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Jimmy Carter, Alfred Kahn, and Airline Deregulation

Anatomy of a Policy Success

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JOHN HOWARD BROWN

Although the presidency of Jimmy Carter (1977–81) is widely regarded as a failure, the deregulation movement that was largely initiated during his term in office was and remains a very successful policy. This essay focuses on airline deregulation in particular. There are several reasons for this emphasis.

First, airlines were the first of the transportation industries to experience deregulation. Second, airline deregulation and transportation deregulation in general produced unambiguous benefits. In contrast, the benefits of financial deregulation initiated in the same period are much cloudier. Finally, the measures adopted were largely those proposed by the community of economists who had studied the performance of the airline industry. Indeed, the leader of the Civil Aeronautics Board in the initial stages of deregulation was Alfred Kahn, an economist who had quite literally written the book on regulation.

The context of this policy success was the unsatisfactory performance of the American economy during the 1970s due to “stagflation.” The deregulation movement represented an attempt to remove microeconomic rigidities in the economy so

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This essay is dedicated to the memory of Alfred Kahn, who was responsible for much of it.

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that the economy would be less inflation prone. Although the current consensus appears to be that stagflation had monetary roots, eliminating these rigidities nonetheless represented an important step in modernizing the U.S. economy.

The essay begins by discussing two of the preconditions for the deregulation movement of the 1970s: the unsatisfactory performance, relative to recent experience, of the U.S. economy and the growing scholarly consensus in favor of liberalizing the existing regulatory mechanisms. Next I examine the process of deregulation first through administrative liberalization and later through statutory enactments. Then I detail the specific provisions of the Airline Deregulation Act of 1978 and outline the empirical economics literature regarding the effects of airline deregulation.¹ A brief conclusion summarizes what lessons may be learned from this policy.

Economic Performance and Microeconomic Rigidity

Economic regulation at the federal level first came to the United States with the passage of the Interstate Commerce Act of 1888, which was aimed at railroads. This legislation and the regulatory commission established in it created the template for subsequent federal regulatory actions. Economic regulation was extended to other transportation industries (motor carriers, interstate pipelines, airlines, etc.) during the 1930s. The postwar performance of the U.S. economy appeared to validate the mix of market and government regulation that emerged from the 1930s.

However, the postwar “Golden Age” stumbled to an end during the 1970s. For instance, none of the last five years of the 1960s had an annual unemployment rate higher than 3.8 percent, whereas no year in the 1970s had an annual unemployment rate of less than 4.9 percent. The performance of inflation was similarly dismal. Only 1972 offered an inflation rate (measured by the gross domestic product [GDP] implicit price deflator) that was lower than the worst inflation performance of the latter 1960s (4.9 percent in 1969) (U.S. Council of Economic Advisors 2013, tables B3 and B42).

This toxic combination of simultaneous historically high rates of inflation and unemployment earned the sobriquet *stagflation*. The so-called Phillips Curve relationship that had served as the basis for macroeconomic policy during the 1960s appeared to have vanished.

The structure of the American economy was significantly different in 1970 than it is in 2013. Significant sectors of the economy were subject to government regulation. These regulations typically included control over prices, entry and exit in markets, and often additional business practices. In addition, all regulated industries were required to report voluminous statistics to regulators.

1. The empirical literature can be only cursorily summarized because it is so voluminous. As Severin Borenstein once commented in a session at the Allied Social Science Associations meetings, airline deregulation created an industry of economists who study the airline industry.

Three sectors were particularly notable for the extensive regulation to which they were subjected. The first was the so-called FIRE sector, representing finance, insurance, and real estate. One rationale for regulating these industries was the moral-hazard problem created by the deposit-insurance systems created during the Great Depression. The next was the public-utilities sector, where regulation had been justified since the late nineteenth century on the basis of the sector's alleged natural-monopoly characteristics.

