

1989

Airline Deregulation Ten Years After: Something Foul in the Air

Andrew R. Goetz

Paul Stephen Dempsey

Recommended Citation

Andrew R. Goetz et al., *Airline Deregulation Ten Years After: Something Foul in the Air*, 54 J. AIR L. & COM. 927 (1989)

<https://scholar.smu.edu/jalc/vol54/iss4/3>

This Article is brought to you for free and open access by the Law Journals at SMU Scholar. It has been accepted for inclusion in Journal of Air Law and Commerce by an authorized administrator of SMU Scholar. For more information, please visit <http://digitalrepository.smu.edu>.

AIRLINE DEREGULATION TEN YEARS AFTER: SOMETHING FOUL IN THE AIR

ANDREW R. GOETZ*

PAUL STEPHEN DEMPSEY**

I. INTRODUCTION

AMONG THE most important legacies of the Reagan Administration's economic policy has been its steadfast drive toward privatization and deregulation of American industry. As part of the "New Federalism", government-run or regulated industries, such as transportation, communications, securities, banking and energy, have become prime examples of a vigorous and comprehensive governmental retreat.

The first industry to be subjected to this revolution was the airline industry. The move toward deregulating the airlines actually began in the 1970s. It was initially promoted by President Gerald Ford, and then realized under Jimmy Carter with the appointment of Cornell economist Alfred E. Kahn as Chairman of the Civil Aeronautics Board, and the promulgation of the Airline Deregulation Act of 1978. Still, most of the effects of this change have been felt in the 1980s. In light of the Reagan Administra-

* Assistant Professor of Geography, University of Denver, B.A., Northwestern University, 1980; M.S., Kent State University, 1984; Ph.D., The Ohio State University, 1987.

** Hughes Research Professor of Law and Director, Transportation Law Program, University of Denver College of Law. A.B.J., University of Georgia, 1972; J.D., University of Georgia School of Law, 1976; LL.M., George Washington University National Law Center, 1978; D.C.L., McGill University Institute of Air and Space Law, 1986. Member of the Bars of Colorado, Georgia, and the District of Columbia.

tion's strong ideological stance in favor of sharply reduced federal involvement in economic affairs, including not only pricing and entry deregulation, but antitrust abdication as well, most observers probably associate airline deregulation with the Reagan era. Moreover, with the demise of the Civil Aeronautics Board on December 31, 1984, and the transfer of its remaining regulatory responsibilities to the United States Department of Transportation (DOT), aviation policy has been moved from an independent regulatory agency to an executive branch agency.¹ Hence, it is now, and for the first time, all the President's men who set regulatory policy for the airline industry.

This Article examines the effects of airline deregulation on the United States air passenger transportation system over the past decade by focusing on three major areas that have been significantly impacted: airline industry structure, air service, and air safety. Throughout this analysis, the two themes of concentration in scale and greater industry volatility emerge as particularly important. Airline deregulation has led to increased market shares by the largest airlines, and to increased concentrations of traffic at the largest hub airports. Further, deregulation has led to greater instability in the airline industry structure, in air service, and in air safety. All of these results have important implications for future planning in United States air transportation.

The discussion begins with a short synopsis of the history of regulation and deregulation in the United States air passenger transportation system. Separate sections on each of the three major topics then follow, with an overall assessment of deregulatory impacts concluding the Article.

II. HISTORY OF REGULATION IN AIR TRANSPORTATION

Economic regulation in air transportation was inaugu-

¹ 49 U.S.C. app. § 1551(b) (Supp. IV 1986).

rated by Congress with its promulgation of the Civil Aeronautics Act of 1938.² This Act created the Civil Aeronautics Authority, reorganized as the Civil Aeronautics Board (CAB) in 1940, and gave it jurisdiction to control route entry and exit of air carriers, regulate fares, award subsidies, and control mergers and intercarrier agreements.³ Regulation was deemed essential in order to protect the infant industry from excessive levels of competition which had emerged during the Great Depression. Indeed, the legislative history is replete with pejorative adjectives, variously defining the competition of the era as "destructive," "cutthroat," "extreme," "wasteful," "excessive," and "unrestrained," the cumulative effect of which was having deleterious consequences for this industry potentially so important to development of the domestic and foreign commerce of the United States. Regulation, it was believed, would provide the economic stability essential to the sound growth and development of air transportation, which in turn would serve as a catalyst for national economic growth.⁴

During the ensuing decades, the air transportation industry steadily grew and matured while regulated by the CAB and the Federal Aviation Administration (FAA).⁵ Skeptical economists, however, gradually began to question the desirability of continued economic regulation as

² Pub. L. No. 75-706, 52 Stat. 977 [hereinafter *The 1938 Act*], *repealed by* Federal Aviation Act of 1958, Pub. L. No. 85-726, 72 Stat. 731 (codified as amended at 49 U.S.C. app. §§ 1301-1552 (1982 & Supp. IV 1986)).

³ E. BAILEY, D. GRAHAM & D. KAPLAN, *DEREGULATING THE AIRLINES* 11 (1985) [hereinafter *BAILEY*]; see P. DEMPSEY & W. THOMS, *LAW & ECONOMIC REGULATION IN TRANSPORTATION* 26-29 (1986) (Congress perceived that if government regulation produced order and stability in the infant airline industry, the industry could attract the needed capital for expansion from reassured investors who, following the Depression, might be reluctant to take risks absent this government intervention).

⁴ Dempsey, *The Rise and Fall of the Civil Aeronautics Board—Opening Wide the Floodgates of Entry*, 11 *TRANSP. L.J.* 91, 95-108 (1979) (the article details the legislative debate and discussion preceeding *The 1938 Act*).

⁵ The FAA was created by Congress in 1958 to specifically handle safety issues. Federal Aviation Act of 1958, Pub. L. No. 85-726, § 301, 72 Stat. 744 (codified as amended at 49 U.S.C. app. § 1341 (1982)).

the airline industry grew and developed.⁶ Further studies on the performances of less regulated intrastate air carriers in California and Texas prompted many observers to conclude that economic regulation resulted in excessively high fares, and a net economic loss to society at large.⁷

These and other studies contributed to a growing consensus among economists that economic regulation in the domestic airline industry was distorting the efficient performance of the market-place by creating excessive service and insufficient price competition, and was therefore undesirable. This consensus, together with strong political support from Senator Edward Kennedy, among others, led to the passage of the Air Cargo Deregulation Act of 1977 and the Airline Deregulation Act (ADA) of

⁶ See R. CAVES, *AIR TRANSPORT AND ITS REGULATORS: AN INDUSTRY STUDY* 411-49 (1962) (Caves determined that economists would not reach the same results and decisions as the CAB regarding the degree of necessary airline profit and the management of routes); L. KEYES, *FEDERAL CONTROL OF ENTRY AND EXIT INTO AIR TRANSPORTATION* 307-46 (1951) (Keyes theorized that the CAB regulatory policy of protecting the revenues of existing airlines impeded the best adjustment of output distribution among airlines and products; she therefore recommended abandonment of the protective aspects of regulation that conflicted with a rational subsidy policy).

⁷ See G. DOUGLAS & J. MILLER III, *ECONOMIC REGULATION OF DOMESTIC AIR TRANSPORT: THEORY AND POLICY* 170-85 (1974) (Through two analyses of trunkline cost data, the authors found no significant economies of scale operating at the trunk carrier level that would prohibit deregulation from making the air fare market more efficient); W. JORDAN, *AIRLINE REGULATION IN AMERICA: EFFECTS AND IMPERFECTIONS* 226-44 (1970) (This study compares the performance of the CAB regulated airlines with nonregulated intrastate California airlines and finds that although CAB regulation resulted in higher service quality, it also restricted entry into the industry, promoted mergers, allowed for price discrimination and motivated airlines to operate inefficiently); Keeler, *Airline Regulation and Market Performance*, 3 BELL J. ECON. & MGMT. SCI. 399, 421-23 (1972) (This article explains a 1968 study finding that on regulated short routes fares were at least 20% higher than on unregulated short routes, and that on longer routes, the regulated fare could be 95% higher than the unregulated fare); Note, *Is Regulation Necessary: California Air Transportation and National Regulatory Policy*, 74 YALE L.J. 1416 (1965) (After analyzing the contrasts between the performance of unregulated intrastate California markets and similar regulated interstate markets, this article found: "Government restriction of entry into the airline industry and regulation of fares has fostered unnecessarily high fares, encouraged uneconomic practices, and limited the variety of services available to the public").

1978,⁸ both signed into law by President Jimmy Carter. Simply put, the ADA mandated that the CAB would no longer have authority over route entry or exit, nor over airline fares, after a transition period from 1978 to 1982, with the CAB itself to be dissolved on December 31, 1984.⁹

Since 1980, the Reagan Administration's policy toward the air transportation industry has been one of enthusiastic support for continued and expanded deregulation. In addition to the airline industry, deregulatory movements in the railroad, trucking, bus, telephone, and banking industries were all realized under the Reagan Administration. Table 1 contains a partial list of major steps taken in the contemporary era toward comprehensive deregulation of American industry.

