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Report to Congressional Requesters

December 2000

AVIATION COMPETITION

Issues Related to the Proposed United Airlines-US Airways Merger

GAO

Accountability * Integrity * Reliability

GAO-01-212

Contents

Abbreviations

DOJ	Department of Justice
DOT	Department of Transportation
GAO	General Accounting Office

GAO

Accountability * Integrity * Reliability

United States General Accounting Office
Washington, D.C. 20548

December 15, 2000

The Honorable James L. Oberstar
Ranking Democratic Member
Committee on Transportation and
Infrastructure
House of Representatives

The Honorable Louise M. Slaughter
House of Representatives

In May 2000, two of the nation's largest airlines, United Airlines (United) and US Airways, proposed to merge.[1] As part of the overall agreement, United and US Airways also proposed to divest some of US Airways' assets at Ronald Reagan Washington National Airport (Reagan National) to create an airline to be known as DC Air. Concern has arisen regarding the possible effects that the merged airline ("new United") would have on competition in the airline industry and whether DC Air would be an effective competitor. The Department of Justice is currently reviewing the proposal to determine if the merger would violate U.S. antitrust laws and, if so, whether the proposed divestiture constitutes an adequate remedy. In its review, Justice considers a number of factors, including increases in market concentration; potential adverse effects on competition of the transaction; the likelihood of new entry; possible efficiencies or other benefits; and whether, absent the merger, one of the airlines will fail and exit the market and there is no less anticompetitive alternative.

At your request, we focused this report primarily on the potential competitive aspects of the proposed merger and analyzed three issues: (1) how the proposed merger would alter the U.S. domestic airline industry; (2) the potential harmful and beneficial effects of the proposed merger on consumers, focusing on its effects on competition in specific markets; and (3) how the service that DC Air is planning to offer compares with the service scheduled by other airlines in the same markets.

To determine how the proposed merger would alter the U.S. domestic airline industry, we analyzed how the combined airlines would compare

[1]Technically, United proposed to acquire US Airways for $11.6 billion, although the transaction is generally referred to as a merger. For the remainder of this report, we will refer to the transaction as a merger.

with other major U.S. airlines using common measures of market strength. To determine the potential impacts of the proposed merger on competition in specific markets, we analyzed data on the 5,000 busiest domestic airline markets. To compare the service that DC Air is planning to offer with the service scheduled by other airlines, we analyzed each airline's expected amount of service (e.g., flight frequency), along with the type of aircraft each anticipates using, to relevant destinations. Further details on our objectives, scope, and methodology are discussed in appendix I.

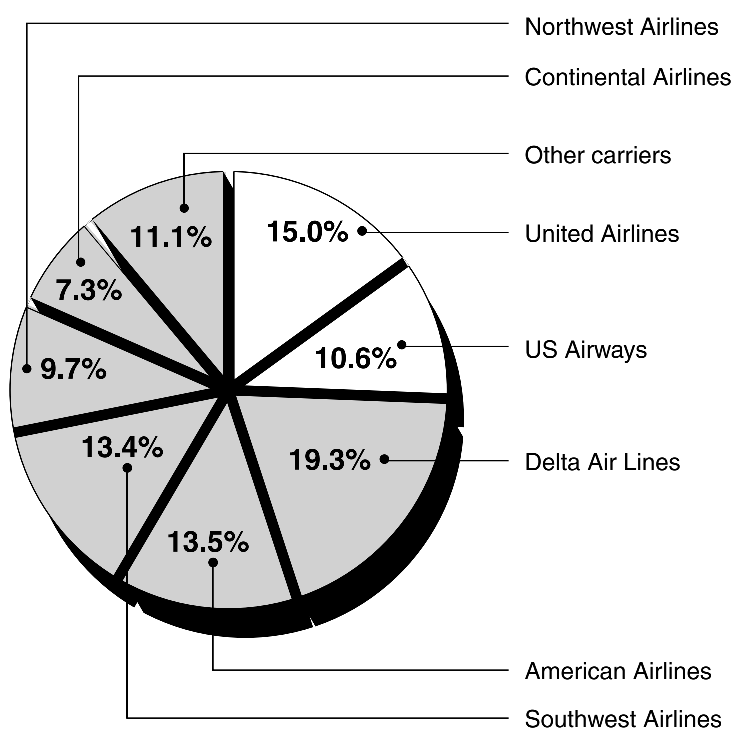
We recognize that other important factors must be carefully weighed before a complete assessment of the proposed merger's impact can be made. For example, as agreed with your offices, this report does not examine in detail how the proposed merger would alter an airline's concentration at particular cities or how such a change in concentration could affect potential competitors' market entry. Similarly, the report does not include evaluations of the proposed merger's potential impacts on international competition, service to smaller communities, or other concerns, such as the integration of the two airlines' labor forces. Although this report presents publicly available information from US Airways concerning their financial condition and competitive position, we did not independently evaluate its long-term financial viability. We also did not attempt to determine the extent to which competition in the domestic airline industry might change in the event that the merger does not occur.

Results in Brief

The merger of United and US Airways as proposed, even with the divestiture of selected assets to the new DC Air, would create an airline so large and with dominance in so many markets that, according to airline officials and other industry observers, it would spur further industry consolidation. New United would increase dominance in five times as many markets and would affect nearly three times as many passengers as the proposed stock acquisition and alliance between Northwest Airlines and Continental Airlines. Officials of both airlines believe the merger will present substantial benefits to passengers and communities, and US Airways officials have expressed concern regarding the airline's ability to compete as an independent carrier, given the current commercial aviation market. The breadth of likely increases in market dominance, which is the primary focus of our review, represents only part of the scope of the important issues that the Department of Justice considers in evaluating proposed mergers. Ultimately, Justice has the responsibility to evaluate the merger and the access to proprietary business information needed to determine whether the merger violates the antitrust laws.

If the merger proceeds as proposed, it would significantly alter the current state of competition in the domestic airline industry. New United would become the largest U.S. airline as indicated by the usual measures of airline size. It would have over 25 percent of the total U.S. domestic market and would take in almost $9 billion more in revenue than the next largest U.S. airline. Figure 1 compares the percentage share of domestic passengers that new United would carry relative to that flown by other major U.S. airlines. Industry analysts and representatives of other major U.S. passenger airlines have said that new United's size would leave other airlines with little choice but to respond competitively, likely spurring further industry consolidation. US Airways officials state that, with the airline's high cost structure, it has become increasingly difficult to compete profitably and that, absent the merger, competition in the East Coast could be lessened.

Figure 1: New United Would Carry Over One-Quarter of All U.S. Passengers



Source: GAO's analysis of Department of Transportation data on enplaned passengers, 1999.

Independent of the possibility that the merger could lead to further consolidation in the airline industry and of the effects that such a change might exert on competition, the United-US Airways merger would have both harmful and beneficial effects on consumers. New United could reduce or eliminate competition in 290 markets, in which approximately 16 million passengers traveled in 1999. While United and US Airways currently dominate (i.e., control more than half of the passenger traffic) over 1,000 of the 5,000 most heavily traveled domestic markets, new United could dominate another 126 of those markets. New United would carry large portions of the nonstop traffic in all the markets between its eight hub cities. At the same time, new United would increase competition and benefit consumers in some markets. By combining the operations of the two airlines in markets where each previously had a relatively limited presence, the merger could create an additional effective competitor in 65 of the top 5,000 markets, in which about 2.9 million passengers flew in 1999. In addition, service could improve and competition could increase in another 256 relatively small markets after the merger created new on-line connections. Furthermore, United has indicated that they plan to continue service for 2 years to all communities now served by US Airways.

Concerning US Airway's divestiture of certain of its assets to create DC Air, the airline would face significant competitive challenges from other airlines that already provide service in the Washington, D.C., area. DC Air would compete directly with other airlines in 9 of the 43 markets it plans to serve with nonstop flights from Reagan National. In those markets, however, DC Air anticipates operating fewer flights with smaller aircraft than other airlines have scheduled. And although DC Air would face no direct competition from airlines at Reagan National in its other 34 markets, airlines operating at the other two Washington, D.C.-area airports would offer competition in 28 of those markets. Again, those competing airlines have scheduled more flights, more available seats, and larger aircraft than DC Air plans to use in most of those markets. DC Air officials say that they will balance the difference in service by offering lower fares than their competitors.

Background

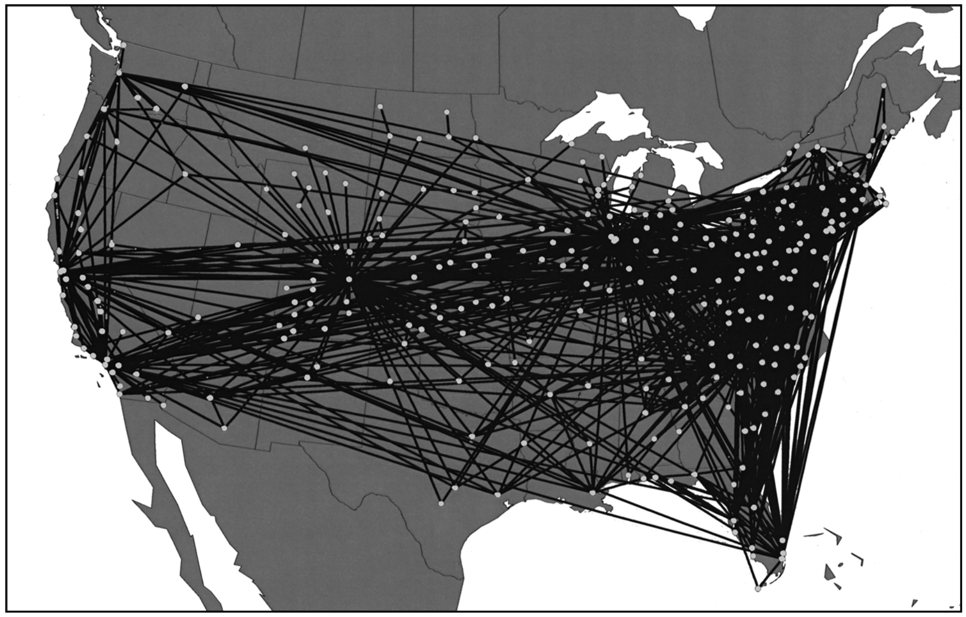
United Airlines (United) operates nearly 2,300 flights per day to 134 destinations in 27 countries—including 91 cities in 49 states—with a fleet of about 600 jet aircraft. Within the United States, United provides service between other cities and its hubs in Chicago, Denver, Los Angeles, San Francisco, and Washington, D.C., using its aircraft and those of its independently owned regional affiliates, which operate under the name of

United Express. As of March 31, 2000, United Express served another 133 cities in the country, producing a combined domestic network of 224 cities.

