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The Economic Impact of the Airline Industry in the South

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Introduction

The airline industry serves not just as an economic engine for states, cities and regions, but as a cog in the essential network of transportation within the United States. Furthermore, airlines, with their familiar names and easily recognizable symbols, can bring a sense of unity to the large communities which they serve. The industry creates its impact not just by providing direct employment, but also through the creation of opportunities throughout the travel and hospitality sector of the economy. Jobs in hotels, resorts, restaurants and car rental agencies, just to mention one small part of the economy, depend to differing degrees on the health of the airline industry. Yet the industry finds itself in a very difficult period. With the new focus on homeland security in the United States, exacerbated by war, the terrorist attacks of 2001, a downturn in the economy, and anomalies such as the SARS virus, the airline industry has found itself in a state of turmoil, loss and great trepidation. With the industry especially important to its birthplace, the Southern region, this report highlights the contributions of carriers to local and regional economies and the challenges that face them in Southern states.

Recent headlines concerning airlines have been dominated by tales of layoffs, corporate malfeasance, bankruptcies, severance packages and labor strife. While continuing to struggle financially, airlines are working to resolve issues with unions, cut costs as painlessly as possible, and eventually return to profitability, all while better serving the public. The fact remains that commercial aviation is invaluable to the nation's economy. Airports generate $507 billion each year, nationwide, in total economic activity, creating almost 2 million jobs directly and almost 5 million indirectly in surrounding communities. These employees earn $190 billion a year and generate $33.5 billion in local, state and federal taxes.[1]

How Do Airlines Operate?

The airline industry, which can be difficult to grasp from a theoretical perspective, basically is one in which airlines perform the service of transporting customers (and their belongings or products) from one point to another for a price. There is no physical product or inventory, and making a profit is extremely challenging. Most carriers possess an enormous array of expensive equipment and facilities such as aircraft and hangars. In a very capital-intensive business, most of this equipment must be financed through loans or stock issuance, but leasing remains typical as well. The industry generates substantial cash flow to repay debt and buy new airplanes, which, like most tangible goods, depreciate over time. The industry also is distinguished by the amount of time and effort which must be concentrated on customer service, requiring a high amount of labor. More than one-third of airlines' revenue is consumed by the industry's work force. Labor costs per worker are among the highest in American industry, a result of a long history of federal regulation and unionization. In addition, airlines' profit margins are very thin, with particularly good years bringing a profit of 1 percent or 2 percent. Revenue comes from sources such as passengers (75 percent), cargo shippers (15 percent) and other transport services. About 80 percent of passenger revenue comes from domestic tickets, while frequent flyers, who travel more than 10 times annually, constitute about 40 percent of trips but only 8 percent of the total flying public. Labor costs are the single biggest outlay (35 percent), with fuel second (12 percent) and rapidly rising landing and terminal fees adding up as well.[2]

Where Does the Money Go?

Costs	Percent	Explanation
Flying Operations	27	Fuel and pilot salaries
Aircraft and Traffic Service	16	Cost of handling passengers, cargo and aircraft on the ground and salaries of baggage handlers and agents
Maintenance	13	Parts and labor
Promotion/Sales	13	Advertising and travel agent commissions
Transport Related	10	Delivery trucks
Passenger Service	9	In-flight service, food, drink and attendant salaries
Administrative	6	
Depreciation/ Amortization	6	

table I

Source: Air Transport Association*, Airline Handbook, Chapter 4.*

Table 1 provides a breakdown of airline expenditures, with labor costs spread throughout many of the categories, including flying operations, aircraft and traffic service, and passenger service. Some costs, such as fuel, remain beyond the airlines' control. While companies may contract in advance for cheaper fuel prices and buy in bulk, the market ultimately dictates the price. In addition, many airline employees belong to unions, making salary reduction at best a long and complicated process. Some industry stalwarts, such as American and United, recently have managed to win concessions from their union employees, actions considered key to their survival by analysts.

Pricing

Air travel can be considered a commodity, with the trip being the means to achieve an end, in this case the need to reach a destination. No seat on an aircraft has any value unto itself, and the profit margin per unit remains small. Air travel is not a perfect commodity, however, since airlines have brand names which influence consumers, but price remains a main priority for consumers.

As any avid aviation aficionado knows, fares change constantly, and on any given flight it is highly likely that each individual passenger has paid a different fare for a similar seat. This makes sense when one considers that seats on flights hold different values for different passengers. A vacationer in no hurry to arrive at the beach at a specific time has little incentive to pay top dollar for a business-class fare or a last-minute seat; however, business travelers who learn at the last minute of a cross-continent engagement are more likely to pay whatever fare the airline charges. Airlines must maximize revenue on each flight, avoiding both too few empty seats caused by too little discounting, and selling out all the seats far in advance without the chance for lucrative last-minute sales. This process, called yield management, is managed by highly evolved software programs, but the human element comes into play as carriers have to watch for competitors' discounts. This model, however, has come under increased scrutiny recently as low-fare carriers (such as Southwest and AirTran) have found success using a business model which caps one-way fares at a maximum price of $300 at all times.

Carriers use a number of indicators in order to measure performance. Revenue passenger miles (RPM) refer to one passenger carried one mile, with those using frequent flyer miles counted as well. This also is known as "traffic." Capacity is determined using available seat miles (ASM), which is one seat carried one mile, whether occupied by a passenger or not. The load factor is the percentage of RPMs to ASMs and is used as a measure of efficiency. The break-even load factor refers to the percentage of seats that an airline keeps in service that must be sold at a certain price level to cover cost. Traditionally the break-even point has been around 66 percent, and carriers operate very close to the load factor as a rule of thumb. Finally, yield is passenger revenue for each RPM and is expressed in cents. This is the average amount paid by all passengers.

Fleet planning also plays a major role in carriers' profitability. Airlines have to weigh the cost of new, more efficient aircraft against the older planes which currently comprise a major portion of their fleets. The latter require extensive maintenance and often more fuel, since manufacturers have increased fuel efficiency on newer models. International flights, of course, often require large, widebody aircraft, but that often translates into many empty seats on the less popular routes. In addition, new airplane purchases can take three years from the date of order to delivery, and new models must be ordered by several airlines in order to make production feasible.

Deregulation, which in this case refers to the federal government's decision to allow airlines to set their own pricing policies and route schedules, ushered in a new era of aviation in the United States, beginning in 1978. Since America's emphasis on private business has prevented the country from putting all its aviation eggs in one flag carrier's basket, the success of numerous companies, whether start-ups like Midway or storied giants such as Eastern or PanAm, has depended on the individual corporations' success in dealing with market forces in a rapidly changing aviation environment.

Recent History of the Industry

There has been a great deal of consolidation in the recent history of the airline business. The Douglas and McDonnell corporations merged in 1967, and the resulting McDonnell-Douglas conglomerate was bought out by Boeing in 1997. Three manufacturers have held the lion's share of the market for a long while as well. While these companies were Boeing and Douglas in the late 1960s, the European consortium Airbus is now Boeing's principal challenger.

Until the promulgation of deregulation in 1978, airlines were considered a public utility to be regulated by government, with profit secondary to public objectives. With the advent of deregulation in the late 1970s, three carriers (Braniff, Eastern and PanAm) failed, each for different reasons. Braniff attempted to expand too rapidly, Eastern became the victim of labor upheaval, and PanAm simply operated too few domestic routes to feed its international flights. Continental, on the other hand, filed for bankruptcy in 1983 and re-emerged as a low-fare carrier. Bankruptcy became more commonplace in the 1990s, as 1991 marked the first year of decline in world traffic and began a period of four years during which carriers lost a total of $20 billion, with U.S. airlines accounting for more than half of that figure. In fact, five of the 12 largest U.S. carriers, including Continental, Eastern and PanAm, filed for bankruptcy in this period.

History of Deregulation[3]

Until a mere quarter of a century ago, the airline industry functioned much like that of public utilities, with a federal agency, the Civil Aeronautics Board (CAB), setting routes and fares for each carrier. A sea change in the industry occurred when, after many years of pressure to let the market dictate fares and routes, President Carter signed the Airline Deregulation Act in October 1978. Economists long had noted that fares for unregulated, intrastate flights, for example, between Dallas and Houston, were on average much lower than those for interstate flights of the same distance, and there was growing motivation for the federal government to address this disparity.

Pressure to deregulate came in different forms. As manufacturers such as Boeing and Lockheed developed widebody aircraft, the possibility of increased capacity and, therefore, increased revenue, became a reality on a growing number of routes. The OPEC oil embargo of 1973 resulted in appreciably higher fuel costs and contributed to inflation, which in turn caused a downturn in business and a strain on airlines. In response to this lackluster business climate, the Civil Aeronautics Board allowed carriers to institute higher fares and also started a four-year moratorium on new service authorization. Furthermore, it limited capacity on major routes.

However, all of these reactionary measures proved ineffective, neither pleasing customers nor enhancing bottom lines in the airline industry. Earnings remained poor and fares continued to increase. Prices during the era of regulation remained too high for long flights and too low for short flights, since airlines incur costs not in proportion to miles flown, but rather to the number of takeoffs and landings. This reflects both the slower speeds and increased fuel usage during the beginning and ends of flights as well as the enplanement costs of baggage handling and ticketing. In response to growing pressure, President Ford began to push for reforms in 1974 and was joined by Alfred E. Kahn, chairman of CAB, who argued for greater freedom for airlines to conduct their own affairs. At first, cargo operations benefited most. Congress agreed to allow cargo carriers to run any domestic route at market prices, and after one year new domestic cargo carriers could be certified if they were deemed "fit, willing and able." Easing of these restrictions eventually played a large role in the success of Southern-based companies such as Federal Express and UPS, as express package delivery took off as the industry became deregulated.

The Airline Deregulation Act was signed in 1978, lifting restrictions on domestic routes and schedules. Airlines also were free to set their fares for the first time without government interference. Route and rate restrictions were phased out over a four-year period, but new route authority was granted so quickly that carriers started a multitude of new flights with haste. The CAB's reign over the domestic airline industry ended on January 1, 1985, with some of its functions shifted to the purview of the United States Department of Transportation (DOT). With airlines free to set their own pricing, fares became aligned with costs, and consumers began to pay more for short flights. With each seat carrying a different cost, consumers pay what they think their trip is worth, therefore improving economic efficiency. In the 20-year period from 1978 to 1998, fares increased by only 60 percent, much less than the 150 percent increase in the consumer price index. When adjusted for inflation, fares actually fell by 34 percent during this period. In another important measure, RPMs increased 136 percent during this time, a figure more than double the 61 percent increase in GDP.

Price of Air Travel Growing Below National Average

Product	1978	1990	2001	Growth
College Tuition (index)	59.9	174.9	348.8	5.8 x
Prescription Drugs (index)	61.6	181.7	300.9	4.9 x
Vehicle (new)	$6,470	$15,900	$25,800	4.0 x
Single-Family Home (new)	$55,700	$122,900	$174,600	3.1 x
First-Class Stamp	$.13	$.25	$.37	2.8 x
Consumer Price Index (all items)	65.2	130.7	177.1	2.7 x
Gasoline (gallon)	$.52	$.99	$1.23	2.3 x
Milk (gallon)	$1.71	$2.78	$3.32	1.9 x
Air Travel - Domestic (mile)	**$.08**	**$.13**	**$.13**	**1.6 x**
Eggs (dozen)	$.82	$1.00	$1.08	1.3 x
Air Travel - International (mile)	**$.07**	**$.11**	**$.10**	**1.3 x**

table 2

Source: Air Transport Association. *U.S. Airlines: the Big Picture*, October 17, 2003.

As shown in Table 2, starting at the same base in 1978, inflation has increased at a rate of three times that of yield on domestic airfares, making them effectively three times cheaper than they were in the late 1970s. Only the humble commodity of eggs has managed to stay as cheap as air travel during the same time period.

The airline industry has grown considerably since deregulation took effect. In 1978, only 43 carriers operated within the United States, while by 2002, the number had more than doubled. Furthermore, in 1978, only two-thirds of passengers had a choice of two or more carriers. That amount has reached 85 percent. There has been a striking increase in competition in small and medium-sized markets. In real terms, fares have decreased more than 35 percent since 1978, reaching prices low enough to threaten bus and train service. The Brookings Institute has estimated that the public savings as a result of deregulation come to $40 billion annually. Discount fares began with this competition, and now only 10 percent of travelers fly on full-fare tickets. In 1977, U.S. carriers flew a total of 240 million passengers. By 1999, this number had risen to 640 million, and 80 percent of the U.S. population had taken a commercial flight at least once. Airline frequent flyer programs, computer reservation systems and codesharing (airlines purchasing seats on each other's systems) also have contributed greatly to the surge in commercial air traffic.

Scheduled Departures and Arrivals Passenger and Cargo

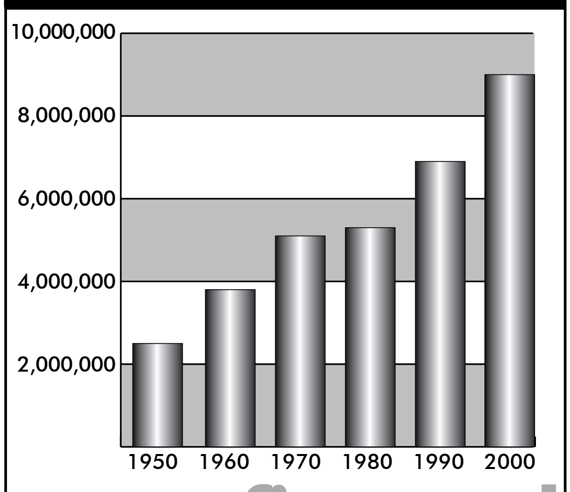


figure 1

Source: Air Transport Association

Figure 1 illustrates the steady expansion of aviation's importance to the U.S. economy, with approximately 90 million departures in 2000, the year that marked the apex of the industry. This marks an approximate 400 percent increase over 1950 departures, when the industry was still in its infancy.

It is important to note that much of the airline industry is not entirely unregulated. For example, safety regulations continue to be enforced by government agencies and landing rights in foreign countries still are regulated, with international air service normally determined by air-transport service agreements such as Open Skies treaties. Such negotiations are led by the U.S. State Department, with participation from the federal DOT. The 1990s, an era of international liberalization in global markets and business, saw stunning growth in international air traffic, more liberal trade policies and global alliances. As of March 2004, the United States had signed 61 Open Skies agreements, which are an exchange of traffic rights, without any limitation on routes, number of carriers or capacity. Regarding countries with which the United States does not have such treaties, the DOT must decide which carriers win rights to serve these lands. Overseas, the European Union is entering a period similar to that faced by the United States 20 years ago, with some national "flag carriers" allowed to fail and possibly a great deal of consolidation around the corner.[4] Asia is considered to be about two decades away from the level of air travel now common in the United States and Europe, and many countries, such as Brazil and China, still support restrictive flight arrangements in order to protect their flag carriers.

