United States Government Accountability Office

GAO

Report to Congressional Requesters

April 2009

COMMERCIAL AVIATION

Airline Industry Contraction Due to Volatile Fuel Prices and Falling Demand Affects Airports, Passengers, and Federal Government Revenues

GAO-09-393

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GAO Accountability • Integrity • Reliability

Highlights

Highlights of GAO-09-393, a report to congressional requesters

Why GAO Did This Study

The U.S. passenger airline industry is vital to the U.S. economy. Airlines directly generate billions of dollars in revenues each year and catalyze economic growth. Interest in the airlines' ability to weather volatile fuel prices and the economic recession led to congressional requests for a GAO review. GAO examined how (1) the financial condition of the U.S. passenger airline industry has changed, the principal factors affecting its condition, and its prospects for 2009; (2) airlines have responded to the factors affecting their financial condition; and (3) changes in the industry have affected airports, passengers, and the Airport and Airway Trust Fund (Trust Fund), which funds the Federal Aviation Administration's (FAA) capital programs and most of its operations. To do this, GAO analyzed financial and operating data, reviewed studies, and interviewed airline, airport, and FAA officials and other experts. The Department of Transportation (DOT) provided technical comments, which were incorporated as appropriate.

What GAO Recommends

In light of the declining uncommitted balance in the Trust Fund, Congress should consider working with FAA to reduce the risk of overcommitting budgetary resources from the Trust Fund so that resources are available to cover all the obligations that FAA has the authority to incur and reduce the risk of disruptions in funds for aviation programs and projects.

To view the full product, including the scope and methodology, click on GAO-09-393. For more information, contact Susan Fleming at (202) 512-2834 or flemings@gao.gov.

What GAO Found

After 2 years of profits, the U.S. passenger airline industry lost $4.3 billion in the first 3 quarters of 2008—the most currently available financial data—largely due to volatile fuel prices. Losses grew as jet fuel prices increased 60 percent over 2007 levels by midyear, only to tumble rapidly to about one-third of the year's high by year-end. While early 2009 forecasts suggested a return to profitability, largely due to lower fuel prices, the deepening recession has cast doubt on those predictions. The demand for air travel now appears to be weaker than expected—especially among business and international travelers—and revenues appear to be declining. Today, the outlook for the industry's profitability in 2009 is uncertain.

U.S. airlines responded to volatile fuel prices and then a weakening economy by cutting their capacity, reducing their fleets and workforces, and instituting new fees. Collectively, U.S. airlines reduced domestic capacity, as measured by the number of seats flown, by about 9 percent from the fourth quarter of 2007 to the fourth quarter of 2008. Most of these cuts remain in place. To reduce capacity, airlines reduced the overall number of active aircraft in their fleets by 18 percent by eliminating mostly older, less fuel-efficient, and smaller (50 or fewer seats) aircraft. Airlines also collectively reduced their workforces by about 28,000, or nearly 7 percent, from the end of 2007 to the end of 2008, but further downsizing is expected in 2009. In addition to reducing capacity, most airlines instituted new fees, such as those for checked baggage, which resulted in $635 million during the first 3 quarters of 2008.

The contraction of the U.S. airline industry in 2008 reduced airport revenues, passengers' access to the national aviation system, and revenues for the Trust Fund. Domestic passenger traffic, as measured by enplanements, decreased by 9 percent overall, but by more than 25 percent at some airports, from the fourth quarter of 2007 to the fourth quarter of 2008. With this decrease, airport revenues declined, prompting airports to reduce their operating costs and delay capital improvement projects. Despite the drop in traffic and revenues, airports are generally considered financially sound owing to considerable cash reserves. However, airline capacity reductions are causing some passengers to lose some or all access to commercial air service and contributing to increased fares in some passenger markets. Small airports, which already offer fewer flight options, had the greatest percentage decrease in nonstop destinations (16 percent) as well as a 10 percent reduction in capacity. Additionally, 38 airports lost all service from the fourth quarter of 2007 to the fourth quarter of 2008—roughly twice the number that lost all service for the same periods in 2006 and 2007. With the industry's contraction, Trust Fund revenues fell, contributing to a decline in the fund's uncommitted balance. Appropriations from the Trust Fund are based on FAA's projected revenues, and actual revenues have been less than FAA's forecast, resulting in the uncommitted balance falling from about $7.3 billion at the end of fiscal year 2001 to about $1.4 billion at the end of fiscal year 2008, and may fall further. If the uncommitted balance declines close to zero, FAA might have to delay capital programs unless additional funding is made available.