III. AIRLINE INDUSTRY STRUCTURE

Prior to deregulation, four major classes of commercial air carriers had emerged: trunk, local service, intrastate, and commuter. Trunk airlines evolved from a group of sixteen carriers which had been offering scheduled service at the time of the 1938 Act, and were granted certificates to continue service under the "grandfather" clause of the Act. As a result of ensuing mergers, ten trunk airlines had become the major domestic carriers by the time deregula-

⁸ Pub. L. No. 95-504, 92 Stat. 1705 (codified as amended throughout scattered sections of 49 U.S.C.).

⁹ 49 U.S.C. app. § 1551 (Supp. IV 1986). See generally S. MORRISON & C. WINSTON, *THE ECONOMIC EFFECTS OF AIRLINE DEREGULATION* 4 (1986). The standard a carrier had to meet to gain entry into a market was gradually lowered throughout the transition period. Prior to 1978, a carrier had to show that entry was *required* by public convenience and necessity. Between 1978 and 1981, a carrier had to show that entry was *consistent* with public convenience and necessity. Since 1982, entry has been granted to all carriers that are fit, willing and able. *Id.*

The CAB granted airlines autonomy in setting fares on a gradual basis as well. Although the airlines exercised considerable freedom in setting fares prior to 1978, for a period after deregulation, there were still some restrictions on increases above pre-deregulation levels. After 1983, all fare regulation was eliminated. *Id.*

Table 1

Examples of Recent Deregulatory Initiatives by Congress, the
Judiciary, and Administrative Agencies

- 1968 - U.S. Supreme Court allows non-AT&T equipment to be hooked up to Bell System
- 1969 - Federal courts allow MCI long distance access to residential telephones
- 1970 - Interest rates on deposits of more than \$100,000 deregulated
- 1972 - FCC adopts open skies satellite policy
- 1975 - SEC abolished fixed brokerage fees
ICC prohibits rate bureau protests for independent rate filings
- 1976 - Railroad Revitalization and Regulatory Reform Act
- 1977 - Air Cargo Deregulation Act
- 1978 - Airline Deregulation Act
Natural Gas Policy Act
OSHA revokes 928 rules
- 1979 - FCC deregulation of earth satellite stations
- 1980 - Motor Carrier Act
Staggers Rail Act
Depository Institutions Deregulation and Monetary Control Act
International Air Transportation Competition Act
Household Goods Transportation Act
FCC deregulation of cable television
- 1981 - Executing Order decontrol of crude oil and refined petroleum prices
FCC deregulation of non-entertainment programming for radio
- 1982 - Bus Regulatory Reform Act
Garn-St. Germain Depository Institution Act
Modified Final Judgment in *U.S. v. AT&T*
- 1984 - The Shipping Act
Civil Aeronautics Board Sunset Act
Cable Communications Policy Act
FCC deregulates non-entertainment TV programming
- 1986 - Freight Forwarder Deregulation Act
- 1987 - FCC abolishes Fairness Doctrine

tion began, principally serving high-density, long-haul routes with jet aircraft.¹⁰

Local service airlines were given certificates beginning in 1943, originally to expand service to small communities.¹¹ Eight of these airlines were still in existence by the time deregulation began, with their role having changed to include greater provision of longer-haul, higher-density jet service in larger markets.¹² These local service airlines had actually become "mini-trunks," each with a distinctly regional focus.¹³

Intrastate carriers were allowed to operate scheduled jet service without CAB certificates, provided they did not serve interstate routes. By 1978, four of these carriers were in operation serving the states of California, Florida, and Texas.¹⁴

Finally, commuter airlines (or air taxis) began service after World War II, restricted to flying only small piston or turbo-prop planes on short-haul routes. Although allowed to operate scheduled service, commuters were not given certificates and were not bound by many CAB regulations. By 1978, there were 258 commuter carriers, mostly serving smaller communities.¹⁵

¹⁰ These ten airlines were: American, Braniff, Continental, Delta, Eastern, National, Northwest, Trans World, United, and Western.

¹¹ Vittek, *Air Service to Small Communities: The Past, The Present, The Future*, 1974 PROC. ANN. MEETING TRANSP. RES. F. 40. The CAB decided to create a new class of carrier, rather than award the smaller markets to the trunks, based on the perception that survival in these smaller markets would require novel strategies best undertaken by specialized carriers. The CAB undertook service to small communities, in spite of the obvious financial difficulties, because of the enthusiasm shown by the applicants who bid for the routes, and because it felt a need to promote and encourage civil aeronautics under The 1938 Act. *Id.*

¹² These eight airlines were: Allegheny, Frontier, Hughes Airwest, North Central, Ozark, Piedmont, Southern, and Texas International.

¹³ J. MEYER, C. OSTER, I. MORGAN, B. BERMAN & D. STRASSMAN, *AIRLINE DEREGULATION: THE EARLY EXPERIENCE* 5 (1981). The local service airlines were originally formed to provide feeder service for the existing trunk lines. The evolution from feeder airline to operations resembling small trunks resulted from a combination of growth, government subsidy, and CAB route policies. *Id.*

¹⁴ These four airlines were: AirCal, Air Florida, PSA, and Southwest.

¹⁵ BAILEY, *supra* note 3, at 15. Commuter airlines operated outside the CAB regulatory structure under a formal exemption granted in 1952. *Id.* at 14.

Throughout the regulatory period, a fairly consistent pattern had emerged regarding the market shares of each of these carrier classes (See Table 2). As of 1978, the ten trunk airlines held a dominant position, accounting for slightly more than 87% of total domestic revenue passenger miles. The largest carriers had retained their dominance during the four decades of economic regulation. The big four of 1938, United, American, Eastern, and TWA, were among the big five of 1978, with only Delta joining their ranks.¹⁶ Although many trunk airlines had monopolistic or oligopolistic positions in certain markets under regulation, the CAB had maintained "just and reasonable" fare levels to insure that prices reflected costs, thereby preventing the extraction of monopoly profits.

Prior to the passage of the ADA, considerable debate revolved around the potential of unregulated monopolistic control of markets by the largest carriers. Proponents of deregulation argued that airline market performance would approximate perfect competition in a deregulatory environment, because studies showed no significant economies of scale existed in airline operations.¹⁷ The CAB under Alfred Kahn insisted that the airline industry had relatively few barriers to entry, that resources were highly mobile, and that demand was reasonably elastic; therefore, there was little reason to fear that deregulation might result in industry concentration.¹⁸ Another theory hypothesized that in those cases where there were a limited number of carriers serving specific markets, the threat of free entry into those markets would make them

¹⁶ Dempsey, *supra* note 4, at 115. One of the reasons the "big four" retained their dominant position was the entry policy of the CAB. Although the CAB received 79 applications between 1950 and 1974 seeking to obtain authority to provide domestic service, none was granted. *Id.*

¹⁷ See Gordon, *Airline Costs and Managerial Efficiency*, 1965 TRANSP. ECON.: CONF. U.-NAT'L BUREAU COMMITTEE FOR ECON. RES. 61; White, *Economics of Scale and the Question of "Natural Monopoly" in the Airline Industry*, 44 J. AIR L. & COM. 545 (1979).

¹⁸ Dempsey, *supra* note 4, at 130-33.

Table 2
Airline Industry Domestic Revenue Passenger Miles (RPM)

	<i>RPM (000)</i>		<i>% Share</i>	
	1978	1983	1978	1983
<i>Trunk Airlines</i>				
United	41,436	43,241	21.5	18.7
American	25,499	31,314	13.2	13.5
Delta	22,850	25,261	11.9	10.9
Eastern	20,770	25,322	10.8	10.9
Trans World	17,960	15,994	9.3	6.9
Western	9,872	8,775	5.1	3.8
Pan Am (& National)	8,952	7,573	4.7	3.3
Continental	8,557	7,751	4.4	3.3
Braniff	7,301	-	3.8	-
Northwest	5,025	9,441	2.6	4.1
Total	168,222	174,672	87.3	75.4
<i>Local Service Airlines</i>				
Republic	6,085	9,675	3.2	4.2
U.S. Air	4,243	7,378	2.2	3.2
Frontier	2,382	3,902	1.2	1.7
Texas International	1,688	-	0.9	-
Ozark	1,635	2,679	0.8	1.2
Piedmont	1,469	5,169	0.8	2.2
Total	17,503	28,803	9.1	12.5
<i>Intrastate Airlines</i>				
PSA	2,478	3,076	1.3	1.3
Southwest	1,049	3,897	0.6	1.7
Air California	813	1,528	0.4	0.7
Air Florida	264	781	0.1	0.3
Total	4,603	9,282	2.4	4.0
<i>Charter Airlines</i>				
Capitol	372	1,407	0.2	0.6
World	274	1,726	0.1	0.7
<i>New Carriers</i>				
People Express	-	3,292	-	1.4
Muse	-	661	-	0.3
New York Air	-	658	-	0.3
Jet America	-	618	-	0.3
Midway	-	597	-	0.3
Commuter Airlines	1,117	1,953	(1981)0.6	1.0 (1981)

Sources: E. Bailey, D. Graham & D. Kaplan, *Deregulating the Airlines* 216 (1985); Civil Aeronautics Board, *Air Carrier Traffic Statistics* (Dec. 31, 1978), (Dec. 31, 1983).