In 1999, US Airways flew to 236 cities in 38 states in the continental United States, along with nearly 30 other cities in 12 countries, territories, and commonwealths, using its own fleet of over 400 aircraft and those of its regional affiliates, which operate as US Airways Express. US Airways' system is heavily concentrated in the eastern United States, with hubs located in Charlotte, Philadelphia, and Pittsburgh. US Airways also has sizable operations at Baltimore-Washington International Airport and at Reagan National, where it operates an East Coast shuttle service to Boston's Logan International Airport and New York's LaGuardia Airport.

On May 24, 2000, United and US Airways agreed to merge their operations. Under the terms of their proposed merger, United would acquire US Airways in a transaction valued at $11.6 billion. Specifically, United would pay $60 for each share of common US Airways stock for a total of $4.3 billion and would assume $1.5 billion in US Airways net debt and $5.8 billion in aircraft operating leases. According to information from United, the combined company would have approximately 145,000 employees. It would operate eight hubs in six states and serve a total of 380 airports throughout the country, reaching communities in every state. Figure 2 illustrates the cities that would obtain scheduled service from new United.

Figure 2: Map of Domestic Routes Scheduled to Be Flown by New United



Note: This map does not include routes flown by new United's regional affiliate carriers.

Under the terms of the proposed merger, United plans to divest some of the assets US Airways uses to provide air service to and from Reagan National. United and US Airways entered into a Memorandum of Understanding to sell or transfer leases to certain US Airways assets at Reagan National for approximately $141 million. These assets would be used to create a new airline known as DC Air. They include 222 departure and arrival slots,[2] several gates and related airport facilities, and the operations of an existing commuter airline. US Airways is assembling the relevant assets in a newly licensed carrier that will be purchased by DC Air contemporaneously with the closing of the United-US Airways merger.

[2]The Federal Aviation Administration limits the number of operations (takeoffs and landings) that can occur during certain periods of the day at four congested airports—O'Hare in Chicago; Reagan National in Washington, D.C.; and Kennedy and LaGuardia in New York. The authority to conduct a single operation during these periods at these four airports is commonly referred to as a "slot."

DC Air has expressed a commitment to maintain service to essentially all of the cities currently served by US Airways from Reagan National. DC Air will assume contracts between US Airways and certain other airlines to provide DC Air with service using 19 50-seat regional jet aircraft.[3] DC Air will operate its own turbo-prop aircraft on some routes. DC Air also signed an agreement with United and US Airways under which it will lease 10 Boeing 737s. According to a representative for DC Air, this is a transitional arrangement. DC Air expects to make its own arrangements for large jet aircraft as soon as possible after the merger.

However, new United plans to continue operating other important service to and from Reagan National that US Airways currently operates. This includes the shuttle service to New York and Boston, as well as service to Charlotte, Pittsburgh, and Philadelphia. DC Air will also serve Charlotte, Pittsburgh, and Philadelphia, but not with as many frequencies as new United would.

[3]Different statutory definitions of “regional jets” within the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21) (P.L. 106-181) variously define a “regional jet” as having a maximum passenger seating capacity of “not less than 30 nor more than 75” (sec. 210) or “less than 71” (sec. 231).” However, the term is generally applied to turbofan-powered aircraft seating between 30 and 70 passengers. We expect to publish a report in February 2001 on the markets in which U.S. commercial airlines have deployed these aircraft and the effects they may have on air traffic congestion and delays.

The consummation of the proposed merger is subject to various conditions set forth in the agreement and approvals by various regulatory bodies.[4] US Airways stockholders approved the merger on October 12, 2000. Both the U.S. departments of Justice (DOJ) and Transportation (DOT) have responsibilities for reviewing airline mergers and acquisitions.[5] DOJ has the authority to review mergers or stock acquisitions before they take place to determine whether they violate antitrust laws. Under the Hart-Scott-Rodino Act, an acquisition of voting securities above a set monetary amount must be reported to DOJ for prior review. DOJ has the authority to institute judicial proceedings under the Clayton Act if it determines that a merger or acquisition may substantially lessen competition in a relevant market or if it tends to create a monopoly. If DOJ believes any agreement is anticompetitive in whole or in part, it may seek to block the agreement in federal court.[6]

[4]The agreement is set to terminate on December 31, 2000, although the parties can agree to extend it to August 1, 2001 (Article VII Section 7.01(b)(i)).

[5]The merger may also be reviewed by the European Commission and state attorneys general.

[6]On November 6, 2000, DOJ announced a tentative settlement in its antitrust suit opposing Northwest's purchase of a controlling interest in Continental. Under the terms of the agreement in principle, Northwest would divest all but 7 percent of the voting interest in Continental and would be subject to significant restrictions on its ability to vote any stock it retains. We reported on the competitive implications of the potential alliance between those two airlines in 1999. See *Aviation Competition: Effects on Consumers From Domestic Alliances Vary* (GAO/RCED-99-37, Jan. 15, 1999).

To analyze the potential effect of a merger under the Clayton act, DOJ follows the analytical process set forth in the Horizontal Merger Guidelines, using a five-part analytical process.[7] First, DOJ defines the markets in which the airlines operate and determines whether the merger is likely to significantly increase market concentration.[8] Second, DOJ examines potential adverse competitive effects of the agreement, such as eliminating existing competition in hub-to-hub markets and potential competition in new markets. Third, DOJ considers the extent to which new competitors are likely to enter the market in sufficient numbers to counter the increased ability of incumbents to raise prices or reduce output below competitive levels as a result of the merger. Fourth, DOJ examines the "merger specific" efficiencies or other competitive benefits that may be generated by the agreement. Finally, DOJ considers whether, absent the merger, one of the airlines is likely to fail, causing its assets to exit the market, and there is no less anticompetitive alternative. After completing these analyses, DOJ attempts to balance all of the factors in deciding whether the merger raises any antitrust concerns.[9]

DOT conducts its own analysis of airline mergers and acquisitions and submits its views and any relevant information in its possession to DOJ. In addition, before commencing operations, new airlines generally must obtain separate authorizations from DOT—"economic" authority from the Office of the Secretary and "safety" authority from the Federal Aviation Administration (FAA). The Office of the Secretary is responsible for

[7]United States Department of Justice and Federal Trade Commission Revision to the Horizontal Merger Guidelines (Apr. 8, 1997)(hereinafter, Merger Guidelines).

[8]To analyze a merger, DOJ defines both the product or service and geographic market in which the merging parties compete. In the airline industry, the relevant market has been defined as scheduled airline service between a point of origin and a point of destination. This is often, but not always, defined as a city pair. In addition, DOJ recognizes that nonstop service between cities is important because business travelers are less likely to regard connecting service as a reasonable alternative. Thus, DOJ may see a transaction as competitively problematic because of its impact on nonstop city-pair traffic. Some cities are served by more than one commercial airport. These cities include Los Angeles, San Francisco, Chicago, New York, and Washington, D.C. In these cases, the relevant market may be an airport pair. See app. I for more information on our definition.

[9]If DOJ concludes that a merger threatens to deprive consumers of the benefits of competitive air service, they may seek a preliminary injunction to prevent consummation of the transaction pending judicial proceedings. In some cases, the parties may agree to modify the proposal to address competitive concerns identified by DOJ, in which case DOJ ordinarily files a complaint along with a consent decree that embodies the agreed-upon changes.

assessing whether applicants have the managerial competence, disposition to comply with regulations, and financial resources necessary to operate a new airline. In addition, when transactions involve the transfer of international route authority, DOT is responsible for approving such matters to ensure that they are consistent with the public interest. FAA is responsible for certifying that the applicants' manuals, aircraft, facilities, and personnel meet federal safety standards.

New United Would Gain the Largest Market Share of Any Major U.S. Airline, Potentially Spurring Further Industry Consolidation

If the United-US Airways merger proceeds as proposed, new United would have the largest domestic market share of any U.S. carrier, according to several measures, including the total number of passengers that an airline carries, the number of available seats flown by the airline, the total number of departures, or the number of revenue passenger miles flown. [10] The merger proposal would join two of the largest airlines in the United States. Currently, United ranks second among major U.S. passenger airlines, when ranked by the total number of paying passengers flown, trailing only Delta Air Lines (Delta). US Airways ranks fifth. The combined airline would be significantly larger than any other major U.S. airline. Table 1 shows the relative size of major U.S. passenger airlines as indicated by common measures of airline market presence, along with the airlines' 1999 total operating revenue. (Information on the airlines' total—domestic and international—operations appears in app. II.)

Table 1: Measures of Airline Size for the 12 Months Ending June 30, 2000

	Revenue passenger enplanements[a]		Revenue passenger miles		Total operating revenue[b]	
Airline	Number in thousands	Percent of total	Number in thousands	Percent of total	Dollars in millions	Percent of total
Delta Air Lines	99,275	19.3	81,240,603	17.9	14,711	16.3
United Airlines[c]	77,365	15.0	81,629,552	18.0	18,027	20.0
American Airlines[d]	69,673	13.5	77,665,215	17.1	17,730	19.6
Southwest Airlines	69,056	13.4	39,378,468	8.7	4,736	5.2
US Airways[e]	54,442	10.6	37,076,149	8.2	8,595	9.5

[10]Revenue passenger miles represent the number of paying passengers transported over each mile. "Revenue passengers" do not include those who are flying on frequent flyer award tickets and others who did not pay for their flights (e.g., airline employees).

(Continued From Previous Page)

Northwest Airlines	49,927	9.7	44,525,296	9.8	10,276	11.4
Continental Airlines	37,365	7.3	39,835,520	8.8	8,639	9.6
Trans World Airlines	25,448	4.9	23,047,434	5.1	3,309	3.7
America West Airlines[f]	19,171	3.7	18,218,790	4.0	2,211	2.4
Alaska Airlines[g]	12,719	2.5	10,814,906	2.4	2,082	2.3
Total[h]	**514,441**	**100.0**	**453,431,933**	**100.0**	**90,316**	**100.0**
New United[i]	131,807	25.6	118,705,701	26.2	26,622	29.5

[a]"Revenue passenger enplanements" represent the total number of paying passengers boarding an aircraft. Thus, for example, a passenger that must make a single connection between his or her origin and destination counts as two enplaned passengers because he or she boarded two separate flights. "Revenue passengers" do not include those who are flying on frequent flyer award tickets and others who did not pay for their flights (e.g., airline employees).

[b]Figures for total operating revenue include revenue from international operations, except for Southwest Airlines, which provides only domestic service. The time period for revenue information is Jan. 1, 1999 through Dec. 31, 1999.