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Abbreviations

AIP	Airport Improvement Program
DOT	Department of Transportation
EAS	Essential Air Service
FAA	Federal Aviation Administration
OAG	Official Airline Guide
PFC	passenger facility charges
SEC	Securities and Exchange Commission

GAO
Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, DC 20548

April 21, 2009

The Honorable John D. Rockefeller, IV
Chairman
The Honorable Kay Bailey Hutchison
Ranking Member
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable John L. Mica
Ranking Republican Member
Committee on Transportation and Infrastructure
House of Representatives

The Honorable Thomas E. Petri
Ranking Member
Subcommittee on Aviation
Committee on Transportation and Infrastructure
House of Representatives

The U.S. passenger airline industry is vital to the U.S. economy. Airlines directly generate billions of dollars in revenues each year, catalyze economic growth, and influence the quality of peoples' lives around the globe. Communities, both large and small, depend on airlines to help connect them to the national transportation system which links economies and promotes the exchange of people, products, and ideas. The downturn in the airline industry that followed the terrorist attacks of September 11, 2001, adversely affected passengers, employees, suppliers, and communities. While U.S. airlines eventually rebounded from that downturn, 2008 presented fresh challenges to the industry in the form of record-high fuel prices and an economic recession. During the first half of 2008, seven smaller U.S. passenger airlines liquidated.

Because of your interest in the capability of U.S. passenger airlines to weather these financial challenges, you asked us to provide an update on the financial condition of the airline industry. To address these issues, we examined how (1) the financial condition of the U.S. passenger airline industry has changed, the principal factors affecting its condition, and its prospects for 2009; (2) airlines have responded to the factors affecting their financial condition; and (3) changes in the passenger airline industry have affected airports, passengers, and the federal Airport and Airway

Trust Fund (Trust Fund), which funds the Federal Aviation Administration (FAA).

To address these objectives, we analyzed Department of Transportation (DOT) financial and operating data, reviewed historical documents and past studies, and conducted interviews. Specifically, to evaluate how the financial condition of the U.S. passenger airline industry has changed, the principal factors affecting its condition, and its prospects for 2009, we analyzed airline financial indicators, reviewed financial studies, and interviewed airline managers, trade association officials, financial analysts, and other industry experts. Our financial analysis relied on airline financial data reported to DOT by airlines from 2005 through the first 3 quarters of 2008—the most recently available data from DOT.[1] All dollar figures in this report are nominal unless otherwise noted. To determine how airlines have responded to the factors affecting their financial condition, we analyzed airline schedule data from BACK Aviation Solution's Official Airline Guide (OAG),[2] spoke with airline officials and industry experts, and reviewed airline financial statements. To assess how changes in the U.S. passenger airline industry have affected airports, passengers, and the Trust Fund, we conducted 12 case studies of large, medium, small, and nonhub airports from different regions;[3] analyzed DOT enplanement and fare data and OAG schedule data; spoke with airport consultants, FAA officials, and industry associations; and reviewed DOT data on the Trust Fund. To assess the reliability of the DOT and OAG data, we reviewed the quality control procedures applied by DOT and BACK Aviation and determined that the data were sufficiently reliable for our purposes. We

[1]With the exception of fourth quarter 2008 data, the airline financial data represent all reporting U.S. domestic passenger airlines, including legacy, low-cost, regional, and other carriers. The fourth quarter data represent 11 airlines that report to the Securities and Exchange Commission (SEC), including Alaska Airlines, American Airlines, Continental Airlines, Delta Air Lines, United Airlines, US Airways, AirTran Airways, Frontier Airlines, JetBlue Airways, Southwest Airlines, and Hawaiian Airlines, since data for all U.S. passenger airlines were not yet available from DOT. In the first 3 quarters of 2008, these airlines' operating revenues represented about 75 percent of U.S. passenger airline operating revenues, and therefore provide a good indication of the overall financial status of the industry in the fourth quarter of 2008. In 2008, Delta and Northwest merged, and the fourth quarter 2008 data for the merged company were filed under Delta.