"contestable."¹⁹ Thus, fears of predatory or monopolistic behavior were ostensibly unwarranted.

Because of these assessments, observers predicted that many new carriers would enter the industry and challenge the dominant market share that major trunk carriers previously enjoyed. This was the Theory of Contestable Markets, which assumed that if incumbents began to earn supracompetitive profits, new entrants would be attracted like sharks to the smell of blood. After all, economic barriers to entry were perceived as being low, and economies of scale were viewed as nearly nonexistent. Thus, new entry, or the threat thereof, would ameliorate the market power of the unregulated monopolist. In the first few years following the passage of the ADA, this seemed to be occurring.

From 1978 through 1983 there was a dramatic increase in the number of new carriers, most of them being very small commuter operators. Other new carriers which emerged during these first years of deregulation were also able to compete effectively with the former trunk airlines. These new airlines served mostly short-haul, high-density markets by offering low-fare, "no-frills" service. Among these were carriers such as People Express, Midway Airlines, New York Air, Jet America, and Muse Air. Although the market shares of these airlines remained relatively

¹⁹ See W. BAUMOL, J. PANZAR & R. WILLIG, *CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE* (1982). The authors defined a market that is perfectly contestable as:

[O]ne that is accessible to potential entrants and has the following two properties: First, the potential entrants can, without restriction, serve the same market demands and use the same productive techniques as those available to the incumbent firms. Thus, there are not entry barriers in the sense of the term used by Stigler. Second, the potential entrants evaluate the profitability of entry at the incumbent firms' pre-entry prices. That is, although the potential entrants recognize that an expansion of industry outputs leads to lower prices—in accord with the market demand curves—the entrants nevertheless assume that if they undercut incumbents' prices they can sell as much of the corresponding good as the quantity demanded by the market at their own prices.

Id. at 5.

small, they represented the fastest growing segment of the airline industry in the early years of deregulation (See Table 2).

Former local service and intrastate airlines also enjoyed growing market shares from 1978 to 1983. During this period, Piedmont, Air Florida, and Southwest all had increases in excess of 100% in domestic revenue passenger miles (RPMs). Former charter airlines, such as World and Capitol, greatly expanded their route systems, while some commuter airlines were able to do the same.

As some had predicted, many former trunk airlines experienced both relative and absolute declines in revenue passenger miles during the early years of deregulation. United, Delta, TWA, Western, Continental, and Braniff all fell into this category, while American exhibited only a relative decline. These airlines experienced a somewhat shaky transition into deregulation and were clearly not as flexible as the new entrants or the other carriers. In spite of these difficulties, however, the trunk airlines still accounted for over 75% of all domestic RPMs in 1983.

Since the inaugural years of deregulation, profound changes have occurred which dramatically altered the nature of the industry. The most important of these is the unprecedented rash of airline mergers and bankruptcies. The resulting industry consolidation has created a small class of "megacarriers" that today control an even larger share of the airline market than they did prior to deregulation.

In 1978, the six largest United States airlines accounted for 71% of domestic traffic. In 1983, that figure had declined to 65%, but by 1987, it had dramatically rebounded to 79%.²⁰ As indicated above, in the short term, new competition emerging from deregulation diminished the dominance by the largest carriers. In recent years,

²⁰ Brenner, *Airline Deregulation—A Case Study in Public Policy Failure*, 16 *TRANSP. L.J.* 179, 184 (1988) (noting that "[f]urther concentration must be anticipated, because some of the remaining carriers are not likely to remain independent for long.").

however, unlimited and unprecedented mergers, coupled with bankruptcies and retrenchments of the smaller airlines, has reestablished an oligopoly. The top five carriers accounted for 54% of revenue passenger miles in 1986, and only one year later, that figure had jumped to 72%.²¹ Figure 1 depicts the major mergers and acquisitions which have occurred since deregulation.

Much criticism has been directed at the Department of Transportation for approving every merger submitted to it since it assumed the Civil Aeronautics Board's jurisdiction over mergers, acquisitions, and consolidations upon the CAB's demise on December 31, 1984.²² For example, DOT approved Texas Air's acquisition of both People Express (which included Frontier) and Eastern Airlines (which included Braniff's Latin American routes), United's acquisition of Pan Am's transpacific routes, American's acquisition of AirCal, Delta's acquisition of Western, Northwest's acquisition of Republic (which itself was the product of mergers involving North Central, Southern, and Hughes Airwest), TWA's acquisition of Ozark, and US Air's acquisition of PSA and Piedmont. Clearly, these actions sharply increased national levels of concentration (See Figure 1).

The father of airline deregulation, Alfred Kahn, has been particularly critical of the Department of Transportation's permissive approach to airline mergers. Kahn has written: "They have been *permitted* by a totally, and in my view indefensibly, complaisant Department of Transportation. It is absurd to blame deregulation for this abysmal dereliction."²³ Without question, DOT deserves some severe criticism for its abdication of antitrust responsibility

²¹ Dempsey, *Antitrust Law and Policy in Transportation: Monopoly IS the Name of the Game*, 21 GA. L. REV. 505, 543 (1987) [hereinafter *Monopoly IS the Name of the Game*].

²² The CAB's jurisdiction was pursuant to section 408 of the Federal Aviation Act of 1958. Pub. L. No. 85-726, § 408, 72 Stat. 731 (codified as amended at 49 U.S.C. app. § 1551(b)(1)(c) (Supp. IV 1986)).

²³ Kahn, *Airline Deregulation—Mixed Bag, But a Clear Success Nevertheless*, 16 TRANSP. L.J. 229, 234 (1988).

Figure 1
Major Air Carrier Mergers, Acquisitions, Purchases, and Consolidations Since Promulgation of the Airline Deregulation Act of 1978.

	Market share*
Texas International-----TEXAS AIR	19.0%
Continental-----	
New York Air-----	
Frontier-----People Express-----	
Britt-----	
PBA-----	
Braniff (Latin American routes)---Eastern	
Rockey Mountain-----	
United-----UNITED	16.9%
Pan Am (transpacific routes)-----	
American-----AMERICAN	13.8%
Air Cal-----	
Delta-----DELTA	12.2%
Western-----	
Northwest-----NORTHWEST	10.3%
Northwest Central-----Republic-----	
Southern-----	
Hughes Airwest-----	
TWA-----TWA	8.2%
Ozark-----	
US Air-----US AIR	7.1%
PSA-----	
Empire-----Piedmont-----	
Henson-----	
Pan Am-----PAN AM	6.3%
National-----	
Ransome-----	

* Market share as measured by revenue passenger miles as of July, 1987.

Source: Payne & Tier, What's Standing Between USAir and Piedmont, Bus. Wk. Oct. 5, 1987, at 40.

Reprinted with permission of the New York Times.

to protect the public from excessive concentration.²⁴

The merger of Northwest and Republic clearly resulted in sharply increased levels of concentration at Minneapo-

²⁴ *Monopoly IS the Name of the Game*, *supra* note 21, at 524. Although the DOT has basically followed a two part analysis inaugurated by the CAB that assesses whether the proposed transaction could be either anticompetitive or contrary to the public interest, it has implemented a more narrow assumption that allowing market forces to operate without needless regulatory interference best serves the public interest. *Id.*

lis/St. Paul and Detroit; and equally clearly, increased concentration resulted at St. Louis when DOT approved the merger of TWA with Ozark Airlines. As Table 3 reveals, however, massive hub concentration has occurred at a large number of cities where no merger had a significant impact.

Indeed, the explanation for concentration at all but Detroit, Minneapolis/St. Paul, and St. Louis is not DOT's generous approval of airline mergers, but simply the entry and exit opportunities unleashed by deregulation. Carriers adopting particular cities as hubs have increased frequencies and leased more gates, while incumbent airlines have quietly exited in favor of market dominance opportunities of their own in other hub airports. Kahn is therefore wrong. Freedom to enter and exit markets is the heart of deregulation, and it is responsible for concentration at more hub airports than is the DOT's "abysmal dereliction," abysmal though it clearly is. Nonetheless, the DOT's antitrust delinquency is responsible for national and regional concentration levels which are unacceptable and which dampen competition by reducing the number of competitors in particular city pair markets.

Today, flights originating at or destined to hub cities may be priced up to 50% more than they would have been had deregulation not occurred.²⁵ A recent study by the DOT reveals that fares in seven of nine hub airports studied increased at a rate faster than the Consumer Price Index during 1985 and 1988.²⁶ Even though city-pairs are somewhat less concentrated than before deregulation, today nearly two-thirds are monopolies, and 85% are either monopolies or duopolies.²⁷

One additional observation about concentration levels pre and post-deregulation is appropriate. Before deregulation

²⁵ Stockton, *When Eight Carriers Call the Shots*, N.Y. Times, Nov. 20, 1988, § 3, at 1, col. 6.

