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Rural America Benefits From Airline Deregulation, But Less Than Urban America

Rural America has benefited from airline deregulation, but with more mixed results than urban America. Many rural routes were abandoned by the major carriers after airline deregulation, but the commuter airline industry took over most of that service. These rural routes now receive more frequent service, but with smaller aircraft. Fares are down, after adjusting for inflation, for all sizes of communities, although larger cities have access to lower fares than smaller points and the fare disparity is widening. Passenger traffic at some small community airports is down, as rural residents are driving to more distant, larger airports to fly.

The Airline Deregulation Act, signed into law in October 1978, signaled a marked change in Government control of the airline industry. The act removed the CAB's authority to regulate the routes carriers served, effective December 31, 1981. Since then, carriers have been free to serve whatever new domestic routes they wanted.

The act also ended CAB control over prices, effective January 1, 1983. Since then, carriers have been free to set prices as they see fit. This freedom allows carriers to respond quickly to changes in costs, business climate, and competitive pressure.

The act also lets carriers abandon routes virtually at will. The last freedom, however, is tempered by another new part of the law, the "essential air service" (EAS) program, begun in response to congressional concerns that, in liberalizing airline regulation, small communities might lose air service. The EAS guarantees that small communities that had airline service before deregulation would continue to be served by an air carrier for at least the next 10 years. The act directed the CAB to determine what the level of essential service should be for such communities after consulting with community and State officials.

For communities in the EAS program, no air carrier may terminate or reduce air service in a manner that will lower the community's total service below the guaranteed level without filing notice with the Department of Transportation (DOT), as well as the appropriate State agencies and communities involved.

After a notice of intent to terminate or reduce service is filed for an eligible point, DOT must seek a replacement carrier willing to provide essential service for that community. The original carrier must continue to provide essential air service until suitable replacement service is in place. Carriers forced to operate beyond the notice period are entitled to a subsidy to the extent of actual losses. Replacement service can also be subsidized by DOT if no carrier is willing to provide the required service.

In the contiguous 48 States, 468 points were protected under the essential air service program (EAS points) in 1978. As of March 1985, 336 of them had EAS definitions. The remaining 132 points are major cities with no need of EAS protections.

Of the 336 points with EAS definitions, 105 are served by 46 subsidized carriers with a 1986 subsidy of $24 million and an average subsidy per community of $229,000. This represents a major decline in Federal spending, which has been falling steadily since deregulation. In 1978, the last year of regulation, 202 points were subsidized at a cost of $75 million. (The EAS program also covers 45 subsidized points in Alaska and in U.S. territories. This article does not cover the results of deregulation in those areas.)

Deregulation Benefited All Sizes of Communities, Especially Large Cities

Scheduled air service in the United States is provided to over 500 points, but the largest airports, known as air traffic hubs, dominate the system. The 109 air traffic hubs account for 97 percent of the passengers while the other more than 400 airports account for only 3 percent. Residents of both urban and rural areas rely on the 109 hub airports since they include not only major cities like Chicago and New York but also Syracuse, NY, Louisville, KY, Wichita, KS, Colorado Springs, CO, Eugene, OR, and many other mid-sized cities.

Rural residents also have a strong interest in service to the more than 400 smaller points (nonhubs) such as Asheville, NC, Columbia, MO, Grand Island, NE, and Bakersfield, CA. These smaller points,

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though representing only 3 percent of the passengers, still account for over 6 million passengers most of whom live in rural areas.

The changes in the air transport system since deregulation, by hub and nonhub airports, are summarized in table 1.

Deregulation has benefited most U.S. travelers, especially those in major markets. Flight frequency has increased, particularly at large hubs, and prices, though up in actual terms, have dropped after being adjusted for inflation. Traffic for all markets as a group has grown.

