

**Office of Aviation and International Affairs, Aviation Analysis**  
**Major Network Carrier Exposure to Low-Fare Competition – Fourth**  
**Quarter 2003**  
**Domestic Aviation Competition Issue Brief Number 24**

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This quarter we present a broad look at the each of the eight largest major network carrier's exposure to low-fare carrier (LFC) competition. We conducted several analyses that measured exposure to LFCs in a variety of ways. The first analysis examined how each carrier's exposure to low-fare competition changed between the fourth quarter of 2000 (4Q00) and the fourth quarter of 2003 (4Q03). The second analysis examined the extent to which each carrier's exposure differed when markets were defined on a city-pair basis versus an airport-pair basis. The last analysis examined each carrier's exposure to low-fare competition at various low-fare carrier market share thresholds.

Notes: The eight largest major network carriers are America West, Alaska, American, Continental, Delta, Northwest, United, and US Airways. The airlines defined as "low-fare" for this analysis were AirTran, ATA, Casino Express, Frontier, JetBlue, Southwest, Spirit, and Sun Country. Defunct carriers National Airlines and Vanguard were included in the low-fare carrier group for the fourth quarter of 2000. When analysis was conducted at the city-pair level (as opposed to airport-pair level), the city definitions that appear in Appendix A were used. This analysis was based only on markets within the continental U.S. It is worth noting that since operations by U.S. low-fare carriers outside of the continental U.S. are still relatively limited, the large network carriers are less exposed to low-fare carrier competition on a systemwide basis than when analysis is limited to continental U.S. markets.

**Analysis 1: Changes in Exposure to Low-Fare Competition Over Time**  
*Revenue Generated in City-Pair Markets with 5% LFC Market Share, Fourth Quarter of 2000 vs. Fourth Quarter of 2003*

Graph 1 illustrates each major network carrier's percentage of total revenue generated in US48 city-pair markets exposed to low-fare carrier competition at the 5% market share level in 4Q03 versus 4Q00. Both Alaska and America West, the two carriers in the group with the most exposure in both periods, saw a slight decline in exposure between 2000 and 2003. Among the Big Six carriers, United had the greatest exposure in both periods while US Airways had the least exposure in both periods. Each of the Big Six carriers<sup>1</sup>, with the exception of Northwest, saw their exposure to low-fare competition increase by at least 10 percentage points. United's exposure increased by the greatest number of percentage points (13 points - from 54% to 67%) while Northwest's increased the least (2 points - from 46% to 48%).

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<sup>1</sup> The Big Six carriers are American, Continental, Delta, Northwest, United, and US Airways.

**Graph 1: Percent of Total Revenue Generated in City-Pair Markets Where at Least One Low-Fare Carrier (LFC) has a 5 Percent Market Share - By Carrier, 4Q03 vs. 4Q00**

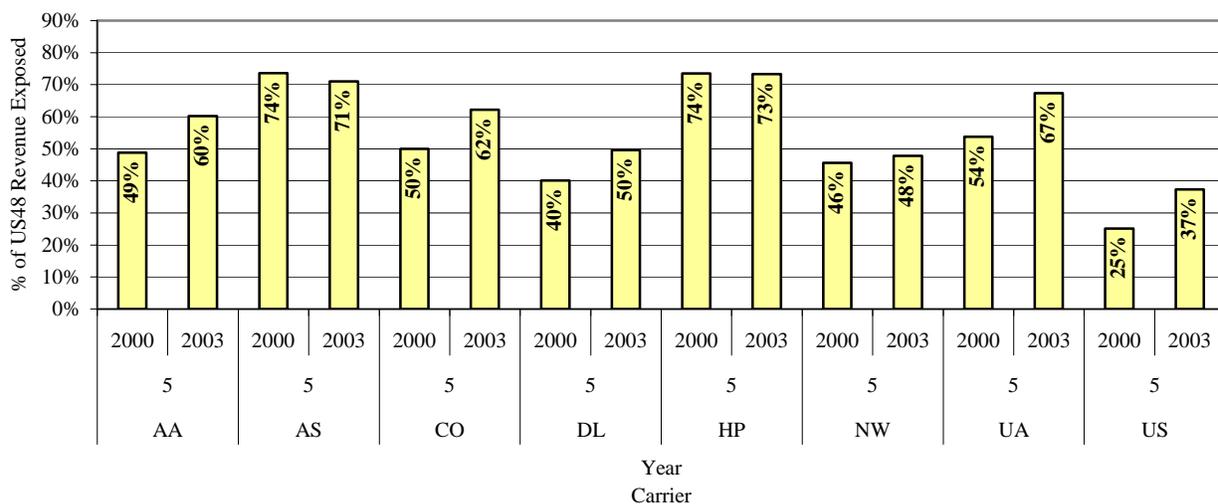


Table 1 below lists each Big Six carrier's five largest city-pair markets by revenue in 2003 that had exposure to at least one LFC with a 5% share of the market in 4Q03 but that was not exposed at the 5% level in 4Q00. The table shows that at least one LFC has obtained at least a 5% share of the market in some of the largest, and formerly most lucrative, transcontinental markets in the country. The Big Six carriers' average fares and revenues have fallen dramatically in many of these markets due to a combination of increased competition from the LFCs as well as broader issues that have impacted air travel demand including the economic downturn, terrorism fears, increased price transparency enabled by the internet, and changing business travel purchasing habits.