The final sector was transportation industries. These industries were initially regulated by the Interstate Commerce Act of 1888, which was intended to rein in the combination of price discrimination and ruinous competition that characterized the railroad industry in that era. The 1930s and 1940s saw essentially all other public-transportation modes become regulated by the federal government. Interstate trucking firms, barges, pipelines, bus lines, and airlines all found themselves regulated by some federal entity.²

The regulation of airlines commenced with the Civil Aeronautics Act of 1938. The act established the Civil Aeronautics Board (CAB)³ as a regulatory agency with comprehensive powers over the industry. The CAB was empowered by the statute to control entry and exit into both the industry and individual routes. It also had the authority to regulate fares in a manner similar to the Interstate Commerce Commission. In addition, it exercised regulatory control over industry mergers and intercompany contracting, while immunizing firms in the industry from antitrust scrutiny. Finally, the CAB was charged with offering subsidies to promote air service and preventing deceptive trade practices and unfair methods of competition. This latter mission was similar to the charge of the Federal Trade Commission (Bailey, Graham, and Kaplan 1985, 11).

Like most sectors of the economy, the airline industry thrived in the postwar economy. For instance, revenue passenger-miles (a basic measure of traffic) grew from approximately 10 billion in 1950 to nearly 100 billion in 1970. Rapid technical advances aided the industry's climb. In particular, the rapid adoption of jet aircraft during the late 1950s and early 1960s improved industry performance substantially. Revenue yield per passenger-mile fell by nearly 50 percent in constant dollar terms (Bailey, Graham, and Kaplan 1985, fig.1.2).

However, entry was essentially blockaded. The only truly competitive city-pair markets existed where intrastate airlines not subjected to federal regulation were viable (California, Texas, and Tennessee). In 1962, only California had a viable trunk-line competitor, Pacific Southwest, whose market share in the Los Angeles-San Francisco city pair was about 25 to 30 percent (Caves 1962, 13). The effect of this unregulated competitor on airfares was dramatic.

2. Federal regulation of transportation was regularly mirrored by state-level regulation of these same industries.

3. The regulator was initially called the Civil Aeronautics Authority.

As the 1960s progressed, the Brookings Institute, with funding provided by the Ford Foundation, initiated a program to review the regulation of economic activity (Derthick and Quirk 1985, 35). The empirical evidence accumulated in this program suggested that economic regulation generally resulted in economic inefficiency.

Another arrow in reform advocates' quiver was the increasing skepticism regarding the traditional "public-interest" theories of regulation. The theory that assumed "that markets are extremely fragile" and "government regulation is virtually costless" (Posner 1974, 1) was displaced by "capture theory," which held "that over time regulatory agencies come to be dominated by the industries regulated" (Posner 1974, 12). This domination was a consequence of the continual close association of regulators and regulated. The industries also constituted the most plausible source of employment for regulators after their terms of office.

Another alternative was posed by Sam Peltzman (1976). This theory relates the regulatory impulse to the rent-seeking theories of the public-choice school. In this model, regulators have the ability to generate economic profits for incumbent firms through their control of entry. As Peltzman characterizes the relationship, regulators can "tax" consumers to the benefit of the regulated. Because consumer interests are diffuse and the "tax" is small relative to most individuals, organized opposition to this imposition is rare. However, the firms and industries benefited have a large interest in the outcome and powerful incentives to devote resources to securing the regulators' compliance. The result is exploitation of consumers by the regulated firms instead of the protection of consumer interests promised by the "public-interest" theory.

Finally, George Warren Douglas and James Miller (1974) developed a theoretical model of the effects of regulation specifically directed to the conditions of the airline industry. CAB regulation included two elements that were central to their model. The first was limited entry into city-pair markets. Individual airlines were required to receive certificates of "public convenience and necessity" prior to entry. In addition, the CAB regulated the setting of fares by airlines. The fare schedules were approved based on the length of the route. However, the distance-based fares did not reflect the cost savings realized on long-haul routes, in particular transcontinental routes.

Both of these policies were intended to suppress competition among airline firms in the interests of industry stability. The results illustrated the powerful lure of competition wherever structural conditions do not prohibit it. The CAB controlled entry but did not control the number of flights offered for a city pair. Thus, flight frequency was the competitive weapon of choice for airlines. By offering multiple departures for a single destination, airlines reduced the schedule delay faced by consumers, which represents the opportunity cost for travelers who are not able to depart at their preferred time.

However, given the largely fixed number of passengers on any particular route, the effect of increased flight frequency was to reduce airline load factors (the number

of revenue passenger-miles divided by available seat-miles).⁴ This tendency was exacerbated by the increasing margin between costs and fares on long-distance routes caused by the CAB's pricing regulations. The model thus provided an explanation for the tendency of load factors to fall over time.