Small communities (nonhubs) have experienced more mixed results from deregulation; communities eligible for the EAS program have fared somewhat better than those not eligible. The number of flights has risen slightly at small communities, especially flights to large or medium hub points. The type of service at EAS points, however, has changed as small, propeller-driven aircraft, primarily operated by commuter carriers, have replaced larger, jet aircraft, which have been shifted to major markets. Prices, after adjustment for inflation, have fallen, although less than at larger cities. Traffic at small airports has declined because of the change in the type of service. Many of these airports, served only by commuter carriers, cannot offer online connecting service to a passenger's final destination, so passengers take the commuter plane to a hub airport. But there, they have to deplane, collect their baggage, and board another flight to their final destination. Perhaps more important, better service and discount fares at nearby hub airports have enticed many passengers in rural areas to drive farther to take a plane.

At the non-EAS, nonhub points (149 such points in 1978, 77 now) the decline in service has been dramatic. (Non-EAS points are those that were receiving no service, or service only by commuter carriers when the deregulation act was passed, and are not eligible for an EAS guarantee because they were not listed on any air carrier's certificate.) The decline in service is due mostly to elimination of service at 95 points since deregulation. Reliable traffic statistics are not available for the remaining non-EAS points.

Table 1—Airline service changes, January 1978 to January 1986

Type of airport[1]	Number of points as of Jan. 86	Aircraft departures	Available seats	Average size of aircraft	Average price[2]	Passengers[3]
Hubs	109	Increase	Increase	Decrease	Decrease	Increase
Nonhubs:						
EAS[4]	345	Increase	Decrease	Decrease	Decrease	Decrease
Non-EAS[5]	77	Decrease	Decrease	Increase	Decrease	Not available

[1]Air traffic hubs are cities and standard metropolitan statistical areas receiving aviation services.
[2]Average price comparisons relate 12 months ended September 1985 to 12 months ended September 1979 and factor out inflation.
[3]Calendar year 1984 compared with 1978.
[4]Points with a guarantee of essential air service.
[5]Points not guaranteed essential air service because they were not on the certificate of any carrier when the Airline Deregulation Act was passed.

Source: *Official Airline Guide.*

Table 2—Changes in departures, January 1978 to January 1986

Type of airport	Number of points	Weekly departures		
		January 1978	January 1986	Change
		Number		*Percent*
Hubs[1]	109	94,536	135,694	43.5
Large	23	61,727	90,665	46.9
Medium	33	21,244	30,070	41.5
Small	53	11,565	14,959	29.3
Nonhubs:				
EAS	345	23,264	25,662	10.3
Non-EAS	77	5,167	2,538	−50.9

[1]Airports are grouped into hub classifications depending upon the passengers enplaned at that community as a percent of total passengers enplaned for all operations of U.S. certificated air carriers in the 50 States, the District of Columbia, and other U.S. areas. The current classification of hubs is:

	Percentage of total passengers
Large hub	1.00 or more
Medium hub	0.25 to 0.999
Small hub	0.05 to 0.249
Nonhub	less than 0.05

Source: *Official Airline Guide.*

Number of Flights Rose at Most Airports

Since deregulation, the number of aircraft departures in scheduled service has increased for all communities except the smallest (table 2).

Service at nonhubs showed mixed results. Departures at nonhubs eligible for EAS rose by 10 percent, while departures at nonhubs not eligible for EAS declined by more than 50 percent. The sharp decline in departures at nonhub, non-EAS points resulted primarily from elimination of service at 95 of the 149 non-EAS points, while only 23 new points were added.

The moderate increase in departures at nonhub, EAS points and the decline of departures at nonhub, non-EAS points reflect economic reality. Before deregulation, abundant service with large aircraft was provided at a loss on many short-haul, lightly traveled routes because such losses could be offset by overpricing service on heavily traveled routes. After deregulation, airlines could no longer afford such a strategy. Competition forced

Figure 1
For many rural airports, deregulation brought more flights, but smaller planes