[c]Total operating revenues are for the parent (UAL Corporation).

[d]Total operating revenues are for the parent (AMR Corporation).

[e]Total operating revenues are for the parent (US Airways Group, Inc.).

[f]Total operating revenues are for the parent (America West Holdings, Inc.).

[g]Total operating revenues are for the parent (Alaska Air Group, Inc.).

[h]Totals may not add to 100 percent because of rounding.

[i]Totals for new United are not adjusted for those operations that might become part of DC Air.

Source: GAO's analysis of data from DOT.

First, as measured by the number of revenue passengers (paying customers) enplaned, United ranks second behind only Delta. In the 12 months ending June 30, 2000, United carried over 77 million paying passengers, or about 15 percent of the total carried by all major U.S. passenger airlines. US Airways carried over 54 million paying passengers and ranked fifth, with about 11 percent of the total. If the two airlines had been merged (and no allowances were made for passengers who, under a merger, might have been carried by DC Air), new United would have carried nearly 132 million revenue passengers, or over 25 percent of the total U.S. domestic market. Under those terms, new United would be significantly larger than any of the other major U.S. passenger airlines. It would carry about 33 percent more revenue passengers than Delta and 89 percent more than American Airlines (American) and Southwest Airlines (Southwest). New United would carry nearly the same number of revenue passengers as Northwest Airlines (Northwest), Continental Airlines (Continental), Trans World Airlines (TWA), and America West Airlines (America West) combined.

In terms of revenue passenger miles, United currently is the largest U.S. major airline, with a market share of 18 percent. US Airways ranks seventh among U.S. carriers with a market share of about 8 percent. After the merger, new United's market share would equal more than 26 percent, making it 46 percent larger than Delta's, 53 percent larger than American's, and nearly three times as large as Southwest's.

New United would take in significantly more revenue than any other major U.S. airline. According to 1999 year-end financial information, new United would have earned $26.6 billion in revenue, or $8.9 billion (33 percent) more than American and almost $12 billion (45 percent) more than Delta. New United's revenue would exceed that generated by Southwest, Northwest, Continental, and American West combined.

According to industry analysts and officials from several airlines, new United would so alter the existing balance in the domestic market that, for the other major U.S. airlines to compete successfully, they would have little choice but to consolidate as well. These analysts generally depict the industry as divided into three segments: the large network airlines (Delta, United, and American), the midsized network airlines (Continental, Northwest, and US Airways), and the smaller major airlines (TWA, America West, Alaska, and American Trans Air). While carrying nearly as many passengers as American, Southwest is characterized separately because it does not operate a traditional hub-and-spoke network. Officials representing several of the larger airlines with whom we spoke said that new United's size would give it a significant competitive advantage. For example, according to an analysis performed for one of the airlines, new United would have 97 percent more daily departures than its closest competitor, Delta (8,401 compared with 4,260). An analysis for another airline using available seat miles[11] showed that new United would be almost 50 percent larger than its closest competitor (American).

[11]Available seat miles are defined as the number of aircraft miles flown in each inter airport hop (flight segment) multiplied by the number of seats available on that flight for revenue passenger use on that flight segment.

Consequently, the officials said that unless their airlines also merged, they would be unable to compete with new United.

Officials from US Airways pointed to how domestic competition is changing and how those changes are likely to affect their airline's success. US Airways officials have expressed concern about whether the airline can survive over the longer term as an independent airline, given the current commercial aviation market without growing substantially larger in size. The Chairman of US Airways has characterized US Airways as the last of the "mature-cost" midsized carriers, most of which (e.g., Braniff, PanAm, and Eastern) have gone bankrupt and two of which (Continental and TWA) have reduced their costs through two bankruptcy proceedings. Citing major competition from low-cost carriers (including Southwest, Jet Blue, and AirTran), the Chairman testified that the airline needs to join with a partner that has a more extensive network to expand into the global market.[12]

US Airways officials note that as a result of the airline's mature labor costs and predominantly short-haul route structure, US Airways has the highest cost structure of any domestic airline—nearly twice the cost per available seat mile of Southwest Airlines. They note that these high costs make it increasingly difficult to achieve profitability,[13] and that the percentage of routes profitable on a fully allocated cost basis has steadily declined since 1998. US Airways officials believe other airlines recognize their weak position and see them as competitively vulnerable. They note that their share of passenger traffic in the East Coast is falling while their competitors' shares are rising. For example, they stated that Delta has begun competing in nearly half of the cities that US Airways serves from New York's LaGuardia Airport. Thus, these officials state that it has become increasingly difficult for US Airways to compete profitably. United and US Airways officials believe that, absent their merger, competition in the East Coast would be lessened to the detriment of the traveling public.

[12]See the written testimony of Stephen M. Wolf, Chairman, US Airways Group, Inc., before the Committee on Transportation and Infrastructure, United States House of Representatives, June 13, 2000.

[13]US Airways reported net income of $197 million in 1999 (about 3 percent of total operating revenue) and a net loss of $168 million during the first 9 months of 2000. In 1999, UAL Corporation (the holding company of United) reported net earnings of $1.2 billion (or 6.7 percent of operating revenue). In the first 9 months of 2000, UAL Corp. reported net earnings of $121 million (or about 0.8 percent of operating revenue). See app. III for information on total operating revenues and net income or earnings for other major airlines.

Proposed Merger Would Reduce Competition in Some Key Markets but Provide Some Benefits

The United-US Airways merger would have both harmful and beneficial effects on consumers—that is, competition would decrease in some markets and increase in others.[14] Harmful effects will occur if the merger reduces the number of effective competitors in a market.[15] The opportunity for harm increases with the number of overlapping markets and the number of passengers flying in these markets. Additionally, the opportunity for harm increases if the merger creates an airline that dominates particular markets (i.e., an airline that achieves more than half of each of these markets), since that dominance may allow the airline to impose higher airfares on passengers. Industry experts generally agree that if an airline can capture significant market share, its revenue share will increase faster than its market share; in other words, an airline can earn higher yields because, among other reasons, it offers the high level of flight frequencies preferred, especially by business travelers.[16] In addition, especially in dominated markets, other operating and marketing features (such as frequent flyer programs) would make entry into those markets by would-be competitors more difficult. Conversely, the merger would also benefit consumers. In markets where each of the two airlines now has limited market shares, the merger would allow them to create competition against other airlines. Additionally, by extending the carriers' operations to city pairs where only one of the two airlines previously operated at each endpoint, the merger would create new on-line service between those

[14]Our analysis of the potential changes in competition is based on traffic flows and service patterns as they existed in 1999. To the extent that competition in particular markets changes in the future, the exact numbers of markets and passengers that might be positively or negatively affected by the potential merger would be different than that cited here.

[15]We define a competitor as an airline having at least 10 percent of a market. This level is used by DOT and has been supported by some airline officials and industry experts. Accordingly, for the purposes of this report, we are defining any airline as an "active competitor" if it carries 10 percent or more of any given market. Conversely, if an airline or merger has less than 10 percent of any given market, we are defining its market share as "limited."

[16]The extent to which airlines can achieve market dominance is particularly important in determining the degree to which a merger may be harmful to consumers. Airlines that achieve a dominant market position can drive out airlines with a small market share by making it unprofitable for them to compete. Additionally, a number of studies—including our own—have shown that markets with fewer competitors, especially those dominated by a single carrier, have higher fares. See, for example, Steven A. Morrison, "New Entrants, Dominated Hubs, and Predatory Behavior," Statement before the Subcommittee on Antitrust, Business Rights, and Competition, Committee on the Judiciary, United States Senate (Apr. 1, 1998). See also *Airline Competition: Higher Fares and Less Competition Continue at Concentrated Airports* (GAO/RCED-93-171, July 15, 1993).

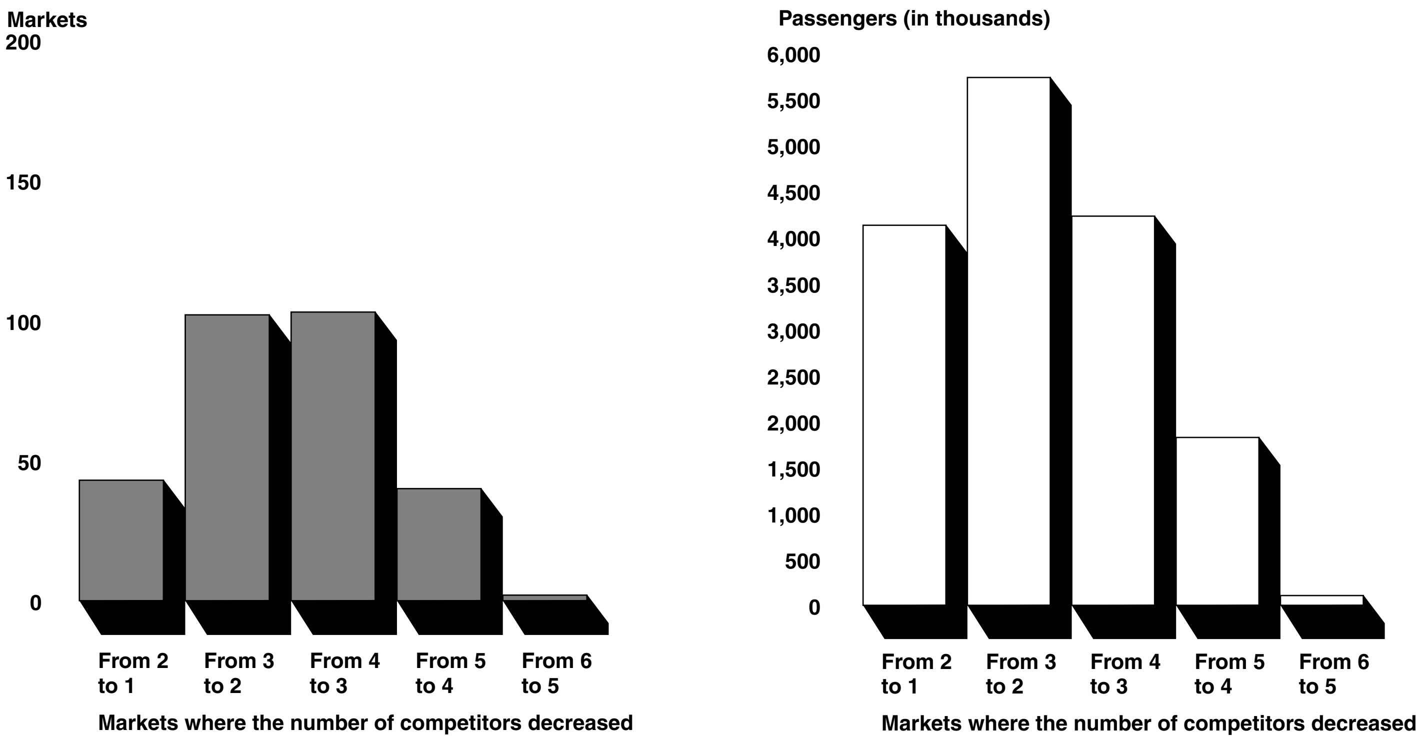
communities.[17] Finally, the merger would benefit members of each airline's frequent flyer programs by expanding the number of destinations that the members could reach. United and US Airways assert that the merger would also deliver other benefits.