The Current Model

In recent years much aviation discussion has centered on the survival of the hub-and-spoke system, by which airlines establish centers of transport in major airports through which passengers from smaller markets may connect to their final destinations. Hubs serve as transport points for passengers and cargo arriving in banks of flights scheduled according to greatest ease of transfer. This system enables carriers to serve more markets than they could if they operated flights on only a point-by-point basis. When carriers fill a greater percentage of their seats, an occurrence made more frequent in small, "spoke" markets with service to larger hubs, lower operation costs and fares follow. Successful hubs usually have significant origin and destination traffic, meaning passengers start or end their journeys at these airports. Examples in the Southern region include Atlanta, which is Delta's main hub, Houston (Continental), Charlotte (US Airways), Memphis (Northwest) and Dallas (American Airlines). Hubs existed on a limited basis before 1978, when deregulation took hold, but grew rapidly afterwards. Advantages include: service to more international and domestic destinations; more structured service through flight banks; and more same-day return trips, the latter of which reduces business costs by cutting time spent traveling and decreasing hotel costs.[5] Table 3 outlines each of the six traditional hub-and-spoke carriers' hubs.

Hub-and-spoke Carriers and Their Hubs

Carrier	Main Hub	Secondary Hubs
American	Chicago O'Hare and **Dallas/Fort Worth**	**Miami, St. Louis***
Continental	**Houston Bush Intercontinental**	Newark, Cleveland
Delta	**Atlanta**	**Cincinnati/Northern Kentucky,** Salt Lake City**, Dallas/Fort Worth**
Northwest	Detroit Metro	Minneapolis, **Memphis**
US Airways	**Charlotte**	Philadelphia, Pittsburgh
United	Chicago O'Hare	Denver, **Washington Dulles**, San Francisco, Los Angeles

table 3

Bold - Hub airports located in the Southern region - * American Airlines' St. Louis hub has been greatly downsized.

Each traditional carrier maintains at least one hub in the Southern region, and Delta has three: Atlanta, Dallas/Fort Worth and Cincinnati/Northern Kentucky. Because of their central locations, some cities with relatively small metropolitan populations have served and continue to function as hubs. Examples include Pittsburgh, Memphis and Cincinnati. Analysts usually conclude that cities with a large corporate presence and large populations function best as hubs, yet not all survive. In recent years Raleigh-Durham and Nashville (American), Columbus, Ohio (America West), Indianapolis (US Airways) and St. Louis (American/TWA) have lost coveted hub status. St. Louis, once home of TWA, retains limited connecting service, but American has moved most service to Chicago and Dallas/Fort Worth. What remains in St. Louis comprises mostly smaller regional jet service. In the Southern region, both Memphis and Charlotte, with relatively small metropolitan populations, could be in danger of losing hub status in the future.

Airports

More than 18,000 airports, enplaning a total of 30 million passengers per year, operate in the United States. Of these airports, more than 3,000 are part of national airport systems and are eligible for federal aid. Figure 2 shows the sources of revenue for airports in the United States, where user fees generated from travelers constitute the bulk of funds. In most countries, airports are owned and maintained by national governments. In the United States, all airports are publicly owned, but employees of private sector companies constitute 90 percent of airport workers. Airports are funded largely by tax-exempt bonds, which are secured by future airport revenue and subject to the scrutiny of credit-rating agencies. Contrary to public opinion, general fund tax dollars do not fund airports, which are supported directly or indirectly through revenue from airlines, passengers, vendors (who pay rent for their sales space) or earmarked use taxes. The logical progression, privatization, has been attempted in few countries, although experiments in the United Kingdom have created some profitable privately held airports.

U.S. Airport Sources of Revenue

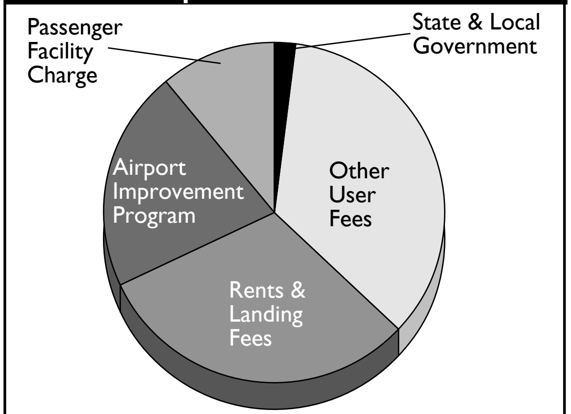


figure 2

Source: Air Transport Association

Taxes and fees constitute a growing portion of the price of a plane ticket. The Airport Improvement Program, administered by the Federal Aviation Administration, provides grants for airports through user fees, such as: a 7.5 percent domestic ticket tax; a $2.50 per passenger per segment fee; a $12.00 international arrival tax and $12.00 departure tax; a 6.25 percent tax on domestic freight and a 4.3 percent domestic fuel tax. Figure 3 shows how the percentage of a ticket's price constituted by taxes has risen about 300 percent in the last 30 years. These taxes are detailed in Table 4.

Because many of the fees are fixed amounts, tax as percent of the ticket prices decreases inversely with the price of the ticket. Tickets requiring connections are taxed more heavily since the fixed fees are applied once for each connection, bringing the percent of tax on a two-connection roundtrip ticket of $100 to almost 50 percent in 2002.

Percentage of Plane Ticket Constituted by Taxes and Fees

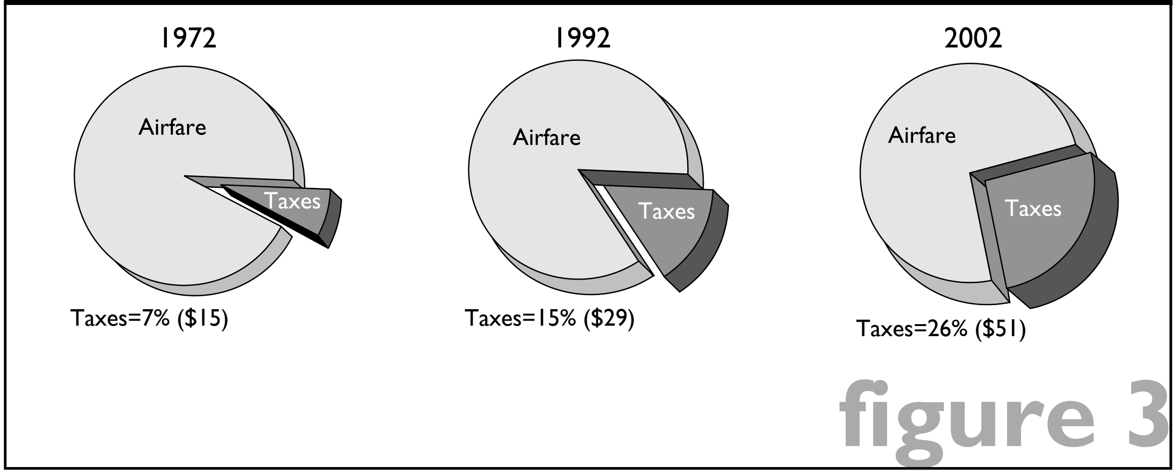
Nonstop Roundtrip with Maximum Passenger Facility Charge (PFC) of $4.50

Total Ticket Price	$100	$200	$300	$400	$500
Base (Airline) Fare	74.42	167.44	260.47	353.49	446.51
Federal Ticket Tax	5.58	12.56	19.53	26.51	33.49
Federal Flight Segment Tax	6.00	6.00	6.00	6.00	6.00
Federal Security Surcharge	5.00	5.00	5.00	5.00	5.00
Airport PFC	9.00	9.00	9.00	9.00	9.00
Total Taxes and Fees	$25.58	$32.56	$39.53	$46.51	$53.49
Taxes as % of Ticket	25.6%	16.3%	13.2%	11.6%	10.7%

table 4

Source: Air Transport Association, *Ticket Tax Illustration*, accessed from Web page *www.airlines.org* on February 16, 2004.

Taxes as a Percentage of Airfare 1972, 1992, 2002



Based on a $200 single-connection round trip with maximum PFC.
Source: Air Transport Association, *U.S. Airlines: The Big Picture*, October 17, 2003.

Essential Air Service

Prior to deregulation, carriers' operating certificates required them to schedule two daily roundtrips at each point in their network, bringing guaranteed service to smaller communities. After deregulation, no legal requirement for inefficient service remained. However, the Department of Transportation administers a program, Essential Air Service (EAS), which ensures such service. The minimum level of service at each eligible town is determined by DOT by specifying its hub connection, the number of roundtrips per day, with three being the norm, the kind of aircraft and the number of intermediate stops, if any, before returning to the hub.

This program faces challenges from the current administration. President Bush's budget for FY 2005 calls for eliminating EAS funding to 23 airports. This funding would end in October 2004, if approved. Communities would lose eligibility if they are located within a 100-mile driving radius of a medium or large hub, or if the subsidy per passenger exceeds $200. As of June 2003, 18 SLC communities enjoyed the benefits of the Essential Air Service Program. Table 5 provides details about these communities' participation.

SLC Communities Participating in the Essential Air Service Program June 2003			
Community	**Carrier**	**Hub Airport**	**Subsidy**
Muscle Shoals, AL	Mesaba	Memphis	$1,284,408
El Dorado/Camden, AR	Mesa	Dallas	$898,283
Harrison, AR	Mesa	Dallas	$989,018
Hot Springs, AR	Mesa	Dallas	$989,018
Jonesboro, AR	Mesa	Dallas	$898,283
Athens, GA*	Air Midwest	Charlotte	$392,108
Owensboro, KY	Corporate	St. Louis	$1,032,673
Laurel/Hattiesburg, MS	Mesaba	Memphis	$1,056,991
Cape Girardeau, MO	Corporate	St. Louis	$990,694
Fort Leonard Wood, MO	Corporate	St. Louis	$885,918
Kirksville, MO	Corporate	St. Louis	$968,249
Enid, OK	Mesa	Dallas or Denver	$977,302
Ponca City, OK	Mesa	Dallas or Denver	$977,302
Jackson, TN	Corporate	St. Louis	$1,156,325
Brownwood, TX	Mesa	Dallas	$964,677
Victoria, TX	Express Jet	Houston	$1,269,675
Beckley, WV	Colgan	Pittsburgh	$1,033,847
Princeton/Bluefield, WV	Colgan	Pittsburgh	$1,033,847
Lewisburg, WV	Mesa	Washington Dulles	$540,579

table 5

Source: United States Department of Transportation. From the Web site: *http://ostpxweb.dot.gov/aviation/rural/ruralair.htm*, accessed April 22, 2004.
*Updated in March 2004.

Airlines have been cutting back on small-town service, a measure which tends to have a negative impact on local economies. Since August 2001, 22 airports that once averaged at least one departure per day have lost all service, while 101 others have seen declines of more than 30 percent. When faced with inconvenient departure times or higher fares, travelers drive to larger airports for less expensive, more manageable flights. On the other hand, less activity means less federal assistance, since per-passenger costs greater than $200 exceed limits approved for the Essential Air Service Program. For example, in 2001, US Airways contract carrier Mesa raised fares and reduced service from the smaller community of Hickory, North Carolina, to the hub in Charlotte. Confronted with higher prices and fewer flights, passenger demand diminished, and all service ended in April 2002. On the other hand, San Angelo, Texas, has experienced a reversal of fortune, as competitor SkyWest has moved in to take on long-time carrier American Eagle on the route to Dallas/Fort Worth. As a result, fares have dropped 40 percent.[6]

Airline Employment Down

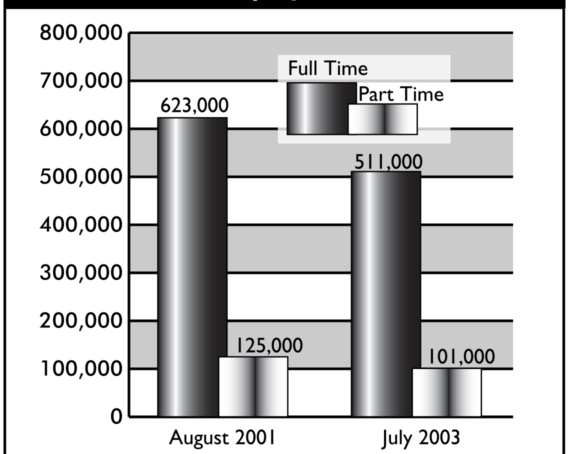


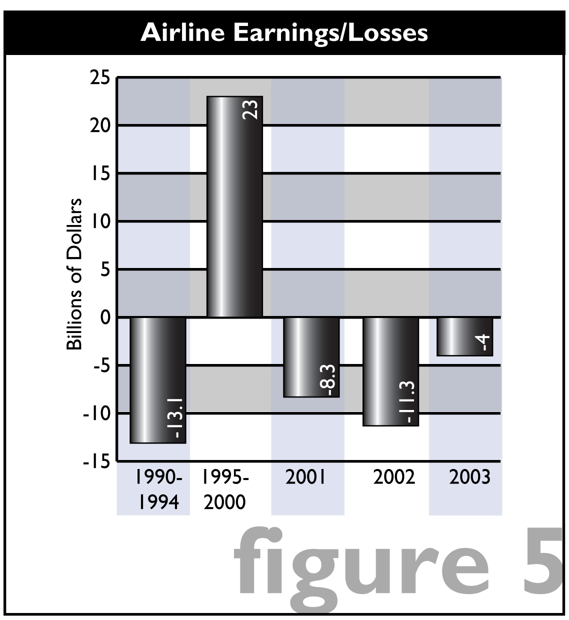
figure 4

Source: DOT Employment Report and Air Transport Association, 2003.

Crisis in the Airline Industry

As a result of the terrorist attacks of 2001, the war in Iraq and a contracting economy, demand for airline services decreased significantly in the time period between September 2001 and the first quarter of 2004. High fixed costs limit what airlines can do to extricate themselves from the economic doldrums. Equipment costs cannot be changed, and labor costs may be reduced only through layoffs or lengthy labor negotiations. Carriers already have cut approximately 100,000 jobs, eliminated flights, closed reservations offices and call centers, retired aircraft and otherwise reduced operating costs, yet business still is not on par with pre-2001 levels. In fact, one can reasonably argue that the current set of circumstances is not completely the result of normal market forces, but rather non-market pressures such as the public mood, war and a continued threat of terrorism. Figure 4 demonstrates the decline of the industry's labor force, with full-time employees decreasing 18 percent over a two-year period.