[2]BACK Aviation Solutions is a private contractor that provides online access to U.S. airline financial, operational, and passenger data with a query-based user interface.

[3]The airports we selected as case studies were among the 10 airports within their hub size that experienced the largest domestic capacity reductions, as measured by changes in the number of scheduled seats from the third quarter of 2007 to the third quarter of 2008.

conducted this performance audit from July 2008 through April 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. See appendix I for more information on our scope and methodology.

We provided a draft of this report to DOT for review and comment. DOT officials provided some clarifying and technical comments, which we incorporated where appropriate.

Background

The U.S. airline industry is principally composed of legacy, low-cost, and other airlines, and although it is largely free of economic regulation, it remains regulated in other areas, most notably safety, security, and operating standards. Legacy airlines—sometimes called network airlines—are essentially those airlines that were in operation before the Airline Deregulation Act of 1978 and whose goal is to provide service from "anywhere to everywhere." To meet that goal, these airlines support large, complex hub-and-spoke operations with thousands of employees and hundreds of aircraft (of various types), with service at numerous fare levels to domestic communities of all sizes and to international destinations. To enhance revenues without expending capital, legacy airlines have entered into domestic (and international) alliances that give them access to some portion of each others' networks. Low-cost airlines generally entered the marketplace after deregulation and tend to operate less costly point-to-point service using fewer types of aircraft. Low-cost airlines typically offer simplified fare structures, which were originally aimed at leisure passengers but are increasingly attractive to business passengers because they typically have less restrictive ticketing rules. These restrictions often make it significantly more expensive to purchase tickets within 2 weeks of the flight or make changes to an existing itinerary. Other airlines include regional and niche airlines that tend not to offer national service but instead specialize in certain markets and destinations. Regional airlines operate smaller aircraft—turboprops or regional jets with up to 100 seats—and generally provide service under code-sharing arrangements with larger legacy airlines on a cost-plus or fee-for-departure basis to smaller communities. Some regional airlines are

owned by a legacy parent, while others are independent.[4] For example, American Eagle is the regional subsidiary for American Airlines, while independent Sky West Airlines operates on a fee-per-departure agreement with Delta Air Lines, United Airlines, and Midwest Airlines.

Since the airline industry was deregulated in 1978, its earnings have been extremely volatile. In fact, despite considerable periods of strong growth and increased earnings, airlines have at times suffered such substantial financial distress that many have filed for bankruptcy and the industry as a whole has failed to earn sufficient returns to cover capital costs in the long run. Some academics and industry analysts view the industry as inherently unstable because of key demand and cost characteristics. Most notably, the demand for air travel is highly cyclical in relation to the state of the economy as well as to political, international, and even health-related events, but the cost characteristics of the industry can make it difficult for carriers to very quickly match the supply of air service to quickly shifting demand.

Passengers access airlines in the United States through any of 517 commercial service airports.[5] FAA further divides commercial service airports into primary airports (enplaning more than 10,000 passengers annually) and other commercial service airports. The 382 primary airports are arranged into various classes of hub airports—large, medium, small, and nonhub—based on passenger traffic.[6] Passenger traffic is highly concentrated: 69 percent of passengers enplaned at the 30 large hub airports and another 20 percent enplaned at the 37 medium hub airports in 2007. Airports finance their operations and capital development from a variety of sources. Operations are financed through airline and other aviation-related fees and from passenger and other revenues. Capital development for runways, terminals, and other projects is financed through an even wider variety of sources, including municipal bonding, federal Airport Improvement Program (AIP) grants, passenger facility

[4]Regional airlines that are owned by a legacy airline report their financial and operating data with their parent company.

[5]Commercial service airports are defined by 49 U.S.C. § 47102 as having scheduled service and enplaning 2,500 or more passengers each year.

