The Impact of Airline Deregulation on Rates and Services

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Abstract

The Airline Deregulation Act of 1978 granted considerable freedom to the airlines in establishing fares and in choosing new routes. It also permitted new carriers to enter the industry and abolished the Civil Aeronautics Board in 1985. This article examines the impact of industry deregulation on the level of rates and services in the decade since passage of the federal law.

Introduction

In the decade following the passage of the Airline Deregulation Act of 1978, more changes have occurred in the airline industry than during any other period since the first airplane offered passenger services. Proponents of airline deregulation point to traveler savings of \$7 billion to \$10 billion through lower air fares, with nine of every ten passengers currently taking advantage of some form of discount. (1) Critics list airport congestion, deteriorating airline service, and increased concerns with air safety as three major negative factors that accompanied the deregulation of the industry.

Both proponents and detractors of industry deregulation agree that the passage of this legislation, which allowed new carriers to enter the industry and eliminated the Civil Aeronautics Board, has produced an industry quite different from the one that existed prior to 1978. Today, the CAB is extinct and individual airlines are free to establish their own route structure, rates, and service standards. The ensuing competition for customers has been described by American Airlines CEO Robert Crandall as "the closest thing to legalized warfare." (2)

Rates

During the first eight years following the passage of the Airline Deregulation Act, air fares increased 32 percent, which is less than half the increase in the consumer price index during the same period. Using 1980 dollars in terms of

purchasing power, the average cost per mile of air travel in the United States in 1978 amounted to 10.2 cents. By 1986, this figure was 8.2 cents. (3) The primary explanation for this decline is the availability of discounted fares offered by competing carriers. As Table 1 shows, the average purchase price of an airline ticket purchased during the first five months of 1988 was 64 percent below full fares. Ten years earlier, the average was only 34 percent off full fares.

Similar declines have occurred in air freight transportation where international air cargo rates have decreased as much as 50 percent and the volume of international air freight payloads soared to 16.6 million tons in 1987, a 43 percent increase since 1982. The air freight customer base has expanded far beyond the typical luxury goods of French designer fashions, jewelry, and fresh cut flowers to such lower-unit-value products as tires, auto parts, and even candy. The added capacity produced by new carriers entering the industry following deregulation has resulted in extremely attractive transport rates, particularly on transatlantic routes. Some air freight companies have lowered rates to as little as 30 cents a pound, versus 10 cents for a seven day ship voyage. (4)

Segmenting the Airline Passenger Market

Fares can vary dramatically for a seat on the same airline between the same origin and des

Table 1
Airline Ticket Discounts: 1978-1988

Year	Average Discount from Full Fare
1978	34%
1983	48
1984	52
1985	55
1986	61
1987	62
1988	64*

*January through May 1988

Source: The Airline Quarterly (Washington, D.C.: Air Transport Association, 1988).

tinuation. In August 1988, the least expensive round trip fare for a coach seat on a major carrier from New Orleans to New York with no restrictions (ticket purchased the day of departure) was \$690. The least expensive seat on the same aircraft with restrictions (seven-day advance purchase, travel extending over a Saturday night, and 100 percent cancellation penalty) was \$198. Even though nine-tenths of all passengers on a typical flight are participating in some form of discounted air fare, they are most likely to be members of one segment of the airline passenger market: nonbusiness travelers.

The nonbusiness segment typically has much more scheduling flexibility than do business travelers. The former group is more price sensitive and may respond to higher fares by postponing the trip or choosing alternative transport modes, such as passenger rail transportation or private automobile. This segment is also more willing to accept significant airline restrictions in exchange for low fares. The resultant savings are often dramatic: "...it's conceivable that the business executive who paid \$510 for a center seat on a flight from New York to Los Angeles may be seated next to a madras-clad vacationer paying \$89 for the aisle seat."(5)

Sophisticated computer programs are utilized to determine the optimal number of discount seats to be offered on each flight. The sales history of each flight is carefully analyzed before the appropriate mix of fares (full, partially discounted, and fully discounted) is selected. For full-service air carriers, the number of fully dis-

counted seats is often a small percentage of total capacity.