Consumers certainly cannot use price as an excuse not to fly. One jarring statistic shows that 2003 airfares were on average cheaper than they were in 1988 in nominal (not inflation-adjusted) dollars. The industry also has been adversely affected by high taxes which, in 2003, were 76 percent higher than in 1992. In addition, every one-cent increase in fuel expenses costs the industry $180 million annually. A return to prosperity cannot be counted out, however. The industry confronted a similar, although clearly less dismal, situation in the early 1990s, when recession and the Gulf War led to four years of losses totaling more than $13 billion. After recovery, growth during the rest of the decade led to cash reserves in the industry of $11 billion at the end of the first quarter of 2001. Fortunes turned in the two years following September 2001.



Source: Air Transport Association

Figure 5 illustrates the financial condition of the industry measured by profits and losses over a 14-year period. Losses have stabilized since 2002, but profits similar to those in the last half of the 1990s are not on the horizon.

From September 2000 to September 2002, the big six traditional carriers (American, Continental, Delta, Northwest, United and US Airways) reduced operating expenses by $4.5 billion (5 percent); capital spending by $5.6 billion (47 percent); capacity by 100 billion ASMs (13 percent); mainline fleets by 240 aircraft (7 percent); and labor by 70,000 employees (16 percent). These cuts have had profound effects outside the industry as well. Each job in the airline field leads to the creation of 15 jobs in the broader economy; however, in the first three months of 2003, United lost $1.3 billion, American $1 billion and Delta $500 million.[7] Losses of $166 million (American), $320 million (Northwest) and $383 million (Delta) followed in the first quarter of 2004.

In 2000, the impact of civil aviation on the economy accounted for 9 percent of GDP and 11 million jobs. Commercial aviation was responsible for $800 billion directly and indirectly, so one could easily argue that the U.S. economy relies heavily upon a smoothly running airline industry. The state of the airline industry is improving somewhat but many challenges remain. The $7.7 billion loss in 2001 largely was a result of diminished demand, enhanced security costs, discounted prices (which persist), and high fuel prices (which also are still a factor). Cargo volumes began to recover more quickly but still lag. Airlines' break-even load factors, the point at which costs are covered and profits begin, rose steeply and, to combat this, airlines reduced capacity. Less demand from business travelers and the increased use of lower-priced, restricted fares resulted in a 22 percent decrease in business revenue in the period from January 2002 to September 2002. The percentage of tickets sold to business travelers flying without advance reservations dropped from 20 percent in 2000, to 13.5 percent in the first half of 2003 as well.[8] In addition, federal taxes and fees combined to constitute up to 25 percent of a low-priced ticket.[9]

The traditional carriers (those which used a hub-and-spoke system) have suffered particularly, with industry giants such as United and American forced to file for bankruptcy or approaching the brink of insolvency. The largest six traditional, hub-and-spoke airlines lost more than 15 million passengers in the two-year period ending in September 2003, while low-cost carriers such as Dallas-based Southwest and Orlando-based AirTran held steady. The legacy carriers have slashed their domestic operations by almost 20 percent since September 2001. Chicago-based United, the world's second-largest airline, has cut 1,800 pilots and 5,464 flight attendants since September 2001 and reduced its capacity almost 25 percent in the same period. However, it has discontinued only 15 routes since declaring bankruptcy in December 2002 while adding 12. This has raised questions about how it has chosen to respond to the calamitous economic times, but carriers have found that it makes economic sense to continue to fly marginally profitable routes because of the fixed costs of owning or leasing their jets.[10] United has decreased available seat miles by 7.5 percent, much less than Delta's 9.2 percent or US Airway's 11.9 percent. The Chicago-based company's record-setting $431 million loss in the second quarter of 2003 was somewhat mitigated by employee wage concessions. At the same time, restructuring routes poses quite a challenge because the removal of one flight from a hub to a secondary market affects the carrier's entire network by eliminating numerous possible flight combinations.

The industry has been experiencing a trend in which, driven by the weaker economy, security fears and other matters, fewer people are flying, and those that do board airplanes pay less per person. Carriers can no longer depend on business travelers to pay full fares or fill up lucrative business-class seats. This combination is a recipe for decline in the industry, and it is being felt in a decrease in service not just to smaller and medium-sized airports, but even in the largest facilities, and analysts expect only the best-performing hubs to survive. Consolidation will most likely take place through code-sharing arrangements among competitors, such as the programs offered by Delta, Continental and Northwest, in which customers may buy seats on any of the competitors' routes covered by the code-share. Since these carriers' central hubs are located within relatively close proximity of one another, their weakest hubs could potentially lose their status. In addition, fare wars on popular and profitable routes result in traditional carriers reducing prices and losing money, and the loss of rural service means that regional carriers may well stop flying point-to-point and will focus on providing contract service for larger carriers.[11]

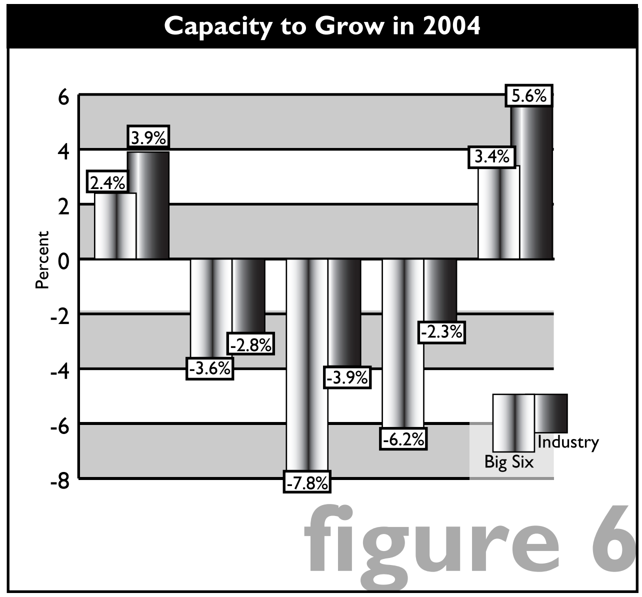
Recovery?

Analysts expected a recovery in 2004 after some improvement in 2003, but initial reports look bleak. Industry losses in 2003 shrank to about $5 billion from $11.3 billion in 2002, but U.S. carriers have not seen a profitable year since 2000, when reported earnings reached approximately $2.5 billion. Furthermore, total domestic passenger traffic is not expected to return to the level of the year 2000 until 2008. Anticipating that fewer available seats would translate into passengers willing to pay higher fares to be able to fly conveniently, carriers, led by American and United, began cutting capacity as much as 15 percent. Airlines were expected to reverse this trend and restore about 5 percent of this capacity in 2004, depending on an improving economy. Of course, competitors such as Southwest have moved in to capitalize on growth opportunities as larger carries have cut costs, but hub carriers have fought back by responding with low fares on routes such as Atlanta to Los Angeles or San Francisco, which both have been contested by AirTran after years of few options for customers. Also, consumers simply are refusing to pay higher prices after becoming accustomed to low fares, making covering costs extremely difficult for the airlines. Low-fare carriers continue to make headway, carrying 22 percent of domestic passengers in 2003, compared with 16 percent in 2000.[12]

One arena remains almost entirely the realm of the hub-and-spoke airlines, however. Traditional carriers still maintain a clear advantage in international flights, since low-cost carriers rarely venture beyond the U.S. borders. This means carriers such as Delta and Continental compete only with each other and foreign carriers. American, which offers more flights to Latin American than any other U.S. carrier, expanded its service in South Florida in November 2003, with many of the newly offered flights routed to Latin America and the Caribbean. Continental began offering more flights to Mexico in spring 2004, while Delta is adding five daily flights to European destinations, a market in which airlines have seen a 17 percent drop in passenger traffic since 2000.

On the other hand, the top six low-fare carriers enjoyed an increase of 17 percent in passenger traffic in the first half of 2003 over the same period in 2002. JetBlue's national market share almost doubled, increasing to 2.3 percent from 1.3 percent, with much of this business drawn from still larger competitors. The six largest traditional carriers experienced a 3.2 percent drop in domestic traffic in the same period, with capacity decreasing 5.5 percent. Low-fare carriers now account for nearly a quarter of domestic passenger traffic, and analysts expect this market share to increase to as much as 35 percent by 2010. The most famous of the low-fare carriers, Dallas-based Southwest, now ranks fourth in RPMs, while keeping costs at a fraction of those of the top three carriers. Other such carriers profited as well. AirTran saw a 25 percent increase in traffic in the first half of 2003, while JetBlue grew 76 percent. Giants such as Delta and American, the latter of which competes with low-fare carriers on more than 80 percent of its routes, have seen fares reduced to 15-year lows, and their high cost structures make competing with the likes of Southwest rather challenging.[13] Low-fare carriers continue to make money by operating only the most profitable routes and by increasing service at smaller, less crowded, alternative airports such as Fort Lauderdale (rather than Miami). In addition, traditional carriers find themselves hamstrung by the longevity of their labor forces, which means larger salaries and more benefits for their employees and less flexibility to offer low fares.

Even as air traffic has dwindled, construction has continued on new runways and terminals around the country. Before the economic downturn, overcrowding was rampant in U.S. airports, with delays the norm, and airports were given the green light to expand. As travel curtailed, construction continued, with airports loath to abandon expansion projects once they have begun, counting on new facilities to encourage future growth and fearing that permission to expand will not be granted again in the future. Even as American pulled away from its St. Louis hub, Lambert International Airport pushed ahead with a new $1.1 billion runway. Atlanta's Hartsfield/Jackson Airport is building a fifth runway and a new international terminal at a cost of $5.4 billion. Chicago O'Hare is planning a $6.6. billion expansion with a new runway and the relocation of three others, and



Source: Goldman Sachs Research estimates - October 2, 2003; Air Transport Association.

Cincinnati, Delta's second hub, is moving ahead with two projects which were approved after September 2001, including the addition of a runway and a rail system. Cincinnati is one of the few U.S. airports to experience growth in the last two years, with passenger traffic increasing 3 percent in the two-year period from May 2001 to May 2003.[14]

Major carriers expected substantial growth in 2004, with American originally planning to increase capacity by 6 percent, significantly more than the 4-percent expected increase throughout the industry. Initial projections showed that low-fare carriers could grow by as much as 10 percent, and regional airlines by 30 percent, but this is no longer likely to occur. Figure 6 shows projections made in late 2003. This projected growth was not expected to come through more domestic flights and increased expenses, but rather by improving efficiency, as, for example, American adds seats to its planes, restores international flights and uses its fleet in a more efficient manner. As of May 2004, carriers had revised their projections downward to reflect continued high fuel costs.

While it appears that phenomenal growth will not occur in the short term, carriers have seen some recent successes. Carriers are streamlining their hub operations and their airplanes are spending more time in the air, with less down time on the ground.[15] In addition, total passenger enplanements are expected to increase to over 1 billion by 2013, an increase of 46 percent over 2001. From

1997 to 2000, growing congestion issues, delays and cancellations were the result of 10 percent growth in enplanements, with more seats and flights added to answer consumer demand. Domestic enplanements on large commercial jets and regional carriers increased from 575 million in 2002, to 587 million in 2003, a 2.2 percent rise which returns the industry to 1998 levels. Regional carrier enplanements rose by almost 19 percent. Additionally, domestic commercial air carriers reported operating losses of a combined $5.3 billion in 2003, only half of 2002's disastrous losses of $10.5 billion.[16]

However, factors such as the continued high price of jet fuel, the lack of a quick economic recovery, low-fare competition and increased capacity have conspired to keep costs high and ticket prices low, therefore impeding the chances of an industry breakthrough in 2004. Jet fuel has remained between $1.10 and $1.29 per gallon in the first quarter of 2004, more than double the price the industry paid in 1998 and 1999. Carriers' attempts to pass on to consumers the increased cost of fuel have been rebuffed as some airlines have refused to match higher prices. With jet fuel constituting the second-largest industry expenditure (after labor), high prices make it likely that the industry will continue to lose money in 2004, to the tune of $2 billion. While only half of the losses of 2003, this amount will disappoint many who expected a full-scale recovery.[17] Higher jet fuel costs and continued labor obligations make profitability difficult even for carriers that have been cutting aggressively. American's unit costs in the first quarter of 2004 decreased 17 percent compared to the same period a year earlier, and the company projects that they will be 8 percent lower for the entire year. Yet the carrier posted a loss of $166 million (a remarkable improvement over the $1 billion lost in the first three months of 2003) in the first quarter of 2004. Northwest flew 228,000 more passengers, increased revenue per seat by 12 percent, and its regional jet operations were 25 percent more profitable, but high fuel and labor costs negated these gains, and the carrier lost $320 million. Table 6 provides a breakdown of the country's largest carriers, ranked by 2003 revenues.

Airline Industry Ranked by 2003 Revenues

Airline	Fortune 500 Rank	Revenues ($ million)	% Change from 2002	Profits ($ million)	Employees	% Change from 2002
American	110	17,440	1	(1,228)	96,400	(9)
United	145	13,724	(4)	(2,808)	63,000	(13)
Delta	150	13,303	(0)	(773)	70,600	(6)
Northwest	207	9,510	0	248	39,100	(12)
Continental	231	8,870	6	38	37,680	(14)
US Airways	276	6,846	(2)	1,461	31,700	(15)
Southwest	310	5,937	8	442	32,847	(3)

table 6

Source: *Fortune Magazine*, April 5, 2004.

Alabama

Alabama is home to four major passenger airports, located in Birmingham, Huntsville, Montgomery and Mobile, with each bringing economic benefits to its surrounding areas and to the state. Montgomery's Dannelly Field, with a payroll of $435 million and indirect employment of 15,855 persons, is responsible for $1.32 billion per year in economic activity.[18] Mobile Regional Airport received a grant worth more than $450,000 from the U.S. Department of Transportation in 2002 as part of the Small Community Air Service Pilot Development Program. The Mobile area also is served by the Gulfport, Mississippi, and Pensacola, Florida, airports, and almost two-thirds of the Mobile airport's traffic comes from Mobile and Baldwin Counties. Traffic is dominated by Delta and its Atlantic Southeast Airlines (ASA) subsidiary, which operate 26 of the airport's 44 available flights.