Table 1: Big Six Carriers' Top 5 Markets By Revenue with LFC entry at 5% Market Share Level - 4Q03 vs. 4Q00 (10% Sample)										
Big Six Carrier	City-Pair Market	Big Six Carrier's AvgFare00	Big Six Carrier's AvgFare03	% Cng	Big Six Carrier's Revenue00	Big Six Carrier's Revenue03	% Cng	Big Six Carrier's Passenger MktShare00	Big Six Carrier's Passenger MktShare03	LFC(s) with 5% Passenger Share in 4Q03
AA	Los Angeles-New York	\$453	\$264	-42%	\$8,638,669	\$7,954,836	-8%	28%	34%	JetBlue
AA	New York-San Francisco	\$545	\$329	-40%	\$6,111,469	\$3,487,426	-43%	20%	18%	ATA, JetBlue
AA	Boston-San Francisco	\$513	\$322	-37%	\$4,357,847	\$2,163,742	-50%	29%	29%	ATA
AA	Los Angeles-Washington	\$384	\$320	-17%	\$2,019,751	\$1,529,568	-24%	28%	20%	JetBlue
AA	Dallas/Ft. Worth-Miami	\$241	\$221	-8%	\$1,562,830	\$1,441,415	-8%	64%	71%	AirTran
CO	Los Angeles-New York	\$409	\$267	-35%	\$4,300,006	\$3,432,680	-20%	15%	15%	JetBlue
CO	New York-San Francisco	\$475	\$217	-54%	\$4,773,971	\$2,935,191	-39%	18%	22%	ATA, JetBlue
CO	Cleveland-New York	\$269	\$266	-1%	\$2,366,586	\$1,642,983	-31%	79%	51%	AirTran
CO	New York-San Diego	\$431	\$295	-32%	\$1,594,360	\$1,336,983	-16%	32%	25%	JetBlue
CO	New York-Seattle/Tacoma	\$514	\$265	-49%	\$1,985,593	\$1,191,686	-40%	33%	28%	JetBlue
DL	Atlanta-San Francisco	\$427	\$189	-56%	\$4,015,702	\$2,100,040	-48%	63%	69%	JetBlue
DL	Atlanta-Las Vegas	\$242	\$154	-36%	\$1,225,674	\$1,602,243	31%	69%	78%	AirTran
DL	Los Angeles-New York	\$368	\$218	-41%	\$1,676,887	\$1,414,577	-16%	7%	8%	JetBlue
DL	Atlanta-Baltimore	\$190	\$141	-26%	\$1,367,540	\$1,169,246	-15%	63%	66%	AirTran
DL	Boston-West Palm Beach	\$159	\$140	-12%	\$762,481	\$1,029,559	35%	50%	57%	Southwest
NW	Memphis-New York	\$227	\$216	-5%	\$1,111,313	\$956,452	-14%	73%	69%	AirTran
NW	Miami-Minneapolis/St.Paul	\$237	\$221	-7%	\$753,052	\$764,116	1%	59%	54%	AirTran, ATA, Sun Country
NW	Baltimore-Minneapolis/St.Paul	\$301	\$251	-17%	\$633,450	\$616,424	-3%	77%	71%	AirTran
NW	Atlanta-Minneapolis/St.Paul	\$132	\$136	3%	\$790,359	\$548,277	-31%	55%	42%	AirTran
NW	Minneapolis/St.Paul-Portland, OR	\$300	\$203	-32%	\$676,905	\$489,472	-28%	75%	68%	Frontier, Sun Country
UA	New York-San Francisco	\$567	\$352	-38%	\$10,557,132	\$4,596,509	-56%	34%	24%	ATA, JetBlue
UA	San Francisco-Washington	\$610	\$377	-38%	\$6,967,809	\$4,083,806	-41%	68%	51%	JetBlue
UA	Los Angeles-New York	\$463	\$333	-28%	\$6,263,339	\$3,869,501	-38%	19%	14%	JetBlue
UA	Los Angeles-Washington	\$444	\$437	-2%	\$3,551,822	\$3,085,020	-13%	41%	30%	JetBlue
UA	Boston-San Francisco	\$509	\$369	-28%	\$5,585,254	\$2,968,391	-47%	39%	37%	ATA
US	Boston-Philadelphia	\$228	\$114	-50%	\$3,385,541	\$1,652,111	-51%	83%	72%	AirTran
US	Orlando-Pittsburgh	\$147	\$114	-23%	\$951,249	\$729,133	-23%	89%	71%	AirTran
US	Las Vegas-Pittsburgh	\$217	\$154	-29%	\$427,473	\$600,210	40%	65%	65%	AirTran, ATA
US	Miami-Pittsburgh	\$160	\$151	-6%	\$790,622	\$542,475	-31%	86%	63%	AirTran
US	Charlotte-Los Angeles	\$359	\$280	-22%	\$764,354	\$524,374	-31%	55%	45%	ATA

The tables below (2a, 2b, 2c, and 2d) provide additional detail on market share, revenue, fared passenger traffic, and average fares for each carrier that had at least a 5% market share in either time period for four of the markets identified above that differ in terms of their competitive dynamics (Los Angeles-New York, Atlanta-San Francisco, Atlanta-Minneapolis/St.Paul, and Memphis-New York).