The 17.3 million business travelers, who accounted for 32 percent of all air passengers in 1986, represent the most lucrative segment of the market. Approximately 46 percent of all airline trips taken in 1986 were for business related purposes, and those trips produced 68 percent (\$27 billion) of the domestic airline industry's total passenger revenues.(6) Frequent-flyer programs, a variant of the trading stamp promotions of the first half of the twentieth century, were begun during the 1980s to enhance air carrier loyalty among the full-fare business travelers. Members who accumulate mileage credit by flying on the airline or its affiliates, or who rent cars from or stay at hotels owned by designated partners are rewarded with free tickets for otherwise empty seats. These programs proved so successful that, by 1988, U.S. airlines owed their members more than three million free round-trip domestic tickets.

The nature of business travel reduces the opportunity to qualify for discounted fares, since business trips may not be planned far enough in advance to meet advance booking requirements. Moreover, Saturday night layover requirements often cannot be met. In addition, since their employers are usually paying the actual costs, business travelers are frequently less price sensitive. To reduce the cost of such air travel, a number of major corporations have negotiated lower fares with individual airlines in exchange for guaranteed minimum annual usage. In 1987,

five Chicago-based corporations--McDonald's, Baxter Travenol Laboratories, Premark International, Quaker Oats, and Johnson Controls--received permission from the Antitrust Division of the U.S. Department of Justice to apply concerted pressure on airlines in an attempt to reduce business fares into and out of Chicago. The companies involved were able to exert considerable economic leverage, since they purchase 42,000 tickets into and out of Chicago each year.(7)

Airline Mergers and Airline Ticket Prices

In the late 1980s airline mergers reduced the size of the industry from more than a dozen sizable carriers to seven so-called megacarriers. This consolidation, which resulted in 90 percent of all passenger miles being flown by the seven largest air carriers, raised fears that, with fewer competitors, airline fares would rise sharply.

Although average domestic fares increased by 10.7 percent over a twelve-month period ending in July 1988, they had actually declined for each of the previous three years.(8) Two factors are involved in the failure of airline ticket prices to keep pace with inflation during the 1980s. First, a surplus of seats relative to demand exists, a situation expected to continue well into the 1990s.

The bargains are still out there mainly because supply continues to far outweigh travel demand. A few years ago, most carriers didn't anticipate the merger boom and placed huge orders for planes in an effort to grow internally. Now, they're flying planes that on average were 40 percent empty last year. Some analysts had hoped that the acquisition binge would alleviate the problem, but carriers say it's too expensive to take planes off the market and keep making debt payments on them.(9)

Air carriers have been able to achieve operating savings to offset reduced fares through the establishment of hub-and-spoke route systems that result in more efficient use of aircraft. In addition, merged carriers frequently enjoy greater economies from their combined operations. Also, labor costs have been held in check as organized carriers introduced lower wage scales in response to competition from low-cost, non-union carriers.(10)

The second factor is that only two competitors may be necessary to create a competitive pricing situation. For example, Northwest Airlines, following its merger with Republic Airlines, controlled about 80 percent of all flights at Minneapolis-St. Paul International Airport. When Northwest ticket prices subsequently increased between the Twin Cities and Chicago, United Airlines increased the number of its flights on this route from four each way per day to thirteen. As one industry analyst noted, "It only takes two competitors to keep prices down. When you had Macy's and Gimbel's on the same block in New York City, you didn't need twelve other department stores to have low prices."(11)

