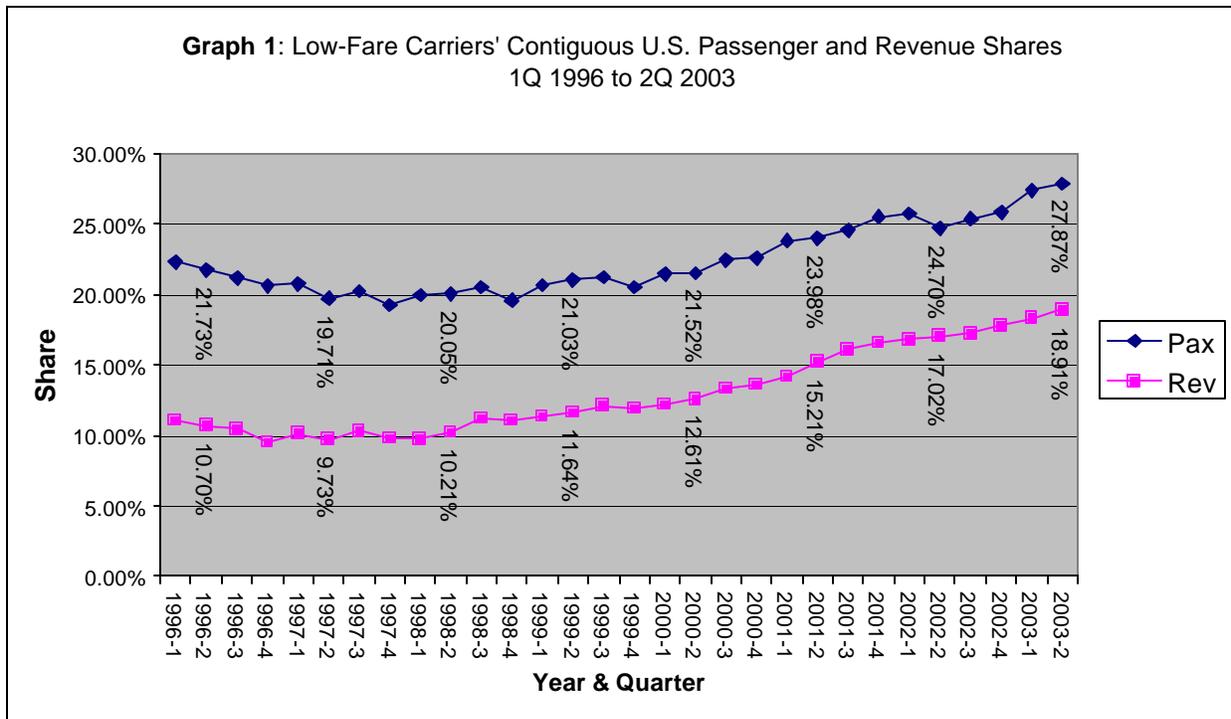


**Office of Aviation and International Affairs, Aviation Analysis**  
**Low-Fare Service Developments – Second Quarter 2003**  
**Domestic Aviation Competition Issue Brief Number 22**

The growth of low-fare carriers in the domestic market is a phenomenon that has been well documented as has the fact the low-fare carriers have generally had much more success in weathering the airline industry downturn that began in late 2000 than the large network carriers have had. Our Special Features have repeatedly demonstrated the dramatic effect of low-fare entry on fares and traffic in affected markets as well as the huge disparity in fares between markets with and without the price disciplining force of low-fare competitors. The juxtaposition of the financial results of the past three years of the low-fare carriers, on the one hand, and the large network carriers on the other, speaks for itself. Many industry executives and observers have gone on the record stating that they believe that the changes that the airline industry has experienced over the past three years are permanent as opposed to cyclical variations. While only time will tell whether the factors shaping the current airline operating environment are indeed permanent, our recent Special Feature analyses, which focused on low-fare carrier expansion in long-haul markets (3<sup>rd</sup> quarter of 2002), declining legacy carrier revenue premiums (4<sup>th</sup> quarter of 2002), and fare structure experimentation (1<sup>st</sup> quarter of 2003), have highlighted various aspects of how the industry’s competitive dynamics are evolving in response to market realities.