²⁶ Hamilton, *Is the Airline Industry On the Verge of Going Global*, Wash. Post, Dec. 11, 1988, § K, at 1, col. 6.

²⁷ TRAFFIC WORLD, Dec. 5, 1988, at Supp. B. Concentration levels are worse still since the bankruptcy of Eastern Air Lines in March, 1989.

Table 3

Single Carrier Concentration at Major Airports Pre- and Post-Deregulation

Airport	1977	1987
Baltimore/Washington	24.5% US Air	60.0% US Air*
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% US Air	60.2% American
Pittsburgh	43.7% US Air	82.8% US Air
St. Louis Lambert	39.1% TWA	82.3% TWA
Salt Lake City	39.6% Western	74.5% Delta

*includes Piedmont

Source: *The Big Trouble With Air Travel*, 54 CONSUMER REP. 362-67 (June 1988).

Copyright 1988 by Consumers Union of United States, Inc., Mount Vernon, N.Y. 10553. Excerpted by permission from Consumer Reports, June 1988.

lation, a high level of concentration could be tolerated because fare levels were regulated; even a monopolist could not reap monopoly profits from a market, or engage in predatory pricing to drive a new entrant out, because the CAB regulated rates, ensuring that they were "just and reasonable." In a post-deregulation environment, however, these high levels of concentration are a matter of serious concern, for the regulatory mechanism which formerly shielded consumers from price gouging has been eradicated by deregulation, and the Theory of Contestable Markets seems not to have been sustained by the empirical evidence of deregulation.²⁸ Instead, there appear to be significant economies of scale in the airline industry.

For several reasons, it is unlikely that a new entrant will emerge to rival the megacarriers. First, the infrastructure of gates, terminal facilities, and landing slots are practically unavailable. At the nation's four busiest airports, Chicago O'Hare, Washington National, and New York's LaGuardia and Kennedy, all landing slots have been con-

²⁸ See Brenner, *supra* note 20, at 194-95; *Monopoly IS the Name of the Game*, *supra* note 21, at 510-47; Levine, *Airline Competition in Deregulated Markets: Theory, Firm Strategy, and Public Policy*, 4 YALE J. ON REG. 393, 403-08 (1987); Moore, *U.S. Airline Deregulation: Its Effects on Passenger, Capital, and Labor*, 29 J.L. & ECON. 1, 5-23 (1986).

sumed. Over 67% of U.S. airports have no gates to lease to a new entrant.²⁹ Even if an incumbent would be willing to lease a gate to an upstart airline, and few are willing to do so at their hub airports, it could nevertheless charge monopoly rents. The DOT decision to allow carriers to buy and sell landings slots means that the deeper pocket carriers can purchase market share, and thereby enjoy the market power to reap oligopoly profits.³⁰

Second, the largest airlines today own the largest computer reservations systems. Many critics have argued that such vertical integration not only offers incumbents the potential to enjoy a higher page display on the computer reservations screens used by travel agents to sell most flights,³¹ but also gives incumbents superior access to market information, with which they can manage yield by adjusting the number of discounted seats on an hourly basis depending on passenger demand.³² Moreover, the advantages of being listed in the computer as an "on line" connection with one of the major airlines has led forty-eight of the fifty largest commuter air carriers to affiliate themselves with the megacarriers, renaming their companies and repainting their aircraft in megacARRIER colors.³³ The small carriers have become, in effect, franchisees of the behemoths of the industry, and are therefore an unlikely source from which new competition will spring.³⁴

Third, large airlines have more attractive frequent flyer programs that serve as a lure to business travelers, the most lucrative segment of the market. Brand loyalty

²⁹ Hardaway, *The FAA "Buy-Sell" Slot Rule: Airline Deregulation at the Crossroads*, 52 J. AIR L. & COM. 1, 49 (1986).

³⁰ See *id.* at 25-30 (discussing the economic value of the buy-sell method of allocating landing slots).

³¹ See Comment, *The Antitrust Implications of Computer Reservation Systems (CRS's)*, 51 J. AIR L. & COM. 157, 158 (1985) (discussing screen bias and its role in favoring one airline's flights over another).

³² See GENERAL ACCOUNTING OFFICE, AIRLINE COMPETITION IMPACT OF COMPUTERIZED RESERVATION SYSTEMS 11 (1986) ("CRS owning airlines can use their superior access to marketing data to fine-tune their marketing strategies . . .").

³³ United Express, Continental Express, and Northwest Air Link are examples of this trend.

³⁴ See *Deregulation's Falling Stars*, OAG FREQUENT FLYER, Aug. 1988, at 28.

makes it difficult for a new rival to find a niche, particularly when its frequent flyer program offers free travel to decidedly less exotic destinations.³⁵ That, coupled with commission overrides for travel agents, gives incumbents a decided advantage.³⁶

Fourth, although new entrants enjoyed significantly lower labor costs in the inaugural years of deregulation, the squeeze on carrier profits unleashed by deregulation has forced management to exact serious concessions in terms of labor wages and work rules. Some airlines, like Continental and TWA, have effectively destroyed unions that refused to make such concessions. Thus, the margin of labor costs and productivity between a new entrant and an established airline has been substantially narrowed.³⁷

Finally, with 150 airlines filing for bankruptcy since 1978, investor confidence in new airline ventures has evaporated.³⁸ Hence, significant new entry is highly unlikely in the deregulated airline industry.

IV. AIR SERVICE

When examining changes in air service, it is important to note that there are many dimensions of "service." Likewise, there are several means of assessing these changes. In this analysis, the focus is on both the quantitative and qualitative aspects of changes in the frequency and type of air service, air fares, and on-time performance. It is also important to remember that, although proponents of deregulation emphasize the lower fares available to consumers in many markets, if the level of service they now purchase has declined significantly, we may be comparing apples with oranges.

³⁵ *Monopoly IS the Name of the Game*, *supra* note 21, at 596.

³⁶ See Rose, *Travel Agents' Games Raise Ethics Issue*, Wall St. J., Nov. 23, 1988, § B, at 1, col. 3 (discussing how commission overrides and sales based incentives influence travel agents to "steer" customers to a particular air carrier).

³⁷ *Monopoly IS the Name of the Game*, *supra* note 21, at 596-97.

³⁸ See Russell, *Flying Among the Merger Clouds*, TIME, Sept. 29, 1986, at 56, 57.

A. Service Frequency

Under regulation, trunk and local service air carriers were required to possess CAB certificates of "public convenience and necessity" for every route they served.³⁹ The CAB generally practiced a policy of awarding routes to carriers with the purpose of dividing markets into systems.⁴⁰ Airlines were awarded mixtures of higher and lower density routes so as to allow for cross-subsidization of the less profitable routes with profits earned from more lucrative markets.⁴¹ Because of the need for back-up markets to increase load factors on nonstop flights, patterns of predominantly linear route structures emerged.⁴²

With deregulation, the CAB lost the authority to award routes, so that now all carriers which are fit, willing, and able may serve any domestic route.⁴³ Airlines quickly adapted to the new environment by developing "hub-and-spoke" route structures in order to accommodate larger volumes of traffic from an increased number of city-pairs. Indeed, creating a hub system has a multiplier effect on the number of origins and destinations a carrier serves. Each major airline developed hub facilities at strategic points in its air service network to funnel passengers from

³⁹ For a detailed analysis of the traditional entry criteria used by the CAB in determining route service, see Dempsey, *supra* note 4, at 108-14.

⁴⁰ BAILEY, *supra* note 3, at 11-13. The CAB, however, never established a comprehensive mapping system, relying primarily on piecemeal connection efforts, through route extensions and mergers. *Id.* at 12. Furthermore, the route award system was biased towards existing carriers because of their proven record. *Id.* As a result, merger of a new airline with an old and failing one provided the cheapest way into the market. *Id.* at 13.

⁴¹ Dempsey, *supra* note 4, at 112-13.

⁴² M. BRENNER, J. LEET & E. SCHOTT, AIRLINE DEREGULATION 75 (1985) [hereinafter AIRLINE DEREGULATION] ("[T]he airline rate structure evolved gradually into many 'linear' patterns, in which one city would mainly serve as back-up to some specific route segment, while other cities would back up other routes . . .").

⁴³ Entry into most international markets, however, continues to be regulated. See P. DEMPSEY, LAW & FOREIGN POLICY IN INTERNATIONAL AVIATION 65-69 (1987). For example, countries regulate entry into their markets with bilateral air transport agreements which establish regulatory schemes for commercial air service between the countries. *Id.* at 47. These agreements may be in the form of "treaties, inter-governmental agreements, executive agreements, conventions, protocol and exchange of diplomatic notes." *Id.* at 47 n.1.

many origins into a hub and then quickly fly the passengers out to their desired destinations. Thus, those cities with hub operations became centers of very highly concentrated passenger traffic and flight frequencies (See Table 4).