[6]Based on FAA's classification of commercial service airports, nonhub airports enplane fewer than 0.05 percent of systemwide passengers, small hub airports enplane at least 0.05 percent but fewer than 0.25 percent of systemwide passengers, medium hub airports enplane at least 0.25 percent but fewer than 1 percent of systemwide passengers, and large hub airports enplane at least 1 percent of systemwide passengers. *See* 49 U.S.C. § 47102.

charges (PFC), and state and local government contributions. As we last estimated in 2007, total airport capital financing averaged $13 billion annually from 2001 through 2005. [7] (See table 1.)

Table 1: Sources of Airport Funding, 2001 through 2005

2006 dollars in billions			
Funding source	**2001-2005 average annual funding**	**Percentage of total**	**Source of funds**
Airport bonds	$6.5[a]	50	State and local governments or airport authorities issue tax-exempt debt
AIP grants	3.6[b]	29	Congress makes funds available from the Trust Fund, which receives revenue from various aviation-related taxes
Passenger facility charges	2.2[c]	17	Funds come from passenger fees of up to $4.50 per trip segment at commercial airports[d]
State and local contributions	0.7	4	Funds include state and local grants, loans, and matching funds for AIP grants
Total	**$13**	**100**	

Source: GAO analysis of FAA, Thomson Financial, and state grant data.

[a]Net of refinancing.

[b]AIP totaled on a fiscal year basis.

[c]As much as $660 million (30 percent of total) of which is used to support bond financing.

[d]49 U.S.C. § 40117.

Large and medium hub airports, which together handle almost 90 percent of passenger traffic, accounted for 72 percent of all airport capital funding. Airport financing varies according to the size of the airport. Large and medium hub airports rely principally on airport bonds and PFCs for funding, while smaller airports rely principally on AIP grants, which are funded through the Trust Fund, for their capital development.[8]

[7]GAO, *Airport Finance: Observations on Planned Airport Development Costs and Funding Levels and the Administration's Proposed Changes in the Airport Improvement Program*, GAO-07-885 (Washington, D.C.: June 27, 2007).

[8]Statutorily, large and medium hub airports are designated as primary airports and must contribute a larger share to projects funded under AIP as well as forgo a portion of their AIP entitlement funds if they collect PFCs. *See* 49 U.S.C. § 47114(f).

The Trust Fund is the exclusive source of funding for FAA's capital programs, including AIP, and is also used to fund FAA's operations account. In addition, General Fund contributions from the Treasury supplement Trust Fund revenues for operations and have constituted roughly 8 to 24 percent of FAA's total appropriation since fiscal year 2000. Trust Fund revenues stem principally from excise taxes on the purchase of airline tickets and fuel and the shipment of air cargo and are available to FAA for use subject to appropriation.[9] Starting with AIR-21 in 2000[10] and continuing with Vision 100[11] in 2003, Congress has based FAA's fiscal year appropriation from the Trust Fund on the forecasted level of Trust Fund revenues, including interest on Trust Fund balances, as set forth in the President's baseline budget projection for the coming fiscal year. FAA generates a forecast for the President's budget using models based on historical relationships between key economic variables, such as the growth rate of the economy, and aviation measures, such as passenger traffic levels and passenger fares, that affect Trust Fund revenues. This forecast, and accordingly FAA's appropriation, is based on information available in the first quarter of the preceding fiscal year.

[9]The excise taxes are related to passenger tickets, passenger flight segments, international arrivals/departures, cargo waybills, and commercial and general aviation fuels. The other source of Trust Fund revenue is interest earned on the Trust Fund balance.

[10]Pub. L. No. 106-181, 114 Stat. 61 (2000).

[11]Pub. L. No. 108-176, 117 Stat. 2490 (2003).