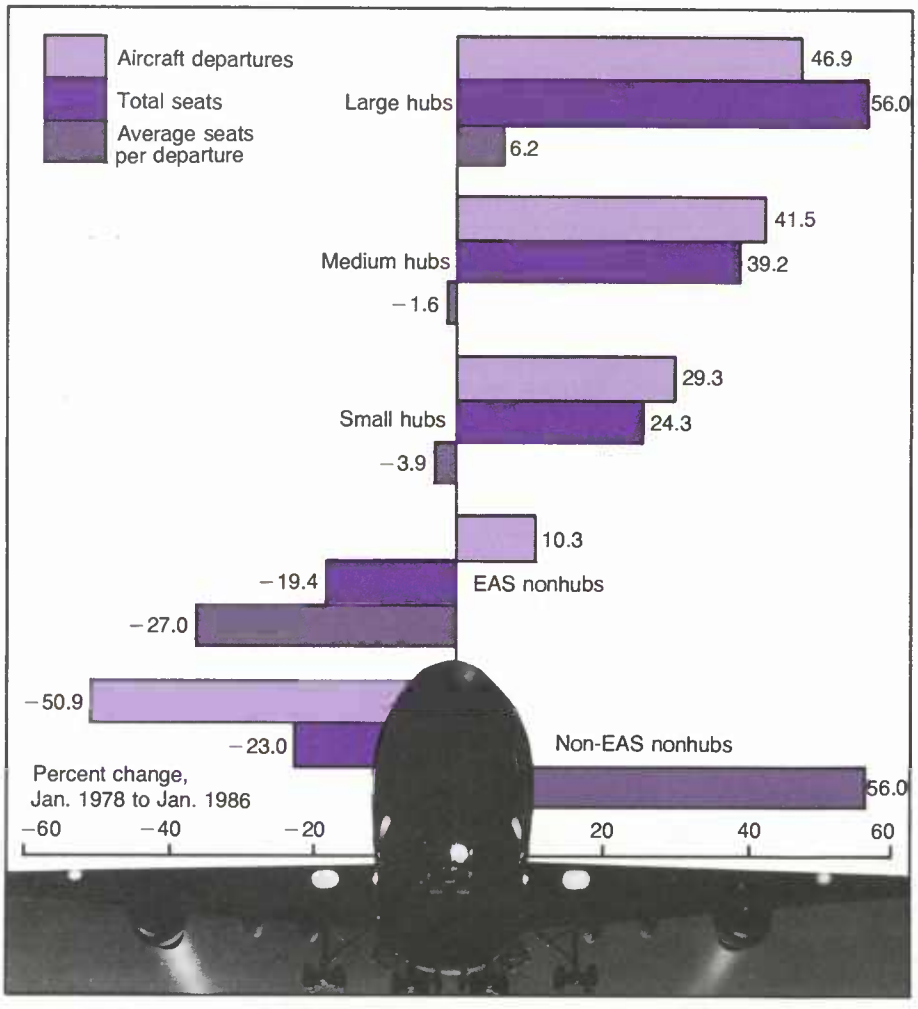
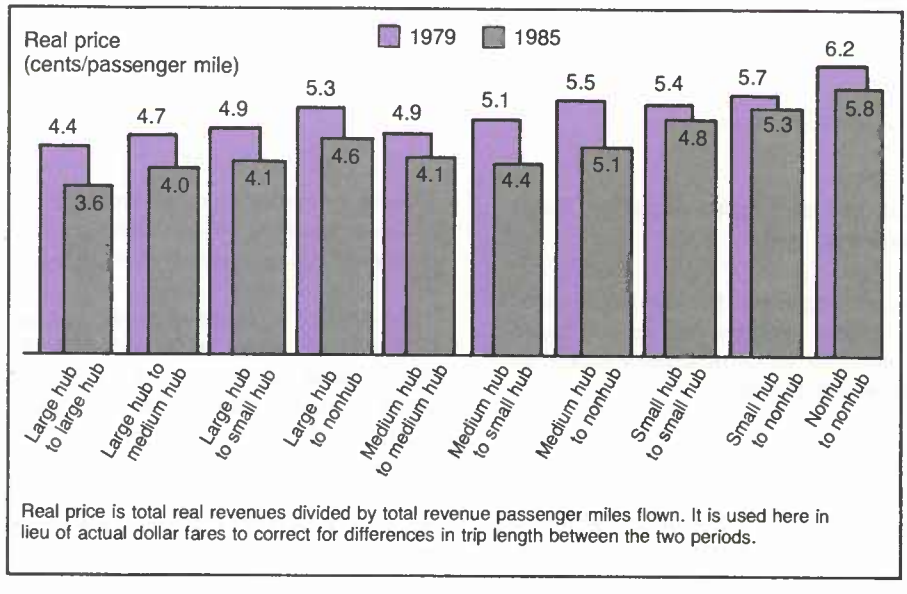