### A) Los Angeles-New York

The Los Angeles-New York market, the third largest market in the country by passenger volume in 4Q03, has experienced dramatic change since 4Q00. JetBlue and Big Six carriers American, Continental, Delta, and United all offered nonstop service between at least one Los Angeles area airport and at least one New York City area airport in both 4Q00 and 4Q03. JetBlue's share of traffic in the Los Angeles-New York market increased from only 2% in 4Q00, when it operated a single daily Ontario (ONT)-New York JFK flight, to 19% in 4Q03, on fared passenger growth of 800% and revenue growth of 756%. Meanwhile, Big Six incumbents American<sup>2</sup>, Continental, Delta, and United have all seen their revenues decline, in some cases despite substantial increases in their traffic, due to the severity of the decline in fares. The market has also been affected by America West's initiation of nonstop service between New York (JFK) and Los Angeles (LAX) in late October 2003.

Carrier	Mkt Share00	Mkt Share03	Revenue00	Revenue03	Revenue % Cng	Fared Pax00	Fared Pax03	Fared Pax % Chng	Average Fare 00	Average Fare 03	Average Fare % Cng
JetBlue	2%	19%	\$352,074	\$3,015,490	756%	2,056	18,508	800%	\$171	\$163	-5%
United	19%	14%	\$6,263,339	\$3,869,501	-38%	13,523	11,617	-14%	\$463	\$333	-28%
TWA	13%		\$2,384,483			9,038			\$264		
Delta	7%	8%	\$1,676,887	\$1,414,577	-16%	4,559	6,489	42%	\$368	\$218	-41%
Continental	15%	15%	\$4,300,006	\$3,432,680	-20%	10,501	12,869	23%	\$409	\$267	-35%
American	28%	34%	\$8,638,669	\$7,954,836	-8%	19,088	30,083	58%	\$453	\$264	-42%

### B) Atlanta-San Francisco

The revenue environment in the Atlanta-San Francisco market has also been dramatically affected by LFC entry. Dominant Big Six incumbent Delta's revenue fell 48% between 4Q00 and 4Q03 despite an 18% increase in traffic as its average fare plummeted from \$427 to \$189. JetBlue had begun nonstop Atlanta-Oakland (OAK) service in September 2003, and although JetBlue terminated service in this market in early December 2003, it still achieved an 8% market share for 4Q03 on an average fare of \$105. AirTran's entry into the Atlanta-San Francisco (SFO) market on November 12, 2003 with nonstop service also dramatically impacted prices, however, its results are not listed in Table 2b because its market share for the quarter was only 2% due to the combination of its mid-quarter entry and limited frequency. AirTran continues to serve the market today.

Carrier	Mkt Share00	Mkt Share03	Revenue00	Revenue03	Revenue % Cng	Fared Pax00	Fared Pax03	Fared Pax % Chng	Average Fare 00	Average Fare 03	Average Fare % Cng
JetBlue		8%		\$155,043			1,479			\$105	
United	11%	7%	\$657,096	\$234,730	-64%	1,698	1,050	-38%	\$387	\$224	-42%
America West	8%	5%	\$284,750	\$149,990	-47%	1,337	860	-36%	\$213	\$174	-18%
Delta	63%	69%	\$4,015,702	\$2,100,040	-48%	9,411	11,127	18%	\$427	\$189	-56%
American	5%	4%	\$270,696	\$116,906	-57%	774	711	-8%	\$350	\$164	-53%

<sup>2</sup> American purchased TWA in 2001

### C) Atlanta-Minneapolis/St. Paul

The Atlanta-Minneapolis/St. Paul market is dominated by Delta and Northwest, the two Big Six carriers serving the route nonstop. As of 4Q00, AirTran's market share stood at only 3%, as it served the market only on a connecting or one-stop basis over Chicago Midway.<sup>3</sup> In May 2001, AirTran initiated nonstop service between its Atlanta hub and Minneapolis-St. Paul, directly challenging Delta and Northwest. As of 4Q03, AirTran had increased its market share in the Atlanta-Minneapolis/St. Paul market to 14%. Dominant incumbents Delta and Northwest reacted differently to AirTran's growth in the market. Northwest followed a strategy of maintaining yield but giving up market share and traffic. Northwest's traffic fell 32%, its revenue fell 31%, and its market share declined from 55% to 42%. Delta, on the other hand, decreased prices, resulting in significantly smaller decline in traffic and revenue compared to Northwest. Delta also picked up 4 percentage points of market share between 4Q00 and 4Q03.