In the context of the longer-term competitive structure of the airline industry, a key question for the future concerns the extent to which low-fare carriers will continue to grow. To give the issue some context, Graph 1 below illustrates low-fare carrier<sup>1</sup> traffic and revenue shares of the domestic market<sup>2</sup> by quarter from the 1<sup>st</sup> quarter of 1996 to the 2<sup>nd</sup> quarter of 2003. The graph shows low-fare carrier passenger and revenue shares have grown rapidly since 2000, reaching 27.87% and 18.91%, respectively, by 2Q03.



<sup>1</sup> See Appendix A for a list of carriers considered to be “low-fare carriers” for the purpose of this analysis.

<sup>2</sup> The “domestic market” is defined here as markets within the contiguous 48 states.

Views differ as to how the competitive structure of the domestic industry will evolve in the coming years. Some industry observers predict that low-fare carriers will eventually account for a large part of the domestic industry while others have a completely different view. Those in the latter group typically point out that only one carrier that began operations in the deregulated era has achieved major carrier status (America West) and the history of the deregulated airline industry is littered with failures. Central to the question of how large the low-fare carriers will grow is the extent to which the low-fare/low-cost model is adaptable to types of markets beyond the short-haul markets large enough to be served primarily on a point-to-point basis that were the genesis of Southwest's model. One new arena in which the low-fare carriers have recently shown a willingness to challenge the large network carriers is in non-stop transcontinental markets.<sup>3</sup> However, the low-fare carriers have been accused of cherry-picking the largest markets while ignoring smaller communities.

Current market developments are, however, testing the viability of the low-fare model in smaller markets. Most of the large low-fare carriers operate at least some service to smaller cities with their own large jet equipment. Furthermore, AirTran, ATA, and Frontier, the three low-fare carriers that operate traditional hub-and-spoke systems, already have regional affiliates that provide them with aircraft appropriately sized for service in smaller markets. AirTran contracts with Air Wisconsin for 50-seat regional jet service both on spoke routes out of its Atlanta hub as well as on point-to-point routes that bypass Atlanta. ATA's regional affiliate, Chicago Express, operates 34-seat turboprops between ATA's hub at Chicago Midway and smaller cities in the Midwest. Frontier contracts with Horizon to provide Frontier branded regional jet lift to support its Denver hub. Frontier also has a marketing relationship with Great Lakes Aviation whereby the Frontier code is placed on Great Lakes flights between Denver and more than 30 small communities. Passengers can then connect in Denver to other flights across the Frontier system.

Other developments portend additional low-fare service to smaller cities. In June, JetBlue announced, in defiance of conventional wisdom regarding low-cost carrier fleet planning, that it would add a second aircraft type. The first of these 100-seat Embraer 190 aircraft is scheduled for delivery in 2005. The Embraer 190's size will greatly increase the number of potential markets into which JetBlue can expand as it will make markets that were too small to support service with JetBlue's 156-seat A320s economical for the carrier. Additionally, Atlantic Coast has announced plans to transform itself into an independent, low-fare carrier based at Washington Dulles called Independence Air. One of the elements of Independence Air's business plan includes using regional jets to provide low-fare service to smaller cities, including cities it currently serves under contract for United that do not have any service by low-fare carriers at present.<sup>4</sup>

No one knows how high the low-fare carriers' share of the domestic market will ultimately reach. The market will determine whether the low-fare model is economically viable in smaller markets. In the meantime, in an effort to inform the debate, we consider below several issues with respect to service offered by low-fare carriers.

### ***Low-fare carrier service to small hub and non-hub cities***

While it is true that the majority of the cities served by the low-fare carriers are large cities, and that the number of small cities served by low-fare carriers is much smaller than the number served by each of the major network carriers, evidence suggests certain low-fare carriers nonetheless generate a large proportion of their overall domestic traffic and revenue in smaller markets.<sup>5</sup> Table 1 below lists the small

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<sup>3</sup> See our Special Feature for the third quarter of 2002.

<sup>4</sup> The business plan also calls for the acquisition A319s and A320s to fly routes from Washington Dulles to large west coast cities.

<sup>5</sup> As a proxy for city size, we used the FAA's hub size definitions for the year 2001. See <http://www1.faa.gov/arp/planning/stats/index.cfm> for more information. While these airport size definitions generally work well as a stand-in for city size, there are certain small hub and non-hub airports served by low-fare carriers that are located in or in close proximity to large metropolitan areas. Since the purpose of this section is to

and non-hub airports served by each of the six largest low-fare carriers as of the second quarter of 2003. Table 2 provides the proportion of each low-fare carrier’s domestic traffic derived from airport pair markets where the origin and/or the destination are/is one of the small or non-hub airports listed in Table 1.