The dual strands of economic analysis and the deficient economic performance represented by "stagflation" set the table for the deregulation movement. Senator Edward Kennedy (D-Mass.) held hearings on airline regulation in 1975 orchestrated by Stephen Breyer, which emphasized a "consumerist" case for deregulation (McCraw 1984, 266). These hearings reinforced the point that regulated airlines both charged excessive fares and used their aircraft inefficiently.

In the same time frame, President Gerald Ford developed a deregulatory agenda as a part of his anti-inflationary WIN (Whip Inflation Now) program (Derthick and Quirk 1985, 45–50). Unlike Kennedy, Ford emphasized the beneficial effects of competition upon market performance. This emphasis also had the effect of persuading Ford's appointee to the chair of the CAB, John Robson, to announce its support for deregulatory legislation in April 1976. Robson also promoted pricing flexibility by opening the way for Supersaver fares. The results of the 1976 elections ensured that the incoming Carter administration would attempt to implement reform of airline regulation.

Alfred Kahn and the CAB

President Jimmy Carter appointed Alfred Kahn to the CAB as part of a campaign promise to promote deregulation. Alfred "Fred" Kahn came to the CAB with an impressive combination of qualifications. He was a well-regarded scholar of regulation. His most important work, *The Economics of Regulation*, published in two volumes (1970, 1971), was a summary and synthesis of what was known about the manner that regulation promoted (and failed to promote) the social goals it was directed toward. Kahn's particular lodestar in the volumes (and his subsequent career as a regulator) was the concept of marginal-cost pricing.

Economic theory provides clear guidance that prices equal to marginal costs result in the best use of scarce resources. However, the application of this principle to particular cases is far from straightforward. Kahn was able to experience the challenges of applying marginal-cost principles directly because in 1974 he was appointed chairman of the New York Public Service Commission (NYPSC). It was at the NYPSC that he first wrestled with difficulties that the stagflation era was creating for the rigidities imposed by the regulatory process.

Many of the challenges that Kahn faced at the NYPSC would prove irrelevant to his subsequent assignment at the CAB. However, his approach as a regulator was

4. Increased flight frequency did reduce stochastic delay (i.e. a delay caused by random failures of flights available to match consumers preferred travel plans), which is displacement from a preferred schedule because the best matching flight is full.

shaped by the NYPSA experience. In particular, he was responsible for a number of procedural innovations that flew in the face of regulatory traditions. He was disturbed in particular by the tendency to view regulatory proceedings within a legal framework that emphasized procedural due process rather than economic efficiency (McCraw 1984, 244).

Kahn pursued a two-pronged approach to regulation at the CAB. First, in concert with the other Democratic commissioners (and Elizabeth Bailey, a Republican), he altered CAB policies to grant airlines greater flexibility in choosing their fares and routes. In addition, he forcefully advocated codifying this flexibility so that future commissions could not revert to the protectionist practices the CAB had followed in the past. The Airline Deregulation Act of 1978 was the eventual fruit of this second track.

The process of deregulation began with “administrative deregulation” of fares. As noted earlier, Kahn’s predecessor had led the CAB to permit discounted fares. American Airlines’ “Supersaver fares” featuring price cuts of up to 45 percent in the New York–Los Angeles and New York–San Francisco markets resulted in traffic gains of around 30 percent in these markets (Bailey, Graham, and Kaplan 1985, table 3.2). The result, as Thomas McCraw observes, was that “the dyke burst” (1984, 276). The following year (1978) roughly half of the summer airline passengers flew under discounts offered by American and by other airlines aping its discount fares. At the same time, trunk airlines’ load factors rose to more than 60 percent after falling for years.

Kahn and the CAB recognized that pricing flexibility’s benefits would be limited as long as entry was inhibited by regulation. The “old” CAB had stalled literally hundreds of applications for the certificates of convenience and necessity that were required to offer service on a city-pair route. To reduce this backlog on a case-by-case basis was simply impossible. Instead, the CAB sought to set a precedent by permitting any airline to serve a route once it had proven its ability to offer the service (Bailey, Graham, and Kaplan 1985, 70). Instead of a regulatory commission’s judgment, air carriers were allowed to make a business decision about which markets to serve and what fares to charge.