Carrier	Mkt Share00	Mkt Share03	Revenue00	Revenue03	Revenue % Cng	Fared Pax00	Fared Pax03	Fared Pax % Chng	Average Fare 00	Average Fare 03	Average Fare % Cng
AirTran	3%	14%	\$48,080	\$166,452	246%	367	1,334	263%	\$131	\$125	-5%
Northwest	55%	42%	\$790,359	\$548,277	-31%	5,989	4,044	-32%	\$132	\$136	3%
Delta	38%	42%	\$627,019	\$554,910	-12%	4,132	3,926	-5%	\$152	\$141	-7%

### D) Memphis-New York

The Memphis-New York market is dominated by Northwest, which has a hub at Memphis and offers nonstop service between Memphis and both Newark and LaGuardia. Continental also offers nonstop service in the market to/from its Newark hub. AirTran serves the Memphis-New York market solely on a one-stop basis over its Atlanta hub. Between 4Q00 and 4Q03, AirTran expanded its market share from 3% to 7% on traffic growth of 110%. Northwest's average fare in 4Q03 of \$216 was 5% lower than it was 4Q00 but was also 29% higher than AirTran's 4Q03 average fare of \$167. Northwest's traffic fell 9% while its revenue declined 14%. Meanwhile, Continental's average fare in the market increased 17% to \$251. Continental's traffic fell 19% while its revenue fell 5%.

Carrier	Mkt Share00	Mkt Share03	Revenue00	Revenue03	Revenue % Cng	Fared Pax00	Fared Pax03	Fared Pax % Chng	Average Fare 00	Average Fare 03	Average Fare % Cng
AirTran	3%	7%	\$31,973	\$75,272	135%	215	452	110%	\$149	\$167	12%
Northwest	73%	69%	\$1,111,313	\$956,452	-14%	4,892	4,435	-9%	\$227	\$216	-5%
Delta	8%	7%	\$96,024	\$102,196	6%	485	450	-7%	\$198	\$227	15%
Continental	11%	9%	\$152,988	\$144,970	-5%	713	578	-19%	\$215	\$251	17%

### **Analysis 2: Variation in Exposure to Low-Fare Competition with Differing Market Definitions** *Revenue Generated in Markets with 5% LFC Market Share, Airport-Pair Based Analysis vs. City-Pair Based Analysis, Fourth Quarter of 2003*

Although LFCs are expanding operations at an increasing number of primary airports, the use of secondary airports remain an important component of many LFC business models. LFCs tend to favor secondary airports because of their cost effectiveness owing to factors such as lower terminal costs and less congestion. As a result of the LFCs' reliance on secondary airports, the calculation of large network carrier exposure to LFC competition differs significantly depending on whether the analysis is at the airport-level based or city-level.

<sup>3</sup> AirTran offered nonstop service between Minneapolis/St. Paul and Chicago Midway from June 2000 to May 2001, which, when combined with AirTran's Chicago Midway-Atlanta flights, enabled AirTran to offer one-stop Minneapolis/St. Paul-Atlanta service.

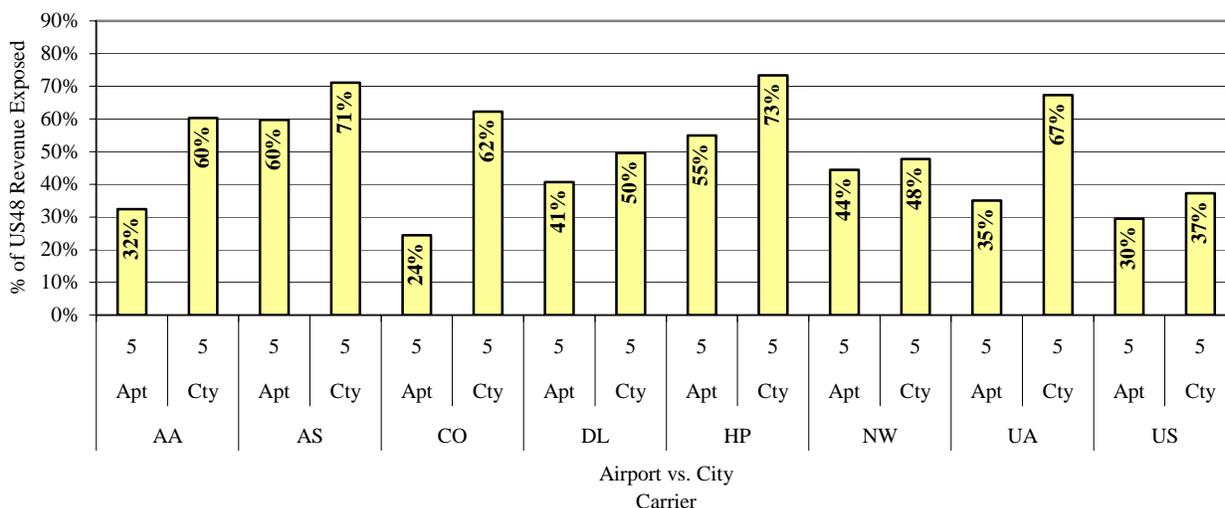
Examples of metro areas with multiple airports with varying levels of low-fare carrier penetration include Dallas/Ft. Worth, Chicago, San Francisco, and New York City. LFC presence at Dallas/Forth Worth International, which growing, remains minimal while Dallas Love Field is dominated by Southwest.<sup>4</sup> A similar situation exists in Chicago where primary airport O'Hare is dominated by the hub operations of two major network carriers while Midway supports major operations by Southwest and ATA. In California, San Francisco International has minimal LFC service but Bay Area airports Oakland and San Jose both have a high concentration of LFC operations. When the New York City market is defined as the sum of the Newark, LaGuardia, and JFK airport-pair markets, many New York City city-pair markets have low-fare competition, as a result of JetBlue's rapid growth at JFK, despite relatively limited low-fare incursion at Newark and LaGuardia. Appendix A contains the full list of airports that composed each city as defined for this analysis.