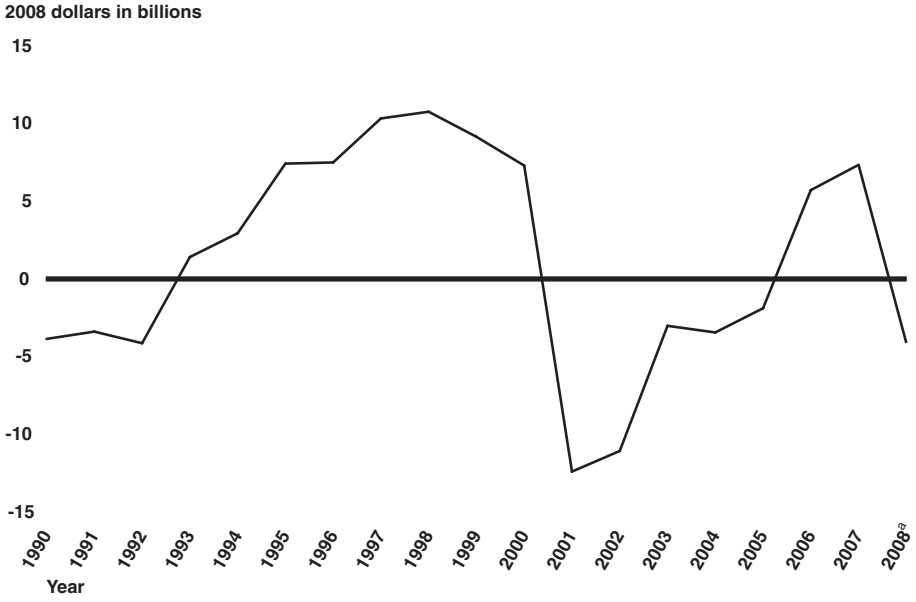
U.S. Passenger Airline Industry's Financial Condition Weakened in 2008 because of Volatile Fuel Prices and Falling Demand and Its Prospects for 2009 Are Uncertain

After 2 Years of Profits, Airline Industry Lost $4.3 Billion through the First 3 Quarters of 2008

The airline industry incurred operating losses of $4.3 billion in the first 3 quarters of 2008 after earning operating profits of about $5.2 billion in 2006 and $6.9 billion in 2007. The airlines' fourth quarter 2008 financial results are expected to deepen the total losses for the year. For example, 11 airlines that comprise about 75 percent of the industry's total operating revenues in 2008 reported losses of $2.4 billion in the fourth quarter of 2008 to the SEC.[12] The airline industry's financial performance over the past 2 decades demonstrates the industry's historically cyclical nature. (See fig. 1.)

[12]The airlines' losses reported to the SEC may differ from the losses reported to DOT because of different reporting requirements.

Figure 1: Annual Operating Profit and Loss for U.S. Passenger Airlines, 1990 through the First 3 Quarters of 2008



Source: GAO analysis of DOT Form 41 data.

Note: Since the 11 largest airlines reported losses of $2.4 billion in the fourth quarter of 2008 to the SEC, the losses for 2008 are likely understated in this graphic because fourth quarter of 2008 is not included. Also, since this graphic covers a long time period, we adjusted these numbers for inflation.

[a]The data for 2008 represent only the first 3 quarters of the year.

The airline industry's cyclical profits are caused by the airlines' inability to quickly adjust the supply of air service. For example, while demand for air travel is particularly sensitive to changes in the economy and world events like the terrorist attacks of September 11, 2001,[13] the cost characteristics of the industry make it difficult for firms to rapidly adjust to changes in demand. In particular, aircraft are expensive, long-lived capital assets, therefore, if demand changes quickly, airlines may find it difficult to quickly change the size of their aircraft fleets. Additionally, passengers book flights months in advance, further complicating near-term efforts to

[13]The events of September 11 marked a significant decline in domestic passenger revenue as a percentage of the U.S. gross domestic product. One analyst estimates that the gap between the pre-September 11 demand and the post-September 11 demand resulted in $26 billion in lost revenue in 2008 and $150 billion in cumulative lost revenue over the last 7 years.