All of this was a product of a strong chairman and a supportive board. Nothing, however, would prevent a future CAB from reversing course and restoring the status quo ante, of course, which was why Alfred Kahn placed equal emphasis on changing the law.

The Airline Deregulation Act

Although Kahn’s chairmanship and his backing by President Carter had created significant momentum for deregulation, important constituencies were still opposed to liberalization in the airline industry—in particular the incumbent trunk-line airlines and organized labor. Because the existing structure of airline fares was essentially a

cost-plus formula, pegging an airline's profits to the returns of the industry in general, airlines' resistance is easily explained (Bailey, Graham, and Kaplan 1985, 26).⁵ Organized labor's opposition is likewise understood in terms of poor incentives for cost control, which a cost-plus framework creates. This framework provided labor unions with an opportunity to grasp some of the rents flowing from cartelization. Another constituency that was reluctant to accept deregulation was smaller communities where deregulation threatened continued service.

The initial success of administrative deregulation by the CAB helped to overcome some of the resistance to liberalization. According to Martha Derthick and Paul Quirk, "[T]he deregulatory activism of the commission gave the airline . . . industry compelling reason to prefer some sort of statutory result, to want that result to be reached quickly, and, if necessary to accept broad procompetitive provisions in order to get it" (1985, 150).

Because air fares were falling, revenue passenger-mile growth was above the long-run trend, and airlines remained profitable due to these administrative measures, both Congress and some airlines came to embrace deregulation. Although Edward Kennedy had initiated congressional discussion of airline regulation with his Judiciary Committee Subcommittee on Administrative Practice and Procedure's hearings in 1975, his role in moving deregulatory legislation was limited because the subcommittee lacked jurisdiction. Instead, in the Senate the unlikely champion of deregulation was Senator Howard Cannon (D-Nev.), who chaired the Commerce Committee.

Although Cannon was perceived as friendly to existing economic interests, he set about crafting a Senate coalition in support of transportation deregulation in general and airline deregulation in particular. For instance, he staffed the Commerce Committee with individuals strongly identified with deregulation (Derthick and Quick 1985, 110). He also reached across the aisle to secure sponsorship of the legislation from the ranking minority member of the committee, Republican James B. Pearson of Kansas (Derthick and Quick 1985, 104, 110).

The Senate Commerce Committee and its counterpart in the House of Representatives were the focus of intense lobbying. However, the lobbying was far from one sided. The airline industry was represented, but its effectiveness was limited by the airlines' inability to develop a common position (Derthick and Quick 1985, 158). The Carter administration, in contrast, presented a united front with testimony by cabinet-level officials and, of course, Alfred Kahn, both as CAB chair and in his later capacity as leader of the administration's anti-inflation efforts (Derthick and Quick 1985, 112, 158). Substantial constituencies outside of airlines and government had also taken a pro-deregulation position (McCraw 1984, 112).

Beyond these pro-deregulation elements, as Derthick and Quick note, "The leading sources of pertinent guidance concerning the public interest—liberal

5. These profits were approximately 12 percent during the 1970s.

consumerism, laissez-faire conservatism, and economic analysis, the latter conceived as ideologically neutral—were in substantial (and unusual) agreement, all favoring procompetitive reform” (1985, 103–4). Thus, individual members of the House and Senate who had no direct role in formulating the bills found that whatever source of authority they customarily deferred to, opinion (other than that of airlines, their unionized employees, and small communities threatened with loss of service) was uniformly in favor of deregulation.

Even the force of opposition noted earlier was tempered by some airline defections, specifically that of United and Frontier. United had become discontented with CAB route-assignment policies, and Frontier was explicitly bought off with favorable treatment under the essential air-service program (Derthick and Quick 1985, 157, 160). This same program also served to mute the concerns of small communities regarding continued air services. The essential air-service program provided subsidies to communities where ordinary commercial considerations would not result in air service.

The House and Senate bills that were passed during the summer of 1978 differed in some particulars. Most salient was the addition to the House bill of a sunset provision for the CAB inserted by Georgia congressman Elliott Levitas (D). Congressman Levitas, wishing to protect Delta, believed the sunset provision would result in the rejection of the entire bill. Because of the inconsistencies between the two bills, a conference committee was created. The result of the conference was a bill with even stronger deregulatory content than either house’s version, including the elimination of the CAB. Congress approved the final version of the bill on October 24, 1978, and President Carter signed the Airline Deregulation Act on October 28.