Figure 2
Real prices are down more in the larger markets



Real price is total real revenues divided by total revenue passenger miles flown. It is used here in lieu of actual dollar fares to correct for differences in trip length between the two periods.

carriers to price services more consistent with the costs of providing the services. Airlines, therefore, shifted larger aircraft away from lightly traveled routes to more heavily traveled routes, reduced service at some points, and often eliminated large aircraft service at small points.

Another explanation of reductions in service and, in particular, the elimination of service at many small airports is the availability of other airports nearby. If nearby airports are within driving distance and offer superior service and lower prices, consumers will go there instead. A random sample of six points that have lost service since deregulation shows that all are within 21-128 miles of an alternate airport (25 minutes to 2½ hours away by car).

The number of travelers affected by service reductions at the smaller communities is but a fraction of the total travel market. For example, the 345 nonhub EAS points generate about half the traffic of the 53 small hubs and less than 10 percent of the traffic of the 23 large hubs.

Smaller Airports Now Served by Smaller Planes with Fewer Seats

Like departures, the number of seats offered at large hubs since deregulation has increased significantly, with lesser increases at medium and small hubs (fig. 1). At nonhubs, both EAS and non-EAS seats have declined significantly (table 3).

The changes in seating since deregulation highlight two factors: the shift of large aircraft to larger markets and the penetration of commuter carriers at small points. At the largest hubs, seats increased faster than departures, indicating more extensive use of larger aircraft. At the smaller points, including medium and small hubs, seats increased less than departures, indicating use of smaller aircraft. At the non-EAS points, served by commuter carriers with small aircraft, seats increased both before and after deregulation (table 4).

The change in seating is most dramatic at nonhubs. Even though more planes fly out of EAS-eligible nonhubs, the average number of seats per plane declined markedly both as a result of the shift of large aircraft to bigger markets and the dominance of commuter air carriers.

Table 3—Changes in available seats, January 1978 to January 1986

Type of airport	Number of points	Weekly seats		
		January 1978	January 1986	Change
		Number		*Percent*
Hubs	109	10,145,006	15,154,790	49.4
Large	23	7,028,965	10,965,139	56.0
Medium	33	2,120,709	2,952,778	39.2
Small	53	995,332	1,236,873	24.3
Nonhubs:				
EAS	345	1,130,567	911,336	−19.4
Non-EAS	77	59,698	45,960	−23.0