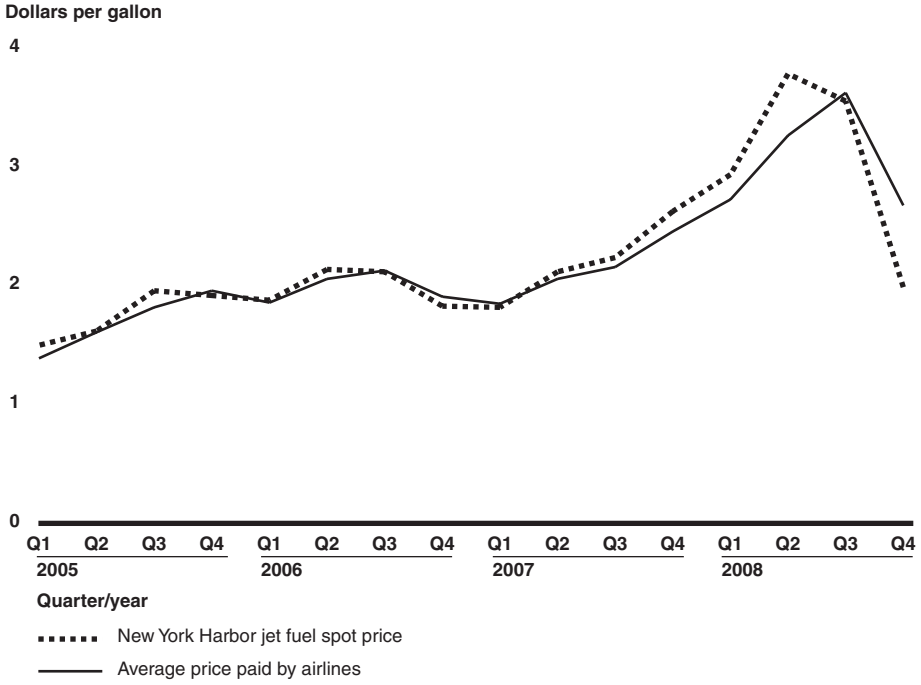
reduce capacity. Moreover, even though labor is generally viewed as a variable cost, airline employees are mostly unionized, and airlines find that they may not be able to quickly and significantly reduce employment costs when demand for air travel changes. These cost characteristics can thus lead to considerable excess capacity during periods of declining demand—which would likely result in declining profits. Conversely, if demand rises, it can be difficult for airlines to expand very rapidly, which could lead to increases in airfares and profits. At times though, airlines make relatively quick shifts in their capacity in response to changed circumstances. For example, the substantial drop-off in demand after September 11 led to a relatively swift 14 percent reduction in legacy airline capacity in the fourth quarter of 2001 as compared to the same quarter 1 year earlier. Nevertheless, the underlying fundamental characteristics of the industry suggest that it will likely remain susceptible to rapid swings in its financial health.

Volatile Jet Fuel Prices Contributed to Losses in 2008

Increases in the price of jet fuel—the airlines' biggest operating expense in 2008—were the chief contributor to airline losses in 2008. In the first 3 quarters of 2007, jet fuel costs were 25 percent of total airline expenses, but grew to 32 percent of total expenses in the same period in 2008. By the third quarter of 2008, jet fuel prices increased 60 percent over 2007 levels. Seven smaller airlines ceased operations during the first half of the year and others entered bankruptcy, in large part because of high fuel prices.[14] Moreover, although the market price of jet fuel began to fall during the third quarter of 2008, actual prices paid for jet fuel did not fall as quickly because of airlines' prepaid fuel contracts, or fuel hedges. (See fig. 2.)

[14]In 2008, Air Midwest, Aloha Airlines, ATA Airlines, Champion Air, EOS Airlines, Big Sky Air, and Skybus Airlines ceased operation, while Frontier and Sun Country filed for Chapter 11 bankruptcy but are still operating.

Figure 2: U.S. Jet Fuel Spot Prices and Passenger Airline Price Paid for U.S. Jet Fuel, First Quarter 2005 through Fourth Quarter 2008



Sources: Energy Information Administration and Bureau of Transportation Statistics.