Merger Would Have Harmful Effects by Reducing or Eliminating Competition in Some Key Markets

The United-US Airways merger could reduce or eliminate competition in 290 of the top 5,000 markets in the United States. About 16 million passengers traveled in those 290 markets in 1999, or about 5 percent of the passengers who flew in the top 5,000 markets in that year. Figure 3 shows the number of markets and passengers that could potentially be affected by an elimination of or reduction in competition due to the merger.

[17]On-line service provides passengers with connecting flights without requiring them to change airlines. Service that requires passengers to change airlines to continue their flights (excluding those requiring a passenger to transfer between a larger airline and its commuter affiliate or other airlines with which it may have a code-sharing agreement) is referred to as "interline" service.

Figure 3: Number of Markets and Passengers Subject to a Loss of Competition Due to the Merger



Source: GAO's analysis of DOT data on the top 5,000 markets in 1999.

In 43 of these markets, in which 4.1 million passengers traveled, the merger could reduce the number of competitors from two to one, eliminating effective competition. For example, new United could achieve a market share of more than 90 percent between Boston and the Washington, D.C. area (approximately 1.3 million passengers in 1999) and between Tampa International Airport and the Washington, D.C. area (about 339,000 passengers).[18] Another six of those markets are between United's and US Airways' hub airports.

[18]Previous GAO work indicates that Reagan National, Washington Dulles, and Baltimore-Washington International airports appear to represent distinct markets for certain time-sensitive business travelers. For leisure passengers, however, the airports have served somewhat as substitutes for one another. See *Reagan National Airport: Capacity to Handle Additional Flights and Impact on Other Area Airports* (GAO/RCED-99-234, Sept. 17, 1999).

In 102 markets, the merger could reduce the number of competitors from three to two. Over 5.7 million passengers traveled in these markets in 1999. Table 2 shows the five largest markets in which the merger could leave only two remaining competitors. Another 6.2 million passengers traveled in 145 other markets that could lose competition as a result of the merger. Appendix IV contains additional information on the markets in which the merger could leave two or fewer competitors.

Table 2: Five Largest City Pair Markets in Which the Proposed Merger Could Leave Only Two Competitors

		Premerger market shares			
Market	Number of passengers in 1999	United	US Airways	Postmerger market share	Remaining competing airline (market share)
Baltimore-Chicago	954,010	39.6	17.5	57.1	Southwest (38.3)
Chicago-Washington, D.C.	921,010	61.9	14.6	76.6	American (17.0)
Washington, D.C.-Orlando	642,630	16.6	36.3	52.9	Delta (45.0)
Baltimore-Los Angeles	468,810	18.3	40.4	58.8	Southwest (19.6)
Miami-Washington, D.C.	385,380	18.1	19.2	37.3	American (57.4)

Source: GAO's analysis of DOT data on the top 5,000 markets in 1999.

New United Would Increase Number of Dominated Markets

The merger would increase the number of markets in the top 5,000 that are dominated by a single airline. The major airlines already dominate about two-thirds of the top 5,000 markets, in which over 200 million passengers flew in 1999. Delta then dominated more markets than any other airline (849), but the 289 markets that Southwest dominated carried more passengers (48.8 million). America West dominated the fewest markets (41) in which the smallest number of passengers traveled. Table 3 summarizes the number of markets in the top 5,000 that the major airlines dominated in 1999, the number of passengers who traveled in those markets, and the number of markets and passengers that might be affected by the proposed merger.

Table 3: Number and Size of Markets Dominated by Domestic Airlines

Airline with dominant market share	Number of markets	Total passengers, 1999	Percent of total
Alaska	92	8,840,140	2.7
America West	41	2,530,250	0.8
American	242	16,052,840	4.9
Continental	126	9,699,080	3.0
Delta	849	40,219,160	12.4
Northwest	396	19,319,310	5.9
Southwest	289	48,827,510	15.0
Trans World	149	6,535,530	2.0
United	349	26,020,450	8.0
US Airways	681	28,145,970	8.6
None	1,786	119,442,930	36.7
Total	**5,000**	**325,633,170**	**100.0**
New United	1,156	61,089,380	18.8
Net increase	126	6,922,960	2.1

Note: Dominant markets are those with more than 50-percent market share.

Source: GAO's analysis of DOT data on the top 5,000 markets in 1999.

New United would increase the number of markets that the two airlines currently dominate. Before combining their market shares, United and US Airways dominate a total of 1,030 markets. New United could dominate another 126 markets, potentially affecting the approximately 6.9 million passengers who traveled there in 1999. The number of annual passengers in those 126 markets ranges from 4,850 to 954,010. Thus, following the merger, new United could dominate a total of 1,156 markets, affecting 61.1 million passengers. New United's 1,156 dominated markets would be more than 36 percent larger than those dominated by Delta and could affect 12.3 million (or over 25 percent) more passengers than those dominated by Southwest.

Merger Would Increase Domination Between United's and US Airways' Hubs

Of the 1,156 markets that new United could dominate after the merger, 28 join United's and US Airways' hubs, in which over 7.7 million passengers traveled in 1999. In 26 of those 28 markets, United or US Airways already dominated nonstop travel in 1999. United dominated all nonstop traffic in the 10 markets between its hubs, and US Airways carried nearly all of the nonstop passenger traffic in the 3 markets between its hubs. In the 15 markets between United's hubs and US Airways' hubs, one of the carriers already dominated the nonstop travel in 13. For example, US Airways controlled 99 percent of the nonstop traffic between Charlotte and Denver, and United controlled 62 percent of the nonstop traffic between Philadelphia and Denver.

New United could gain market dominance in the two other markets in which neither airline already dominated nonstop traffic in 1999, allowing it to dominate nonstop travel in all hub markets. Those markets connect US Airways' hub in Philadelphia with United's hubs in Chicago (O'Hare) and San Francisco. Table 4 summarizes nonstop market share data for both United and US Airways in each of the 15 markets between United's and US Airways' hubs.

Table 4: Market Shares of Nonstop Passenger Traffic Between United's and US Airways' Hubs

Hub markets	United	US Airways	New United	Total passengers, 1999
Charlotte-Denver	0.6	99.3	99.9	**47,140**
Charlotte-Washington Dulles	0.1	99.9	100.0	**53,350**
Charlotte-Los Angeles	0.1	99.9	100.0	**96,970**
Charlotte-Chicago O'Hare	38.4	61.6	100.0	**203,010**
Charlotte-San Francisco	0.1	99.9	100.0	**97,330**
Philadelphia-Denver	61.8	29.5	91.3	**156,850**
Philadelphia-Washington Dulles	53.5	46.5	100.0	**18,060**
Philadelphia-Los Angeles	41.0	56.0	97.0	**229,240**
Philadelphia-Chicago O'Hare	46.8	26.3	73.1	**580,610**
Philadelphia-San Francisco	46.5	47.6	94.1	**243,400**
Pittsburgh-Denver	0.2	99.3	99.5	**69,550**
Pittsburgh-Washington Dulles	2.1	97.9	100.0	**22,270**
Pittsburgh-Los Angeles	0.3	99.7	100.0	**90,820**
Pittsburgh-Chicago O'Hare	37.7	56.7	94.4	**273,030**
Pittsburgh-San Francisco	0.1	99.4	99.5	**98,620**

Source: GAO's analysis of DOT data on the top 5,000 markets in 1999.

In eight of those markets, the merger would have no impact on competition because United's market shares are so small that we did not define United as a competitor. For example, in the market between Pittsburgh and Washington Dulles, United would not be defined as a competitor because it carries only 2 percent of the nonstop passenger traffic. Thus, merging its share with US Airways' 98-percent share would not decrease the number of competitors. However, in 7 of the 15 markets between United's and US Airways' hubs, the proposed merger could eliminate or reduce competition. In six of those markets, in which about 1.1 million passengers traveled in 1999, the only two competing airlines were United and US Airways. The largest of these 6 markets is Pittsburgh to Chicago O'Hare, in which over 270,000 passengers flew in 1999. In the market between Philadelphia and Chicago O'Hare, in which 580,000 passengers flew in 1999, the merger would leave only one other competitor in the market.

New United's shares of the nonstop passenger traffic in the more broadly defined city-pair markets would differ relatively little from its shares in the airport-pair markets. For example, between Charlotte and San Francisco, the combination of United and US Airways carried nearly 100 percent of the nonstop traffic in 1999, virtually the same as the percentage of passenger traffic that the airlines carried between Charlotte Douglas International Airport and San Francisco International Airport. Similarly, the two airlines' share of the nonstop passenger traffic between Pittsburgh and Los Angeles was also near 100 percent in 1999, the same as the share of traffic between Pittsburgh and Los Angeles International Airport. On the other hand, in the market between Pittsburgh and Chicago, the two airlines' market share decreased from 94.4 percent (on an airport-pair basis) to 69.2 percent, because Vanguard Airlines operates between Pittsburgh and Chicago's Midway Airport.

Merger Could Increase Operating and Marketing Barriers to Entry

To the extent that a merger or acquisition creates barriers to market entry, it can limit competition. If entry is easy, a single firm cannot charge monopoly prices over the long term because other firms will enter and provide competition. However, if entry is difficult, then the firm may be able to hold prices above competitive levels. Traditional hub-and-spoke airlines are recognized as having a range of advantages that serve to restrict the likelihood that new carriers will enter certain markets. For example, their dominance in the market enables them to offer more flights, thus attracting business travel. As we have reported in the past, operating barriers such as gate constraints (long-term leases for one airline's exclusive use) make entry by new competition into markets more difficult and have thereby contributed to higher fares on routes to and from some airports.[19]

[19]See *Airline Deregulation: Barriers to Entry Continue to Limit Competition in Several Key Domestic Markets* (GAO/RCED-97-4, Oct. 18, 1996).