Graph 2 illustrates the extent to which a city-level based market definition increases the major network carriers' exposure to LFC competition compared to an airport-level based definition. Among the Big Six, on an airport-pair basis, Northwest has the greatest percentage of revenue exposed to LFC competitors with at least a 5% market share, while Continental has the least. However, on a city-pair basis, Northwest is the second least exposed behind US Airways, while Continental is the second most exposed after United. One of the main reasons why Continental's exposure percentage on an airport-pair basis is significantly lower than its exposure on a city-pair basis is that Continental's hub airports (Houston Intercontinental, Cleveland, and Newark Liberty) have relatively limited LFC presence but all three airports are located in metro areas with another airport that has substantial LFC operations (Houston Hobby, Akron/Canton, and New York JFK). Northwest's hub cities (Detroit, Memphis, and Minneapolis/St. Paul) are not subject to the same degree of secondary airport competition as other carriers' hubs, rather LFCs directly serve Northwest's hub airports. Competition from Southwest and Spirit in Detroit Metro (DTW) markets and from AirTran, ATA, Frontier, and Sun Country in Minneapolis/St. Paul International (MSP) markets combined to account for two-thirds of Northwest's total revenue exposure to LFCs (at the 5% LFC market share threshold) at the airport-pair level in 4Q03. United, like Continental, is significantly more exposed on a city-pair basis than on an airport-pair basis by virtue of the large LFC presence at secondary airports near its Chicago, Los Angeles, and San Francisco hubs.

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<sup>4</sup> The Wright and Shelby Amendments limit Southwest's competitive impact on many DFW markets. The Amendments have the effect of prohibiting Southwest from offering transportation for sale between Dallas Love Field and any point beyond Texas, Louisiana, Arkansas, Oklahoma, New Mexico, Mississippi, and Alabama.

**Graph 2: Percent of Total Revenue Generated in Markets Where at Least One Low-Fare Carrier (LFC) has a 5 Percent Market Share  
4Q03 - Airport-Level vs. City-Level**

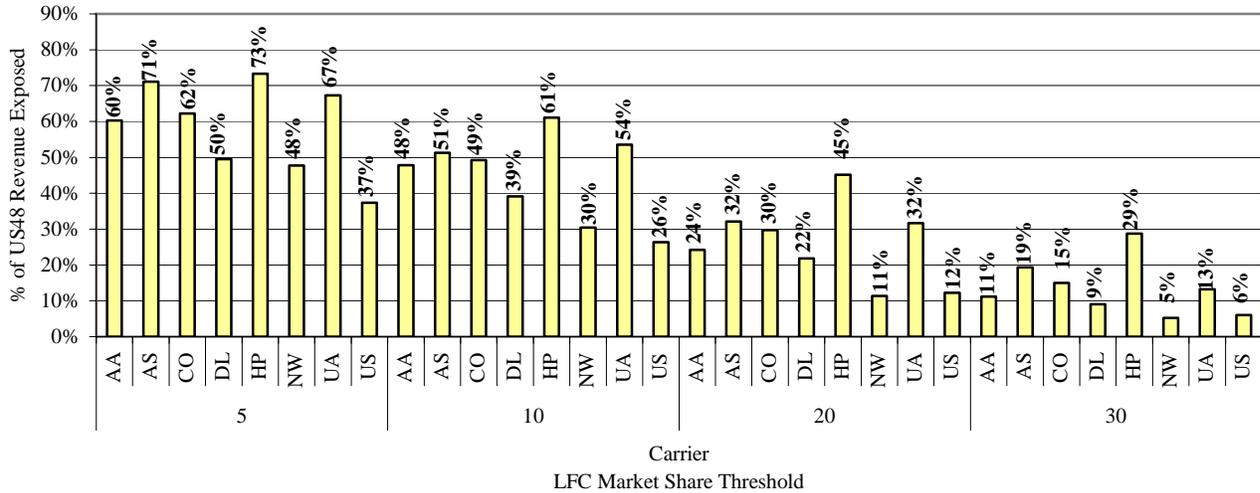


The simplifying assumption underlying this analysis is that all airports in a metro area are substitutable for each other and that as a result, LFC competition at secondary airport(s) affects prices and service levels at the primary airport. We recognize that all of the airports in or near a given city are not necessarily substitutable for each other as airport choice depends on the tradeoffs individual consumers make between, among other factors, fares, schedules, carrier preference, travel distance, road congestion, and other airport convenience criteria. The extent of the secondary airport effect on primary airport markets varies widely and depends on, among other things, how consumers make these tradeoffs, the carriers involved, and other market characteristics. Nonetheless, the analysis illustrates the vastly different pictures that emerge when different market definitions are used.