Huntsville's airport has seen the construction of a new lobby and a six-level parking deck to accompany its 85 daily flights with nonstop service to nine hubs, including Atlanta, Charlotte and Detroit. The airport offers nonstop flights to 12 markets, with Washington, D.C. being the most popular destination due to the city's ties to the aerospace industry. An economic impact study from 1996, which, while dated, demonstrates the sizeable impact of the airport on the region, shows total employment was nearly 26 percent higher and total payroll more than 78 percent larger than in 1988. The study revealed that 28 percent of the employees of firms and agencies located around the airport lived outside the Huntsville area, therefore spreading the economic benefits of the airport throughout northern Alabama and southern Tennessee. As of 1996, airport tenants and nearby businesses employed nearly 15,000 workers, earning a combined $600 million. Even with the downturn in business since then, one could reasonably expect an increase in these numbers in the last eight years. The total multiplied impact showed employment totaled almost $1 billion, so the impact of the airport on the region cannot be overlooked.[19]

Alabama's largest passenger airport, Birmingham International, served more than 2.6 million passengers in 2003, a slight decrease from its peak of 3 million in 2000. Oddly, traffic decreased by 5 percent from 2002 to 2003 as well, but officials again expect to surpass the 3 million mark soon. The airport handles 160 daily flights to 54 airports in 51 cities every day, with eight major airlines operating at 19 gates. Minneapolis, served by Northwest, is the newest addition to the roster of 25 cities with nonstop service to and from Birmingham. Others include Phoenix, Las Vegas and Philadelphia, as well as all major hubs and many other large cities in the South and Midwest.

Birmingham's Airport Authority is in the midst of the implementation of a $43 million plan to add 2,000 feet to one runway, which would accommodate fully loaded 747s taking off for a nonstop transatlantic flight. This will enhance the city's ability to provide overseas passenger service and, perhaps more importantly, air cargo service to the state's and region's automotive industry.[20]

Arkansas

The state's largest airport, Little Rock National, serves major cities including Atlanta, Houston and Los Angeles. Arkansas' fast-growing Bentonville-Rogers-Fayetteville conurbation is served by Northwest Arkansas Regional Airport, and much of the eastern part of the state lies within a reasonable distance of Memphis International.

Little Rock National employs about 3,500 Arkansans, with a payroll of about $40 million each year, and the direct economic benefit of the airport's activity is estimated at $263 million annually. More than $170 million in capital improvements were made in the 1990s, when the airport handled a total of 23.3 million passengers.[21] The airport offers 67 daily departures to 17 airports in 15 cities.

Like most other airports in the region, Little Rock faces challenges. Southwest Airlines closed its reservations center in February 2004, with its employees given the option of moving to other call centers, including those in the Southern cities of Oklahoma City, Houston and San Antonio. This action affected more than 700 employees in Little Rock and reflected the growing popularity of online booking, with more than half of the carrier's tickets now purchased over the Internet. Since 1998, Southwest's fleet has grown 50 percent, but the volume of calls to its call centers has fallen by one-third. Southwest now accounts for 35 percent of Little Rock's passengers and provides nonstop service to destinations as far away as Phoenix and Baltimore.[22]

Arkansas aviation officials are not sitting by idly in the face of adversity, however. The Little Rock airport is offering a six-month long break on landing and gate fees for any airline agreeing to offer new service or expand existing flights. It also is spending more on promotions, recognizing the importance of competing actively for a share of the air travel market as a medium-sized city. Although passenger traffic fell 5.5 percent from August 2002 to August 2003, the airport maintains about the same number of flights as it had before September 2001, but much less capacity (a 21 percent drop from 2000 to August 2003).[23]

Arkansas also enjoys passenger service at Northwest Arkansas Regional Airport, which opened to passenger traffic in 1998. While the new airport expected enplanements of 200,000 for its first full year, 1999, new regional jet service helped the airport exceed its goals by 65 percent, and an expansion of the terminal building is already being considered. Northwest Regional offers travelers a choice of 47 departing flights a day to 10 nonstop destinations. Cities served with nonstop flights include Atlanta, Dallas/Fort Worth, Memphis, Charlotte and Chicago.

Florida

The state of Florida, a prime tourist destination with a rapidly growing population and expanding business base, contains numerous busy passenger airports. The state also is home to two airlines, AirTran, which operates its main hub in Atlanta, and Spirit, out of Fort Lauderdale. AirTran employs 200 people in Orlando and serves 14 cities directly from its Florida home base.

Operating in a large state with multiple commercial centers, Florida businesses depend to some extent on intrastate flights. Unfortunately for those traveling within the state, such flights have decreased considerably since 2001. They have been cut in half from Orlando, basically the center of the state, to the rest of Florida. West Palm Beach and Tallahassee lost 60 percent of their flights to Orlando, while direct flights to Miami decreased from 32 to 13 on an average day. Those intrastate flights which remain have experienced a 38 percent drop in capacity.[24]

Florida can offer some shining success stories, such as the Fort Lauderdale/Hollywood International Airport, the only major airport in the United States to increase seat availability each year from 2000 to 2003 and one of only four to add flights during that time period. At the same time, Miami International saw its number of seats shrink 16 percent, the 10th worst result among major airports. Fort Lauderdale competes by charging lower departure fees than Miami and by becoming a magnet for low-fare carriers. In 2002, Fort Lauderdale provided 70 percent of South Florida's traffic to New York City, 67 percent to Philadelphia, and 65 percent to Chicago. The airport, which was the fastest-growing in the United States before the 2001 terrorist attacks, now offers nonstop service to more U.S. destinations than Miami (46 versus 41), and almost all low-fare carriers fly to Broward County. Seat availability from this airport rose 11 percent from June 2000 to June 2003, and flights increased 2 percent. Only Salt Lake City and Cincinnati experienced more flight growth during this time period. Fort Lauderdale also has added international service to Colombia (Aces), the Grand Caymans (Cayman Airways) and Mexico (Aeromexico).[25]

In addition, Fort Lauderdale has undertaken a $1.2 billion expansion program, aided by an agreement reached in December 2003, to add an 8,000-foot runway. Stakeholders must still agree on how to minimize damage to the environment, but the new runway will expand economic development by enabling the airport to handle more flights to longer-distance destinations such as New York, Chicago and Latin America. Analysts project an increase to 440,000 takeoffs and landings per year by 2020, up from 280,000 in 2002, with the average delay reduced to six minutes from 29 if no action were taken. While the airport accommodated 17 million passengers in 2002, there is the possibility of increasing that figure to 25 million by 2020. The size of the terminal is being doubled, with 13 gates being added and parking spaces more than doubled. A third runway remains a future possibility as well.[26]

Table 7 demonstrates the astounding growth at the Fort Lauderdale airport in the five years since 1999. While the great majority of other airports experienced substantial decreases in passenger traffic after September 2001, Fort Lauderdale amazingly posted an increase in traffic of 3.5 percent for all of 2001, followed by two more years of positive growth.

Passengers Served at Fort Lauderdale/Hollywood International Airport				
Year	Domestic	International	Total	Change
1999	12,621,439	1,369,253	13,990,692	+12.3%
2000	14,386,726	1,473,278	15,860,004	+13.4
2001	15,012,698	1,395,229	16,407,927	+3.5
2002	15,834,632	1,202,629	17,037,261	+3.8
2003	16,606,567	1,331,479	17,938,046	+5.3

table 7

Source: *www.fll.net*, accessed March 30, 2004.

Fort Lauderdale-based Spirit Airlines, the nation's largest privately owned carrier, has been flying since 1990 and has bid successfully for prized routes at tightly controlled airports such as Chicago O'Hare and Washington Reagan National. The airline flies to 15 cities and increased its passenger numbers from its home airport from 250,000 in 1998, to 1.4 million in 2002, becoming the sixth largest carrier at Fort Lauderdale. At the beginning of 2004, Spirit invested $2 billion in 35 new aircraft from Airbus to replace its fleet of aging McDonnell-Douglas planes. In 2005 the carrier plans to begin flying internationally, to destinations in the Caribbean and Latin America. Spirit posted a profit of $14 million in 2003 after overcoming losses of almost $20 million the previous year, and its cost per ASM of 7.3 cents remains among the industry's lowest. [27]

Florida's oldest large airport, Miami International, has not been as fortunate as its neighbor to the north, but the American Airlines hub is recovering. American's employment at the airport has jumped from 275 employees in 1989, when the airline took over from now-defunct PanAm and Eastern, to more than 9,000, including more then 1,500 pilots. Jet departures have increased from 19 to 192 over the same period, while destinations served from Miami by American have gone from six in 1989 to 84, with 25 of those in Latin America, 18 in the Caribbean and three in Europe. American served 15 million passengers through its Miami hub in 2003, compared to 2 million in 1989. The carrier and Miami-Dade County are building a 47-gate hub terminal as part of an overall $4.6 billion capital improvement program at the airport. The FAA predicts that passenger traffic will increase by more than 115 percent between 1995 and 2010, with the airport serving more than 70 million passengers per year by the end of this decade.[28] Latin America continues to be the fastest-growing region for American, which expanded its service in South Florida to six new cities from Miami and added another 24 flights to existing destinations in November 2003. Besides operating its hub at Miami, American has become the third-largest carrier at Fort Lauderdale, offering international flights from that airport as well.

Miami International's yearly impact on local tourism, the cruise industry, international banking, trade and commerce amounts to $18.5 billion, and related aviation industries make a contribution to the South Florida economy to the tune of 237,000 direct and indirect jobs. Among domestic airports, Miami ranks first in international freight, third in international passengers, third in total freight and 12th in total passengers. Worldwide, Miami ranks seventh in total freight and 20th in total passengers. The airport employs 31,786 people, serves 150 cities on four continents and accommodates 77 scheduled carriers. Nonstop destinations in the United States and Canada total 42, with an additional 24 in the Caribbean, 17 in South America, 10 in Europe, nine in Central America, and three in Mexico. Total passengers served in 2003 totaled almost 30 million.[29]

Florida's capital, Tallahassee, has seen its air traffic increase as low-fare carrier AirTran commenced operations there in 2001. The carrier renewed its contract with the city for a third year in 2003, but without a previously included $1.5 million municipal subsidy. High passenger volume and the increased ability to match capacity with demand led the company to forego the subsidy. In September 2003, AirTran switched from Boeing 717s to all 50-seat regional jet service from Tallahassee. AirTran initially offered two daily flights to Atlanta and three to Tampa with continuing service to Miami. As a result of the carrier moving into the state capital, average airfares in the city have dropped 26 percent since summer 2001.[30] In fact, Tallahassee has recorded the lowest average airfares among others in its region for seven consecutive quarters, outperforming the larger markets of Atlanta and Austin. The airport now offers 80 daily arrivals and departures, and passenger statistics have increased steadily since the second quarter of 2003.[31]

Southwest Florida Regional Airport in Fort Myers serves a major portion of the state, and a $386 million project to replace its existing terminal began in 2002, with one-third of it completed as of November 2003. Construction is scheduled to continue until 2005, with parking places to be doubled, seats in waiting areas tripled and the terminal expanded to 28 gates, with the potential for 37 more. The construction project is expected to result in a $650 million contribution to the region's economy. The airport opened in 1983 with 1.3 million passengers served, reaching capacity in 1988, with 3 million passengers utilizing its facilities. Since 2000 the Fort Myers airport has served more than 5 million travelers annually.[32]

Central Florida's gateway, Orlando International Airport sets the standard for airports in the Sunshine State. The airport ranks number one in customer service according to *Airport Revenue News*, after finishing among the top three airports in the world in the *J.D. Power and Associates 2002 Global Airport Satisfaction Study* in the medium-sized airport category. Orlando International has 129 gates and offers direct service to more than 120 cities worldwide and nonstop service to 61 domestic markets. Only five cities offer more nonstop service (Chicago, New York, Atlanta, Dallas/Fort Worth and Las Vegas). Flight operations per day equal 790, with more than 27 million passengers served in 2003. The Greater Orlando Aviation Authority currently is working on a $1.2 billion expansion program, including a fourth runway. More than 50 carriers serve the airport, which in early 2004 came close to reaching levels of departures not seen since 2001. February 2004 marked the fourth consecutive month of double-digit growth at Orlando International, while 60 percent of the nation's largest airports continue to perform negatively. Approximately 40 percent of Orlando's capacity exists in planes owned by low-fare and regional carriers.

Georgia

Atlanta's Hartsfield-Jackson International Airport, which annually competes with Chicago O'Hare for the title of "busiest" airport in the world, can be considered the engine of the Southeast's economy. With direct flights to five continents and domestic service to the great majority of large cities in North America, Hartsfield-Jackson and its two main tenants, Delta Air Lines and AirTran, are familiar to most American travelers. Currently boasting close to 200 gates, the airport is undergoing a 10-year, $5.4 billion expansion program, which will include a new international terminal connecting to the current Concourse E to total 38 international gates; 1,100 new parking spaces; and a $159 million fifth runway, on which work had begun as of March 2004. The Atlanta airport employs 44,800 workers, including employees of the airlines, concessionaires, the FAA, the city of Atlanta and all airport tenants, making it the largest employment center in Georgia. Hartsfield-Jackson was the only top-10 airport in the United States to experience growth in passenger traffic in 2002, when it increased 1.3 percent. It handled almost 77 million travelers that year, down slightly from 80 million in 2000. More than 79 million travelers used the airport in 2003, up 2.9 percent from 2002, and airport officials expect a record year in 2004, with 81.5 million passengers projected. That would eclipse the record of 80.2 million set in 2000, which decreased to 75.9 million in 2001.

Atlanta stalwart Delta's traffic decreased 3.3 percent in 2003 as a result of a weak international market and increased competition from low-fare carriers. Delta, which is the world's second largest airline in terms of passengers carried, has more than 70,000 employees and operates 7,664 flights each day to over 497 cities in 84 countries. The carrier serves more than 200 cities in 46 states domestically. Delta cut capacity 5.2 percent for the year, decreasing the frequency of its international flights, especially transatlantic flights, which constitute 75 percent of the company's international business, in response to the Iraq war and shifted many domestic flights to smaller jets. Delta's share of Hartsfield-Jackson traffic decreased from 69.7 percent in 2002 to 66.1 percent in 2003, and the company has laid off 16,000 employees since 2001. At the same time, competitor AirTran experienced a rise from 11.3 percent to 13 percent.