We have previously reported on how certain marketing practices, such as frequent flyer programs, can act as barriers to entry.[20] Under a merger, such a combination could present a formidable barrier to entry for new-entrant airlines and point-to-point carriers lacking extensive networks. According to an official with Charlotte's airport, where US Airways dominates passenger traffic in most markets, competing airlines have been reluctant to begin any significant amount of service there, in part because of the economies of scale that US Airways experiences and the advantages that US Airways brings with local businesses through its sales and marketing programs.

Combined with the increase in the number of dominated markets, these operating and marketing barriers would make potential entry by new airlines in key markets more difficult. DOJ noted in its complaint filed in the Northwest/Continental case that effective new entry for nonstop service in hub-to-hub markets is unlikely by any airline without a hub at one of those cities.

Merger Would Produce Various Benefits

The merger would benefit consumers in three major ways. First, by combining the two airlines' operations in markets where each airline previously had a relatively limited presence, the merger would create an additional effective competitor in those markets. Second, consumers in some markets would benefit from having access to new on-line service (i.e., being able to stay on one carrier for a multiple-stop itinerary). Third, the merger would benefit members of United's and US Airways' frequent flyer programs by expanding the number of destinations that they could reach under the program.

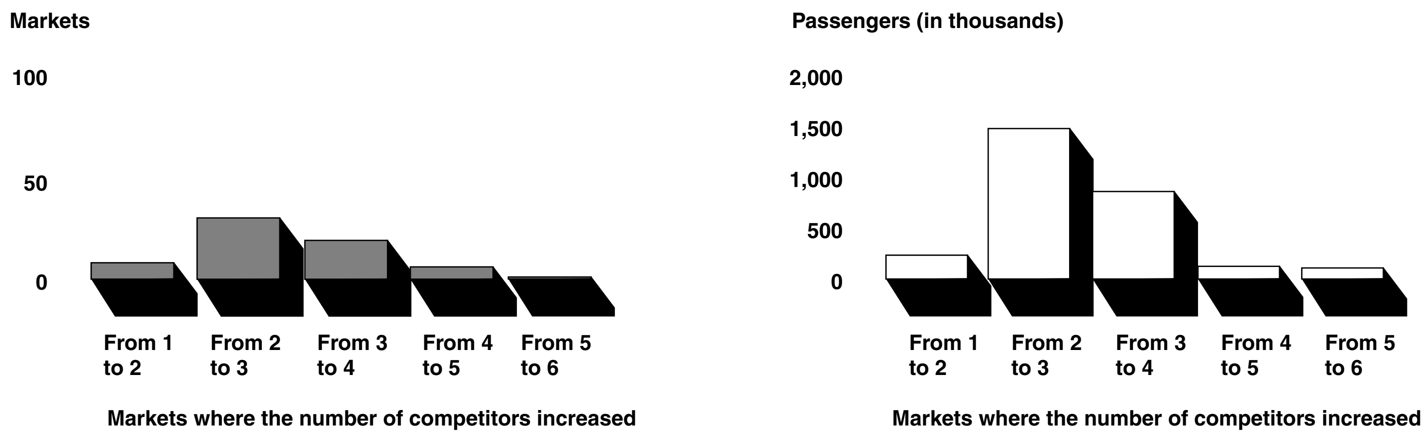
Merger Would Increase the Number of Effective Competitors in Some Markets

According to United and US Airways officials, new United could be a significant competitor on 534 routes where neither United nor US Airways currently competes. Based on our analysis of data for the top 5,000 markets in 1999 and our definition of an "effective competitor" as one that carries at least 10 percent of the passenger traffic, we identified 65 markets in which the merger could increase the number of competitors. About 2.9 million passengers traveled in these markets (or about 0.9 percent of all passengers who traveled in the top 5,000 markets in 1999). Figure 4

[20] See *Aviation Competition: International Aviation Alliances and the Influence of Airline Marketing Practices* (GAO/T-RCED-98-131, Mar. 19, 1998).

illustrates the number of markets and passengers that could benefit from an increase in competition as a result of the merger.

Figure 4: Number of Markets and Passengers That Could Benefit From an Increase in Competition



Source: GAO's analysis of DOT data on the top 5,000 markets in 1999.

Eight of those 65 markets (all of which were relatively small, serving a total of 232,620 passengers in 1999) are currently dominated by a single airline. New United could create a second competitor in those eight markets. In another 31 of the 65 markets (1.4 million passengers), new United could increase the number of competitors from two to three. Appendix V contains additional information on the markets in which the merger could create competition.

Merger Would Improve Service for Some Consumers

The chairmen of the two merging airlines suggest that by combining what they describe as the largely East-West structure of United with the largely North-South structure of US Airways (in the Eastern United States), new United would bring more choice, more destinations, and more convenience to millions of their passengers. United and US Airways officials told us that new United would serve 256 new domestic routes. New United's presence in those markets could provide the 759,000 passengers who traveled them in 1999 with an additional choice of airlines and improved service.

New United would be able to serve these markets by connecting cities now served by one of the airlines (e.g., Sacramento, to which United flies) with a city not served by that airline (e.g., Erie, Pennsylvania, to which US Airways flies). Most of these new connecting markets are relatively small.

For example, in all of 1999, about 1,080 passengers traveled between Sacramento and Erie. Of the 256 markets to which the airlines would offer new on-line service, 198 (77 percent) had fewer than 2,000 passengers traveling in them in 1999. However, because most of these markets currently have only one or two competitors, passengers traveling there could benefit from additional competition introduced by new United. In addition, the competition that new United would add could stimulate additional passenger traffic, allowing those markets to grow. Table 5 provides additional details on the 256 on-line routes.

Table 5: Analysis of Markets That Would Receive On-line Service From New United

Number of competitors (pre-merger)	Number of markets	Average number of passengers per year, 1999	Average number of passengers per day, 1999
[a]	2[b]	[a]	[a]
1	188	2,071	6
2	56	2,756	8
3	9	16,210	44
4	1	69,200	190

[a] Not applicable.

[b] No carriers provided on-line service in these markets in 1999.

Source: GAO's analysis of data from BACK Aviation Solutions.

According to information from United and US Airways, new United plans to add 31 new daily domestic nonstop flights. Except for seven flights that would originate in either Boston or Baltimore, those routes would originate in either a current United or a current US Airways hub. Either United or US Airways already provides nonstop service in 12 of those markets. For example, new United would add another nonstop flight between Charlotte and Denver, although US Airways already schedules several daily nonstop flights in that city-pair market. The new United's proposed nonstop service in four markets (e.g., Boston—San Diego) would compete with that provided by other airlines. New United would thus offer truly new nonstop service in 15 markets—that is, new United would provide nonstop service in 15 markets where no airline currently schedules nonstop flights. Some of the totally new nonstop domestic routes include flights between Philadelphia and Portland, Oregon; Washington Dulles and Orange County, California; and Charlotte and Austin, Texas. The new nonstop service would represent upgrades from the connecting service that the airlines now provide.

Merger Could Affect Members of United's and US Airways' Frequent Flyer Programs

Customers of United and US Airways could also benefit from the combination of the two airlines' frequent flyer programs. United and US Airways officials report that the merger would create 100 new destinations for United passengers and 147 new destinations for US Airways passengers. According to information from officials with the two airlines, United has approximately 39 million members in its frequent flyer program and US Airways has approximately 20 million members in its frequent flyer program.

On the other hand, merging those frequent flyer programs would also possibly harm some existing program members, as partners in United's and US Airways' frequent flyer programs withdraw. For example, American, which has an agreement with US Airways under which passengers traveling on US Airways can earn American frequent flyer miles, has announced that it will terminate the agreement in 2001. Similarly, officials from Delta told us that it would terminate a similar agreement with United if the merger were approved.

Merger May Present Other Benefits

The merger may also present other benefits to consumers, employees, and other groups. United and US Airways assert that the merger would also provide a range of other important benefits to consumers. For example, according to a representative of United, passengers would experience certain benefits, such as the convenience of having one ticket and one baggage claim. In addition, employees and certain communities may also benefit from the merger. For example, United's and US Airways' presidents testified that under the merger, United would furlough no employees and would continue service to all cities served by US Airways for at least 2 years. In addition, United pledged to hold certain categories of airfares steady over the period, apart from an allowance for increases due to rising fuel prices and overall inflation. We did not independently evaluate these potential benefits.

Proposed United-US Airways Merger Would Have a Greater Potential Impact Than the Proposed Stock Acquisition and Alliance of Northwest and Continental

To create a frame of reference for analyzing the competitive significance of the proposed merger, we compared it with our analysis of the proposal by Northwest to acquire a majority of the voting stock in, and enter into an alliance with, Continental. Northwest and Continental announced in January 1998 that Northwest was to acquire 8.7 million shares of Continental's stock. These shares gave Northwest 51 percent of the voting rights in Continental. In addition, the two airlines were entering into an alliance that would connect their route systems. A variety of industry analysts told us they believed that Northwest and Continental would not act as independent competitors over the long run. As a result, our analysis of the potential competitive effects of the stock acquisition and alliance assumed that Northwest and Continental would behave as though they had merged. Because our analysis in this report largely parallels our analysis of the Northwest-Continental stock acquisition and alliance, we can outline some comparisons of possible competitive effects.

In general, the proposed United-US Airways merger would potentially reduce competition in more than four times as many markets as the Northwest-Continental stock acquisition and alliance (see table 6). New United would increase dominance in five times as many markets, potentially affecting three times as many passengers. Overall, new United would dominate more than twice the total number of markets, potentially affecting 20 million more passengers. In contrast, the Northwest-Continental stock acquisition and alliance would have increased competition in more than four times as many markets as the United-US Airways merger, benefiting more than five times as many passengers.

Table 6: Comparison of Potential Competitive Impact of the Proposed United-US Airways Merger and the Proposed Northwest-Continental Stock Acquisition and Alliance

	Northwest-Continental (1997 data)		United-US Airways (1999 data)	
Competitive factor	**Numbers of markets**	**Passengers affected (millions)**	**Numbers of markets**	**Passengers affected (millions)**
Markets where competition would decline	63	2.0	290	16.0
Newly dominated markets	25	2.4	126	6.9
Total dominated markets	492	40.7	1,156	61.1
Percent increase in dominated markets		5%		12%
Markets where competition would increase	286	15.1	65	2.9
New markets with on-line service	145	0.6	256	0.8

Note: The number of passengers potentially affected in newly dominated markets could exceed the number of passengers in markets where competition would decline if the premerger market share for one of the two airlines was less than 10 percent, in which case the airline would not be defined as a competitor, but the shares for both of the airlines exceed 50 percent.

Source: GAO's analysis.