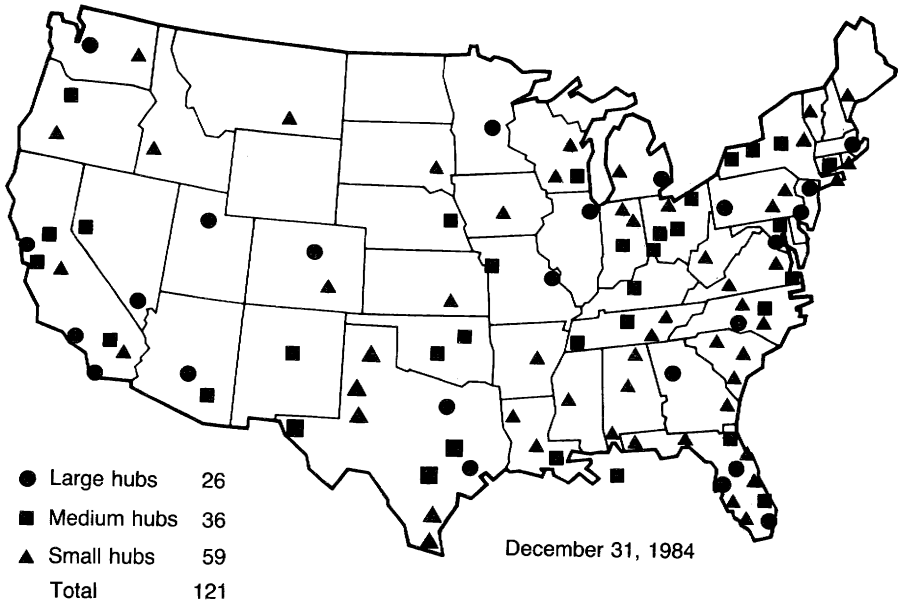
Source: *Official Airline Guide.*

Table 4—Changes in average seats per departure, January 1978 to January 1986

Type of airport	Number of points	Seats per departure		
		January 1978	January 1986	Change
		Number		*Percent*
Hubs:				
Large	23	113.8	120.9	6.2
Medium	33	99.8	98.2	−1.6
Small	53	86.1	82.7	−3.9
Nonhubs:				
EAS	345	48.6	35.5	−27.0
Non-EAS	77	11.6	18.1	56.0

Source: Official Airline Guide.

Air traffic hubs



At many small airports, use of jet aircraft is uneconomical, so carriers either switched to smaller aircraft or abandoned the markets if smaller aircraft were unavailable. To fill this void, commuter carriers with 15-19 seat aircraft have emerged as the principal carriers at the nonhubs. The transition to commuter carriers is most apparent at EAS-eligible nonhubs, since commuter carriers are eligible to participate in the EAS program and are entitled to seek a subsidy to support their operations where necessary. Commuters provide the only service at about 80 percent of the EAS eligible nonhub airports. At the non-EAS nonhubs, commuter carriers have always been the principal carriers.

Real Prices Are Down, But Less Dramatically at Small Airports than at Large

Changes in airline prices since deregulation parallel the changes observed in service. Some small communities have benefited, but not as much as larger communities. Average fares have gone up in all markets since deregulation. However, when the effects of inflation are factored out, real fares have declined in markets of all sizes (fig. 2).

Air transportation, therefore, is a better buy now than before deregulation. The decline in fares was most favorable in major markets such as large-hub to large-hub routes (like New York to Chicago) where fares declined by 17 percent. In the smallest category of markets—nonhub to nonhub (like Bakersfield to Stockton, CA)—fares declined on average by only 7 percent.

Between the two extreme sizes of markets, average fare reductions were greater in the larger markets (table 5). As a result, the spread between the average fare per mile or "yield" of the largest and smallest markets was about 7 cents per mile in 1985 compared with about 4 cents per mile in 1979, a 75-percent increase (fig. 2).

Two factors account for the overall reduction in prices and the increased spread in prices between small and large markets: low-fare carriers and the availability and depth of discount fares. In many major markets, low-cost carriers, like People Express and New York Air, inaugurated service at fares below normal coach fares.

Their low fares in turn forced lower fares by competing carriers. Further, the number and depth of discount fares, at off-peak times for example, or with other restrictions, have increased greatly in direct proportion to the size of market served. That is, large markets have a wider range of discount fares than do small markets. Summing up, the effects of low-cost operators and the variety of discount fares are the primary causes for the differing rates of change in prices between large and small markets.

Another cause for some of the differences in fare changes is the end of cross-subsidy. Before deregulation, carriers tended to overprice in heavily traveled long-haul markets and underprice in lightly traveled markets. This policy was the direct result of CAB fare formulas designed to encourage growth in short-haul and lightly traveled markets. The changes in average price (revenue yield per passenger mile flown) since deregulation reflect a change of the fare structure to remove this bias.

Table 5—Changes in prices, actual and adjusted for inflation

Hub-to hub category	Change in average price, 1979	
	Actual	Adjusted for inflation
	Percent	
Large hub-large hub	23.4	−17.4
Large hub-nonhub	30.2	−12.8
Medium hub-medium hub	24.6	−16.1
Medium hub-nonhub	36.3	−8.8
Small hub-nonhub	38.7	−7.1
Nonhub-nonhub	39.6	−6.5

* Revenue yield per passenger mile flown.

Source: Domestic Origin and Destination Survey and U.S. Department of Commerce.