The act’s provisions called for a gradual phaseout of the CAB’s regulatory authority. Route entry became completely free for airlines on December 31, 1981. A year and a day later, on January 1, 1983, the board’s control of airline fares was terminated. At the same time, the CAB’s discretion regarding antitrust issues (i.e., mergers, interfirm agreements, etc.) was transferred to the Department of Justice. Finally, on January 1, 1985, the Civil Aeronautics Board was dissolved. Its remaining duties—in particular, providing subsidies for essential local air service—were moved to the Department of Transportation.⁶

Deregulation and Economic Performance

Airline performance after deregulation improved significantly, at least along some important dimensions. In particular, once deregulation made it possible for entry to occur, there was significant entry. Airlines used their newly granted pricing flexibility

6. Bailey, Graham, and Kaplan (1985) provides a detailed breakdown of the deregulatory process in table 2.2, p. 36.

to selectively cut fares. At the same time, deregulation delivered some surprises for economists who predicted large-scale displacement of incumbent carriers by low-cost entrants.

The issues examined in this section include pricing, entry and route structure, operational efficiency, service quality, and service availability. In order to illuminate these factors, three post-deregulation assessments of industry performance are discussed: the first by one of the principals in deregulation, Elizabeth Bailey, and her coauthors David Graham and David Kaplan (1985); the second by Michael Levine (1987), who discusses some of the surprises flowing out of deregulation; and the third by Steven Morrison and Clifford Winston (1995). This examination of assessments is supplemented by a description of industry performance in the almost two decades that have passed since the last of these works was published.

As discussed earlier, airlines made immediate use of the pricing flexibility granted by administrative deregulation to offer so-called Supersaver rates for flyers. In the years that followed legal deregulation, fare classes multiplied with a variety of mechanisms utilized to distinguish between customers (Levine 1987, 413–14).

These mechanisms were coupled with frequent-flyer programs, commonly viewed by economists as a form of second-degree price discrimination. Morrison and Winston examine the effects of these programs (1995, 49–61). They find that frequent-flyer programs create a competitive advantage for the largest airlines relative to smaller airlines with less-extensive networks. They also result in higher fares compared to an airline industry without the programs.

Incumbent airlines were able to leverage their control of computerized reservation systems (CRSs) to create “screen bias.” Screen bias involved privileging the flights of the airline that owned the system by making competing airlines’ flights more difficult for travel agents to find and purchase. Morrison and Winston indicate that the deadweight loss attributable to this bias was between \$350 and \$850 million yearly in 1990 dollars (1995, 64). This particular form of abuse is now likely to be obsolete because the majority of airline tickets are now purchased over the Internet. However, CRS also enabled airlines to develop “yield management” programs that adjusted seat availability among fare classes to maximize revenues (Levine 1987, 450). Airlines have recently extended their price discrimination to charging premium prices for particularly desirable seats (e.g., those in the exit row) within the tourist cabin.

An additional dimension in pricing was the emergence of “fortress hubs” where a single airline controls a majority of passenger traffic at a hub. These hubs emerged as a consequence of the reorganization of routes (discussed later). Such hubs displayed higher fares for locally originating passengers than for through passengers. Morrison and Winston estimate that the effect at fifteen concentrated airports was to increase prices by 5.2 percent (1995, 48). This increase was substantially lower than the U.S. General Accounting Office’s 33.4 percent estimate for the same airports. The

difference is explained by Morrison and Winston's adjustment for differences between the characteristics of flights at the hubs.

The historical trend in pricing is illustrated in figure 1, which shows the behavior of real yield per revenue passenger-mile for the entire postwar period up to 2011. These yields are adjusted for inflation using the 1990 value of the Consumer Price Index as the base year. The upper curve in this figure plots yearly average cents per revenue passenger-mile in 1990 prices. The solid, straight line represents the trend line of real fares over this sixty-five-year period.

A simple logarithmic trend analysis of these data suggests that revenues per passenger-mile fell by about 2.2 percent per year throughout the entire period. Splitting the sample into pre- and post-deregulation segments (see table 1) shows that the rate of decline was about 0.7 percentage points higher in the later period and that this difference was statistically significant.