On October 23, 1998, DOJ filed a civil antitrust complaint to prevent Northwest from acquiring or holding a majority of Continental's voting stock. DOJ said in its complaint that Northwest's gaining voting control would lessen competition in interstate trade and commerce and unreasonably restrain trade. DOJ identified potentially anticompetitive effects in seven hub-to-hub city-pair markets where the two airlines would dominate. DOJ recently agreed to a proposal by the airlines that, if carried out, would resolve their suit. The proposal requires Northwest to sell back to Continental a substantial part of its voting stock, divesting itself of its controlling interest in Continental. Northwest would own 7 percent of Continental's voting power, down from its current 55 percent. The two airlines would maintain a separate alliance agreement.

Proposed DC Air Would Generally Offer Smaller Aircraft and Less Frequent Service Than Other Airlines but Would Seek to Compete With Lower Prices

Current airline schedules indicate that DC Air would face competition from other airlines providing nonstop service from Reagan National in 9 of the 43 markets it plans to serve.[21] These nine markets are, however, among the more heavily traveled that DC Air would serve. Moreover, the service offered by the competing airlines appears to be of generally higher quality (as indicated by the number of flights, number of seats available for sale, and type of aircraft to be used) than that proposed by DC Air. In DC Air's other 34 planned markets, it would face no direct competition from other airlines at Reagan National. However, in 28 of those markets, other airlines would compete against DC Air with nonstop service from either Washington Dulles or Baltimore-Washington International.[22] Moreover, the service that the competing airlines are scheduled to provide in many of those 28 markets will generally be of higher quality than DC Air's planned service. DC Air expects to address the differences in quality by offering airfares that are, on average, lower than those offered by its competitors.

Other Airlines Would Compete With Larger Aircraft and More Frequent Service Against DC Air in Nine of Its Larger Markets to and From Reagan National

DC Air would face significant competition from other airlines in 9 of the 43 markets to which it intends to provide nonstop service from Reagan National. In three of those markets (Charlotte, Pittsburgh, and Philadelphia), DC Air would compete on a nonstop basis only with new United. It would compete with nonstop service against other airlines to six other destinations—Atlanta, Columbus, Detroit, Fort Lauderdale, Kansas City, and Raleigh-Durham. In general, more passengers travel in these contested markets than in the other 34. In the four quarters ending March 31, 2000, about 1.4 million passengers traveled in these nine markets, ranging from about 29,000 passengers in the Reagan National-Philadelphia market to nearly 360,000 passengers in the Reagan National-Atlanta market.

Given the type of aircraft that each airline intends to use and its capacity in each market (a product of the number of seats available for sale on each

[21]DC Air also plans to serve one other community—Clarksburg, West Virginia—with one-stop service.

[22]In general, our analysis assumed that the service competing airlines would provide from the Washington, D.C., area to the locations DC Air intends to fly would remain unchanged after the merger. For example, we assumed that new United's service would equal the sum of the flight frequencies United and US Airways provided in November 2000, after allowing for the reduction in service and frequencies divested to DC Air. See app. I for additional information on the assumptions included in the analysis of DC Air's competitiveness.

type of aircraft and the expected daily flight frequency), DC Air's proposed service would appear to be of lesser quality than that being offered by other airlines in the nine markets where DC Air would face competition.[23] Table 7 summarizes the differences in the type of aircraft and total available capacity in those markets.

Table 7: DC Air's Proposed and Other Airlines' Scheduled Service From Reagan National to Nine Competed Markets

	DC Air's proposed service			Competitor's scheduled service[a]		
Reagan National to	Daily flight frequencies	Aircraft type[b]	Total daily available seats[c]	Daily flight frequencies	Aircraft type[b]	Total daily available seats
Atlanta	4	RJ	200	13	Large jet	2,244
Charlotte	2	Turboprop	74	9	Large jet	1,256
Columbus	3	RJ	150	2	RJ and Turboprop	447
Detroit	3	RJ	150	6	Large jet and Turboprop	1,051
Ft. Lauderdale	2	Large jet	236	2	Large jet	259
Kansas City	3	Large jet	354	5	Large jet	635
Philadelphia	2	Turboprop	74	3	Large jet and Turboprop	438
Pittsburgh	2	Turboprop	74	4	Large jet and Turboprop	897
Raleigh-Durham	3	RJ	150	6	Large jet, RJ, and Turboprop	527

[a]Because United has not announced the type of aircraft it would use to serve some of these markets (e.g., Charlotte), we assumed that they would use the same type of aircraft currently used by US Airways.

[b]"RJ" refers to 50-seat regional jets. "Turboprops" are turbo jet aircraft. According to information from DC Air, it intends to operate 37-seat Dash-8 turboprops. "Large jet" refers to other large jet aircraft like Boeing 737s, DC-9s, or Airbus A320s.

[c]Represents seats available on flights departing from Reagan National.

Source: GAO's analysis of information from DC Air and the Kiehl Hendrickson Group.

[23]In general, we define higher quality service as that using larger aircraft (e.g., a large jet rather than a turboprop aircraft) and/or with greater capacity. See app. I for additional information on our definition.

DC Air would likely compete against no airline at Reagan National in its other 34 markets.[24] Many of those markets are smaller (i.e., less heavily traveled) than those in which it would face competition. For example, in 1999, about 30,000 passengers flew between Reagan National and Birmingham, Alabama. US Airways currently schedules nonstop service to those markets (except for Little Rock, Arkansas, to which no airline currently flies nonstop from Reagan National) and faces no nonstop competition in them.

DC Air Would Face Competition in Most Markets From Airlines Operating at Other Airports in the Washington, D.C., Area

DC Air will compete against other airlines in many more markets when the Washington, D.C., area market is defined to include not just Reagan National, but also Washington Dulles International Airport and Baltimore-Washington International Airport. Moreover, the airlines operating at these other airports will generally provide more flights, more available seats, and larger aircraft than DC Air plans to provide.

Of the 34 cities that DC Air intends to serve from Reagan National without facing any direct competition from that airport, other airlines—including new United—will provide competing service to 28 from either or both Washington Dulles and Baltimore-Washington. In most markets in which other airlines compete with DC Air, they will also be using aircraft that are generally considered to be of higher quality than the aircraft that DC Air plans to use. For example, Southwest Airlines—widely known for its all-Boeing 737 fleet and competitive airfares—provides competing service in 14 of those markets.

Table 8 summarizes the competition that DC Air may face in its markets from other airlines at all three airports in the Washington, D.C., area.

[24]Of the markets where DC Air has no nonstop competition, Clarksburg and Morgantown, West Virginia, receive scheduled service under DOT's Essential Air Service program, which guarantees that certain communities will continue to receive a minimum level of scheduled service and subsidizes that service if necessary.

Table 8: DC Air's Proposed Service Faces Significant Challenges Against Other Airlines in the Washington, D.C., Area

Capacity of DC Air's proposed service compared with that of competing airlines' scheduled service	Number of markets	Average number of passengers per day per market[a]
Same or greater	17	533
Less	26	956

[a]Average number of passengers per day based on total numbers of passengers in those markets at Reagan National, Washington Dulles, and Baltimore-Washington for the 4 quarters ending with the first quarter of 2000.

Source: GAO's analysis of flight capacity information from the Kiehl Hendrickson Group and DC Air and passenger traffic data from BACK Aviation Solutions.

Competing airlines have more large-jet service in 10 of the 13 markets in which DC Air expects to use Boeing 737s. In four of those cities—Dayton, Indianapolis, Jacksonville, and Providence—DC Air plans to operate its 737s only once a day, supplementing them with additional flights using regional jets. Rochester and Buffalo are to receive twice-daily 737 service, also supplemented with flights using regional jets.

DC Air intends to serve 17 markets solely with regional jets and 2 other markets with a combination of regional jets and turboprop aircraft. Competing airlines would provide more and higher-quality service, given the available capacity and type of aircraft to be used, in nine markets. DC Air's proposed regional jet service would provide the same or greater capacity (using similar or better aircraft) than competing airlines in 10 of those markets—Burlington, Vermont; Charleston and Columbia, South Carolina; Greensboro, North Carolina; Huntsville, Alabama; Knoxville, Tennessee; Little Rock, Arkansas; Norfolk, Virginia; Portland, Maine; and Syracuse, New York.

DC Air plans to serve its remaining 11 markets only with turboprop aircraft. In six of those markets, competing airlines would provide more and higher-quality service, assuming they used their currently available capacity and type of aircraft. DC Air's proposed service would provide the same or greater capacity than competing airlines to Lewisburg and Morgantown, West Virginia, and White Plains, New York. In two markets (Charleston, West Virginia, and Greenville/Spartanburg, South Carolina), competing airlines would operate slightly less total capacity but use regional jets instead of turboprops.

DC Air Representatives Believe New Carrier Will Emerge as a Low-Cost Carrier, Competing Effectively on Price

DC Air representatives told us that the new carrier will emerge as a low-cost carrier. The carrier is committed to serving a network inherited from US Airways and officials say there is potential to grow and enhance competition in those markets. These representatives assert that DC Air will have lower labor costs, and they cite general data that regional carriers historically have costs 20 percent below those of major airlines. According to information from their representatives, DC Air projects an immediate average reduction in airfares of 17 percent, compared with the average fares US Airways charges for those routes. They told us that they have developed fares for all their markets but could not share that proprietary information. To substantiate their belief that DC Air will be able to offer lower fares than US Airways, they noted that DC Air can operate aircraft more appropriately sized to their markets. Whereas US Airways may now operate a 128-seat 737 on particular routes, DC Air may use a 50-seat regional jet. Because DC Air would not share its proprietary business information with us, we cannot evaluate the airline's potential to offer lower prices, which we agree is likely to be a critical factor in the extent to which DC Air can compete in the markets it is inheriting from US Airways.

Agency Comments

We provided representatives of United, US Airways, and DC Air with draft copies of the sections of the report describing the merger agreement and other factual descriptions of their existing and planned service. We also provided draft copies of the report to DOJ and DOT. Representatives of the airlines and officials in those departments offered technical comments, which we incorporated into the report as appropriate.

As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies to the Honorable Rodney E. Slater, Secretary of Transportation; the Honorable Janet Reno, Attorney General; United Airlines, US Airways, DC Air, and other interested parties. We will send copies to others upon request.

If you have any questions, please call me at (202) 512-8984. Key contacts and major contributors to this report are listed in appendix VI.