Service Levels

It is generally agreed that the overall quality of airline service has decreased since passage of the Airline Deregulation Act of 1978. One of the most commonly noted problems involves late flights. The U.S. Department of Transportation considers a flight to be on time if it arrives at or departs from a gate within fifteen minutes of schedule. Flights delayed for mechanical reasons are not included in on-time calculations. In June 1988, for example, 84.3 percent of monitored flights of the thirteen largest domestic air carriers were on schedule. The three carriers with the best on-time performance were American West Airlines (92.8 percent), Southwest Airlines (90.8 percent), and American Airlines (88.8 percent). The worst on-time performance for this time period was Pan American (72.2%), followed by USAir (76.6 percent), and Trans World Airlines (79 percent). In a typical year, approximately 400,000 flights will be late.(12)

Two factors influence the number of late arrivals and departures. First, reduced air fares have stimulated a substantial increase in passengers. However, since the air passenger transport infrastructure (airports and the Federal Aviation Administration-controlled airway system) has not expanded, the system is clogged with more passengers than it was designed to accommodate. Passenger traffic has increased 60 percent over the past decade. In 1980, 292 million airline passengers flew on 14.7 million flights in the United States. By 1986, these numbers had grown to 393 million passengers on 19.2 million flights. FAA estimates indicate that 650 million passengers will fly on 26.4 million flights by

1997.(13)

A related problem is that flights are not distributed evenly throughout the day. Since most passengers prefer to fly during daylight hours, flights tend to be concentrated into a ten-hour period during the day. The widespread adoption of the hub-and-spoke method of scheduling flights further exacerbates this concentration of flights and air travelers. The latter concept involves a number of planes converging at a hub terminal at approximately the same time. Passengers then quickly walk to a new gate and board connecting flights for their destinations. The result of this approach, pioneered by Delta Air Lines in Atlanta, is the provision of air service to a much larger number of destinations with little increase in total travel time over a direct flight from origin to destination.

The ability to offer passenger flight service from smaller cities and the resultant increase in the number of passengers per flight in hub cities have led to rapid acceptance of the hub-and-spoke concept. By 1988, 49 hubs at 31 airports had been established by U.S. airlines. The major problems with this concept are the increased number of flights arriving and departing within short time periods and the resultant airport and airway system overcrowding during daylight hours.(14)

On-Board Service Levels

In addition to problems with flight delays, customer service levels appear to have declined in the years following deregulation. The following comments from frequent flyers illustrate air passenger perceptions of service level erosion:

"My experience suggests there has been a decline in personal service whether you fly first class, business, or coach. Specifically, the servicing of the planes, the physical cleaning has declined right across the board. I don't think any airline I fly is exempt from this."

"What's happening is that air travel is becoming more like the bus that goes down Broadway. As a consequence, the traveler is discovering he is not being coddled and babied, and very often amenities are decreasing."(15)

As competitive pressures forced airlines to con-

tinue offering discount fares, airline management has sought cost-reducing alternatives to maintain profitability. In many instances, these efforts manifest in such dimensions as meals, cleanliness, and even the number of on-board flight attendants. United Airlines, like many of its competitors, has eliminated one flight attendant on some flights. More cold meals are being served in lieu of hot meals. American Airlines eliminated black olives in its salads and saved \$100,000 a year. Pan American achieved a \$1 million annual savings by no longer serving macadamia nuts with its drinks. Before deregulation, most airlines replaced lost tickets at no cost to the traveler. Today a service fee of up to \$40 is charged. Even though these efforts to reduce costs contribute to a slow erosion of service levels, they are less evident to the prospective ticket purchaser than are ticket prices. Northwest Airlines executive vice president of marketing A. B. Magary sums up the dilemma: "The bottom line is that the industry is so competitive that it keeps all the pressure on costs. If you are not the lowest-cost producer in the market, you have got a monkey on your back."(16)

Conclusions

The initial impact of airline deregulation led to chaotic competitive conditions in an industry that had previously been shielded from the full forces of competition by a benevolent Civil Aeronautics Board. When airline management was thrust into the competitive arena, they had to learn to compete in what had previously been a protected industry since 1938.