<b>Table 1: Small Hub &amp; Non-hub Airports Served by Low-fare Carriers During 2Q03*</b>	
Carrier	City
AirTran	Bloomington/Normal, IL; Dayton, OH; Flint, MI; Greensboro, NC; Gulfport, MS; Moline, IL; Myrtle Beach, SC; Newport News, VA; Pensacola, FL; Rochester, NY; Savannah, GA; Tallahassee, FL; Wichita, KS
ATA	Cedar Rapids, IA; Dayton, OH; Des Moines, IA; Flint, MI; Grand Rapids, MI; Lexington, KY; Madison, WI; Moline, IL; Sarasota/Bradenton, FL; South Bend, IN; Springfield, IL; Toledo, OH
Frontier	Alamosa, CO; Alliance, NE; Amarillo, TX; Boise, ID; Casper, WY; Chadron, NE; Cheyenne, WY; Cody, WY; Cortez, CO; Dickinson, ND; Dodge City, KS; Durango, CO; El Paso, TX; Farmington, NM; Garden City, KS; Gillette, WY; Grand Island, NE; Hays, KS; Kearney, NE; Laramie, WY; Liberal, KS; McCook, NE; Moab, UT; Norfolk, NE; North Platte, NE; Page, AZ; Pierre, SD; Pueblo, CO; Riverton, WY; Rock Springs, WY; Santa Fe, NM; Scottsbluff, NE; Sheridan, WY; Telluride, CO; Vernal, UT; Wichita, KS; Williston, ND; Worland, WY
JetBlue	Burlington, VT; Rochester, NY; Syracuse, NY
Southwest	Albany, NY; Amarillo, TX; Birmingham, AL; Boise, ID; Corpus Christi, TX; El Paso, TX; Harlingen, TX; Jackson, MS; Little Rock, AR; Lubbock, TX; Midland, TX; Norfolk, VA; Spokane, WA; Tulsa, OK
Spirit	Atlantic City, NJ; Myrtle Beach, SC

<b>Table 2: Low-fare Carriers' Share of Total Domestic Traffic and Revenue Generated in Airport-Pair Markets Where the Origin and/or the Destination is a Small Hub or Non-hub Airport*</b>				
Carrier	Traffic Share 2Q01	Traffic Share 2Q03	Rev Share 2Q01	Rev Share 2Q03
AirTran	31%	28%	30%	27%
ATA	9%	13%	9%	13%
Frontier	2%	3%	2%	3%
JetBlue	20%	10%	16%	8%
Southwest	15%	14%	15%	15%
Spirit	30%	26%	27%	25%

\*Excludes Akron-Canton, OH (CAK), Long Island MacArthur, NY (ISP), Long Beach, CA (LGB), Manchester, NH (MHT), and St. Petersburg/Clearwater, FL (PIE) as explained in footnote 5.

Table 1 illustrates that the three low-fare carriers with traditional hub-and-spoke systems all offer service to at least ten small hub or non-hub airports. More than ten of the fifty-nine airports currently served by Southwest are small or non-hub airports. Table 2 shows that certain low-fare carriers generate a substantial portion of their total revenue and traffic in small hub and non-hub airport markets. During the second quarter of 2003, AirTran generated 28% of its traffic and 27% of its revenue in small city markets. Spirit generated a like amount of its traffic and revenue in small city markets, both major leisure travel destinations.