JayEtta Z. Hecker
Director, Physical Infrastructure Issues

Scope and Methodology

At the request of the Ranking Democratic Member of the House Committee on Transportation and Infrastructure and Representative Louise Slaughter, we addressed three issues relating to the proposed acquisition of US Airways by United Airlines (United). Specifically, our objectives were to determine (1) how the proposed merger would alter the U.S. domestic airline industry; (2) what potential harmful and beneficial effects the proposed merger could have on consumers, focusing on how the proposed merger would alter competition in specific markets; and (3) how the service that DC Air is planning to offer compares with the service scheduled by other airlines in the same markets.

To determine how the merger would alter the U.S. domestic airline industry, we examined what the merger would do to the overall market shares of major U.S. passenger airlines. We analyzed changes in various measures of market size, including the number of passengers carried by the airlines, the number of miles flown by paying passengers, and the airlines' total revenue. We also discussed with various industry experts and other major airlines what their likely competitive responses would be. We did not evaluate those likely competitive responses at this time because they have not been discussed publicly in sufficient detail for analysis.

To determine the merger's potential beneficial and harmful effects on consumers, we separately examined the possible service benefits associated with the merger and the potential harm to consumers that might stem from a loss of competition in various markets. To examine the potential harm from the acquisition, we determined the extent to which each airline's routes overlap by analyzing 1999 data from the Department of Transportation (DOT) on the 5,000 busiest domestic city-pair origin and destination markets or markets for air travel between two cities. These 5,000 markets accounted for approximately 85 percent of the total U.S. domestic passengers in 1999. We recognize that this analysis is based on traffic flows and service patterns as they existed in 1999. We have no reasonable basis for determining the extent to which competition or service levels in the domestic airline industry might change with the entry or exit of different carriers.

To obtain other data on passenger traffic for this report, we contracted with BACK Aviation Solutions (BACK), an aviation consulting firm, which obtains operational and financial information submitted by all U.S. airlines to DOT. These data include the Origin and Destination Survey (O&D) based on a 10-percent sample of tickets containing itinerary and pricing information; T-100 on-flight data;[1] and 298C T-1 data, which supplement the T-100 data with data on commuter and small certified air carriers. BACK makes certain adjustments to these data, such as correcting recognized deficiencies in the air carriers' O&D data submissions, which have not met DOT's standard of 95-percent accuracy. We did not independently assess the reliability of BACK's data.

We examined whether the acquisition might reduce or enhance competition within given airline markets. DOT defines a "competitor" as an airline that has a market share of at least 10 percent, and we adopted DOT's definition. To provide additional insight into markets where a merger may exert additional or disproportionate market influence, we further refined our analysis to focus on those markets where new United would have a dominant share—more than 50 percent. Various studies support the finding that airlines holding dominant shares of a market reap disproportionate amounts of the revenue available in that market, because they are able to provide far more frequent service, which is important for time-sensitive, high-yield business travelers.

[1] 14 C.F.R. 241 prescribes the collection of scheduled and nonscheduled service traffic data from the domestic and international operations of U.S. air carriers. The schedules submitted by the air carriers to DOT under this requirement collect nonstop segment data and on-flight market information by equipment type and by service class. This report is known as the "T-100" report.

We generally defined a market as one involving city pairs rather than airport pairs. This is an important distinction in those cities, such as New York and Chicago, that are served by more than one airport. To provide additional information on how the merger might affect certain passengers who may not regard an area's multiple airports as substitutes, however, we also examined changes in market share based on airport pairs. Previous GAO work indicates that Ronald Reagan Washington National (Reagan National), Washington Dulles International, and Baltimore-Washington International airports appear to represent distinct markets for certain time-sensitive business travelers.[2]

To analyze the merger's possible benefits to consumers, we examined the airlines' statements on their routing and connection benefits. To evaluate these statements, we analyzed airline flight schedule information submitted by all U.S. airlines for November 2000 that we purchased from the Kiehl Hendrickson Group, an aviation consulting firm, along with passenger traffic data that we purchased from BACK.[3] We did not at this time independently verify the 256 markets that United officials told us would benefit from new on-line service. To estimate the number of passengers who might benefit from the new service, we then matched the new origins and destinations against the 1999 passenger traffic in these markets.

To determine how the service that DC Air is planning to offer compares with the service scheduled by other airlines in the same markets, we analyzed the service that DC Air announced for its markets with the service other airlines had scheduled for those markets. We separately examined competing airlines' scheduled service from Reagan National, Washington Dulles International, and Baltimore-Washington International airports. Absent any information to the contrary, we assumed that United and US Airways would continue to operate the same amount and type of service that they had offered from each of those airports to DC Air's 43 nonstop markets, with an allowance for the shift in service from that now provided by US Airways to DC Air. Finally, we examined whether competitors provided service that is of higher or lesser quality to these destinations. Equivalent-quality service would be that provided with the same frequency

[2]See *Reagan National Airport: Capacity to Handle Additional Flights and Impact on Other Area Airports* (GAO/RCED-99-234, Sept. 17, 1999).

[3]We did not independently assess the reliability of the Keihl Hendrickson Group's original data.

and type of aircraft (e.g., turboprop, regional jet, or large jet). Higher-quality service would be that in which one airline provides either (1) more capacity (where capacity is calculated by multiplying the number of seats available for sale on a given aircraft type by the number of departures that the airline would make) in a market with the same type of aircraft or (2) the same capacity in a market with a higher-quality aircraft. In general, we consider regional jets to be of higher quality than turboprops but of lower quality than large jets. Lesser-quality service would be that in which one airline provides (1) less capacity in a market with the same or lower-quality aircraft or (2) the same capacity in a market with lower-quality aircraft.

We interviewed officials from DOT, DOJ, United, US Airways, and four other major U.S. passenger airlines. We also interviewed recognized industry experts, including Wall Street airline financial analysts. We asked for their views on how the acquisition might affect domestic airline competition and consumers.

Other important issues may be relevant to an analysis of the merger's impact but are beyond the scope of this review. For example, this report does not examine in detail how the proposed merger would alter an airline's concentration at particular cities or how such concentration would affect market entry by potential competitors. Similarly, the report does not include evaluations of the proposed merger's potential effect on international aviation competition or its impact on service to smaller communities. This report also does not independently evaluate the long-term financial viability of either airline, which may affect its ability to maintain employment and service to small communities.

We conducted our work from May 2000 through December 2000 in Washington, D.C., in accordance with generally accepted government auditing standards.

Combined Domestic and International Measures of Airline Size

Airline	Revenue passenger enplanements[a]		Revenue passenger miles		Total operating revenue	
	Number in thousands	Percent of total	Number in thousands	Percent of total	Dollars in millions	Percent of total
Delta Air Lines	106,218,000	18.8	106,849,814	17.0	14,711	16.3
United Airlines[b]	87,113,000	15.4	127,455,682	20.3	18,027	20.0
American Airlines[c]	85,400,000	15.1	114,832,223	18.3	17,730	19.6
Southwest Airlines[d]	69,056,000	12.2	39,641,182	6.3	4,736	5.2
US Airways[e]	56,417,000	10.0	42,898,817	6.8	8,595	9.5
Northwest Airlines	56,003,000	9.9	77,324,776	12.3	10,276	11.4
Continental Airlines	44,868,000	7.9	60,980,078	9.7	8,639	9.6
Trans World Airlines	26,271,000	4.7	26,650,717	4.2	3,309	3.7
America West Airlines[f]	19,523,000	3.5	18,558,027	3.0	2,211	2.4
Alaska Airlines[g]	13,694,000	2.4	11,962,007	1.9	2,082	2.3
Total[h]	**564,563,000**	**100.0**	**627,153,323**	**100.0**	**90,316**	**100.0**
New United[i]	143,530,000	25.4	170,354,499	27.2	26,622	29.5

Note: Measures shown include international operations.

[a]"Passenger enplanements" represent the total number of passengers boarding an aircraft. Thus, for example, a passenger that must make a single connection between his or her origin and destination counts as two enplaned passengers because he or she boarded two separate flights.

[b]Total operating revenues are for the parent (UAL Corporation).

[c]Total operating revenues are for the parent (AMR Corporation).

[d]Southwest Airlines provides only domestic service.

[e]Total operating revenues are for the parent (US Airways Group, Inc.).

[f]Total operating revenues are for the parent (America West Holdings, Inc.).

[g]Total operating revenues are for the parent (Alaska Air Group, Inc.).

[h]Totals may not add to 100 percent due to rounding.

[i]Totals for new United do not make any allowance for those operations that might become part of DC Air.

Source: GAO's analysis of DOT data.

Selected Financial Data for Some Major U.S. Airlines, Calendar Year 1999 and First 9 Months, 2000

Airline	Total operating revenue, calendar year 1999	Net income (loss), calendar year 1999	Total operating revenue for 9 months ended September 30, 2000	Net income (loss), 9 months ended September 30, 2000
American Airlines[a]	$17,730	$985	$14,844	$766
America West Airlines[b]	$2,211	$119	$1,771	$49
Continental Airlines	$8,639	$455	$7,470	$298
Delta Air Lines	$14,833	$1,208	$12,725	$810
Northwest Airlines	$10,276	$300	$4,345	$325
United Airlines[c]	$18,027	$1,235	$14,559	$121
US Airways[d]	$8,595	$197	$6,912	($168)
Trans World Airlines	$2,736	($353)	$3,309	($115)

[a]Total operating revenues and net income are for the parent (AMR Corporation).

[b]Total operating revenues and net income are for the parent (America West Holdings, Inc.).

[c]Total operating revenue and net income are for the parent (UAL Corporation).

[d]Total operating revenue and net income are for the parent (US Airways Group, Inc.).

Sources: GAO's analysis of data from airline annual reports and quarterly reports filed with the U.S. Securities and Exchange Commission.