**Analysis 3: Variation in Exposure to Low-Fare Competition at Differing LFC Market Penetration Thresholds**  
*Revenue Generated in City-Pair Markets at LFC 5%, 10%, 20%, and 30% Market Share Thresholds, Fourth Quarter of 2003*

Graph 3 illustrates each major network carrier’s percentage of total revenue generated in US48 city- pair markets exposed to low-fare carrier competition at the 5%, 10%, 20%, and 30% market share levels in 4Q03. This analysis reveals that, while low-fare carriers have at least a minimal presence in many markets that collectively account for a large share of major network carrier revenues, the amount of revenue exposed drops off rather substantially as the threshold for LFC market exposure is increased. This suggests that while the LFCs have succeeded in broadening their reach into markets that collectively account for a large percentage of major network carrier revenue, their market shares remain relatively limited in many of those markets.

**Graph 3: Percent of Total Revenue Generated in US48 City-Pair Markets at Low-Fare Carrier (LFC) Market Share Exposure Levels of 5, 10, 20, and 30 Percent in 4Q03**



America West has a larger percentage of its total revenue exposed at the 30% or greater LFC market share level than any of the other carriers due to the extensive overlap between its network and that of Southwest. A high degree of network overlap with Southwest also explains why 19% of Alaska’s revenue is generated in city-pair markets where a LFC has a 30% or greater market share. Among the Big Six, only Continental generates at least 15% of its total domestic revenue in markets where it faces at least one LFC with a 30% or greater market share. By this metric, Northwest has the least revenue exposed to the highest levels of LFC market penetration. Markets where Northwest faces at least one LFC with a 30% or greater market share account for only 5% of Northwest’s total domestic revenue.

Table 3 examines major network carrier exposure to varying levels of LFC market penetration in more depth by focusing only on each carrier’s Top 100 largest city-pair markets by revenue during 4Q03. Column B shows the percentage of a given carrier’s total US48 revenue it generated in its Top 100 markets to provide an indication of how important a carrier’s largest markets are to its overall system. Columns C, D, E, and F indicate how many of a given carrier’s Top 100 markets were exposed to at least one low-fare carrier that had a 30%, 20%, 10%, and 5% share, respectively. Columns G through J indicate the amount of revenue generated in Top 100 markets exposed to low-fare competition as a percentage of that carrier’s total Top 100 revenue (i.e. exposed Top 100 markets plus non-exposed Top 100 markets) at the various LFC market share exposure thresholds. Note that Alaska’s and America West’s revenues are highly concentrated in their Top 100 markets and the extent to which those carriers face high levels of LFC penetration in many of these markets.

A		C		E		G		I	
Carrier	Revenue in Top 100 City-Pairs as % of Total US48 Revenue	Number of Top 100 Mkts Exposed to 30% LFC share	Number of Top 100 Mkts Exposed to 20% LFC share	Number of Top 100 Mkts Exposed to 10% LFC share	Number of Top 100 Mkts Exposed to 5% LFC share	% of Top 100 Revenue Exposed to 30% LFC share	% of Top 100 Revenue Exposed to 20% LFC share	% of Top 100 Revenue Exposed to 10% LFC share	% of Top 100 Revenue Exposed to 5% LFC share
American	53%	15	33	59	72	8%	25%	58%	70%
Alaska	90%	17	24	34	37	21%	35%	56%	78%
Continental	62%	21	33	52	70	16%	36%	59%	72%
Delta	38%	10	31	49	60	9%	33%	58%	68%
America West	72%	31	50	67	80	33%	52%	69%	78%
Northwest	46%	5	11	39	63	5%	13%	42%	69%
United	53%	26	51	68	81	16%	46%	74%	88%
US Airways	47%	7	10	25	45	4%	9%	26%	40%

## Conclusion

The analyses in this Special Feature examined the major network carriers' exposure to competition from low-fare carriers in a variety of ways. Our first analysis examined the extent to which exposure to low-fare competition increased between the fourth quarter of 2000 and the fourth quarter of 2003. The second analysis illustrated the differences that emerge when measuring exposure to LFCs on a city-pair basis versus an airport-pair basis. The third analysis measured the major network carriers' exposure to low-fare competition at various LFC market share thresholds.

The expansion of low-fare carriers continues to reshape the competitive landscape of the domestic airline industry. Since the period covered by this Special Feature, low-fare carriers have significantly expanded their presence in additional major markets. JetBlue began service to five cities from Boston in February, added Boston-Oakland flights in May, and announced plans to add Boston-Fort Myers flights in October. Southwest started serving six cities nonstop from Philadelphia in May and began nonstop service from Philadelphia to seven additional cities in July. Independence Air began operations from Washington Dulles to five cities on June 16 and plans to be serving more than 30 cities by the end of the summer. AirTran began flying between Dallas/Ft. Worth and Los Angeles in July.

Our Special Feature for the second quarter of 2003 examined the subject of fare structure reform, with particular emphasis on America West's fare restructuring. Since the release of that report, there have been several notable developments on this front. In February, Alaska Airlines announced a systemwide restructuring of its fares that included the elimination of Friday and Saturday night stay rules, a lowering of first class and higher-end coach fares, and a reduction in the number of fares in each market. US Airways has implemented a simplified fare structure featuring significantly lower walk-up fares, the elimination of Saturday night/minimum stay requirements, and a fare cap of \$499 one-way in select Philadelphia and Washington markets where it faces new competition from Southwest and Independence Air, respectively. American, in response to AirTran's entry into the Dallas/Ft. Worth-Los Angeles (LAX) market, lowered walk-up fares and eliminated the Saturday night stay requirement in all Dallas/Ft. Worth-Los Angeles area markets (Burbank, LAX, Long Beach, Ontario, and Orange County/Santa Ana). As the LFCs continue to expand both the breadth and the depth of their coverage, we will likely see additional actions by the major network carriers to revamp their fare structures to compete with the simpler, more transparent pricing policies of the low-fare carriers.