Table 4
Locations of Airline Hub Facilities and Traffic Growth

<i>Hub Cities</i>	<i>Airlines</i>	<i>Flight Frequencies % Growth (1978-84)</i>
Atlanta	Delta, Eastern	+ 28.6%
Baltimore	Piedmont	+ 94.2
Charlotte	Piedmont	+134.2
Chicago	United, American	+ 10.0
Dallas	American, Delta	+ 52.2
Dayton	Piedmont	+ 65.9
Denver	United, Continental	+ 30.6
Detroit	Northwest	+ 44.5
Houston	Southwest, Texas Air	+ 85.1
Minneapolis	Northwest	+ 60.1
Newark	Texas Air	+114.2
Pittsburgh	US Air	+ 21.6
St. Louis	TWA	+ 56.2
Salt Lake City	Delta	+ 51.9

Sources: Brenner, *Airline Deregulation—A Case Study in Public Policy Failure*, 16 *TRANSP. L.J.* 179, 190 (1988); CIVIL AERONAUTICS BOARD, *REPORT ON AIRLINE SERVICE, FARES, TRAFFIC, LOAD FACTORS, AND MARKET SHARES* 29 (June 1, 1984).

Along with these cities serving airline hub functions, large and medium-sized cities in general have experienced higher volumes of service frequency since the beginning of deregulation. Using the FAA size classification scheme,⁴⁴ the large and medium hub size classes have had more substantial increases in the number of weekly departures.

⁴⁴ Hub size classes were defined by the CAB and the FAA as follows: a large hub is a city and its metropolitan area which enplanes at least 1.00% of the total number of U.S. certificated airline passengers per year; a medium hub enplanes between 0.25 and 0.999%; a small hub enplanes between 0.05 and 0.249%; and a non hub enplanes less than 0.05%. *FEDERAL AVIATION ADMINISTRATION & RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, AIRPORT ACTIVITY STATISTICS OF CERTIFICATED ROUTE AIR CARRIERS* at iv (1987).

tures and weekly seats than either the small or non-hub classes from 1978 through 1987 (See Table 5). These increases have resulted in an industry-wide growth in both measures throughout the deregulatory period.

During the hearings evaluating the merits of deregulation, one of the chief concerns was the expected impact on service to smaller communities. Many observers feared that free exit from any route might result in a total loss of service to many small towns. In the past, the CAB protected small town service by the use of subsidies, and through stringent exit requirements.⁴⁵ In an attempt to appease these apprehensions, the ADA included provisions for ten years of guaranteed Essential Air Service (EAS)⁴⁶ to all communities on the 1978 certificated route network. Despite this provision, many observers remained apprehensive about the future of small community service.

The empirical evidence suggests that since the beginning of deregulation, small cities have indeed been negatively impacted. In terms of both flight departures and seating capacities, the smallest communities (nonhubs) have experienced absolute declines (See Table 5). In 1978, nonhubs accounted for 23% of all departures; by 1987, they accounted for only 16%. Furthermore, declines in seating capacity relative to departures indicate a shift in the type of service provision from jet aircraft to commuter airline turboprop aircraft.⁴⁷ This change has resulted in a reduction in service comfort and reliability and has created an impression that overall service quality has deteriorated.

⁴⁵ Beitel, *CAB Rules for Essential Air Service*, AIRPORT SERVICES MGMT, June 1980, at 15, 16. Under CAB administration, when an airline chose to discontinue service to a city, that airline was required to "render 'essential service' . . . until a substitute could be found . . ." *Id.* at 15.

⁴⁶ The CAB defined EAS as being at least two daily round trips, five days a week to the nearest convenient small, medium, or large hub. *Id.*

⁴⁷ See *id.* ("Aircraft must be sufficient for passengers and baggage but not freight. They must be multi-engine with two pilots. Pressurization and air conditioning are not required. The cabin must be accessible by stairs; not over-the-wing steps.").

Table 5
Changes in Frequency of Air Service by Size Classification
June 1978 - June 1987

Size Class	Flights/Week		Percent Change	Seats/Week (000)		Percent Change
	1978	1987		1978	1987	
Large	63,484	103,063	+62.3%	7,104	12,132	+70.8%
Medium	19,731	30,712	+55.7%	1,953	3,031	+55.2%
Small	13,256	18,806	+41.9%	1,112	1,405	+26.3%
Nonhub	29,543	29,271	- 0.9%	1,175	971	-17.4%
Total	126,014	181,852	+44.3%	11,344	17,539	+54.6%

Source: Brenner, *Airline Deregulation—A Case Study in Public Policy Failure*, 16 *TRANSP. L.J.* 179, 211 (1988).

On a more disaggregated level, many individual communities have undergone drastic service curtailments or complete service withdrawals. Out of the 515 nonhub communities receiving air service in 1978, 313 (60.8%) had declines in flight frequencies by 1987, with 144 (28%) of these cases resulting in a complete loss of service, and only 32 (6.2%) enjoying the initiation of new service.⁴⁸

Some commentators have asserted that airline deregulation has resulted in significant economic benefits to the consuming public. A Brookings Institution study ambitiously maintained that this savings was as much as \$6 billion, comprised of fare discounts and opportunity cost savings realized as a result of "improved service convenience [to business travelers] attributable to the accelerated development of hub-and-spoke operations and to frequency improvements in low-density markets."⁴⁹ The overall import of the study was that airline service had *not*

⁴⁸ See CIVIL AERONAUTICS BOARD, REPORT ON AIRLINE SERVICE, FARES, TRAFFIC, LOAD FACTORS, AND MARKET SHARES 32 (Sept. 1, 1984). Since this data is no longer reported by the CAB, it has been updated to June, 1987 from 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).

⁴⁹ S. MORRISON & C. WINSTON, *supra* note 9, at 33. The study in question calculated the effects of deregulation on three different classes of travelers: low income pleasure travelers, high income pleasure travelers and business travelers. Each classification was then weighted for its share of air traffic before computing the total annual benefit to all travelers. *Id.*

declined since deregulation began, but, because of additional frequencies, had actually improved.⁵⁰

By focusing on the number of flights in larger markets as the dominant measure of airline service, these authors appear to have missed the problems frequent flyers see. Whatever the improvements in the rate structure since deregulation, most of the literature written about airlines in this environment concludes that service has declined significantly. A recent consumer survey reveals that almost 50% of those asked thought airline service had declined since deregulation; less than 20% said service had improved.⁵¹ The complaints include: late departures, crowded seating, long lines at check-in, unappetizing food, overbooked aircraft, and an unacceptably long wait for baggage.⁵² Even the DOT's data reveal that consumer complaints about airline delays, congestion, overbooking, bumping, missed connections, lost baggage, cancellations, and deteriorating food have soared in recent years.⁵³ 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."⁵⁴

Admittedly some consumers are paying less for air service than they did before deregulation. Those who have benefitted most are vacation (discretionary) travelers in large markets served by several carriers. Business travelers flying between small towns served by only a single carrier have not benefitted from fare reductions. Today,

⁵⁰ *Id.* at 1-3 ("The accelerated development of the hub-and-spoke operations has enabled carriers to use labor and equipment more efficiently and to provide more convenient service.")

⁵¹ *The Big Trouble With Air Travel*, 54 CONSUMER REP. 362-63 (June 1988).

⁵² *Id.*

⁵³ Brenner, *supra* note 20, at 215-16. During the first five months of 1987, consumer complaints to the DOT regarding service increased by 81% over the applicable period in the preceding year. *Id.* As a result, the Secretary of Transportation called on the airlines to reduce the level of dissatisfaction among passengers, threatening referral to an enforcement officer if improvements were not made. *Id.*

⁵⁴ Rowen, *Airline Service Has Gone to Hell*, Wash. Post, July 23, 1987, § A, at 21, col. 1 (Rowen also questions safety considerations and calls for a reexamination of deregulation).

both the vacation traveler and the businessman are often routed through a circuitous hub connection, causing each to spend more time in aircraft and airports. The result is a decidedly less pleasurable consumption of time than before deregulation. Arguably the opportunity costs have increased since deregulation began, and airline service purchased today is a lesser product for the money.

Why has the market not corrected this deterioration in service? Some suggest that service deterioration is attributable to the decline in profitability of firms caused by the "destructive competition" unleashed by deregulation.⁵⁵ Hence, carriers do not have the resources to staff flights with more flight attendants than required by FAA minimums, to staff ticket counters or baggage areas adequately, to provide better food, to avoid deliberate overbooking or unrealistic scheduling, or even to clean an aircraft properly. While some airlines are worse than others, the decline appears to be universal.

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

When booking a flight, most consumers do some price shopping. Where a competitive alternative exists, there has been some measure of pricing competition under deregulation, and those who price shop usually opt for the lower fare. Frequent flyers who have been through the ordeal of a hub connection may ask for a nonstop if one is available, or a direct one-stop, if one is not. Beyond that type of consumer inquiry, how many also ask (1) what kind of aircraft is being flown, how old is it, and when was

⁵⁵ Brenner, *supra* note 20, at 201.

it last overhauled; (2) how often is this flight late, and by how much, on average; (3) by what percentage of passengers do you usually overbook the flight; (4) what percentage of bags are usually lost on the flight, and if you don't lose them, how long will I have to wait at the destination for my bags; (5) how many flight attendants are on board; (6) what's for dinner, and how tasty is it; (7) what's the average wait in the line in 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 ticket, the market has not responded to consumer desires for better service.