Delta faces increased competition at its main hub, primarily from low-fare carrier AirTran, which also operates a hub in Atlanta. New York-based competitor JetBlue also began operations in Atlanta in 2003, challenging Delta on flights to the West Coast. While JetBlue was forced to first scale back and ultimately pull out of Atlanta altogether, its presence in the Atlanta market, combined with increased competition from AirTran, changed the market. Delta recognized these changes and acted by dropping prices and adding capacity on some transcontinental flights. For example, when AirTran added service to the Los Angeles and San Francisco markets, doubling the number of nonstop flights from Atlanta to Los Angeles, Delta countered with triple SkyMiles and a boost of capacity of almost 50 percent.

Orlando-based AirTran has recovered from the ValuJet days to become Delta's main competitor in Atlanta. The low-fare carrier has experienced a great deal of success in recent years, ordering 110 new Boeing 737s and 717s, one of the airline industry's largest orders in recent memory. Since 2001 it has added 48 jets, 13 cities and 40 routes to its operations. AirTran, whose stock value increased 350 percent in 2003, has made a profit in five of the last eight quarters, while traditional carriers have taken losses. Employment at the carrier also is up 50 percent, with its 5,600 total employees including 4,000 in Atlanta. AirTran experienced a particularly successful fourth quarter of 2003, when the company's profits doubled and capacity expanded by 21 percent. Reasons for the company's growth abound. The company's business model is based on a low cost structure which allows it to fly one seat one mile for 8.5 cents compared to 10 cents per seat for Delta. AirTran's labor costs total only 28 percent of its revenues versus 46 percent for Delta, and its planes fly an average of 11 hours per day, while those at larger carriers operate for only seven hours. Its pilots earn about 70 percent of what Delta's make. In addition, like other low-fare carriers, its absence of overseas routes limits its exposure to the vagaries of international travel, and its discount image appeals to many travelers. Its addition of long-distance markets such as San Francisco, Kansas City, Los Angeles and Las Vegas has forced Delta to match its low fares on these routes.[33] AirTran's 2004 strategy focuses on expanding service to cities already in its network, increasing capacity and doubling its fleet by 2008.

In order to remain competitive, Delta has begun to offer regional jet service on many of its routes, especially from its secondary hubs of Cincinnati, Dallas/Fort Worth and Salt Lake City. Current strategy also includes bringing competitors Continental, KLM and Northwest into its SkyTeam alliance and extending its use of regional jets to increase its number of flights and reduce capacity at its hubs.[34]

Reacting to increased competition from low-fare carriers such as AirTran and Southwest, Delta unveiled its answer, Song. A retooled version of Delta Express, which carried passengers nonstop between Florida and the colder climes of the Northeast and the Midwest, Song reached full strength in November 2003 with 36 planes operating. The offshoot, which cost Delta $65 million to develop, employs 800 workers. Song operates 199-seat, all coach class 757s to 13 cities, including Atlanta. Delta saves money by flying bigger planes longer hours and requiring more flexibility from its Song employees.[35]

In 2004, with a realization that costs must be cut in order to compete not just with low-fare airlines such as AirTran and Southwest, but with carriers such as United and US Airways, which have gained labor concessions from their employees' unions, Delta management has stressed the need to negotiate a new labor agreement with its pilots. The company is seeking a 30 percent pay cut from its highest paid union workers in order to stay competitive, while pilots are offering only 13 percent. Analysts remark that since American and United wrested much larger concessions from their pilots, Delta will have to hold out for more robust concessions. As it stands, Delta's 9,000 mainline pilots constitute one-third of the company's $6 billion payroll and employee benefits. Delta experienced the second highest unit costs in the industry at the end of the third quarter of 2003, behind only US Airways. Its pilots are the highest paid in the industry, earning as much as 50 percent more than those at other airlines, while captains for Delta subsidiaries Comair and Atlantic Southeast (ASA) outpace their colleagues among regional carriers. Pilots are emboldened by the fact that Delta has not experienced the same financial disasters as other carriers, which prevents the carrier from being able to plead poverty credibly. However, analysts believe that Delta will not be able to remain competitive with the revamped major carriers without reductions in pilot pay.

Delta's new chief executive is focusing on reducing unit costs from 10.25 cents to 9 cents, which would require lower pilot pay. As of March 2004, Delta pilot salaries were 50 percent higher than American's, 82 percent higher than United's, and 207 percent higher than AirTran's. Delta's losses in the period from 2001 to 2003 total $3.2 billion, and the company reported a loss of $383 million in the first quarter of 2004.

While the Atlanta airport dominates the state's commercial aviation industry, residents of smaller Georgia cities have local options. Athens Ben Epps Airport brings in about $12 million annually to the local economy. Just in the Athens-Clarke County area, the airport employs 143 people and provides a payroll of $3.5 million in employee income. In early 2004, US Airways subsidiary Air Midwest was chosen to offer daily flights to Charlotte through the Essential Air Service program, although the EAS cut service from three daily roundtrips to two. Corporate Airways' proposal for service to Atlanta was rejected as too costly.[36]

Finally, Savannah/Hilton Head International Airport is Georgia's second largest passenger facility, offering approximately 40 daily departures. A new terminal opened in 1994, with eight gates and room for 11 more for a total cost of $68.5 million. Six carriers serve 17 destinations in 14 major markets with nonstop flights.

Kentucky

Kentucky's most important airport, Cincinnati/Northern Kentucky International (CVG, named for nearby Covington, Kentucky), primarily serves a city outside the SLC region, yet is located in the Bluegrass state and is frequented and staffed by a large number of Kentucky residents. CVG brings in almost $4 billion annually into the local economy, employs more than 15,000 people and supports an additional 54,000 area jobs. Its economic impact has been calculated at $18,000 for each departure and $2,200 for each individual in the Kentucky/Ohio/Indiana Tri-state region annually. More than 20 million travelers use the airport each year, contributing a combined $1.7 billion to the local economy, and the number of foreign firms in the region has tripled since the first international flight was launched in 1987. In fact, the total number of passengers has more than doubled since 1991, increasing from 10 million to 22.5 million.[37] The airport is Delta's second-largest hub and has grown significantly in the last decade. Delta employs about 4,500 people in the area, with its subsidiary Comair employing an additional 3,700. Cargo carrier DHL also operates a hub and support facility which provides employment for more than 1,100. CVG also consistently wins awards for its ease of use, such as being voted best airport in the United States by the International Association of Travel Agents in 2003.

A new, $1.7 billion master plan will expand and reconfigure the airport over a time period of 30 years. The first phase begins in 2004 with an expenditure of $8.2 million to improve two terminals, and a new third runway will cost $237 million. The project has been welcomed by business and civic leaders who see it as vital to long-term growth since one result will be the increased movement of people and goods to and from the Cincinnati area. Expansion will include the construction of a third north-south runway, which will allow triple simultaneous takeoffs and landings upon completion in late 2005. In addition, the extension of the east-west runway will make possible nonstop passenger flights to Asia and eastern Europe. Construction projects related to the expansion are expected to bring almost $1 billion to the local economy over a 12-year period, and the impact from tourism and airport-related spending is projected to reach $6.5 billion annually by 2011. Direct and indirect jobs should reach 114,500 by the same year. Boone County, the site of the airport, expects the region to create about 3,000 new jobs in 2004, with two-thirds of those new positions to be located in the county.[38]

Currently flights from CVG reach much of the United States nonstop, and the introduction of regional jet service in 1993 has helped make the airport one of the few post-deregulation hubs to survive. It now offers more than 600 daily flights to 128 destinations, including three in Europe, while in 1977 carriers flew a mere 100 daily flights to only 30 destinations from CVG. In 2003, CVG reached 500,000 departures and arrivals for the first time, a 4 percent increase over 2002 operations and, by 2030, officials expect 900,000 annual flights. Passenger traffic topped 21 million, a 2 percent increase which compared favorably to almost every other airport in the country, with passenger traffic down 2.7 percent on average. Delta's use of regional jets instead of larger aircraft accounts for the greater increase in flight traffic compared to passenger traffic. Delta uses more than 400 regional jets from its second-largest hub, while mainline aircraft are limited to 150, and most new destinations are served by regional jets. Cincinnati is the only hub in the country in which regional jet use exceeds that of mainline jets.[39]

CVG experienced a disappointing year in 2001, when local carrier Comair, which is owned by Delta, shut down for 81 days during a pilot strike. Since then the airport has rebounded, with Comair reaching its pre-strike numbers. In February 2001 the airport offered 571 daily departures, while in 2003, flights reached 600, although many switched from widebodies to regional jets. Analysts expect flight operations to increase as much as 70 percent by the year 2030, with 16 million passengers departing annually, compared to 6 million in 2003.

Status as a hub airport does entail at least one negative consequence for CVG, however. Cincinnati suffers from extremely high fares, being a hub airport at which Delta provides 92 percent of service. With Delta controlling so many of the total seats and therefore maintaining great influence over the airport's price structure, air fares at Cincinnati/Northern Kentucky International are consistently high enough to force one in four local passengers to adjacent airports in search of lower fares. In fact, fares at Delta's second-largest hub have been calculated at 56 percent higher than the national average, and the airport estimates that on any given day it annually loses 2,500 passengers who drive to one of five nearby airports (including Lexington and Louisville, Kentucky) at which low-fare competitors operate, even though it often means flying back through CVG in order to connect.[40] Responding to the loss of passengers to other airports, regional leaders have decided to make an effort to attract a low-fare carrier to CVG. Connecting passengers outnumber locals by a ratio of three to one, but that is expected to drop to 65 percent connecting and 35 percent originating passengers as income increases in the region and/or with the arrival of a low-fare carrier.[41]

Kentucky's second-largest passenger airport, Louisville's Standiford Field, handled almost 3.3 million passengers in 2003 and offered 102 daily flights to 50 destinations in 25 states. Louisville's Airport Authority will build a $5 million hangar and office building for Republic Airlines, which will serve the city as a US Airways Express carrier with service to New York City and Washington, D.C. US Airways has agreed to buy all of Republic's seats in advance, regardless of the number of paying passengers. Republic will receive as much as $7.9 million in Kentucky tax rebates over the next 10 years if it meets projections by hiring 355 people and keeping an annual payroll of at least $12.4 million.[42] The commonwealth also has budgeted $1.4 million for the extension of one runway from 10,000 feet to 12,000 feet, which will allow the more efficient transport of passengers, fuel and cargo.

A 2002 economic impact study shows that in that year Louisville's airports and their tenants generated over $220 million in recurring total state and local taxes. They also added almost $19 million in one-time total local and state taxes from airport construction, for a total of $239 million in total taxes. The airports account for 36,000 jobs and generate $1.6 billion in payroll and $4.3 billion in business expenditures. As a result, the previous airport expansion that was completed in the late 1990s and was culminated by the construction of a second runway has already paid for itself a decade ahead of projections.[43]

A mere 70 miles south of the Cincinnati/Northern Kentucky airport, Lexington's Blue Grass Airport has thrived in recent years with the attraction of low-fare carrier ATA and the lack of one dominant airline. The arrival in 2002 of ATA has reduced the average cost of a ticket 14 percent. In 2004 the airport will undertake a $66.5 million expansion program which will add a third security checkpoint, a business lounge, a larger rental car facility, and six new gates. The use of regional jets has contributed much to Blue Grass Airport's growth, as they are cheaper to operate, have opened up markets on both coasts, and have eliminated the need for a costly third runway. Regional jets do not require a 9,000-foot long runway, construction of which had long been a point of contention in the area. As of early 2004, runway improvements will not be necessary for 30 years, and the airport is operating at only 43 percent of capacity.

Low-fare airline ATA has had a major impact on the region, serving more than 70,000 passengers since August 2002, when it began Lexington service. In the past, the airport lost up to 40 percent of business to other airports which offered cheaper fares, but it now offers nonstop flights to 13 cities, up from seven in 2003, with new service to New York City, Dallas and Washington, D.C., and possible service to Philadelphia on the way. Airport authorities have shifted their focus away from the wealthy leisure travelers who formerly constituted the majority of the Lexington market. They now are focusing on business travelers and working with small businesses to pool resources in order to attract discounts from airlines.[44] Each business visit to Lexington accounts for $400 in spending, while leisure visits result in a mere $244 outlay.

According to 2002 estimates, Blue Grass Airport serves 44 counties in Central and Eastern Kentucky and contributes almost 1,800 jobs to the local economy. It brings in $134.2 million in annual revenue and $46 million in worker earnings.[45] In 2003 the airport set a record by serving 1.1 million passengers, surpassing the previous record by 20,000 passengers. Since 2000, Blue Grass Airport has seen a 30 percent increase in daily flights and an overall decrease in average fares of 22 percent, ranking it among the fastest growing airports in the country.

Louisiana

Louis Armstrong New Orleans International Airport served more than 9 million passengers in 2003, a slight increase over 2002 numbers, but impressive nonetheless considering overall industry results, which show a decrease of 2.7 percent for the year. Southwest Airlines remained New Orleans' largest carrier, with 30.5 percent of the passenger market, while AirTran posted an astounding 13 percent increase in volume, the largest among carriers serving the city. A new $35 million, 2,500-space parking garage opened in late 2003, giving the airport a total of 5,000 spaces in two parking garages.

A movement has begun to construct a new airport facility between Baton Rouge and New Orleans which would cost at least $4.4 billion. This facility, currently using the moniker Louisiana Transportation Center, may create 66,000 jobs, $40 billion in new household earnings and $2.2 billion in state tax revenue over 40 years, according to a study released in February 2004. Backers have not yet decided whether the proposed facility would offer passenger service as well as cargo. As the New Orleans airport continues to study plans to construct a new, third runway for approximately $450 million, the first phase of the cargo airport project would cost roughly the same.[46]

The Baton Rouge Metropolitan Airport serves the south Louisiana region as well, but many Baton Rouge residents use the much larger New Orleans airport, which offers more flights and lower fares since it is served by Southwest and other low-fare carriers. The difference in markets served by the two airports becomes clear by looking at the types of aircraft used. In 2001, more than 99 percent of enplanements were on jets in New Orleans, while in Baton Rouge jet service constituted only 42 percent of enplanements, down from 98 percent in 1992. This suggests a strong presence of regional carriers at the smaller, less tourist-driven facility, which offers no low-fare competition. While passenger travel at the New Orleans airport reflects a larger percentage of inbound travel, figures show that travel usually originates in Baton Rouge, suggesting that the majority of passengers using the smaller airport are local residents. This is one reason why Baton Rouge suffered more from the downturn in the economy. With tourist traffic to rely on, New Orleans' losses were relatively low.