Markets in Which the Proposed Merger Could Reduce Competition to Only One or Two Competing Airlines

Markets in Which the Proposed Merger Could Leave No Airlines Competing Against New United

Atlanta, Georgia—Binghamton, New York
Atlanta, Georgia—State College, Pennsylvania
Baltimore, Maryland—San Francisco, California
Bangor, Maine—San Francisco, California
Binghamton, New York—Chicago, Illinois
Binghamton, New York—Denver, Colorado
Binghamton, New York—Los Angeles, California
Boston, Massachusetts—Charleston, West Virginia
Boston, Massachusetts—Charlottesville, Virginia
Boston, Massachusetts—State College, Pennsylvania
Boston, Massachusetts—Newport News/Williamsburg, Virginia
Boston, Massachusetts—Roanoke, Virginia
Boston, Massachusetts—Washington, D.C., area
Burlington, Vermont—San Diego, California
Charleston, West Virginia—San Francisco, California
Charlotte, North Carolina—Chicago, Illinois
Charlottesville, Virginia—New York, New York
Charlottesville, Virginia—Los Angeles, California
Chicago, Illinois—Lynchburg, Virginia
Chicago, Illinois—Roanoke, Virginia
Chicago, Illinois—Scranton, Pennsylvania
Denver, Colorado—State College, Pennsylvania
Denver, Colorado—Philadelphia, Pennsylvania
Denver, Colorado—Pittsburgh, Pennsylvania
Denver, Colorado—Scranton, Pennsylvania
Hartford, Connecticut—Richmond, Virginia
Hartford, Connecticut—Roanoke, Virginia
Hartford, Connecticut—Washington, D.C., area
Los Angeles, California—Philadelphia, Pennsylvania
Los Angeles, California—Scranton, Pennsylvania
Louisville, Kentucky—San Francisco, California
Louisville, Kentucky—Tampa, Florida
Madison, Wisconsin—San Francisco, California
Midland/Odessa, Texas—New York, New York
Philadelphia, Pennsylvania—Salinas/Monterrey, California
Philadelphia, Pennsylvania—San Francisco, California
Philadelphia, Pennsylvania—Seattle, Washington
Philadelphia, Pennsylvania—Washington, D.C., area
Phoenix, Arizona—Scranton, Pennsylvania
Pittsburgh, Pennsylvania—San Francisco, California
Rochester, New York—Washington, D.C., area

San Francisco, California—Scranton, Pennsylvania
Tampa, Florida—Washington, D.C., area

Markets in Which the Proposed Merger Could Leave One Other Airline Competing Against New United

Abilene, Texas—St. Louis, Missouri
Allentown, Pennsylvania—Dallas/Fort Worth, Texas
Allentown, Pennsylvania—Minneapolis, Minnesota
Allentown, Pennsylvania—San Diego, California
Allentown, Pennsylvania—San Francisco, California
Allentown, Pennsylvania—Seattle, Washington
Atlanta, Georgia—Charlottesville, Virginia
Atlanta, Georgia—Scranton, Pennsylvania
Baltimore, Maryland—Chicago, Illinois
Baltimore, Maryland—Los Angeles, California
Baltimore, Maryland—Salinas/Monterrey, California
Baltimore, Maryland—Santa Barbara, California
Bristol/Kingsport/Johnson City, Tennessee—Chicago, Illinois
Bristol/Kingsport/Johnson City, Tennessee—Denver, Colorado
Bristol/Kingsport/Johnson City, Tennessee—Detroit, Michigan
Bristol/Kingsport/Johnson City, Tennessee—Los Angeles, California
Buffalo, New York—St. Louis, Missouri
Burlington, Vermont—Denver, Colorado
Burlington, Vermont—Houston, Texas
Burlington, Vermont—Las Vegas, Nevada
Burlington, Vermont—Los Angeles, California
Burlington, Vermont—Minneapolis, Minnesota
Burlington, Vermont—Phoenix, Arizona
Burlington, Vermont—San Francisco, California
Burlington, Vermont—Seattle, Washington
Charleston, South Carolina—Denver, Colorado
Charleston, South Carolina—San Francisco, California
Charleston, West Virginia—Denver, Colorado
Charleston, West Virginia—Kansas City, Missouri
Charleston, West Virginia—Las Vegas, Nevada
Charleston, West Virginia—San Diego, California
Charleston, West Virginia—Seattle, Washington
Charlotte, North Carolina—Denver, Colorado
Charlotte, North Carolina—Fort Wayne, Indiana
Charlottesville, Virginia—Chicago, Illinois
Charlottesville, Virginia—Denver, Colorado
Charlottesville, Virginia—Orlando, Florida
Chicago, Illinois—State College, Pennsylvania

Chicago, Illinois—Newport News/Williamsburg, Virginia
Chicago, Illinois—Harrisburg, Pennsylvania
Chicago, Illinois—Pittsburgh, Pennsylvania
Chicago, Illinois—Washington, D.C., area
State College, Pennsylvania—Los Angeles, California
Columbia, South Carolina-Denver, Colorado
Columbus, Georgia—San Francisco, California
Denver, Colorado—Greensboro, North Carolina
Denver, Colorado—Harrisburg, Pennsylvania
Denver, Colorado—Norfolk, Virginia
Denver, Colorado—Portland, Maine
Denver, Colorado—Roanoke, Virginia
Denver, Colorado—Wilmington, North Carolina
Grand Rapids, Michigan—Washington, D.C., area
Harrisburg, Pennsylvania—Kansas City, Missouri
Harrisburg, Pennsylvania—Los Angeles, California
Harrisburg, Pennsylvania—Milwaukee, Wisconsin
Harrisburg, Pennsylvania—San Diego, California
Harrisburg, Pennsylvania—San Francisco, California
Harrisburg, Pennsylvania—Santa Ana, California
Hartford, Connecticut—Indianapolis, Indiana
Hartford, Connecticut—Los Angeles, California
Hartford, Connecticut—San Francisco, California
Indianapolis, Indiana—Rochester, New York
Kalamazoo, Michigan—Washington, D.C., area
Kansas City, Missouri—Portland, Maine
Kansas City, Missouri—Richmond, Virginia
Kansas City, Missouri—Rochester, New York
Las Vegas, Nevada—Pittsburgh, Pennsylvania
Las Vegas, Nevada—Roanoke, Virginia
Lincoln, Nebraska—Philadelphia, Pennsylvania
Los Angeles, California—Richmond, Virginia
Los Angeles, California—Roanoke, Virginia
Los Angeles, California—Rochester, New York
Los Angeles, California—San Diego, California
Los Angeles, California—Santa Barbara, California
Los Angeles, California—Savannah, Georgia
Manchester, New Hampshire—Milwaukee, Wisconsin
Manchester, New Hampshire—Minneapolis, Minnesota
Manchester, New Hampshire—Seattle, Washington
Miami, Florida—Washington, D.C., area
Minneapolis, Minnesota—Portland, Maine

New Orleans, Louisiana—Washington, D.C., area
Omaha, Nebraska—Pittsburgh, Pennsylvania
Orlando, Florida—Washington, D.C., area
Palm Springs, California—Los Angeles, California
Philadelphia, Pennsylvania—Santa Barbara, California
Philadelphia, Pennsylvania—South Bend, Indiana
Philadelphia, Pennsylvania—Wichita, Kansas
Phoenix, Arizona—Roanoke, Virginia
Pittsburgh, Pennsylvania—Sacramento, California
Pittsburgh, Pennsylvania—Wichita, Kansas
Portland, Maine—San Diego, California
Providence, Rhode Island—South Bend, Indiana
Richmond, Virginia—San Francisco, California
Roanoke, Virginia—San Francisco, California
Rochester, New York—San Diego, California
Rochester, New York—San Francisco, California
Rochester, New York—Santa Ana, California
San Francisco, California—Savannah, Georgia
San Francisco, California—Wilmington, North Carolina
Savannah, Georgia—Seattle, Washington
South Bend, Indiana—White Plains, New York
Tulsa, Oklahoma—San Francisco, California

Markets in Which the Proposed Merger Could Increase Competition

Albany, New York—Memphis, Tennessee
Atlanta, Georgia—Fort Wayne, Indiana
Atlanta, Georgia—Lansing, Michigan
Baltimore, Maryland—Las Vegas, Nevada
Baltimore, Maryland—Saginaw/Bay City/Midland, Michigan
Baltimore, Maryland—Phoenix, Arizona
Birmingham, Alabama—Denver, Colorado
Birmingham, Alabama—Milwaukee, Wisconsin
Birmingham, Alabama—San Francisco, California
Boston, Massachusetts—Springfield, Missouri
Bristol/Kingsport/Johnson City, Tennessee—Las Vegas, Nevada
Buffalo, New York—Minneapolis, Minnesota
Cincinnati, Ohio—Providence, Rhode Island
Cleveland, Ohio—San Diego, California
Columbus, Ohio—Kansas City, Missouri
Columbus, Ohio—Los Angeles, California
Columbus, Ohio—Memphis, Tennessee
Dayton, Ohio—Houston, Texas
Dayton, Ohio—Milwaukee, Wisconsin
Denver, Colorado—Jacksonville, Florida
Denver, Colorado–West Palm Beach, Florida
Fort Lauderdale, Florida—Grand Rapids, Michigan
Fort Lauderdale, Florida—New Orleans, Louisiana
Fort Lauderdale, Florida—Milwaukee, Wisconsin
Fort Lauderdale, Florida—San Francisco, California
Fort Myers, Florida—Grand Rapids, Michigan
Fort Myers, Florida—Los Angeles, California
Fort Wayne, Indiana—Miami, Florida
Fort Myers, Florida—Milwaukee, Wisconsin
Fort Myers, Florida—San Diego, California
Fort Myers, Florida—Seattle, Washington
Fort Myers, Florida—South Bend, Indiana
Grand Rapids, Michigan—Jacksonville, Florida
Grand Rapids, Michigan—Nashville, Tennessee
Grand Rapids, Michigan—New Orleans, Louisiana
Grand Rapids, Michigan—Orlando, Florida
Grand Rapids, Michigan—West Palm Beach, Florida
Greensboro/High Point, North Carolina—Las Vegas, Nevada
Greenville-Spartanburg, South Carolina—Seattle, Washington
Hartford, Connecticut—Houston, Texas
Hartford, Connecticut—Milwaukee, Wisconsin
Hartford, Connecticut—Palm Springs, California

Jacksonville, Florida—Seattle, Washington
Jacksonville, Florida—Sacramento, California
Kalamazoo, Michigan—New York, New York
Kalamazoo, Michigan—Orlando, Florida
Kalamazoo, Michigan—Miami, Florida
Kansas City, Missouri—Miami, Florida
Kansas City, Missouri—Tampa, Florida
Knoxville, Tennessee—Phoenix, Arizona
Lansing, Michigan—Phoenix, Arizona
Las Vegas, Nevada—Tampa, Florida
Las Vegas, Nevada—Norfolk, Virginia
Las Vegas, Nevada—Raleigh-Durham, North Carolina
Las Vegas, Nevada—Newburgh, New York
Milwaukee, Wisconsin—New Orleans, Louisiana
Milwaukee, Wisconsin—Tampa, Florida
Newark, New Jersey—Saginaw/Bay City/Midland, Michigan
Orlando, Florida—Knoxville, Tennessee
Orlando, Florida—Saginaw/Bay City/Midland, Michigan
Philadelphia, Pennsylvania—Saginaw/Bay City/Midland, Michigan
Phoenix, Arizona—Raleigh/Durham, North Carolina
Raleigh/Durham, North Carolina—Wichita, Kansas
San Diego, California—Tampa, Florida
Newburgh, New York—San Diego, California

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Related GAO Products

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