, never to return, and taken their discounts with them. We are left with an oligopoly of megacarriers and, in many regional and city-pair markets, a shared monopoly. With the creation of frequent flyer programs, travel agent commission overrides, and megacARRIER dominance of fortress hubs and computer reservations sys-

²⁸⁰ Schwadel, *Consumer Trust: An Elusive Quarry*, Wall St. J., Sept. 20, 1989, at B1, col.3.

²⁸¹ *Id.*; see also Winans & Dahl, *Airlines Skid on Bad Moves, Bad News*, Wall St. J., Sept. 20, 1989, at B1, col. 3.

²⁸² Schwadel, *supra* note 280, at B1, Col. 3.

tems, new entry is today highly unlikely. Moreover, the threat of new entry has proven to be a toothless deterrent to the unrestrained exercise of market power. The predictable result is that prices are now above where they would have been had the prederegulation downward trend continued.²⁸³ The early gains in the form of lower fares were completely dissipated by 1988.

The market for air transport services is not perfectly competitive as significant economies of scale, scope, and density exist. Nor is it contestable. Economic barriers to new entry are formidable. Oligopolies and monopolies with effective market power have resulted.

Another result of deregulation is that the industry is saddling itself with enormous debt and excess fleet capacity. During the first decade of deregulation, the industry was so terribly anemic that few airlines could afford to reequip with new equipment, despite the aging of their fleets. Staring bankruptcy in the face, many found mergers a means of enhancing size and scope, and thereby profitability. The creation of fortress hubs also gave airlines market power — the power to raise ticket prices.

Now that airlines are becoming money machines, they have become targets for leveraged buy-outs (LBOs). Alfred Checchi recently purchased Northwest for \$4 billion. United, Delta and USAir may also be targets.

Prior LBOs reveal that corporate raiders leverage airlines to the teeth to pay for their acquisitions. Frank Lorenzo gobbled up Continental and Eastern. Corporate raider Carl Icahn grabbed TWA and Ozark. Both added millions in indebtedness to these once financially secure airlines, and stripped them of assets. Before Eastern fell into bankruptcy, it carried \$2.5 billion on long-term debt; its debt service was a crushing \$575 million. TWA carries

²⁸³ Some analysts estimate 2.6 percent higher in 1989, per mile, and perhaps as much as 36 percent greater per trip, given the greater circuitry for which deregulation is responsible, and the differential is projected to grow in coming years.

\$2.5 billion in debt²⁸⁴ and lease obligations, and has a negative net worth of \$30 million.²⁸⁵

Not only are LBOs burying airlines in debt, new aircraft acquisitions are as well. Media attention directed at geriatric jets — the peeling skin and the exploding doors — has prompted airlines to order huge new fleets of aircraft. Earlier this year, United placed a record \$38 billion order for new aircraft. American has 259 aircraft on order and 302 on option. Delta has options or orders for 215 jets, including forty giant MD-11s. Texas Air placed an order for 100 jets — fifty firm and fifty on option. Northwest has placed \$8.4 billion in orders and options for 140 jets. Even miserly Carl Icahn, whose TWA has the oldest fleet in the industry, placed an order for a few Airbuses. The industry as a whole has placed orders or options for \$150 billion in new aircraft.

Adding new jets will mercifully reduce the age of the nation's fleet. That will be a welcome blessing for the margin of safety, but it saddles the industry with even more debt.

Moreover, unlike the days before deregulation when airlines actually owned most of their aircraft, today they lease them. For example, American Airlines owns only about a third of its 476 aircraft outright. Even solid carriers like Delta have sold large numbers of aircraft only to lease them back. This practice increases debt, but decreases value.

Lease obligations usually do not show up on balance sheets as debt, but like accumulated frequent flyer mileage, they should. Including lease obligations as debt reveals that the industry's debt to equity ratio today is significantly worse than it was in the mid-1980s, although the industry's performance has improved considerably since then. Whether purchased outright or leased, new aircraft

²⁸⁴ Vogel, *Carl Icahn Has Lots of Cash. Will He Spend It on TWA?*, Bus. Wk., July 17, 1989, at 86, 87.

²⁸⁵ Power, *Raiders May Not Make the Best Airline Pilots*, Bus. Wk., May 15, 1989, at 35.

not only impose tremendous debt, but they also flood the market with capacity.