Southwest, the largest carrier at the New Orleans airport, expanded at an average rate of 12 percent per year from 1992 to 2000, and even managed small growth after the 2001 terrorist attacks. Delta remains the largest carrier at Baton Rouge, with 46 percent of all passengers in 2001.

Baton Rouge is not the only Louisiana airport which has seen an increase in regional jet service. Since 1999, Shreveport Regional Airport has seen a change from nine jet flights and 31 turboprop flights per day to 28 regional jets and six turboprops daily.

Maryland

Baltimore-Washington International Airport (BWI) is undergoing a $1.8 billion renovation over five years, which includes a parking garage with 8,400 spaces, $350 million in terminal improvements, and $260 million in road improvements. Maryland's gateway to the world boasts 64 jet gates, 31 commercial airlines and almost 700 daily departures, with the top carrier, Southwest Airlines, commanding 44 percent of the market. BWI offers international service to 10 destinations and ranks 23rd in the United States in passenger traffic. It generates $7.2 billion in revenue for central Maryland, with more than 92,000 direct and indirect jobs created as a result of the airport.[47] About 19.7 million passengers utilized the airport in 2003, up 3.6 percent from 2002, with more than 40 percent flying Southwest, the airport's main carrier.

Facing cutbacks from a reorganizing US Airways, Maryland officials approached Southwest in 1993 with the goal of luring them to BWI, and the courtship has paid dividends as BWI has become one of the fastest growing airports in the United States. Since 1993, Southwest's BWI operations have grown from eight daily flights to more than 150, while BWI's passenger volume reached 20 million in 2001, after totaling 8.8 million in 1993. In addition to its success in attracting low-fare carriers, BWI caries an impressive debt rating and is the busiest Washington, D.C. area airport in terms of commercial passengers. Fares to East Coast markets have declined by more than 60 percent since Southwest's arrival, and the state is now building the carrier a new $219 million terminal that will have 26 gates and room for an additional five. It is scheduled to open in spring 2005, with the airline expecting to handle more than 200 flights per day at that time.

Baltimore-Washington International Airport's contributions to the regional economy are impressive. A 2002 report by the Maryland Aviation Administration estimates the value of the airport to surrounding businesses at $5.7 billion as a result of indirect economic activity. The airport supports more than 104,000 jobs and handled 554 million pounds of air cargo in 2002, when more than 19 million passengers used the airport. From 2000 to 2002, airport jobs decreased from 24,000 to 20,500, and state and local tax revenue generated by BWI fell 24 percent, from $200 million to $153 million. However, when indirect business is calculated, the numbers increased. The overall number of jobs rose from 85,000 in 2000, to 105,000 in 2002, while state and local tax receipts increased from $706 million in 2000, to $781 million in 2002. Another sign of strong economic performance is the fact that occupancy at the 35 hotels in the BWI business district averaged 80 percent in 2002.[48]

On a more microeconomic level, Southwest, the airport's largest carrier, employs 2,435 people in Maryland, including 953 flight attendants and 624 pilots. In 2002, these employees earned more than $124 million in salaries and benefits. After completion of the new terminal, Southwest expects to have 1,800 flight attendants based at BWI, as well as 1,200 pilots by 2010. Southwest boasts $2.2 billion in cash reserves and provides some measure of stability for Baltimore's airport after US Airways accounted for 58 percent of BWI departures in 1992, but later abandoned its hub.[49] US Airways, which still maintains a strong presence in Baltimore, employs 187 people and offers 36 daily departures from BWI. Employees collect almost $40 million in total salaries and account for $75.6 million in annual expenditures.[50]

BWI is exploring a newer method of generating revenue by contracting a British firm to run concessions at the airport, which in early 2004 ranked 37th (low among major U.S airports) in concession revenue per passenger. Pittsburgh led the country, and its concessionaire, BAA, was hired by BWI in March 2004, after estimating that airport revenue could average $11 million annually, up from $7.2 million in 2003, after an expansion of retail space and other infrastructure improvements.

Mississippi

Without a single, larger airport consolidating passengers, Mississippi features several regional airports which meet the state's residents' needs. Total deplanements at the state's seven regional airports decreased 12 percent from FY 2001 to FY 2002, the last year for which statistics are available.

Jackson International Airport, the state's largest, provides nonstop service to 11 airports in 10 cities, with service to both Houston airports. The top destinations for Jackson-based fliers are the hubs of Atlanta, Dallas/Fort Worth and Houston. Like many airports, Jackson's experienced a 5 percent decline in traffic from 2001 to 2002, when more than 1.2 million passengers passed through the facilities.

After three years of planning, expansion at the Gulfport-Biloxi International Airport, which is served by five carriers, was scheduled to begin in March 2004. When complete, the terminal will nearly double in size, providing carriers Delta, AirTran, Continental, Northwest and Southeast Airlines with 50 percent more area for expansion and room for two additional airlines in the future.

The renovated terminal will be able to accommodate as many as 2.2 million passengers, while the airport is currently near its capacity of 850,000.[51] Since AirTran commenced service at Gulfport-Biloxi in 1999, passenger traffic has increased 120 percent and fare prices have fallen 30 percent. AirTran, which provides 30 percent of the airport's service, employs approximately 25 people at the airport.[52]

Missouri

The state of Missouri has been more negatively affected by the downturn in the aviation business than most other states. In November 2003, American Airlines greatly reduced its service at St. Louis' Lambert International Airport, shifting the majority of its traffic to its larger hubs at Dallas/Fort Worth and Chicago O'Hare and remaking Lambert as a secondary hub. Lambert, which was once the home of storied Trans World Airlines (TWA), had maintained its hub status as American bought out bankrupt TWA and operated nonstop flights to destinations throughout the United States from St. Louis. A number of factors, including 2001's terrorist attacks and the downturn in the economy, contributed to American's decision. Since 2001, Lambert has lost almost 46 percent of its weekly flights and 60 percent of its capacity, more than any other large hub in the country. It has shed more than 2,000 weekly flights and almost 300,000 seats.

American reduced total capacity at Lambert by more than 50 percent, and St. Louis lost nonstop service to 15 destinations, including New York Kennedy and London. The only remaining international destinations are Cancun, Mexico, and Toronto, Canada. When American bought TWA, the Fort Worth-based carrier offered 522 daily departures. American intended to use St. Louis to relieve congestion at its other hubs and as a defense against US Airways and United as those two carriers were expected to merge. That did not occur, and the carrier steadily began to reduce the number of large jets utilizing St. Louis, slashing 41 percent of its daily departures from July 2001 to July 2003. Furthermore, competition from Southwest played a large role in driving the bulk of American's operations out of St. Louis. Southwest operates 67 daily nonstop flights from Lambert and offers competing service to 13 of the 27 destinations to which American canceled service. American simply could not afford to match Southwest's sale fares and decided to cut its losses in this market in order to concentrate on more profitable operations in Chicago and Dallas/Fort Worth.

Although Governor Bob Holden and local leaders lobbied intensely, and although the airline had guaranteed that St. Louis would remain a major hub in its system, American slashed service, as well as 1,500 jobs. As a consequence, the St. Louis Airport Authority froze almost $40 million earmarked for Lambert upgrades. After American had bought TWA, St. Louis hosted 4,000 flight attendants and 2,000 pilots, numbers which were reduced to 920 and 1,200, respectively, in November 2003.[53] The city of St. Louis has been forced to cut 76 jobs at the airport in 2004 (with 51 employees laid off and 25 vacancies left open) and $3.7 million from the budget. On the other hand, American has been pleased by the reconfigured secondary hub's financial performance in the two quarters since its metamorphosis.

Not all is negative, however. Work on a new runway continues, with officials convinced that it will be needed in the future to attract new tenants. The new runway, part of a $1.1 billion expansion plan which has been allowed to continue despite the loss of traffic at Lambert, will allow simultaneous landings in inclement weather and is expected to increase capacity by more than 50 percent during rain or snow. Airport officials, who continue to identify a way to fill the void, estimate that it may take as much as five years to re-establish the pre-September 2001 level of service at Lambert. Even Southwest has trimmed its departures from 62 to 58 per day. American now offers service to 27 destinations, with its schedule now geared toward those who live and work in the city. The carrier still offers the most flights at Lambert, with more than 200 daily departures, but 75 percent of those are operated by regional carriers with their own employees. Of the 1,800 union members employed by American in October 2003, only 800 remained in November of the same year.

Mayor Francis Slay announced that Lambert would receive $85 million in federal grants for expansion, and Frontier Airlines returned to St. Louis in November 2003, with airport officials trying to convince them to expand. A report released by local business leaders in February 2004 remarked that the city will have to find $35 million to $50 million per year in order to keep Lambert's costs competitive with other airports for the purpose of attracting new flights. The cost per passenger will increase significantly after the unveiling of the new runway in late 2006 or early 2007.[54]

American has begun to offer mainly regional jet service from St. Louis. Of the remaining 207 American flights from Lambert, 150 are flown by American Connection carriers Chautauqua, Corporate and Trans States. St. Louis-based Trans States flies turboprops and 50-seat regional jets and employs more than 1,200 people in the region. It lost 37 of 121 daily departures due to American's cutbacks and has been forced to ground 10 planes. Indianapolis-based Chautauqua, on the other hand, did not have to lay off any of its 250 area employees and has been flying more miles after the reduction in American's schedule.[55]

Missouri's second-largest airport, Kansas City International, is in the midst of a $230 million upgrade project which is scheduled for completion at the end of 2004. The airport's total economic output for 2000 was estimated at $1.6 billion, and total full-time employment reached 17,600, with a payroll of $535 million annually. Analysts have estimated that one of every 20 jobs in the Kansas City region is related to the airport, which claims responsibility for $3.2 billion, or 3.6 percent of the aggregated gross county product. The airport itself employs 7,500 people, making it the fifth-largest employer in the region.[56]

The existing infrastructure can certainly accommodate growth. Kansas City boasts a $51 million, 9,500-foot runway built in 1994, and the airport can handle 464,000 annual takeoffs and landings. In 2003, however, roughly 171,000 flights arrived or departed, leaving the airport operating at 38 percent of capacity. This is not necessarily negative news, as fares are relatively low. Of course, the lack of a hub translates into limited flight options, and three airlines, TWA, Braniff and Eastern, all have failed in their attempts to establish a hub at Kansas City, with all three carriers eventually going bankrupt. Hometown carrier Vanguard, which offered low-fare service from Kansas City to both coasts, also closed shop in 2002.[57]

North Carolina

Arlington, Virginia-based US Airways offers 469 daily departures and employs 5,700 people in Charlotte, where one of its three hubs is located. The carrier controls 39 gates at Charlotte's Douglas Airport. After losing $90 million in the third quarter of 2003, when airlines were expected to make a profit, the airline faces more challenges in 2004. It must meet the terms of a federal $900 million loan and confront its unions. As part of the agreement with the government, the carrier must keep on hand cash and cash equivalents of more than $1 billion. At the close of the third quarter of 2003, US Airways barely fulfilled its obligation. With US Airway's future looking suspect and the airline controlling 90 percent of Charlotte's traffic, there has been a call for authorities to consider other options, and the airport's low costs could easily attract other airlines. Charlotte officials hope that the airline does not cut service as it has in Pittsburgh, another hub at which it has signed an agreement to continue operating at one quarter of its original gates.[58] The airline has cut 40 percent of its employees and 30 percent of its aircraft since early 2002. However, US Airways could well defend its lowest-cost hub, Charlotte, at great cost. Regional officials are cognizant of the carrier's 5,700 employees in the area, which makes US Airways the sixth-largest employer in the city.

Together with regional partner US Airways Express, Charlotte's main carrier flies to 100 destinations nonstop each day, including 14 in the Caribbean, as well as London, Frankfurt and new service to Costa Rica. One regional contract carrier, Piedmont Airlines, flying as US Airways Express, employs an additional 625 people in Charlotte.

Low operation costs at Charlotte provide a competitive advantage for a low-fare carrier, but the city's lack of a large travel base makes the creation of such a carrier difficult. US Airways would most likely defend its Charlotte hub by matching any new carrier's fares, and the carrier already is preparing to face significant low fare competition in Pittsburgh and Philadelphia. As of March 2004, only ATA offered low-fare service from Charlotte. ATA offers four daily flights to Chicago Midway and has remained in Charlotte since 2002, a longer period than any previous low-fare carrier. According to a 2003 report, Charlotte withstands the country's second-highest air fares, lower only than Cincinnati's. An average fare from Charlotte in 2003 cost $219, compared to $136 at Raleigh-Durham or $133 at Piedmont Triad, airports with plentiful service from low-fare carriers.[59] Some Charlotte leaders hoped for the entry of low-cost leader Southwest into their market, but the Dallas-based carrier decided on Philadelphia, where it will compete head-to-head with US Airways in its most profitable market. Philadelphia boasts 15 million local passengers (61 percent of those using the airport), while Charlotte can claim just 5.5 million (25 percent). On the bright side, Southwest's move into Pennsylvania could mean that it is becoming more amenable to competing with larger carriers at their hubs, meaning Charlotte could be considered in the near future. Charlotte's low operating costs, readily available gate space and lack of congestion constitute features sought by low-fare carriers.[60] There exists a chance that Jet Blue will offer service from Charlotte to New York Kennedy beginning in 2005 or 2006, with other Carolina markets such as Charleston and Raleigh/Durham also under consideration.