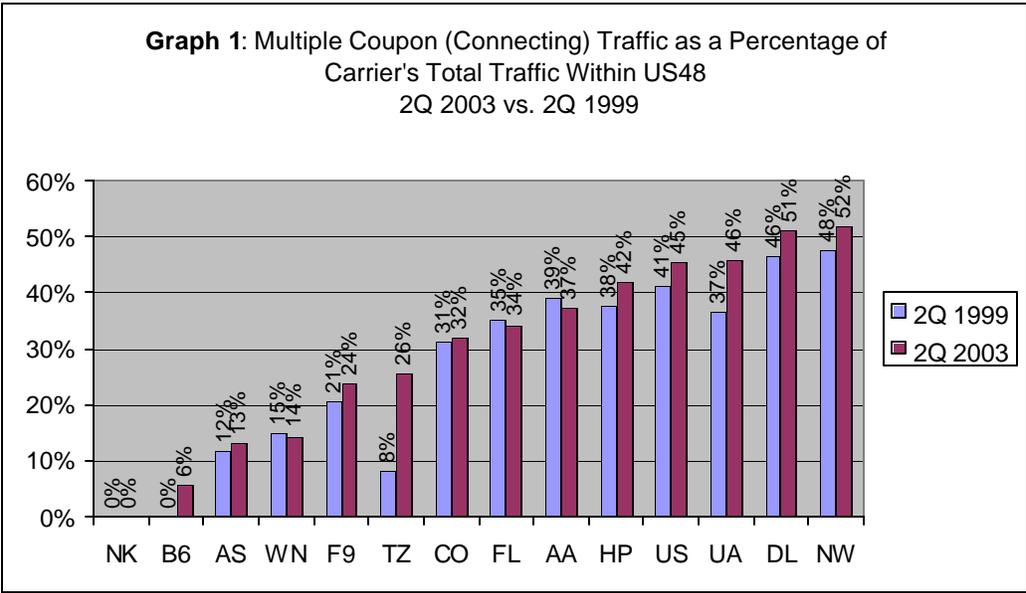
***Low-fare carrier connecting service***

As a result of their traditional focus on large markets that can sustain non-stop service, low-fare carriers have established a reputation as being “point-to-point” carriers. Graph 2 illustrates the proportion of each

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illustrate the level of low-fare service in smaller communities, the following such airports were removed from this analysis: Akron-Canton, OH (CAK), Long Island MacArthur, NY (ISP), Long Beach, CA (LGB), Manchester, NH (MHT), and St. Petersburg/Clearwater, FL (PIE).

airline’s domestic traffic carried on a multiple coupon<sup>6</sup>, or connecting, basis in both 2Q1999 and 2Q2003. This graph demonstrates that certain low-fare airlines carry substantial amounts of connecting traffic.



Spirit is correctly classified as a point-to-point carrier since virtually none of its sample passengers in the 2Q03 traveled on multiple coupon itineraries. JetBlue is primarily a point-to-point carrier as well. In 2Q03, 73% of JetBlue’s domestic traffic and 76% of its domestic revenues were derived from origin and destination markets involving New York JFK, where the airline has its home base. AirTran, however, connects passengers through its Atlanta hub at a similar rate as Continental does through its system. Both Frontier and, especially, ATA have grown their connecting traffic as they have added destinations and developed their hubs at Denver and Chicago Midway, respectively. Even Southwest, which is usually characterized exclusively as a point-to-point carrier, carries roughly one in seven passengers on a connecting basis.

**Low-fare carrier growth**

As indicated in Graph 1 above, low-fare carriers’ passenger and revenues shares of the domestic market stood at 27.87% and 18.91% respectively as of the 2Q03. The low-fare carriers have grown in spite of the industry’s downturn and apparently plan to continue to grow at a rapid pace as evidenced by the large number of aircraft they have on order. As mentioned above, JetBlue placed an order for 100-seat aircraft in mid-2003. In April 2003, it also ordered 65 additional A320s. Taking into account these new orders as well as its pre-existing orders, JetBlue has firm orders for almost 200 aircraft for delivery between 2004 and 2011. Southwest has more than 120 airplanes on firm order for delivery over the next five years and plans to take delivery of 47 aircraft in 2004 alone. In July, AirTran ordered 50 737s plus took 50 737 options, in addition to ordering up to 10 more 717s. Frontier expects to grow its fleet 60% by 2008.

<sup>6</sup> Passengers that did not travel on multiple coupon itineraries did not necessarily travel non-stop. Single coupon itineraries include both non-stop itineraries as well as direct itineraries (where a stop is made but no change of plane is required). Southwest, in particular, offers a great deal of linear, direct service that appears in the O&D survey as single coupon service.

Graph 2, on page 6, depicts the low-fare carriers' share of traffic by distance/density block<sup>7</sup> in 2Q1995 compared to 2Q2003. Graph 2 illustrates that the low-fare carriers have not only increased their traffic share in markets where they already had a substantial presence in 1995, namely in dense, short-haul markets, but have also expanded into new market segments including longer-haul markets and less dense markets. Low-fare carrier growth in the two longest distance blocks has been particularly dramatic, particularly in dense, long-haul markets. For example, in the greater than 2500 miles/greater than 500 passengers per day distance/density block, the low-fare carriers' share of traffic rose from less than 1% in 2Q1995 to almost 17% in 2Q2003. While the low-fare carriers have expanded into market segments beyond the dense, short haul markets in which they were firmly established in 1995, their share of the traffic in other segments is still relatively small.