The wild cards — fuel prices, aerial terrorism, and recession — must also be considered. Rising fuel prices increased industry costs in the 1970s and 1980s. Upsurges in terrorism and downturns in the economy each curtail demand. Considering the poor financial condition of most airlines today, a recession could have especially devastating effects.

Few industries are as susceptible to downward turns in the economy as are airlines. Recessions prompt travelers to cancel their vacations, and force business travelers to tighten their belts. As a result, passenger demand plummets.

Unfilled seats on a scheduled flight are in the nature of an instantly perishable commodity; short term marginal costs — another meal and a few more drops of fuel — are negligible. Accordingly, during slack demand periods, ticket prices spiral downward.

Couple a prolonged recession with excess capacity and high debt service and another round of bankruptcies and mergers similar to the one endured in the early 1980s will likely result. When the dust settles, the industry will be even more concentrated than it is now. Fewer and larger megacarriers will dominate the national landscape, and increased prices will result.

The time has come to take a fresh look at the mess that deregulation has made, and devise an enlightened response. Nevertheless, the debate over what should be done with an infrastructure industry so important to the nation has been falsely cast in terms of only two options — heavy-handed regulation and deregulation. Neither are desirable alternatives.

The public debate must begin to move beyond these polar extremes and explore more moderate alternatives. 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. Transportation, generally, and air transport, in particular, have too vast a social and economic impact in communication and commerce to be left to the whims of a dwindling club of unconstrained monopolists. Transportation is one industry in which the public interest must again be dominant. We ought to have the courage and wisdom to admit we made a mistake. The time has come to roll back deregulation.

APPENDIX

Data, Methods and a Note on Morrison and Winston's "Counterfactual" *Analysis of the Effects of Airline Deregulation on Fares*²⁸⁶

Annual data on nominal yields (revenue per passenger mile) came from the Air Transport Association. The annual average value of the Consumer Price Index (All Items) was used as a deflator to construct an index of real yields. Annual average fuel costs and the share of fuel in all expenses came from the Air Transport Association's Airline Cost Index for the years from 1970 on. For the earlier years included in the analysis (1967-69), both fuel costs and the fuel share of expenses were estimated, as noted below, as these data were generally unavailable. Real fuel costs were constructed using the CPI as a deflator.

The fuel-adjusted real yield was constructed as follows. Starting from an arbitrary level at the beginning of the period, the percentage change in the index in each year is computed as the difference between the percentage change in the unadjusted real yield, on the one hand, and the product of the percentage change in real fuel prices and the fuel share of costs in the previous year (and thus at the beginning of the current year), on the other. For example, if for some year some yields rose ten percent, real fuel costs twenty percent and fuel costs in the prior year were twenty percent of costs, then the calculation of the percentage change in fuel-adjusted real yields would be: $10 - .2(20) = 6$ percent. The reported trend differences before and after deregulation were obtained by regressing the natural logarithm of unadjusted and fuel-adjusted real yields, in turn, on time (with 1967=0), a time/deregulation dummy to capture any change in trend post-deregulation, and a deregulation dummy to capture any one-time

²⁸⁶ S. MORRISON & C. WINSTON, *supra* note 139, at 22.

shift after deregulation. The first two columns of the table below present these results:

TABLE A-1
Regression Results

	Dependent Variable			
	(1)	(2)	(3)	(4)
	Ln. of Real Yield	Ln. of Fuel- Adjusted Real Yield	Ln. of Real Yield	Percentage Change in Fuel-Adj. Real Yield
<u>Coefficient on:</u>				
Time	-.0149 (.0043)	-.0275 (.0029)	-.0355 (.0121)	-.1314 (.3863)
DTime*	-.0165 (.0060)	.0085 (.0040)	.0153 (.0164)	.9701 (.5110)
DInt**	.1772 (.0740)	-.2298 (.0496)	.24474 (.1887)	-14.0162 (5.9598)
Ln. Real Fuel	—	—	.1620 (.0368)	—
Ln. Real Labor	—	—	.1319 (.3373)	—
<u>R²</u>	.9300	.9839	.9647	.2737
<u>Time Period</u>	1967-88	1967-88	1970-88	1968-88
<u>D.F.</u>	18	18	13	17

(Standard errors in parentheses)

* DTime takes on the value of time in 1978 and after, and 0 for prior years.