Charlotte's airport contributes nearly $4 billion to the local economy, with more than 72,000 jobs in the region directly or indirectly related to the airport and its services. These employees earn almost $2 billion in salaries and wages. The airport serves 1.5 million people in all or part of an 18-county region of the Carolinas. It currently features three runways, with a fourth under consideration, and the airport has invested more than $300 million in new and expanded facilities since 1982. Since that year, almost 8,000 companies have invested more than $5 billion in Mecklenburg County and created more than 78,000 new jobs (not necessarily related to the airport). Foreign firms in the county have increased from 147 in 1982, to 340 in 2003.[61] In order to attract more passengers and better serve existing customers, the airport is adding 2,300 parking spaces to its existing 15,000, which are insufficient for demand during the busiest travel periods. The project, which will cost $35 million, will begin in 2004. The federal government has promised $15.2 million for expansion purposes, including $7.5 million to re-route area roads, and $7.7 million for the expansion of Concourse E, which reached capacity only 18 months after its completion. This 26-gate concourse, which is suited for regional jets, opened in February 2002, at a cost of $34 million, but with US Airways' increase in the usage of smaller aircraft, the facility is already too small. On a more positive note, German flag-carrier Lufthansa visited the city in August 2003 in order to scout it for potential nonstop service and eventually began service to Munich in March 2004, using an Airbus 340, seating 261 passengers. Charlotte will now offer nonstop service to two German cities, which underscores the importance of the automobile industry in the South, with seven new plants built or announced since 1994, and a research center opening at Clemson, South Carolina, in 2005.[62]

North Carolina's second-largest airport, Raleigh-Durham International (RDU), has evolved from an American Airlines hub to a favorite for low-fare carriers. In 1998, the average one-way ticket departing from RDU cost $159, but by 2003, that had decreased to $124, ranking the airport 11th out of the Southeast's top 30 airports in low ticket cost. However, average ticket revenue per passenger mile flown (yield) has decreased by 37 percent since 1998. RDU set a record for enplanements with 4.5 million in 1994, when American operated a hub there. After the hub had closed in 1995, the number of passengers boarding at RDU dropped to just under 3 million. The region responded by recruiting new airlines such as AirTran and Southwest and, in 2000, the airport exceeded its previous enplanement record, with more than 5 million passengers boarding at RDU. The subsequent economic doldrums adversely affected the airport's numbers in the period since 2000, and RDU recorded just fewer than 4 million enplanements in 2003.[63]

The Research Triangle region stakes claim to the title of one of the country's most profitable markets for the airline industry. For example, it produced revenue totaling $193 million for Delta from March 2002 to March 2003, which placed it in the top 15 percent of all Delta markets. Total revenue for the airport for that time period was more than $1 billion. Delta has created a "mini-hub" at RDU, with flights not just to its other hub cities, but to destinations such as Boston and the Florida markets. As a result, more passengers board Delta planes from RDU than from much larger markets, such as Philadelphia and San Francisco.[64] RDU offers nonstop service to 37 domestic destinations and is scheduled to receive a $350 million replacement for Terminal C. The new terminal will open in 2009, with 28 passenger gates and room for seven additional gates. Delta has increased its profile at RDU since 2001, when hometown carrier Midway shut down service and other carriers cut flights to high-profit markets such as Boston, Orlando and New York City. The

Atlanta-based carrier has added 10 flights since 2001, while American has expanded even more, moving from 22 departures in June 2001 to 61 in the third quarter of 2003.

Midway Airlines, which was once the region's largest carrier, moved to the Research Triangle area from Chicago, where it operated a hub at Midway Airport, in 1995 after American had closed its RDU hub. After many trials and tribulations, Midway abandoned all activity in October 2003, after clinging to life as a commuter feeder for US Airways. It had been in Chapter 11 protection for 26 months and could not prove to a bankruptcy judge that it could resume operations successfully. The judge ordered the liquidation of Midway's assets in order to repay its creditors. The carrier needed an infusion of $10 million to $15 million to continue operating, but that was contingent upon an agreement between the company's investors and its labor. Since that could not be arranged, most of the company's 188 employees became job seekers until December 2003, when Mesa Air Group of Phoenix placed the highest bid for Midway's assets (eight jets). Mesa was expected to hire former Midway workers although the previous pilots' union contracts were no longer valid. Mesa will assume $90 million of Midway's debt as well.[65]

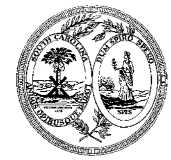
Piedmont Triad International Airport, which serves Winston-Salem, Greensboro and High Point, is being considered by start-up carrier Independence Air for low-fare service. The establishment of operations by this new carrier would bring 25-30 jobs to the airport in addition to two more flights between the Triad and Washington Dulles. Independence, a new, low-fare incarnation of Atlantic Coast Airlines, also has considered Charlotte and Raleigh-Durham. Currently the airport is not undergoing expansion, but plans created in 2000 sketched out the addition of at least five extra gates, which would cost $4 million to $6 million and require one year for completion. In early 2004, only one gate was available for a new airline, which has not been attracted by the airport since 1996, when Northwest and AirTran began service. AirTran's presence has reduced airfares, but Delta has retained its dominance at the airport by matching the low-cost carrier's fares. Delta carried one-quarter of all passengers in 2003.[66] The airport is home to 50 companies which employ more than 4,000 people and produce an economic impact of more than $1 billion annually. Piedmont Triad offers nonstop service to 18 domestic destinations, including Boston and Minneapolis.

Oklahoma

Oklahoma City's Will Rogers World Airport saw more than 3.2 million passengers in 2002 and expects local travel to double by 2012. A $100 million, multi-year renovation project is underway at the airport, which occupies more than 8,000 acres, making it one of the 10 largest airports in the country in land area. The airport supports more than 70 departures per day, and during the 1990s traffic increased by more than 14 percent. Analysts expect that every $1 spent on construction at the airport will bring $2 in additional revenue to the Oklahoma economy. A new, 11-gate concourse opened in June 2003, with three new ticket counters and a new baggage claim area.[67]

Tulsa International Airport offers service from 11 carriers which fly nonstop to 19 airports in 16 metropolitan areas, including both airports in Dallas/Fort Worth, Houston and Chicago. Approximately 3 million travelers fly annually to or from Tulsa, taking advantage of more than 80 daily departures. The airport provides jobs for more than 15,000 Oklahomans, and the economic impact of the airport's industrial park totals almost $3.2 billion annually. As in many medium-sized cities, passenger traffic has decreased since 2001, when Tulsa saw more than 3.3 million travelers, dropping to 3 million in 2002, and 2.9 million in 2003.[68]

South Carolina



Greenville/Spartanburg International Airport, which serves 1.4 million passengers per year, has seen $100 million worth of expansion in recent years, with a second runway completed that will enable any aircraft to land at the airport. Fifteen airlines offer 69 daily departures, with nonstop service to 16 cities. Studies have shown that Greenville could be losing as much as 25 percent of its potential traffic to airports, such as nearby Atlanta, with low-fare carriers. For this reason, Greenville hopes to attract start-up carrier Independence Air.

One of the state's prime vacation destinations, the city of Charleston opened its terminal in 1985, and 2002 saw almost 800,000 passengers enplaned. Passenger traffic to and from the airport has been forecast to increase 3.2 percent in 2004, and another 2.4 percent in 2005, possibly reaching 1.7 million arrivals and departures. Construction of a new, $29 million parking garage began in March 2004, and is expected to give travelers 900 more spaces upon completion in 2005. Some have speculated that Charleston, which in 2004 offered nonstop service to 15 destinations, could become a Southwest destination.[69]

The capital's airport, Columbia Metropolitan, serves more than 1.2 million passengers per year, and a new, multi-level parking lot containing more than 1,800 spaces opened in 2003. Terminal renovation at a cost of $50 million was completed in 1997, and UPS opened an $80 million regional hub in 1996.

Tennessee

The aviation industry in the state of Tennessee accounts for 11 percent of the state's gross domestic product, and air service directly or indirectly creates 8 percent of the state's jobs. Thanks to Memphis-based Federal Express, Tennessee ranks second in the United States in the volume of air freight transported in or out of the state, with 1.4 million cargo tons a year.

Memphis International Airport, the home of Federal Express since 1973, wears the crown of the world's largest cargo airport by volume, and also is a major hub for Egan, Minnesota-based Northwest Airlines. Although hit hard by reductions in service in late 2001, which cut service by 25 percent (eliminating an entire slate of evening flights), Memphis International has rebounded and Northwest, which has lost almost $2.2 billion since 2001, still regards the airport as a strategic hub. However, Memphis International is the nation's smallest passenger hub, and about 60 percent of its passengers only connect there, bringing little income to the region. Federal Express' presence certainly has played a major role, as the company has added more than 60 widebody jets and signed a $7 billion contract with the United States Postal Service to carry airmail, therefore retaining operations and providing revenue through landing fees for the airport. Memphis has been the world's biggest cargo airport since 1991, and is home to Federal Express' largest sorting facility, which processed 3.4 metric tons of cargo in 2002. Hong Kong ranked second with 2.5 metric tons.

Fortunes have been up and down in Memphis. After restoring its lost flights in June 2002, and even while making a third quarter 2003 profit of $42 million (its first profitable quarter in two years), Northwest announced in September 2003 that service from Memphis would be cut 18 percent. This will cost the Memphis-Shelby County Airport Authority $1.6 million per year and has resulted in flights dropping from 242 to 198 per day, affecting service to 44 of the 78 cities Northwest flies to from Memphis. These cuts resulted in the reduction of seat availability by 7 percent. The airline, which employs approximately 1,900 workers in Memphis, was forced to lay off approximately 50 mechanics and other ground staff as a result of the cuts. Some fear that Northwest's recent partnership with large carriers Delta and Continental, which each have nearby competing hubs, will spell doom for the Memphis hub, where Northwest ceded eight gates to competitors and merged four arrival/departure periods into three.[70]

Regional carriers have been affected by Northwest reductions as well. Pinnacle Airlines, which does business as Northwest and employs almost 2,300 people in the region, was forced to cut 60 full-time and 80 part-time positions because of the large carrier's cuts. Pinnacle operated 39 of the 44 flights terminated by Northwest, but it has added 29 daily regional jet flights from Memphis since 2001, and will receive 38 new jets in 2004. More than half of Pinnacle's employees are Memphis residents. In February 2004, Northwest announced that it would transfer 15 gates to its partners Pinnacle and Mesaba starting in May 2004. The legacy carrier must decrease its labor costs by $950 million, with half of that coming from pilot concessions.

Memphis' luck rebounded in January 2004, as Northwest announced that it would add 15 flights, including service to Toronto beginning in April of the same year. Canada's largest city becomes the fifth international destination served from Memphis, joining Cancun, Mexico; Montego Bay, Jamaica; Amsterdam; and Vancouver, British Columbia. Flights to Toronto on Memphis-based Pinnacle will facilitate expanded trade with Canada, which already amounts to $10 billion annually for the Memphis region. Approximately 30 Canadian-based companies maintain offices in metropolitan Memphis. The new flights will bring Northwest's total to 213 daily departures, which still is down from 242 at the end of 2003.[71] In addition, Memphis International received $28 million in grants from DOT to build a new runway which will be used by commercial airlines and FedEx.

Fortunes are looking up at Nashville International, which, like Raleigh-Durham, lost its status as an American Airlines hub in 1995, but has since remade itself as an airport with a greater choice of carriers and lower fares. Nashville posted growth at 40 percent above the national average in the two years following September 2001. At the same time, growth reached only 3.5 percent and passenger levels have not fully recovered. New growth is expected to come from the expansion of service of existing carriers, rather than from new carriers. Jet Blue has considered Nashville for potential service, but Tennessee's capital most likely does not generate enough traffic to New York City (about 100 passengers per day in October 2003) to justify new service.[72] As of January 2003, Nashville International was served by 15 airlines with an average of just under 400 flights per day to 86 markets. The airport has 46 gates and four runways and contributes $2.3 billion annually to the regional economy, with 15,000 jobs created. It serves a trade area of 79 counties in three states. There currently are plans to build a fifth runway between 2013 and 2023, and Nashville will welcome an additional low-fare carrier, Frontier, in June 2004. The Denver-based carrier will introduce nonstop flights to its Denver hub and will provide Nashville stalwart Southwest with low-fare competition.

Nashville reached its peak traffic in 1992, handling 5.1 passenger boardings while still an American hub. Numbers dropped after American closed the hub, but other carriers stepped in and traffic reached 4.5 million in 2000. The airport suffered the same fate as others in 2001, but approximately 4 million passengers boarded planes at Nashville in 2003, a miniscule 0.8 percent decline from the previous year. Daily flight levels remained static, since capacity dropped with increased use of smaller, regional jets. For example, 40 percent of Delta's Nashville passengers flew on regional jets operated by Delta affiliates Comair or Atlantic Southeast Airlines. Only Tennessee-based Corporate Air maintains the use of turbo-prop planes from Nashville.[73]

Two of Tennessee's regional airports, Chattanooga Metropolitan and Knoxville McGhee Tyson, also attract their share of passengers. The direct and indirect economic impact of McGhee Tyson has been calculated at $1 billion annually, including capital spending, local spending, payroll and transportation cost savings. Roughly 2,700 people work at the airport, which completed a $70 million renovation and expansion project of the terminal and concourses in 2000. Knoxville's airport handles 120 arrival and departures each day, with more than 4,000 seats available daily. Delta and its regional partners controlled about 38 percent of the Knoxville market in 2003.[74] Chattanooga's proximity to lower fares and bountiful nonstop service at Atlanta's Hartsfield-Jackson Airport and Southwest flights from Nashville make preventing local passengers from flying from other airports a challenge, but the airport has set a goal of attracting a total of 500,000 passengers by 2008.

Texas

Texas' size and the great distance between major markets make it a hotbed of aviation activity, with three airline headquarters and two major hub airports. Fort Worth-based American plans to add capacity to its Dallas/Fort Worth (DFW) hub, the world's third-largest airport. For 2003 American reported losses of more than $1.2 billion, a better result than in 2002, when the airline lost $3.5 billion. Revenue increased slightly for the Fort Worth-based carrier as well. A new agreement as of March 2004 would boost American's annual departures from DFW by more than 44,000 by 2007. Departures would increase by 21 percent, and the number of seats flown by American would increase by 16 percent. The airport produces an economic impact locally of about $14.3 billion, including a $6 billion payroll and 268,000 full-time jobs. In 2003, DFW served 54 million passengers on 2,000 daily departures. A $2.6 billion capital improvement program was underway in March 2004, with a new people mover system and a new international terminal set to open in summer 2005. Peak service occurred in 2000, when DFW saw 60 million passengers and provided nonstop service to 132 domestic and 32 international destinations with 2,300 daily flights. Passenger volume fell 13 percent to 52 million in 2002 but has since increased to 54 million. DFW again offers nonstop service to 135 domestic and 32 international locations, but with far fewer daily flights.[75]

The airport supports 211,000 area jobs and generates $11.2 billion for the North Texas economy and $6.1 billion in personal income. Officials consider DFW to be a factor in the relocation of more than 400 corporate headquarters in the last 10 years.[76] In the next two decades, DFW plans expenditures of close to $5.5 billion for expansion, which is projected to generate almost $69 billion for the regional economy, creating an additional 53,000 jobs and personal income totaling $34 billion. Delta, which operates a smaller hub at DFW, employs 4,000 people at the airport.