The U.S. Department of Transportation has authority to protect consumers from many of these evils, including deliberate overbooking, unrealistic scheduling, and fraudulent and misleading ("bait and switch") advertising.⁵⁶ The Reagan Administration, however, was reluctant to do much of anything to correct market failure.

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

B. *Air Fares*

One of the driving forces in the move to deregulate the airlines was the belief that air fares would be substantially reduced, thus benefitting the consumer. The contention was that regulation created inadequate pricing and exces-

⁵⁶ See 49 U.S.C. § 1374 (1982) (duty of air carriers to provide reasonable service in air transportation and duty not to make any unreasonable preference to any person); 49 U.S.C. § 1381 (1982) (authority given to Secretary of Transportation to investigate methods of competition in the sale of air transportation and to order air carriers to cease deceptive practices).

sive service competition resulting in higher-than-necessary fares. Proponents of deregulation believed that increased competition would bring lower fares.

Between 1978 and 1986, the industry-wide yield per passenger-mile (in constant dollars) declined by 2.6% per year. This would seem to indicate that average fare levels have also been declining since the beginning of deregulation. Under deregulation, however, most routing is via circuitous hub cities rather than nonstops. Measurement of passenger-mile yield, therefore, provides a distorted measure of the benefits of deregulation. Travelers are flying longer distances between city pairs than before deregulation. This has the effect of lowering the yield per passenger-mile without necessarily lowering the average fare.⁵⁷

The average yield per passenger-mile decline also masks very wide disparities in fare levels in different markets (See Table 6). Fare reductions have been most apparent in many large and medium-size markets where intense fare competition exists between or among different airlines. In smaller markets or in those where the number of competitors has been reduced, fares have generally risen. In some cases fares have increased more than 300% (in absolute dollars) from 1978 to 1988. Hence, there appears to be widespread discrimination in pricing under deregulation, with the level of prices in any particular market exhibiting a correlation with the level of competition rather than marginal costs of providing service. Furthermore, since levels of competition are significantly lower than those anticipated, the momentum for pricing appears to be upward.

C. *On-Time Performance*

Another attribute of service quality is on-time performance. Under regulation, this was not a major issue as passengers generally expected and received reasonably

⁵⁷ Brenner, *supra* note 20, at 198.

Table 6
One-Way Fare Levels on Selected City Pairs

<i>Route</i>	1978 <i>Coach</i>	1988 <i>Discount/Coach</i>	1978-88 <i>% Change</i>
Miami-Tampa	\$ 39	\$39/190	0/+387%
Dallas-Houston	42	43/205	+ 2/+399
New York-Chicago	88	99/260	+ 12/+195
St. Louis-Kansas City	43	49/128	+ 14/+198
San Francisco-St. Louis	165	189/298	+ 15/+ 81
Los Angeles-Philadelphia	215	248/513	+ 15/+139
Seattle-Portland	24	35/145	+ 46/+504
Denver-Miami	164	250/434	+ 52/+165
Tampa-Portland	223	375/525	+ 68/+135
Denver-Salt Lake City	58	99/245	+ 71/+322
Dallas-Seattle	160	290/290	+ 81/+ 81
Detroit-Pittsburgh	39	78/130	+100/+233
Chicago-Minneapolis	54	109/210	+102/+289
Baltimore-Cumberland, MD	33	67/ 67	+103/+103
Washington, DC-Lincoln, NE	133	234/355	+107/+214
Pittsburgh-Akron, OH	26	60/111	+131/+327
Los Angeles-San Francisco	19	46/127	+142/+568
Detroit-Jacksonville, FL	95	244/325	+157/+242
Minneapolis-Indianapolis	70	189/295	+170/+321
Atlanta-Charlotte	42	115/143	+174/+240
Boston-Philadelphia	48	140/140	+192/+192
Boston-Atlanta	105	315/315	+200/+200
Kansas City-Billings, MT	114	320/320	+206/+206
Houston-Grand Rapids, MI	103	325/390	+216/+279
Charlotte-Omaha	103	330/350	+220/+220
Phoenix-Boise, ID	107	350/350	+227/+227
New York-Washington, DC	20	69/109	+245/+445
Fresno, CA-Spokane, WA	90	315/340	+250/+278
Richmond, VA-Pensacola, FL	89	321/321	+261/+261
Charleston, SC-Mobile, AL	75	285/285	+280/+280
Dayton-Chattanooga	54	238/238	+341/+341
Cleveland-Cincinnati	41	185/185	+351/+351

Sources: OFFICIAL AIRLINE GUIDE (June 1, 1978); OFFICIAL AIRLINE GUIDE (June 1, 1988).

Notes

The Consumer Price Index from 1978 to 1986 rose by 68%. Assuming a 75% rise by 1988, percent fare increases greater than that would indicate *real* fare increases in constant dollars.

The 1978 coach fare (in 1978 dollars) was the lowest Y-class fare available in June 1978.

The 1988 discount fare (in 1988 dollars) was the lowest fare available in June 1988. Many of these discount fares had restrictions or limitations on their use, e.g. 30-day advance purchase or Saturday night stayover.

The 1988 coach fare (in 1988 dollars) was the lowest Y-class fare available in June 1988.

punctual air service. With deregulation, and the airlines' near universal adoption of hub-and-spoke route struc-

tures, congestion and delays have become inevitable, especially at the largest hub airports.

The very nature of hub-and-spoke systems requires that airlines concentrate as many incoming and outgoing flights in as narrow a window of time and space as possible in order to maximize the total number of city-pair combinations that can be effectively served through a hub airport. Before the DOT required publication of delay statistics, carriers also had an incentive to engage in unrealistic scheduling of the shortest possible origin and destination times because that would raise a flight's visibility to the first page of the computer reservation system (CRS) screen display, where most flights are sold by travel agents. Hence, clustering of arrivals and departures may bear no correlation to an airport's or air traffic control system's capacity to handle them.

Because each airline independently schedules these hub-and-spoke flights, even the largest airports' capacities have been overtaxed. For example, in 1987, at Atlanta's Hartsfield Airport, the 9:00 a.m. crunch was illustrated by the airlines' scheduling of 32 arrivals in 15 minutes, whereas its optimum capacity was 21 arrivals in 15 minutes.⁵⁸ As a result of such saturation, delays occur and ripple throughout the entire national system of air transport.

Delays have been on the rise since the beginning of deregulation, but the most recent years have been the worst. Delays in 1986 increased by 25% over 1985 at the nation's large hub airports, and increased another 13% in 1987.⁵⁹ The traveling public tolerated delays through the early years of deregulation, perhaps accepting some degree of trade-off between service quality and lower fares.

⁵⁸ Morgenthau, *Year of the Near Miss*, NEWSWEEK, July 27, 1987, at 20, 24. The FAA monitors the nationwide air traffic flow. Sometimes the saturation results can be minimized. At other times, the delay effects of such scheduling cannot be avoided. *Id.*

⁵⁹ Brenner, *supra* note 20, at 212 ("It has been estimated that U.S. airlines incur an average of 2,000 hours of delay, and that the value of time lost by passengers is equivalent to about one billion per year.").

By 1987, however, the situation had grown so intolerable that a massive consumer backlash occurred, exemplified by an unprecedented number of complaints.⁶⁰

In response to the growing public disenchantment with the airlines' on-time performance, the DOT in late 1987 began requiring airlines to disclose their on-time performance records, so that consumers could now choose among airlines on that basis.⁶¹ Since these records have been made public, on-time performances have generally improved, although certain airlines have remained delinquent (See Table 7). Most of the recent improvements, however, may be attributed to the carriers' practice of adding time to schedules, rather than to shaving actual transit time.

V. AIR SAFETY

For all air travelers, air safety is a prerequisite that cannot be compromised. Since 1958, the FAA has maintained primary responsibility for air safety, although the CAB (now DOT) held authority to issue operating licenses to airlines deemed "fit, willing, and able," with safety being a major component of the fitness evaluation.⁶² During the deregulation debate, there was considerable concern expressed about the potential impact on air safety stemming from the removal of economic regulatory restraints. Scenarios were fashioned where the strain of competitive pressure would entice airlines to "cut corners" on safety in order to save time and money.⁶³

⁶⁰ See *supra* note 53 and accompanying text for a discussion of consumer complaints to the DOT.

⁶¹ See 14 C.F.R. § 234 (1988). Section 234.4(a) provides that "[e]ach reporting carrier shall file [a report] with the Department's Office of Aviation Information Management (OAIM), on a monthly basis setting forth information for each of its reportable flights" *Id.* at § 234.4(a).

⁶² See 42 U.S.C. § 1424 (1982) (empowering the FAA Administrator to issue operating certificates); 14 C.F.R. § 121 (1988) (providing the specifications which must be met before an operating certificate is issued).