The visible trend suggests that the real cost of airline travel has fallen to around 20 percent of its initial postwar value. Of course, this trend should be read with caution given the existence of several clear breaks in the series. The first break is apparently related to the start of the Korean War (1947–50). The next, and largest, break from 1957 to 1961 reflects the introduction of jet aircraft. These vehicles received immediate consumer acceptance, permitting airlines to improve revenue yields. Another obvious disruption between 1976 and 1981 no doubt represents the airlines' initial adaptation to deregulation. There are also abrupt drops in 1986, 2002, and 2008, which reflect, respectively, the mid-1980s fall in

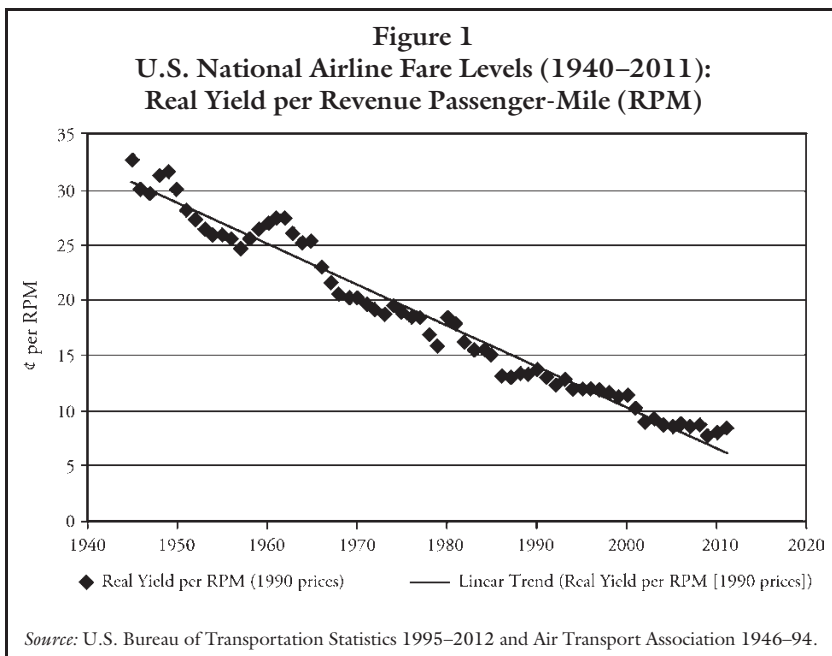


Table 1
Trend in Real Revenue per Passenger-Mile (1946–2011)

	Natural Logarithm Trend	Natural Logarithm Trend 1946–78	Natural Logarithm Trend 1979–2011
Constant	3.569 0.0169	3.499 0.0209	2.869 0.0201
Time trend	–0.0222 0.0004	–0.018 0.0010	–0.0257 0.0010
Time trend t-statistic	–51.368	–17.358	–24.855
R ²	0.976	0.904	0.952
F-statistic	2,638.649	301.304	617.788
Degrees of freedom	65	32	31
Annual decline	–2.2%	–1.8%	–2.5%
t-statistic difference 1946–78 and 1979–2011	–7.5892		

Note: Numbers below coefficients are standard errors.

fuel prices, the terrorist attacks on September 11, 2001, and the financial crisis of the fall of 2008.

Another interesting feature of the data is the positive trend in real prices since 2009. This may reflect the ongoing consolidation of the airline industry, wherein Delta merged with Northwestern and United merged with Continental.⁷

The effects of deregulation on entry and route structure were perhaps the most surprising to economists. The expectation at the onset of deregulation was that legacy airlines—that is, the airlines that existed at the time of deregulation and that were burdened by high costs and inefficient routes—would be heavily damaged by the entrance of new, efficient carriers. The prediction that low-cost entrants would flood the industry proved correct. However, the incumbents’ staying power was seriously underestimated.