Airlines have used fuel hedges to reduce the effects of fuel price volatility on their earnings, but the airlines' fuel hedges resulted in losses when fuel prices rapidly fell at the end of 2008. With fuel hedging, airlines enter into varied types of contracts that are designed to provide more certainty over the future price of fuel and thus help to manage the airlines' future costs. The fuel hedging strategies that airlines have used were initially beneficial in 2008 because the contracts they had entered into gave them protection against increases in the price of fuel, which occurred in early 2008 through the summer.[15] However, when fuel prices tumbled rapidly to about one-third of the year's highest price at the end of 2008, many airlines incurred substantial losses because their hedging strategies involved substantial downside risk—that is, they were exposed to financial losses in the event

[15]For example, Alaska Airlines' pretax income increased to $87.3 million during the second quarter of 2008 from $80.9 million in the second quarter of 2007, as Alaska recorded gains on the market value of its fuel hedges. These gains offset the $129.7 million, or nearly 66 percent, increase in Alaska's fuel costs over the second quarter of 2007.

of a sharp decline in the price of fuel.[16] Several airlines' cash balances were adversely affected because they had to set aside collateral to cover the losses they were incurring on their fuel hedges. As a result of lower fuel prices that currently exist and the losses they recently incurred on hedge contracts, airlines have reduced the extent to which they are hedged in 2009.[17]

Airline Revenues Improved in 2008 despite Declines in Passenger Traffic

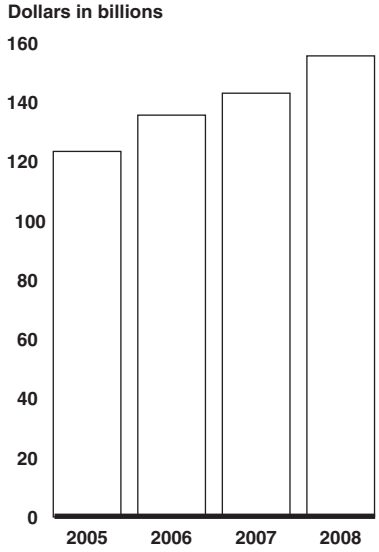
During the 12-month period encompassing the fourth quarter of 2007 through the third quarter of 2008, total airline operating revenues increased by approximately $12.8 billion, or about 9 percent, over the similar 12-month period in the previous year.[18] (See fig. 3.)

[16]For example, United Airlines lost more than $1.1 billion in 2008 related to fuel hedge losses. In 2008, US Airways reported $496 million of unrealized losses from mark-to-market adjustments on its fuel hedges. Southwest's average fuel cost per gallon, including hedging, increased 35.6 percent in 2008 and contributed to a $342 million, or 43.2 percent, decrease in the company's operating income; it also lowered the company's cash balance from $5.8 billion in the second quarter of 2008 to $1.8 billion at the end of 2008, its lowest level since 2006.

[17]For example, Southwest Airlines had significantly reduced its hedges from 70 percent previously.

[18]Because of the seasonal nature of the airline industry, financial and operating results are generally compared for the same time periods in each year.

Figure 3: U.S. Airline Industry's Total Operating Revenue, 12-Month Periods Starting with Fourth Quarter 2004 through Third Quarter 2008



Source: GAO analysis of DOT Form 41 data.

Note: The data for 2005 represent the 12-month period encompassing the fourth quarter of 2004 through the third quarter of 2005; 2006 represents the fourth quarter of 2005 through the third quarter of 2006; 2007 represents the fourth quarter of 2006 through the third quarter of 2007; and 2008 represents the fourth quarter of 2007 through the third quarter of 2008.