Appendix A

Composition of City Definitions		
"City"/Metro Area	Airports Included	Airport Codes
Boston	Boston Manchester Providence	BOS MHT PVD
Chicago	Chicago O'Hare Chicago Midway	ORD MDW
Cleveland	Cleveland Akron/Canton	CLE CAK
Dallas/Ft. Worth	Dallas/Forth Worth Int'l Dallas Love Field	DFW DAL
Detroit	Detroit Metro Detroit City	DTW DET
Houston	Houston Intercontinental Houston Hobby Houston Ellington Field	IAH HOU EFD
Los Angeles	Los Angeles International Burbank Long Beach Ontario Orange County/Santa Ana	LAX BUR LGB ONT SNA
Miami	Miami Fort Lauderdale	MIA FLL
New York	Newark New York LaGuardia New York JFK	EWR LGA JFK
Norfolk	Norfolk Newport News	ORF PHF
San Francisco	San Francisco International Oakland San Jose	SFO OAK SJC
Tampa	Tampa International St. Petersburg/Clearwater	TPA PIE
Washington	Washington Reagan Nat'l Washington Dulles	DCA IAD

Appendix B

<b>Major Network Carrier Top 100 City-Pair Markets where at Least One LFC has a 30% Market Share, 4Q03</b>			
<b>Carrier</b>	<b>City-Pair Market</b>	<b>4Q03 Market Size Rank for Carrier (By Revenue)</b>	<b>4Q03 Carrier Revenue (10% Sample)</b>
AA	Los Angeles-San Francisco	21	\$1,494,247
AA	Chicago-Las Vegas	53	\$686,059
AA	New York-Tampa/St. Petersburg/Lakeland	54	\$673,995
AA	Chicago-San Diego	56	\$671,235
AA	Chicago-Orlando/Kissimmee	57	\$662,877
AA	Chicago-St. Louis	60	\$650,707
AA	Chicago-Raleigh/Durham	76	\$505,118
AA	Los Angeles-Nashville	80	\$488,721
AA	Baltimore-Miami	82	\$481,834
AA	Orlando/Kissimmee-St. Louis	83	\$474,344
AA	San Diego-San Francisco	84	\$472,217
AA	Boston-Orlando/Kissimmee	86	\$458,715
AA	Las Vegas-St. Louis	87	\$454,273
AA	Chicago-Kansas City	90	\$435,290
AA	Baltimore-St. Louis	94	\$428,840
AS	Portland, OR-San Francisco	5	\$1,527,869
AS	Las Vegas-Portland, OR	8	\$776,031
AS	Sacramento-Seattle/Tacoma	10	\$705,809
AS	Seattle/Tacoma-Spokane	11	\$705,501
AS	Los Angeles-San Francisco	12	\$650,024
AS	Boise-Seattle/Tacoma	20	\$394,035
AS	Reno-Seattle/Tacoma	24	\$322,974
AS	Portland, OR-Sacramento	25	\$322,918
AS	Boise-Portland, OR	27	\$269,570
AS	Los Angeles-Reno	32	\$218,778
AS	Portland, OR-Spokane	33	\$217,463
AS	San Francisco-Tucson	35	\$202,970
AS	San Francisco-Spokane	36	\$191,513
AS	Boise-San Francisco	38	\$180,263
AS	Las Vegas-Spokane	47	\$126,144
AS	Sacramento-Spokane	51	\$100,610
AS	Boise-Spokane	60	\$79,017
CO	New York-West Palm Beach	10	\$1,806,391
CO	Cleveland-New York	13	\$1,642,983
CO	New York-Tampa/St. Petersburg/Lakeland	16	\$1,295,734
CO	Houston-Las Vegas	19	\$1,177,604
CO	Baltimore-Houston	26	\$964,613
CO	Ft. Myers-New York	36	\$778,762
CO	Houston-New Orleans	47	\$569,718
CO	Indianapolis-New York	50	\$553,192
CO	Chicago-Cleveland	51	\$547,994
CO	Dallas/Ft. Worth-Houston	60	\$460,081
CO	Houston-Phoenix	61	\$440,856
CO	Houston-Kansas City	62	\$435,917