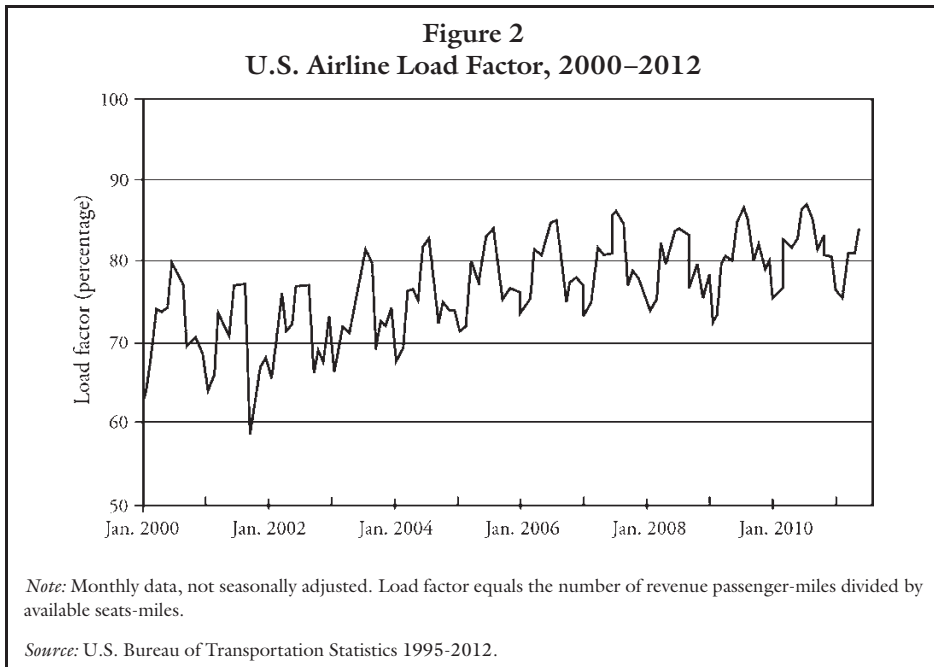
Instead, the legacy carriers were able to use the flexibility afforded by deregulation to reorganize their routes into efficient hub-and-spoke networks. These networks employ “banks” of flights from various origins arriving at a central point at

7. After the recent approval of the merger of USAirways and American Airlines, there are only three survivors of the dozen trunk-line airlines that existed at the time of deregulation. A journal referee noted that Southwest has also absorbed AirTran, another discount airline.

approximately the same time. These “spoke” flights carry passengers with many diverse destinations, which permits the use of larger aircraft to service communities and also provide more frequent service. At the hub, passengers change aircraft to be flown to their ultimate destination along with passengers from other spokes similarly concentrated at the hub.

The reorganization of route structures was not the only measure airlines adopted to increase their operational efficiency. They also increased the daily utilization of equipment so that aircraft were engaged in revenue-generating activities (Bailey, Graham, and Kaplan 1985, 141, table 8.2). Industry load factors increased from 55 percent to more than 60 percent in 1982 (Bailey, Graham, and Kaplan 1985, 136, figure 8.1). Over the succeeding decade, load factors continued to rise, reaching 64 percent in 1993 (Morrison and Winston 1995, 26, figure 2-13). Nor has the trend abated, as illustrated in figure 2.

Figure 2 shows the behavior of load factor over the thirteen-year period between 2000 and 2012. The load factors are monthly figures, not seasonally adjusted. Clearly there is a strong seasonal pattern that mirrors traffic trends. Likewise, the terrorist attacks in 2001 depressed load factor below the traditional seasonal decline in the third calendar quarter. More notable is that once the effects of these attacks were overcome, load factor continued to march upward. Load factors had previously reached 80 percent only in peak travel season. More recently, load factors exceed 80 percent for most periods of the year, except the fourth calendar quarter. Because load factor is an important measure of the efficiency of equipment



utilization, this statistic makes clear that efficiency improvements flowing from deregulation continue.

In addition to these technical efficiencies, which represent a clear social gain, airlines often received concessions on work rules and wages from their employees in the post-deregulation era. These concessions were often negotiated under threat of bankruptcy or during a Chapter 11 bankruptcy reorganization. Indeed, all of the remaining legacy airlines have made one or more trips to bankruptcy court.

On the issue of service quality, there exists a near universal consensus that service quality has declined since deregulation. Although some elements of service quality have markedly advanced (in particular the frequency of flights connecting major metropolitan areas), most measures of service have clearly suffered. For instance, the space between rows of seats (known in the industry as “seat pitch”) has shrunk, making extended trips substantially less comfortable.