Another point is low-fare carrier entry is increasingly occurring at major, primary airports, not just at so-called secondary or alternative airports. Boston Logan (JetBlue), Las Vegas (AirTran), Los Angeles (AirTran), Philadelphia (Southwest), San Francisco (AirTran), and Washington National (AirTran and Spirit) have all either seen entry by an additional low-fare carrier recently or will see the entry of an additional low-fare carrier in the next six months.

## **Conclusion**

A key determinant of the future structure of the domestic airline industry is to extent to which the low-fare model can be successfully extended on a sustainable basis beyond the dense, short-haul markets that, until recently, constituted the traditional market segment on which low-fare carriers focused. Although views differ as to how large the low-fare carriers' share of the domestic market will ultimately grow, the number of aircraft on order by the current group of low-fare carriers indicates substantial low-fare growth is planned over the next ten years. These aircraft orders do not even speak to any low-fare growth that may be driven by new low-fare entrants, including those with new types of business models. In an effort to inform this debate, this Special Feature addressed three related issues concerning domestic low-fare service. The first issue was low-fare carrier service to small hub or non-hub cities. Our analysis indicates that, while the number of small cities served by low-fare carriers is much smaller than the number served by legacy carriers, certain low-fare carriers generate significant proportions of their traffic and revenue in smaller markets. Issue two was low-fare connecting service. Our analysis illustrates that certain low-fare airlines carry considerable amounts of connecting traffic. The third issue was low-fare carrier growth. Our analysis shows that not only have low-fare carriers grown in market segments in which they were present in large numbers in 1995, primarily dense, short-haul markets, some have expanded into new market segments, such as less dense and longer-haul markets. Despite the low-fare carriers' rapid growth, there remain numerous large markets where the low-fare carriers have not yet gained a competitive foothold. Furthermore, the low-fare carriers' share of traffic in the new market segments into which they have expanded since 1995 is relatively low compared to market segments in which low-fare service was firmly established in 1995.

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<sup>7</sup> For this analysis, the market definitions were expanded to include traffic at both primary and secondary airports (e.g. the "Boston market" includes Boston Logan, Manchester, and Providence, the latter two of which are served by Southwest). See Appendix B for the list of airports that make up each city as defined for this analysis. Also, in order to facilitate "apples-to-apples" market comparisons between the two time periods, a given market's placement in the distance/density matrix was based on that market's distance and density in 2Q03. The increased traffic volume generated by low-fare entry often shifts markets into higher density blocks.



Appendix A	
Low-fare Carriers for the Purpose of Special Feature Analysis	
Airline Code	Airline
B6	JetBlue Airways
F9	Frontier Airlines
FF	Tower Air*
FL	AirTran Airways
J7	Valujet Airlines*
KP	Kiwi International*
KW	Carnival Air Lines*
N5	Nations Air Express*
N7	National Airlines*
NJ	Vanguard Airlines*
NK	Spirit Airlines
P9	Pro Air*
QQ	Reno Air*
SY	Sun Country Airlines
TZ	ATA Airlines
W7	Western Pacific Airlines*
WN	Southwest Airlines
WV	Air South*
XP	Casino Express

\*carrier has ceased operations

Appendix B	
Composite Cities for the Purpose of the Special Feature Analysis	
City	Airport Code
Boston/Manchester/Providence	BOS
	MHT
	PVD
Chicago	MDW
	ORD
Cleveland/Canton/Akron	CAK
	CLE
Dallas/Ft. Worth	DAL
	DFW
Detroit	DET
	DTW
Houston	EFD
	HOU
	IAH
Los Angeles/Southern California	BUR
	LAX
	LGB
	ONT
	SNA
Fort Lauderdale/Miami	FLL
	MIA
New York City	EWR
	JFK
	LGA
Newport News/Norfolk	ORF
	PHF
San Francisco/San Jose/Oakland	OAK
	SFO
	SJC
Tampa/St. Petersburg	PIE
	TPA
Washington	DCA
	IAD