The initial competitive battles were predictable: plummeting rates and erratic service levels were characteristic of the industry in which most competitors chose price as a source of competitive advantage. However, in recent years, the industry appears to be stabilizing. Even though industry profit margins over the past ten years amounted to a minuscule six-tenths of one percent of total revenues, industry earnings rose to \$800 million in 1987, an amount equal to one-third of total earnings over the last ten years. In addition, service levels - measured in terms of on-time performance and passenger complaints to the U. S. Department of Transportation - improved in 1988 over those of 1987.

The problem of excessive air traffic at peak

hours can be alleviated by charging higher airport landing fees for planes arriving or departing during the busiest times of the day. While the largest planes currently pay only \$700 in landing fees, former Civil Aeronautics Board director Alfred Kahn recommends increasing them to \$10,000 at peak hours. Such a move would increase the price of a ticket during peak hours by \$25 to \$50, discouraging many people from traveling during these hours. The additional funds generated from increased landing fees could then be invested in airport improvements. (17)

Airline deregulation has benefited both air

travelers and airline companies. The former have been able to purchase air transportation at lower fares. Airline managers have become more efficient business people as a result of the need to compete vigorously in terms of offering the best rate/service values to the traveling public.

Our crystal ball tells us that ten years from now, transportation observers will look back at the 1978 Airline Deregulation Act and declare it as one of the most beneficial laws enacted by Congress in the twentieth century.

Footnotes

- 1 Meyers, Mike, "Man Who Backed Deregulation Blames Reagan for Airline Woes," *Minneapolis Star Tribune* (May 5, 1988), p. 2D.
- 2 "Setting Course for Smoother Skies," *Insight* (October 26, 1987), p. 8.
- 3 Labich, Kenneth, "Winners in the Air Ways," *Fortune* (May 11, 1987), p. 68. See also Abraham Golaszewski, Richard D. Gritta, and Garland Chow, "Deregulation and Concentration in Air Transportation," *Annual Proceedings of the Transportation Research Forum* (1986), pp. 6-11.
- 4 Finn, Edwin A., "21st-Century Truckers," *Forbes* (April 4, 1988), p. 80.
- 5 Thomas, Paulette, "Computers Permit Airlines to Use Scalpel to Cut Fares," *Wall Street Journal* (February 2, 1987), p. 17. See also Michael Y. Hu and Edward R. Bruning, "A Comparison of Enduring and Instrumental Product/Service Importance: The Case of the Airline Traveler," *Transportation Practitioners Journal* (Fall 1987), pp. 31-40.
- 6 Hu, Michael Y., Rex S. Toh, and Stephen Strand, "Frequent-Flyer Programs: Problems and Pitfalls," *Business Horizons* (July-August 1988), p. 53.
- 7 Dahl, Jonathan, and Frances C. Brown, III, "Business Fliers Face Higher Fares As Airlines Try to Offset Discounts," *Wall Street Journal* (April 9, 1987), p. 29.
- 8 Dahl, Jonathan, "More Bad News About Air Fares," *Wall Street Journal* (July 28, 1988), p. 27.
- 9 Dahl and Brown, *op. cit.*
- 10 Osland, John J., "Air Fares are Rising with the Temperatures," *Minneapolis Star Tribune* (April 3, 1988), p. 8D.
- 11 Dahl and Brown, *op. cit.*
- 12 McQuay, Timothy, "Airlines Not Slowed By Summer," *USA Today* (August 4, 1988), p. 1A.
- 13 Main, Jeremy, "The Worsening Air Travel Mess," *Fortune* (July 7, 1986), p. 50.
- 14 Toh, Rex S., and Richard G. Higgins, "The Impact of Hub and Spoke Network Centralization and Route Monopoly on Domestic Airline Profitability," *Transportation Journal* (Summer 1985), pp. 16-27.
- 15 Gladstone, Rich, "Deregulated Skies Not Always So Friendly," *San Francisco Examiner* (October 5, 1986), p. D4.
- 16 Oslund, *op. cit.*
- 17 Meyers, *op. cit.*