⁶³ AIR DEREGULATION, *supra* note 42, at 125. The fear was that airlines would cut "maintenance, training, and operations" corners to lower costs. *Id.* The two most expensive items a carrier must contend with are fuel and labor. *Id.*

Table 7
On-Time Arrival Performances of Airlines and Airports: 1987-88*

<i>Carriers</i>	<i>SEP 87</i>		<i>DEC 87</i>		<i>FEB 88</i>		<i>APR 88</i>	
	<i>%</i>	<i>Rank</i>	<i>%</i>	<i>Rank</i>	<i>%</i>	<i>Rank</i>	<i>%</i>	<i>Rank</i>
Alaska	79.8	(6)	59.2	(13)	76.9	(6)	77.7	(12)
American	84.5	(1)	73.1	(4)	80.8	(4)	85.0	(5)
American West	73.5	(10)	76.4	(2)	88.7	(2)	90.8	(2)
Continental	81.1	(3)	60.5	(2)	67.7	(13)	81.5	(8)
Delta	72.3	(11)	61.8	(11)	73.6	(9)	85.6	(4)
Eastern	80.4	(4)	69.5	(6)	70.6	(11)	75.5	(14)
Northwest	69.0	(13)	63.3	(9)	61.7	(14)	84.2	(6)
Pacific SW	70.5	(12)	57.6	(14)	90.6	(1)	91.1	(1)
Pan American	74.3	(9)	77.3	(1)	80.1	(5)	76.5	(13)
Piedmont	80.3	(5)	67.2	(7)	75.0	(7)	81.0	(10)
Southwest	82.4	(2)	74.2	(3)	88.5	(3)	90.3	(3)
TWA	78.4	(8)	63.5	(8)	69.4	(12)	81.5	(8)
United	79.2	(7)	62.6	(10)	73.2	(10)	81.8	(7)
US Air	67.4	(14)	71.9	(5)	74.8	(8)	77.9	(11)
Total	77.1		66.4		74.7		82.6	
<i>Airports</i>								
Atlanta	82.4	(3)	70.1	(11)	75.3	(11)	83.6	(10)
Boston	69.5	(22)	71.2	(10)	70.9	(17)	67.7	(26)
Charlotte	85.1	(1)	71.9	(7)	80.7	(3)	84.9	(7)
Wash. National	74.1	(16)	73.7	(4)	75.7	(9)	78.3	(23)
Denver	81.9	(5)	52.4	(25)	66.6	(24)	82.0	(13)
Dallas	84.5	(2)	67.4	(16)	79.1	(4)	85.9	(4)
Detroit	69.3	(23)	68.8	(13)	64.0	(26)	83.6	(11)
Newark	76.2	(13)	69.2	(12)	72.1	(15)	76.4	(24)
Hous.-Intercont.	80.6	(8)	56.3	(23)	68.9	(20)	78.5	(22)
New York-JFK	68.8	(24)	74.3	(2)	74.9	(12)	67.6	(27)
Las Vegas	76.7	(10)	68.2	(14)	82.9	(1)	84.3	(8)
Los Angeles	70.4	(21)	53.1	(24)	76.2	(7)	81.9	(14)
NY-LaGuardia	75.1	(14)	74.7	(1)	76.0	(8)	79.3	(20)
Orlando	74.0	(18)	72.4	(5)	62.7	(27)	79.9	(19)
Memphis	78.4	(9)	68.2	(15)	66.8	(23)	86.7	(2)
Miami	74.1	(17)	74.0	(3)	71.6	(16)	82.1	(12)
Minn./St. Paul	74.8	(15)	61.1	(20)	66.2	(25)	85.7	(5)
Chicago-O'Hare	80.9	(7)	66.5	(17)	68.7	(21)	80.6	(18)
Philadelphia	68.5	(25)	72.0	(6)	74.2	(13)	79.1	(21)
Phoenix	72.2	(19)	65.6	(18)	82.8	(2)	86.7	(3)
Pittsburgh	67.3	(26)	71.4	(9)	77.2	(6)	81.6	(16)
San Diego	71.7	(20)	57.1	(22)	77.9	(5)	81.8	(15)
Seattle	76.5	(12)	51.5	(26)	69.3	(18)	80.9	(17)
San Francisco	65.3	(27)	41.8	(27)	75.6	(10)	68.4	(25)
Salt Lake City	81.5	(6)	60.0	(21)	74.1	(14)	90.6	(1)
St. Louis	82.0	(4)	64.8	(19)	69.1	(19)	85.0	(6)
Tampa	76.7	(11)	71.7	(8)	67.8	(22)	84.2	(9)

* The DOT counts only non-mechanical delays greater than 15 mins.

Source: *Office of Consumer Affairs*, U.S. DEPARTMENT OF TRANSPORTATION, AIR TRAVEL CONSUMER REPORTS, (NOV. 1987), (FEB. 1988), (APR. 1988), (JUNE 1988).

Indeed, since 1978 the issue of air safety has been demonstrably cast into the spotlight. Increased air traffic and congestion, especially at the largest hub airports, have helped to create conditions that are overtaxing the current air traffic control system. Reports of near midair collisions and potentially serious errors by air traffic controllers have risen from 1985 through 1987.⁶⁴ Public concern over air safety has reached unprecedented levels, as measured by surveys and complaints registered at the FAA during 1987, the so-called "Year of the Near-Miss."⁶⁵

Despite this seemingly deteriorating situation, the number of actual fatal air accidents has decreased under deregulation. From 1965 to 1975 there were forty-two fatal U.S. commercial airline accidents; but from 1976 to 1986, there were only fifteen.⁶⁶ The number of fatalities per 100,000 hours flown has dropped from 1.72 in 1978 to 0.92 in 1986.⁶⁷ Thus, some observers maintain that economic deregulation has not led to deterioration in air safety. These same individuals, however, recognize that the increased volume of traffic caused by deregulation has created conditions which may erode safety levels in the future unless precautions are taken.

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

The implementation of airline industry cost cutting, however, may well have had a deleterious impact on the

⁶⁴ Loepp, *High Anxiety and Rage*, TIME, July 20, 1987, at 53.

⁶⁵ Morgenthau, *supra* note 58, at 20.

⁶⁶ Morrison & Winston, *Air Safety, Deregulation, and Public Policy*, BOOKINGS REV., Winter 1988, at 10, 11.

⁶⁷ Morgenthau, *supra* note 58, at 21-22.

margin of safety. According to the DOT, the amount of resources devoted by airlines to aircraft maintenance fell 30% during deregulation's first six years.⁶⁸ A survey of commercial airline pilots reveals that almost half believe their companies defer maintenance for an excessive period of time.⁶⁹ Today, most carriers lack the resources to replace their aging fleets of aircraft. As a consequence, the average age of the industry's jets grew "21% since 1979 to 12.53 years" in 1988; more than half of the 2,767 jets in service were 16 years old or older.⁷⁰

The new low fares which airlines offered in larger, competitive markets during the last decade have stimulated significant new passenger demand. Between 1978 and 1987, departures for the major airlines increased by 27%.⁷¹ This increase in flights, coupled with the industry's practice of adopting hub-and-spoke route systems has congested the flight paths of the nation's major airports during peak periods. As a consequence, near misses are soaring. There were 584 near misses during 1984, 758 in 1985, 839 in 1986, and 610 for the first half of 1987 alone.⁷²

The resulting increase in airspace congestion has placed serious strains on the air traffic control system at a time when it is least capable of handling the surge in demand. In 1981, President Reagan fired 11,000 members of the Professional Air Traffic Controllers Organization (PATCO) for striking, depleting it to only a third of its work force, which has not yet been completely replaced by

⁶⁸ Fischetti & Perry, *Our Burdened Skies*, 23 IEEE SPECTRUM 36, 79 (1986) ("The carriers now spend close to twice as much on marketing as they do on maintenance; according to the DOT, in 1977 the amounts were approximately equal.").

⁶⁹ Duffy, *View from Cockpit Is Clearly Negative*, Denver Post, Dec. 7, 1987, § E, at 2, col. 3.

⁷⁰ Valente, Harris & McGinley, *Should Airlines Scrap Their Oldest Planes for Sake of Safety?*, Wall St. J., May 6, 1988, § 1 at 1, col. 6.

⁷¹ Kilpatrick, *Skies Safe Today, But Turbulence is Brewing*, Rocky Mountain News, May 4, 1988, at 37, col. 1.

⁷² *Increasing Near-Midair Incidents Spur Drive to Improve ATC Performance*, AVIATION WK. & SPACE TECH., Aug. 24, 1987, at 21.

the FAA.⁷³ Not only is the system understaffed, but many airports and navigational facilities are equipped with obsolete and aging equipment.⁷⁴ Operational errors, or mistakes by controllers, increased 20% during the first half of 1987 over the same period one year earlier.⁷⁵

The level of public and media concern over the trimmed margin of safety has increased pressure on the FAA to become more vigilant in enforcing its safety regulation mandate, something it was lethargic in doing during the early years of the Reagan Administration. Recently, significant fines have been levied on the major airlines. Even the father of deregulation, Alfred Kahn, now admits that the margin of safety has "possibly" narrowed since 1978, although fatality statistics do not yet reflect it.⁷⁶

There seems to be widespread agreement that the current air system infrastructure, including airports, runways, and the air traffic control system, is in dire need of expansion and enhancement. No new airports have been constructed in the U.S. since Dallas-Ft. Worth International in 1974, nor has there been any major airport capacity expansion since the 1980 reconfiguration of Hartsfield International in Atlanta. Further, the current national radar and detection system has been criticized as being antiquated and inadequate.⁷⁷ This situation exists in spite of

⁷³ Morganthau, *supra* note 58, at 20.