## Appendix B (Continued)

<b>Major Network Carrier Top 100 City-Pair Markets where at Least One LFC has a 30% Market Share, 4Q03 (Continued)</b>			
<b>Carrier</b>	<b>City-Pair Market</b>	<b>4Q03 Market Size Rank for Carrier (By Revenue)</b>	<b>4Q03 Revenue (10% Sample)</b>
CO	Buffalo-New York	72	\$347,558
CO	Baltimore-Cleveland	74	\$328,583
CO	Houston-St. Louis	75	\$327,714
CO	Houston-Tulsa	81	\$296,945
CO	New York-Rochester	87	\$257,875
CO	Houston-Oklahoma City	90	\$244,570
CO	Albuquerque-Houston	92	\$243,188
CO	New York-Norfolk	93	\$242,796
CO	Houston-Nashville	98	\$228,515
DL	New York-West Palm Beach	11	\$1,889,568
DL	Boston-Orlando/Kissimmee	12	\$1,685,852
DL	New York-Tampa/St. Petersburg/Lakeland	24	\$1,222,761
DL	Boston-Tampa/St. Petersburg/Lakeland	26	\$1,101,139
DL	Salt Lake City-San Francisco	58	\$600,942
DL	Atlanta-Cleveland	63	\$581,224
DL	Atlanta-Norfolk	67	\$565,763
DL	Salt Lake City-Seattle/Tacoma	70	\$551,572
DL	Atlanta-Dayton	76	\$527,475
DL	Portland, OR-Salt Lake City	81	\$470,823
HP	Phoenix-San Francisco	3	\$1,522,110
HP	Los Angeles-Phoenix	4	\$1,331,650
HP	Las Vegas-Los Angeles	5	\$1,101,575
HP	Las Vegas-San Francisco	7	\$893,078
HP	Denver-Phoenix	9	\$879,823
HP	Chicago-Las Vegas	15	\$620,031
HP	Baltimore-Las Vegas	16	\$610,902
HP	Baltimore-Phoenix	24	\$508,468
HP	Denver-Las Vegas	28	\$486,543
HP	Orlando/Kissimmee-Phoenix	36	\$408,133
HP	Phoenix-Sacramento	38	\$375,232
HP	Las Vegas-Phoenix	39	\$369,498
HP	Kansas City-Phoenix	43	\$338,698
HP	Omaha-Phoenix	44	\$332,008
HP	Phoenix-Salt Lake City	46	\$319,448
HP	Phoenix-Tampa/St. Petersburg/Lakeland	47	\$316,575
HP	Phoenix-St. Louis	59	\$246,289
HP	Phoenix-San Diego	60	\$244,364
HP	Phoenix-Reno	63	\$223,381
HP	Houston-Phoenix	64	\$218,968
HP	Phoenix-Raleigh/Durham	71	\$205,627
HP	Albuquerque-Los Angeles	72	\$202,681
HP	Austin-Phoenix	73	\$201,014
HP	Las Vegas-San Diego	76	\$192,611
HP	Boise-Phoenix	78	\$190,084

Appendix B (Continued)

<b>Major Network Carrier Top 100 City-Pair Markets where at Least One LFC has a 30% Market Share, 4Q03 (Continued)</b>			
<b>Carrier</b>	<b>City-Pair Market</b>	<b>4Q03 Market Size Rank for Carrier (By Revenue)</b>	<b>4Q03 Revenue (10% Sample)</b>
HP	Kansas City-Los Angeles	85	\$170,255
HP	Las Vegas-Sacramento	86	\$164,703
HP	El Paso-Los Angeles	88	\$163,137
HP	Albuquerque-San Francisco	92	\$159,096
HP	Los Angeles-San Antonio	94	\$153,933
HP	Albuquerque-Phoenix	98	\$135,997
NW	Detroit-Orlando/Kissimmee	16	\$1,032,079
NW	Detroit-Miami	20	\$903,003
NW	Detroit-Tampa/St. Petersburg/Lakeland	28	\$719,360
NW	Detroit-Ft. Myers	46	\$494,154
NW	Detroit-St. Louis	59	\$388,005
UA	Los Angeles-San Francisco	11	\$2,845,640
UA	San Diego-San Francisco	27	\$996,766
UA	Chicago-Las Vegas	28	\$977,587
UA	Baltimore-Chicago	32	\$936,731
UA	Chicago-Orlando/Kissimmee	36	\$853,630
UA	Baltimore-Denver	37	\$840,382
UA	Las Vegas-San Francisco	39	\$799,062
UA	Denver-Phoenix	46	\$713,541
UA	Chicago-San Diego	47	\$702,796
UA	Denver-San Diego	50	\$664,049
UA	Denver-Orlando/Kissimmee	54	\$601,691
UA	Denver-Las Vegas	56	\$562,370
UA	Portland, OR-San Francisco	57	\$559,777
UA	Denver-Sacramento	64	\$488,483
UA	Chicago-Columbus	65	\$482,239
UA	Chicago-Cleveland	67	\$472,318
UA	Phoenix-San Francisco	72	\$430,657
UA	Charlotte-Chicago	76	\$380,698
UA	Denver-Kansas City	77	\$376,894
UA	Denver-New Orleans	84	\$345,214
UA	Denver-Salt Lake City	86	\$333,878
UA	Denver-Indianapolis	87	\$332,400
UA	Chicago-Kansas City	89	\$326,375
UA	Denver-Tampa/St. Petersburg/Lakeland	91	\$325,365
UA	Denver-Miami	92	\$323,457
UA	Chicago-Ft. Myers	93	\$323,310
US	Boston-Orlando/Kissimmee	43	\$470,683
US	Charlotte-Chicago	50	\$436,519
US	Indianapolis-New York	64	\$374,509
US	Buffalo-New York	65	\$366,928
US	New York-Norfolk	86	\$277,274
US	Boston-Tampa/St. Petersburg/Lakeland	96	\$250,046
US	New York-Rochester	97	\$247,113