Airlines now rarely offer free in-flight meals. The airlines have recently imposed fees for checked baggage. Although these innovations may be irksome to contemporary air travelers, they probably represent a movement toward greater economic efficiency by matching consumer demand for nonessential services with their marginal costs. It is also noteworthy that several attempts to offer “premium” and higher-cost air travel have foundered because consumers overwhelmingly opt for inexpensive flights. Thus, quality defined as comfort and other amenities seems to rank below price for air travelers.

The final issue to consider is the availability of service, particularly for smaller and more isolated communities. Scheduled airline service to smaller communities certainly declined with the Airline Deregulation Act. Bailey, Graham, and Kaplan show that large hubs gained more departures between 1978 and 1981 (1985, 84). However, small-hub and non-hub airports lost approximately one-fifth of their weekly departures, especially direct flights to other small airports. These losses were foreseen at the time of the act, and a ten-year subsidy program was extended to provide service to communities that lost scheduled service as a consequence. There initially were 480 points eligible for service subsidies, excluding Alaska and Hawaii. Presently, only 121 U.S. mainland communities are eligible for service subsidies, which have been extended indefinitely.

Concluding their discussion of the effects of deregulation, Morrison and Winston (1995) offer an assessment of the annual benefits of airline deregulation to travelers. These estimates are based on econometric models, which address the effects of hub concentration, frequent-flyer programs, exploitation of CRS, airline strategic-pricing behavior, and ticketing restrictions. They find that the total consumer welfare benefit from deregulation was \$18.4 billion in 1993 (approximately \$28.6 billion at 2012 prices). The chief components of this consumer surplus gain were lowered prices because of deregulation (\$12.4 billion) and greater flight frequency (\$10.3 billion.) The loss of amenity caused by ticketing restrictions, increased load factors, loss of direct flights, and increased travel time because of the

need to take connecting flights were trivial in comparison to the positive effects (Morrison and Winston 1995, 82).⁸

Conclusion

Given the prominent role in deregulation that this article attributes to Fred Kahn, it might be asked, How can airline deregulation (and other transportation deregulation) be considered a presidential economic policy? It is true that both presidential candidates in 1976 pledged to support deregulation. However, political promises are famously broken after most elections.

When a president makes an actual policy choice as opposed to well-publicized policy announcements, the key question is, what steps are subsequently taken to implement the policy? The appointment of an ineffectual nonentity or a partisan placeholder to oversee an initiative insures the policy will not succeed. This is particularly true in the case of independent regulatory bodies such as the CAB, where the only policy lever a president possesses is control over membership through the appointment process.

The appointment of Kahn, who had already earned a reputation as a precedent-defying regulator at the NYPSC, was a strong signal of President Carter's deregulatory inclinations. The president reinforced this signal by appointing Elizabeth Bailey, another economic scholar firmly committed to deregulation. Furthermore, after Kahn had shepherded the Airline Deregulation Act through Congress, Carter called upon him to undertake additional policy responsibilities. In a letter to the staff at CAB as Kahn departed, Carter himself wrote, "You at the Board have presented my Administration with one of its great success stories" (qtd. in McCraw 1984, 294–95). Of course, Carter's assessment of the success of the policy is not probative. However, three decades of research since deregulation has indicated that the policy did indeed generate substantial benefits for the American economy.

In addition, the deregulatory impulse of the Carter administration did not die with the passage of the Airline Deregulation Act. The Motor Carrier Act and the Staggers Rail Act, both passed in 1980, extended deregulation of entry and rate setting to trucking firms and railroads, respectively. Thus, the Carter administration's deregulatory policies transformed American transportation industries into markets where competition, profit maximization, and entry, not the judgments of government bureaucrats, determined prices and service levels in a large segment of the economy. The benefits of this transformation appear to continue to this day.

8. Both Bailey, Graham, and Kaplan (1985) and Morrison and Winston (1995) devote considerable space to considering the effects of deregulation on airline profitability. Given the pattern of repeated bankruptcy and liquidation that the airline industry has experienced since deregulation, it seems uncontested that firms in the industry were adversely affected by the policy. However, the well-being of firms in an industry is an imperfect yardstick for measuring the effects of a policy. In contrast, the process of competition ensures that poorly managed or merely unlucky firms will exit an industry.

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