** DInt takes on the value of unity in 1978 and after, and 0 for prior years.

The coefficient on time gives the estimated trend rate of increase in real yields prior to 1978. The sum of the coefficients on time and DTime gives the estimated trend rate of increase in real yields after 1978. Thus a statistically significant coefficient on DTime indicates a statistically significant *difference* in and trend before the after deregulation. In column one, with the *unadjusted* real yield as the dependent variable, the trend rate of increase is signifi-

cantly lower (a bigger rate of decay) after as compared with before deregulation. As column 2 shows, however, the *fuel-adjusted* real yield grew significantly faster (a slower decay rate) after as deregulation. The estimated one-time percentage shift in real yields for which deregulation is responsible can be computed as the antilogarithm of the difference between the absolute value of the coefficient in DInt, on the one hand, and the product of 11 (the value of Time in 1978) and the coefficient of DTime, on the other. For the fuel-adjusted real yield, this computation yields 12.8 percent as the one-time decline in yield due to deregulation.

Fuel costs for the years 1967-69 were predicted by kerosene prices based on the regression of fuel costs on kerosene prices (obtained from the Bureau of Labor Statistics, Producer Price Index) in those years (1970 and after) when both variables were available. The estimate of the fuel share of expenses in 1967-69 was based on the regression of fuel share on the natural logarithm of real fuel costs for 1970 and after. Finally, in computing the estimated real yield in 1989, only year-to-date data on the yield for domestic services alone was available (from the Air Transport Association). The estimate for the yield on all services was made using the predicted value based on the regression of the yield for all services on the yield for domestic service alone in the years (1978 and after) when both were available. In each case the variables used to make the estimate were highly correlated with the variable to be estimated (R^2 in the regression of fuel costs on kerosene prices was .998; for the regression of fuel share of expenses on real fuel costs, R^2 was .960; and for the regression of the yield on all service on the domestic yield only, R^2 was .989).

The third column of Table A-1 reports the results of a regression which would appear to throw some doubt on the methodology employed by Morrison and Winston in their study of the effects of airline deregulation, in which they claim that deregulation was responsible for "an over-

all reduction in fares of nearly 30 percent.”²⁸⁷ This estimate is based on a “counter-factual” methodology in which they ask what fares would have been in 1977 if deregulation had been in effect then, and compare the result to *actual* fares in 1977. The estimate of what fares would have been in 1977 under deregulation is based on the relationship between input costs — chiefly fuel and labor — and revenues-per-passenger in the period 1980-82 for major carriers. The regression of fares on input costs for this period allows them to predict 1977 deregulated fares based on 1977 input costs.

This method is highly problematic once the secular downward trend in real yields — even holding input costs constant — is appreciated. The third column of Table A-1 illustrates this trend. Even holding real labor and fuel costs constant, real yields fell by 3.5 percent per year, indicating a secular increase in productivity in the industry which prevailed prior to deregulation and if anything has been adversely affected by deregulation (the coefficient on DTime is positive, but not statistically significant).

Given such a secular trend, a substantial part of the difference between Morrison and Winston’s “1977 Deregulated Yield” and the actual yield simply reflects the passage of time and the correlated productivity improvements between 1977 and 1981-82, when Morrison and Winston estimated their fare-cost relationship. This trend has nothing to do with deregulation and if anything was slowed down by deregulation. Half of the effect they find (fourteen of twenty-eight percent — they round the latter to 30) might well be spurious for this reason.

Second, if disaggregated data were to confirm the lower rate of productivity improvement (lower rate of price decline, holding costs constant) after deregulation which is weakly supported in the aggregate annual data used for the regression reported above, then Morrison and Winston would only be telling us about a one-time shift which

²⁸⁷ Morrison & Winston, *Airline Deregulation and Public Policy*, SCIENCE, Aug. 18, 1989, at 707-708.

could eventually be dissipated. In fact, coincidentally, the fourteen percent shift that their results, properly interpreted, can attribute to deregulation is almost identical to the one-time shift (12.8 percent) that our descriptive trend analysis finds in the data. Thus, our conclusions that consumers paid in 1988 what they would have paid without deregulation, and actually pay 2.6 percent more in 1989 — these conclusions are not inconsistent with Morrison and Winston's finding of a 30 percent fare *reduction* using their faulty methodology. It behooves them to use a method which allows for the trend decline in fares holding costs constant that the industry, deregulated or not, has historically exhibited before their estimates of "gains" to consumers in the form of lower fares can be taken seriously.