Dallas/Fort Worth serves as a large hub for Fort Worth-based American Airlines. AMR, the parent corporation of American, reported significant losses in 2003, but largely beat Wall Street expectations. Employees have taken pay cuts of 16 percent to 23 percent, and furloughs of 1,300 mechanics, 1,200 flight service clerks and 3,100 flight attendants followed, as well as the elimination of 2,200 pilots' jobs. Decreasing operations at its non-profitable hub in St. Louis and labor concessions from employees of $1.8 billion annually helped the carrier stay afloat financially as others declared bankruptcy. Cuts at Lambert translated into 28 additional large jet flights into DFW, increasing the total to more than 500 daily. These will be spread out among American's most profitable routes. American, which schedules almost 700 flights a day from DFW, controls 70 percent of the airport's total flights. The carrier is rebounding internationally as well. A new agreement with Mexican carrier Mexicana will assist American, already the United States' largest carrier in Latin American, with the Mexican market, adding 21 additional cities to its reach. A study by aviation consultants the Boyd Group shows DFW becoming the second largest inland international gateway to Asia (behind only Detroit) by the end of this decade.[77]

AMR experienced a trying 2003, barely averting bankruptcy with CEO Donald Carty resigning after the failure to disclose bonus and pension perks for senior executives came to light. After losing $6.4 billion in the 30 months up to and including the third quarter of 2003, American managed to turn a profit as a result of the sale of some older aircraft. The company also persuaded its unions to forego $1.6 billion in pay and benefits. In 2003, American cut flights in 144 markets, expanded service in 57, and ended it in 13 markets. American operates 680 aircraft, which will be flying longer routes with less ground time. DFW will see 30 fewer airplanes, but 74 additional flights, as seats will be returned to aircraft from which they were removed as part of American's "more leg room" campaign, which no longer is viewed as cost-effective.[78]

The Metroplex's other local carrier, Southwest, experienced its 50th consecutive profitable quarter in 2003, and has not looked back, celebrating its 31st consecutive year in the black in 2004. The company sets the standard for low-fare carriers, keeping costs low through operating only one type of aircraft (the Boeing 737), providing only one class of service, avoiding hub airports in favor of point-to-point service and through the development of an esprit de corps among its employees. Even with higher fuel costs affecting the industry, Southwest posted a profit of $26 million in the first quarter of 2004. Southwest will receive 47 new planes in 2004 to add to its current fleet of 385 aircraft. One concern is pilot pay, since Southwest pilots are due a 13.6 percent pay raise in 2004, which will place them among the highest-paid in the industry.[79] Southwest's unit costs (flying one seat one mile) ended 2003 at 7.6 cents, well below its competitors. The carrier maintains almost $2 billion in cash, but does not plan on expanding its base of employees in 2004.

In late 2003, Southwest announced that it would make a foray into unknown territory by expanding into US Airway's profitable hub in Philadelphia. After having driven US Airways from markets on the West Coast and in Baltimore, Southwest will begin operations in the City of Brotherly Love in May 2004, at first using just four gates. After nearly a decade of attempts to attract Southwest, Philadelphia succeeded when company officials determined that the airport's decreased congestion and additional gates would make operation of Southwest's business model feasible in this market.

Low-fare carrier AirTran serves DFW as well, and the Orlando-based airline is expected to quadruple its flights to the airport in 2004, as it was approved for an additional three gates at the beginning of the year. It will operate about 25 flights daily, making DFW a "focus city" or "mini-hub" along with Atlanta, Baltimore and Orlando.

Texas' other large hub, Houston's George Bush Intercontinental, is home to Continental Airlines, which employs more than 19,000 people in the Houston area. Intercontinental offers direct access to more than 150 destinations worldwide, and the airport served more than 35 million passengers in 2000, dropping just a bit to 34 million in 2002. One of the main international gateways in the United States, Intercontinental generates more than $8 billion annually for the local economy and creates more than 90,000 jobs. Projections show passenger traffic doubling by 2017. Construction of a new, 23-gate international terminal began in 2001 and was opened officially in January 2004, at a cost of $225 million. In the second quarter of 2001, Continental operated 556 flights from Intercontinental to 140 destinations, while two years later destinations served increased to 148, with flights decreasing to 530. A sharp growth in international travelers in Houston necessitated the creation of a new terminal. While 1989 saw 16 million international passengers, by 2003 that number had more than doubled to 34 million. Continental serves 56 destinations in Latin American and Caribbean countries and now has access to 80 gates at Houston's largest airport, which was the eighth-largest in the United States and the eleventh-largest in the world as of March 2004.[80] The carrier continues to build its Latin American service, adding flights to four cities in Mexico in February 2004. On the other hand, Continental faces competition from low-fare carriers in 70 percent of its markets and posted a loss of $124 million in the first quarter of 2004.

Houston's William P. Hobby Airport serves as an important destination for domestic travelers and point of origin for regional travelers. Southwest Airlines remains the primary carrier at this airport, and the Houston Airport System has begun a capital improvement system which focuses on keeping Southwest at Hobby, which provides nonstop or direct service to 65 cities. Hobby saw 8 million passengers served by seven carriers in 2002.

A 1991 decision by Congress to close Bergstrom Air Force Base in south Austin gave the city an opportunity to develop a new airport with existing infrastructure. The new Bergstrom International Airport, which replaced the Robert Mueller Airport in the heart of the city, cost $585 million and opened for cargo in 1997, and to passengers in May 1999. Construction of the passenger airport led to employment in demolition, utilities installation, terminal construction and high-tech systems installation, as well as for engineering, architecture and surveying companies. The city of Austin estimates that 11,300 jobs were created in 1998, with 50 percent of those directly related to airport construction. In addition, while a mere 1,000 people worked at the old airport at the peak of its operations, an estimated 16,000 could be employed at Bergstrom by 2012.[81] As the passenger base increases, airlines are adding destinations, such as nonstop service on United to Washington Dulles and San Francisco, and nonstop service to Las Vegas on America West, all added in early 2004. Southwest is the airport's top carrier, followed by American and Continental.

Finally, San Antonio International Airport offers central Texas nonstop, international service to Mexico City and Monterrey, Mexico, as well as 25 additional U.S. destinations. In 2002, the airport saw a total of 3.2 million passenger enplanements and 234,000 aircraft landings and takeoffs.[82]

Virginia

Two of Washington, D.C.'s three airports are located in Virginia, as is the headquarters of one of the six traditional carriers. Arlington-based US Airways, the nation's seventh-largest carrier, spent seven months, from late 2002 to early 2003, in bankruptcy and has lost $4.5 billion since 2001. It faces intense competition from low-cost airlines and is considering selling its assets such as the shuttle linking Boston Logan, Washington Reagan National and New York LaGuardia or valuable gates at LaGuardia or Logan. Other carriers, such as American and Delta, have expressed interest in the shuttle service, which caters to the lucrative business market. American tired to buy the operation in 1997, with a $300 million bid, but US Airways won the bidding war. US Airways has 17 gates at Logan, 20 at LaGuardia and 14 at Reagan National; as well as assigned takeoff and landing times at the latter two airports. Such "slots" are quite valuable at these congested airports.[83] The carrier is the second-largest employer in Arlington County, with more than 2,000 employees, and another 51 at Dulles Airport. Economic impact from Reagan National Airport in 2002 has been estimated at $180 million in total salaries and related items and $543 million in annual expenditures; from Dulles, $4.1 million in total salaries and related expenditures and $12.2 million in annual expenditures.

As of March 2004, it was considered likely that US Airways would sell one of its express carriers or another asset as it prepared to compete with low-fare leader Southwest in Philadelphia. The carrier made a deal with the Air Transportation Board in March 2004, as the airline prepaid $250 million of $1 billion in loans. In exchange, the government extended its deadline for US Airways returning to profitability to 2005. US Airways is trying to reduce its costs by 25 percent and continues to lose money despite its eight months in bankruptcy protection and trimming costs by $1.3 billion annually, including $1 billion from labor. In April 2004, Chief Executive Officer David Siegel, who guided the airline through its bankruptcy hearings, resigned after maintaining that the airline must make further cuts.

Suburban Washington, D.C.'s Dulles International Airport stands as one of the best examples of forward planning in the aviation industry. Built in 1962 in Loudoun County, what was then Virginia's countryside, Dulles' development began with the opening of its toll road in 1982. While no one could have predicted that Loudoun would become the fastest growing county in the country in the 1990s, those who gave the green light to build a large international airport far from the city were vindicated. The Washington Airport Task Force, which strongly recommends the expansion of the Capital Metro system to the airport, estimates that 68 percent of the 1 million jobs created in the region in the past 29 years are in areas with easy access to Dulles, which has 120 gates and employs 15,400 people.[84] Dulles provides nonstop service to 72 domestic and 28 foreign destinations, pumping $4.1 billion into the local economy.[85] A study conducted for the Metropolitan Washington Airports Authority and based on 2002 statistics (a particularly bad year in the industry) demonstrates that the two District airports generate more than $9 billion into the local economy in direct and associated spending, and they provide more than 27,500 jobs, with 18,800 at Dulles and 8,700 at Reagan National. Airport employees earn $1.3 billion annually. The two airports accounted for business revenue of more than $4.7 billion and generated $237 million in state and local taxes as well as $382 million in federal taxes. Furthermore, the ongoing renovation at Dulles supports more than 2,300 jobs in construction and related industries.[86]

One of the few airports in the eastern United States with room to expand, Dulles had become by 1999 the fastest-growing airport in the United States, with an annual growth rate of 26 percent. It also became extremely crowded, with 20 million passengers packing the halls in 2000, a figure which decreased to 18 million in 2001 and 17 million (with 4 million on lucrative international flights) in 2002. After the 2001 terrorist attacks, the airport authority had to scale back its $4.1 billion plan and focus on creating more capacity; therefore, Concourse C/D will have to wait to be replaced.

Far from resting on it laurels, Dulles forges ahead with an energetic, $2.6 billion renovation plan, which, to the joy of many travelers, will include the abolition of the much-maligned people movers which shuttle passengers from the terminal to the concourses. The first phase of the project was completed in 1998, with the construction of one parking garage, a new concourse, baggage claim and ticket counters. Implementation of train service between concourses should be complete by 2008. The plan, which passed an environmental impact study, also will include adding a new air control traffic tower and the addition of new gates in Concourse B. Bonds issued by the airport authority will pay for most of the construction, but officials expect to raise $666 million through an increase in the passenger facility charge, which is included in the price of a ticket. Current projections envision serving 55 million passengers annually in the coming decades.[87]

Chicago-based United Airlines operates a hub at Dulles. United, much like other carriers, has faced some financial troubles in recent times. In March 2004, the carrier applied for an extension in its bid to emerge from bankruptcy, telling a federal judge that it needs two more months to reorganize. The airline is struggling to find a way to fund its $4.1 billion employee pension plan and, although United has cut $2.5 billion in annual costs while in bankruptcy, it still lost $2.8 billion in 2003. United also lost the services of regional carrier Atlantic Coast Airlines, which no longer operates its flights.

After a remarkable turn of events at the end of 2003, Dulles will have an opportunity to become a leading low-fare hub as well. Atlantic Coast Airlines, which formerly operated as a regional carrier for United and Delta, has transformed itself into Independence Air, a low-fare carrier which will utilize Dulles as its main hub. Independence has purchased 25 Airbus jets for

$1.4 billion and successfully repelled an attempted hostile takeover maneuver from Mesa Air, which eventually canceled its bid. The new carrier will operate as many as 350 flights per day to mid-size cities with a fleet of 50-seat regional jets, offering fares as much as 70 percent lower than competing airlines on some routes.[88] Dulles currently has some low-fare service from Jet Blue, AirTran and Song, and Independence officials predict that the carrier will succeed largely because its low prices will generate demand at smaller airports which have never enjoyed low-fare service to a hub such as Dulles.

Washington, D.C.'s smaller airport, Reagan National, also is located in Virginia. The airport features 44 gates and served almost 13 million passengers in 2002. Because of noise and safety restrictions, nonstop service is offered to destinations no farther than 1,250 miles from the District of Columbia, with the exceptions of some major cities in the West. The airport employs more than 10,200 people and contributes $2.4 billion to the regional economy. It is served by 20 carriers which provide flights to 60 domestic destinations as well as three in the Caribbean.

Among Virginia's smaller airports, Richmond's is undergoing construction as new roads are built and a two-level passenger terminal has been envisioned. A $6.6 million interior renovation commenced in 2003 and should be complete by late 2004. Richmond International saw an increase in traffic in 2003, with its 1.3 percent increase by far outperforming the national average of a 2.7 percent decline. Richmond handled almost 2.4 million passengers in 2003 and is approaching its record of 2.7 million set in 2000. All six hub-and-spoke carriers serve Richmond, and US Airways remains the prime carrier in the market, with 31 percent of travelers. Delta ranks second, with 27 percent.

On the other hand, Norfolk International experienced a decline of 1 percent in passenger traffic in 2003, with 3.44 million travelers. Nearby Newport News/Williamsburg International reported a 23 percent jump, with 729,000 passengers. Unlike Richmond, both Tidewater-area airports offer service from low-fare carriers.[89] Norfolk completed renovation of its terminal lobby in 2002 as the first phase of its Arrival 2002 program. The economic impact of the Norfolk airport is considerable, with 16,480 direct and indirect jobs and annual paychecks of more than $300 million.[90]

West Virginia

Charleston's Yeager Airport offers nonstop service to 10 hubs, including Houston and Dallas. The Charleston airport employs 435 people in its commercial operations and is served by six airlines, including newcomer (announced in May 2004) Independence Air. Yeager offers 82 flights per day and handled almost 500,000 passengers in 2003, down from a high of more than 544,000 in 2000. However, airport officials expect a 10 percent increase in traffic in 2004.

Tri-State Airport in Huntington offers nonstop service to Pittsburgh and Charlotte on US Airways and to Atlanta on Delta. Plans to construct a regional airport between the two cities have stalled.

Conclusion

Although struggling, the aviation industry has left an indelible mark on Southern state economies. While the airline industry faces multiple challenges at the present time, there can be little doubt that its economic impact on the SLC states has been positive. Hubs, with their thousands of jobs and economic contributions to regional economies, continue to operate in six of the 16 SLC states, and other important airports act as engines of commerce in their local communities as well. While capacity has decreased during these trying economic times, historically low fares offered by both low-cost and traditional airlines have aided in rekindling among potential passengers the desire to fly, and a switch to low-cost regional jets which can serve smaller markets safely and economically has provided flexibility to struggling carriers. In addition to providing jobs and necessary services, Southern airports open the SLC for international business and welcome visitors to the South.

Endnotes

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