Background to Deregulation

Economic regulation of the airline industry began with passage of the Civil Aeronautics Act of 1938. The Civil Aeronautics Authority (later the Civil Aeronautics Board), created by this act, was mandated to bring stability to the infant airline industry and to promote the development of a safe and economical air transport system that would provide service as warranted. The Civil Aeronautics Board (CAB) was given control over passenger and freight rates charged by the airlines; routes served by the airlines; mergers, consolidations and acquisitions among airlines; and subsidies paid to the airlines.

The original Civil Aeronautics Act fostered the development of an air transportation system that is unparalleled in the world today. By the 1960's, however, the industry had begun to mature, and the economic community started to question whether the needs for 1938-style regulation still existed. Some argued that continued regulation of the industry produced inefficiencies and resulted in higher prices than if regulations were removed.

The debate over whether to continue or discontinue regulation intensified in the 1970's. Proponents of deregulation contended that increased competition under free market conditions would force airlines to control costs, to match supply and demand more accurately, and to reduce prices. They also argued that other economic inequities, such as long-haul passengers cross-subsidizing short-haul passengers, would disappear.

Opponents countered that while some of the above may be true, this same competition would force carriers out of many markets where service could not be justified strictly on the basis of profitability and force reductions of service and downgrading of equipment in other markets. This type of adjustment would be expected to hit small communities particularly hard. Further, they argued that it was not at all clear whether the structure of the airline industry was such that it would function competitively in the free market. Rather, some believed that under free market conditions, the airline industry would move toward oligopoly (only a few large airlines) or monopoly, with higher rather than lower prices the ultimate result. In any event, the debate over this issue was culminated by the enactment of the Airline Deregulation Act of 1978.

Smaller Airports Losing Passengers

Changes in passenger traffic since deregulation have mirrored the changes in service and price. At large hubs, where flights have increased, aircraft size has grown and real prices have declined. As a result, the number of passengers departing rose by 31 percent, from 179.1 million in 1978 to 233.9 million in 1984 (fig. 3).

At nonhubs eligible for EAS, passenger traffic declined by 11 percent, dropping from 16.4 million in 1978 to 14.7 million in 1984. This decline occurred despite a moderate increase in the frequency of flights offered over this period and a drop in real prices. We trace the decline to the causes discussed earlier, such as the shift of major carriers with large aircraft away from the small markets with replacement by commuter carriers. While commuter carriers offer reliable service, some passengers avoid them because of the smaller aircraft used, coupled with their not providing the same connecting possibilities and price alternatives as major carriers. Those conditions may be changing, however, as more and more commuter carriers become affiliated with major airlines.

Reliable traffic data are not available for the nonhub airports not eligible for EAS. However, it is fair to assume that traffic has declined significantly in this group of markets, particularly since about 95 airports in this category have lost all service since deregulation.

Commuter Carriers Grow in Free Market

As already discussed, one of the chief concerns of Congress in deregulating the airlines was that the airlines would abandon small communities and concentrate their resources on the more heavily traveled, long-haul routes. Anticipating that commuter carriers would have to bear a larger role in providing air service to rural America, Congress expanded the opportunities for commuter carriers to permit them to: (1) participate in the EAS program, receiving subsidies where necessary; (2) participate in the FAA aircraft loan guarantee program; (3) participate in joint-fare agreements with major carriers; and, (4) operate aircraft of up to 60 seats with a maximum payload of 8,000 pounds.

Today's commuter industry got its start in 1947 when the CAB created a new, nonscheduled air carrier category, "air taxis." These carriers were exempt from most regulations as long as they operated aircraft having maximum takeoff weights of less than 12,500 pounds. However, they were required to register with the CAB, to carry passenger liability and personal property insurance, to file their fares, and to report quarterly traffic data. CAB amended its regulations 22 years later to recognize two categories of air taxis: those that operate at least five round trips a week between two or more points, publish flight schedules, and carry mail under contract to the Postal Service, called commuter air carriers, and all other air taxis.