⁷⁴ See Fischetti & Perry, *supra* note 68, at 38 (analyzing the U.S. air traffic control (ATC) system that is made up of increasingly aging radios, radar, and computers).

⁷⁵ Molinari, *How Safe Is the Air Traffic Control System?*, USA Today, Nov. 12, 1987, at 12.

⁷⁶ Kahn, *supra* note 23, at 251. Kahn explained that:

There have of course been severe problems and reasons for concern even from the public's standpoint [since deregulation]: most prominently sharply increased congestion and delays, increased concentration at hubs, monopolistic exploitation of a minority of customers, and possibly a narrowing of the margin of safety, even though actual accident rates have run consistently 35-40 percent below pre-deregulation levels.

Id.

⁷⁷ See Fischetti & Perry, *supra* note 68, at 38. After interviewing dozens of air traffic controllers, the authors found "that ATC equipment is not working as well now as it did five years ago. The reasons for this are obvious. The equipment is

FAA forecasts of continuing growth in nationwide air traffic.

Clearly, in the current deregulatory environment, widespread concern exists about air safety. Although accident statistics suggest that commercial air transportation is safer now than it was under regulation, the common public perception is that it is now less safe to fly. Perhaps evidence of instability and turmoil in the airline industry's structure and level of service, has created an atmosphere of uncertainty among the traveling public about air travel in general, and especially air safety. Dramatic changes are necessary to restore public confidence in the efficacy and safety of air travel.

VI. SUMMARY AND CONCLUSION

This article has examined a variety of profound changes in the U.S. airline industry over the last ten years brought about by the Airline Deregulation Act of 1978, and the Reagan Administration's enthusiastic implementation of deregulation. In terms of the airline industry structure, air service, and air safety, the past decade has been very turbulent. We have witnessed both increased industry and service concentration among the largest airlines and airports, and increased volatility in industry structure, service, and safety.

Prior to deregulation, the airline industry maintained a relatively stable structure consisting principally of trunk and local service carriers. Despite the high market share concentration by the trunks, the CAB ensured "just and reasonable" fares and a high level of service to all markets dense and thin, and to all communities, large and small. In the first few years after deregulation, a proliferation of new carriers reduced the trunk airlines' domination of the industry. For those who argued in favor of airline deregulation, the increased price competition brought about by

getting older and not being replaced. It is handling more traffic. And it is being asked to make up for a shortage of traffic controllers" *Id.*

new market entrants, such as Sir Freddie Laker's Skytrain or Donald Burr's People Express, was precisely the type of benefit they expected.

More recently, however, the airline industry has experienced a return to a tight oligopoly, contributed to by mergers and acquisitions allowed by a complaisant Reagan Administration Department of Transportation.⁷⁸ The top six megacarriers now account for nearly 80% of the industry's revenue passenger miles. The top eight account for 94% of domestic traffic.⁷⁹ Moreover, these carriers are no longer subject to CAB fare regulation, so that if they attain monopoly control in certain hub and city-pair markets, there is nothing to stop them from charging monopoly prices, contestability theory notwithstanding.

The impacts on air service have been equally dramatic. Since the beginning of deregulation, air service has become more frequent and less expensive in only the most competitive city-pair markets. In terms of both travel time and delays, however, air service is more time consuming and of lesser overall quality. Due to the airlines' move toward increased hub-and-spoke networks, service has been concentrated on those large airports selected as "hubs" by individual airlines. These hub airports and the cities they serve have benefitted from increased frequencies, but have suffered from increased fares, congestion and delays, and may encounter poor quality service in the future from airlines which have monopoly control over them.

Smaller communities have had the worst of all worlds since the beginning of airline deregulation.⁸⁰ Flight departures, seating capacities, type and quality of service have all declined, while fares have increased substan-

⁷⁸ *Happiness Is a Cheap Seat*, *ECONOMIST*, Feb. 4, 1989, at 68, 71. "Between 1985 and 1987 [twenty] American airlines merged. None of these mergers was challenged by the Department of Transportation even though some of them create near monopolies at certain hubs." *Id.* at 71.

⁷⁹ *Id.* at 68.

⁸⁰ J. MOLLOY JR., *THE U.S. COMMUTER AIRLINE INDUSTRY* 62 (1985).

tially.⁸¹ The majority of small communities have suffered service reductions, and 28% have lost all their service.

Public concern over air safety and delays reached unprecedented levels in recent years. Due to increased traffic volume and no expansion or enhancement of the air system infrastructure (including airports, runways, and the air traffic control system), reports of near midair collisions, air traffic control errors, and inordinately long delays all have substantially increased in recent years. Despite the perception that the margin of air safety has narrowed, the number of fatal air accidents has actually fallen during deregulation. Still, many observers warn that greater attention must be paid to improving airway and airport capacity and safety conditions to avoid the potential ramifications of further deterioration.

In light of FAA forecasts of continuing increases in air traffic, more activity has recently begun in new airport construction and expansion. Since the completion of Dallas-Fort Worth International Airport in 1974, no new major airports have been built or planned in the United States, despite the fact that national passenger demand has doubled. With the realization that the nation's airport capacity needs to be enlarged, plans are underway for airport expansion and enhancement in seven U.S. cities.⁸² The largest and most ambitious of these is the proposed \$3 billion new international airport in Denver, a project which has just recently been approved by local voters.

The proposed Denver International Airport, to be operating by 1993, will become, according to the current design, the largest airport in the country. It will encompass

⁸¹ *Id.* at 59-62. Since smaller communities have not been able to attract discount fares, they have had to recover their costs from the individual markets causing a marked increase in their rates. The increased rates have in turn encouraged passengers to commute to large hub airports. *Id.* at 62.

⁸² Frerkling, *Denver Warned: Others Need Airport Funds, Too*, *Denver Post*, July 3, 1988, § A, at 1, col. 3. These projects include new airports in Denver, Colorado and Austin, Texas; new terminals in Pittsburgh, Pennsylvania and Orlando, Florida; and new runways in Nashville, Tennessee, Indianapolis, Indiana and Dallas-Fort Worth, Texas. *Id.* at 15A, col. 1. The latest of these projects is set for completion in the mid 1990s. *Id.*

44.5 square miles, and eventually have eleven runways with a capacity of 1,230,000 flight operations per year by 2020. The FAA predicts that the new airport will be the second busiest in the nation behind Chicago's O'Hare by the year 2000. The FAA readily recognizes the need for a new superhub somewhere in the western United States. Currently, Denver's Stapleton International Airport experiences severe capacity constraints, congestion, and delays which ripple through the entire national air system. The new Denver airport is an important step in the direction of easing future nationwide air traffic flow, but it alone will not solve the pressing national need for new capacity.

The airline deregulation movement, and indeed the notion of deregulation itself, remains a very controversial matter. Evidence exists both in favor of and in opposition to what has transpired in the airline industry over the last decade.⁸³ In recent years, however, there seems to be a growing disenchantment with deregulation, as many problems have become manifest. Even Alfred Kahn, one of the chief proponents of deregulation, admits that the last ten years have been no walk among the roses.⁸⁴

At least, for now, it appears unlikely that any sort of major re-regulation is on the horizon. The full-scale deregulation of the airline industry has been indelibly etched upon the country's economic landscape. Up to now, changes to the laissez-faire approach have been very focused and relatively small in scale, such as the recent requirement that airlines publish on-time performance records. Now that we have experienced ten years of air-

⁸³ The opposing views expressed by Brenner and Kahn reflect the ongoing debate. See, e.g., Brenner, *supra* note 20, at 226 ("One thing can be said with certainty: the nature of the deregulated industry is radically different from that forecast by the deregulators. It is not the market of open, continual free entry by new entrepreneurs which was predicted."); Kahn, *supra* note 23, at 251 ("Deregulation and the competition it unleashed, however messy and imperfect, have brought the traveling public benefits worth billions of dollars a year, curbed and reversed the wage/price spiral, broken up institutional rigidities, and swept away legal and psychological barriers to productivity and innovation.").

⁸⁴ Kahn *supra* note 23.

line deregulation, however, momentum seems to be building in the direction of some modest regulatory reform, specifically in the areas of ensuring sustainable competition, protecting consumers' rights, prohibiting price discrimination, and enhancing service to small communities. Of course, if the industry continues to exercise additional monopoly or oligopoly characteristics, there may ultimately be no choice but to re-regulate on a large scale. More likely, though, is a flexible regulatory arrangement, whereby individual airlines will still have considerable freedom to choose how most efficiently to run their businesses, but will be subject to some regulatory authority when societal equity is compromised.