The air taxi industry was of little significance from 1947-69. Only 11 air taxis were registered with the CAB in 1964, for example. But during that period, several technological advances led to the eventual rise of the commuter industry. The introduction of turbojet aircraft in 1958 led to a new type of fleet for the major air carriers. As larger aircraft became dominant in the major carriers' fleets, the economics of serving short-haul, low-density markets became increasingly suspect. Also, in the mid-1960's, the development of the lightweight turboprop engine led to the introduction of aircraft such as the DeHavilland Twin Otter and the Beech 99, which for the first time made available 15- to 19-seat aircraft that were under the CAB's 12,500-pound limitation.

Figure 3
Rural airports are losing passengers

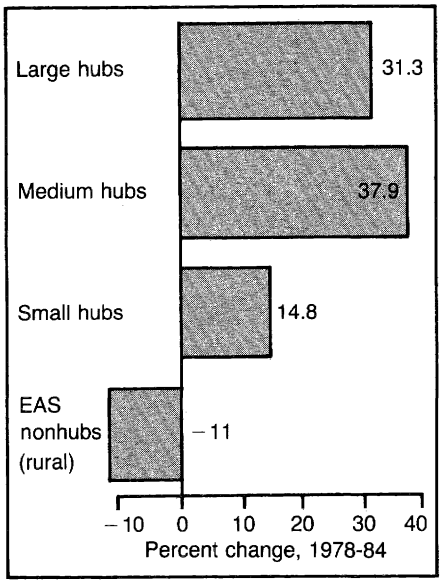
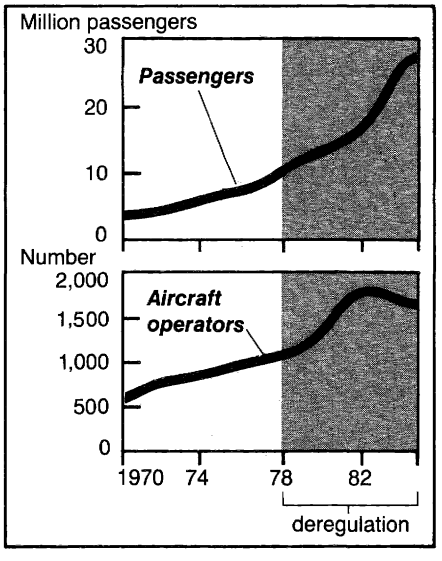


Figure 4
Commuter carriers have grown rapidly, especially since deregulation



These innovations provided the commuters with market opportunities and aircraft that could be flown profitably in low-density, short-haul markets. Commuter carriers continued to grow steadily. From 1970-78, passenger traffic carried by the commuter carriers more than doubled, with the commuters' share of the total domestic passenger market increasing from about 3 percent to 4 percent (fig. 4). Over the same period, the number of passenger and cargo aircraft operated by commuter carriers rose from 687 to 1,200. By 1978, 228 commuter carriers were providing passenger service compared with the 11 air taxis in 1964.

After deregulation, the commuter carriers' penetration into the domestic passenger market escalated even more. From 1978-85, passenger enplanements increased from 11.3 million to 27.3 million and the commuters' share of the domestic passenger market nearly doubled, reaching 8 percent by 1985 (fig. 4). Much of this increase resulted from the expansion of the commuters into markets abandoned by the larger carriers. Other highlights of the commuters' growth during 1978-85 include:

- an increase in average trip length from 121 to 173 miles;
- an increase in average seats per aircraft from 11.9 to 19.2;
- an increase in aircraft use from 1,080 to 1,635 hours per aircraft per year; and,
- an increase in passenger and cargo aircraft operated from 1,200 to 1,745.

The commuter industry registered these gains at the same time it was consolidating its number of passenger airlines—from 228 in 1978 to 179 in 1985.

A recent development that should promote continued growth of the commuter industry as well as provide passengers at small communities with improved service is the trend toward affiliations between commuter carriers and larger airlines. These affiliations, patterned after the USAir (Allegheny) commuter relationship, provide the larger carriers with feeder routes for their long-haul operations. Of more importance, they provide small communities with improved connecting opportunities and more favorable prices, as well as a stability that the commuter industry has often lacked. RDP

For Additional Reading...

Steven Morrison and Clifford Winston, *The Economic Effects of Airline Deregulation.* The Brookings Institute, Washington, DC, 1986.