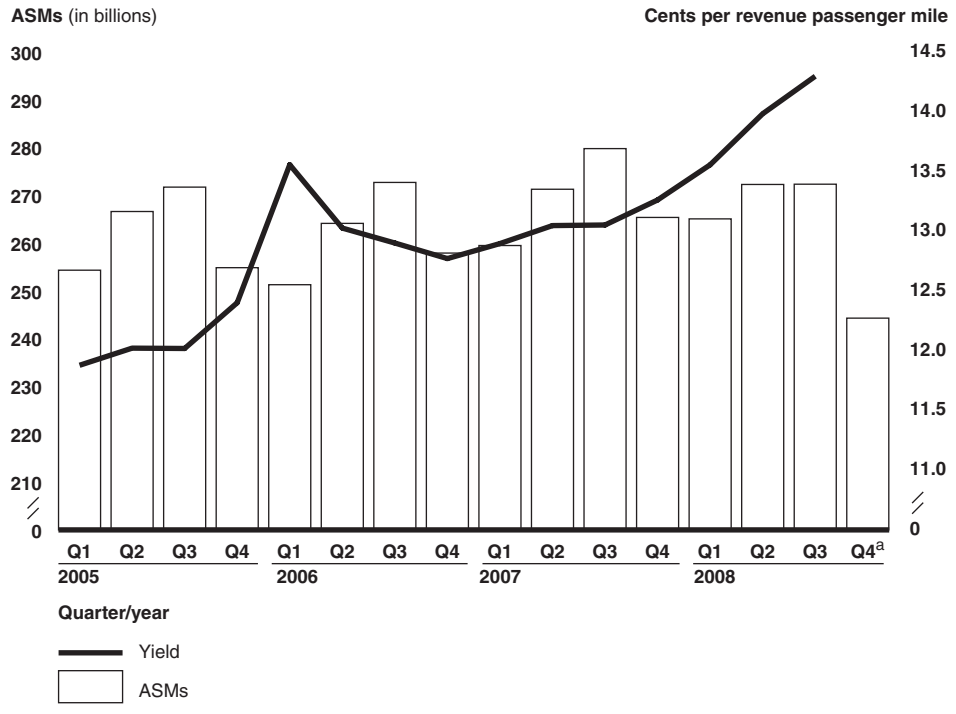
The rise in airline revenues in 2008 was largely driven by increases in airfares (as measured by yields, or the amount of revenue airlines collect for every mile a passenger travels).[19] While passenger traffic (as measured by revenue passenger miles)[20] grew during the first quarter of 2008 compared to first quarter 2007 levels, passenger traffic began to decline year-over-year during the second quarter and by the fourth quarter was down almost 8 percent as compared to the fourth quarter of 2007. However, several factors mitigated the effect of this traffic decline on revenues. During the early part of the year, yields were rising rapidly largely due to higher fares by carriers to help cover their increased fuel

[19]Although data are not yet available for the entire industry, operating revenues are expected to grow in the fourth quarter of 2008. The 11 airlines that comprised about 75 percent of the industry's total operating revenues in the first 3 quarters of 2008 reported about a 6 percent year-over-year growth in operating revenues from the fourth quarter of 2008 compared to the fourth quarter of 2007.

[20]Revenue passenger miles are the number of miles revenue paying passengers are transported and are a measure of passenger traffic.

expenses. Thus, even when traffic began to decline year-over-year in the second quarter, revenues were rising significantly over their level in the second quarter of 2007. By the third and fourth quarter of 2008, when traffic fell off more significantly, airlines began to reduce capacity, which enabled airlines to maintain relatively high load factors—that is, a high percentage of seats filled. On average, over 80 percent of available seats were filled in the third quarter of 2008—one of the highest levels in the past decade. One airline industry expert told us that as long as many flights are full or nearly full, airlines can maintain relatively high yields. As figure 4 shows, airlines continued to reduce domestic capacity year-over-year throughout 2008 (as measured by available seat-miles), and yields continued to rise through the third quarter of 2008—the most recently available data from DOT.

Figure 4: U.S. Airline Industry Capacity and Yields, First Quarter 2005 through Fourth Quarter 2008



Source: GAO analysis of DOT Form 41 data.

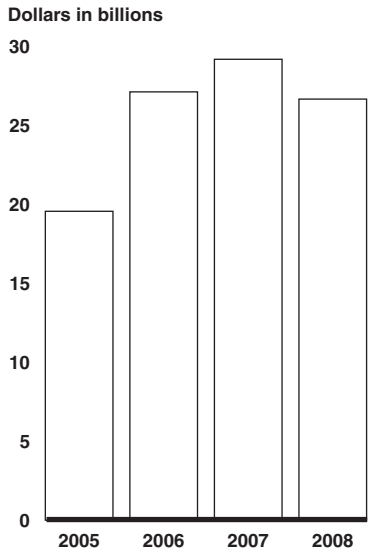
[a]Yields for the fourth quarter 2008 are not yet available from DOT, but according to the Air Transport Association's sample of seven airlines, domestic passenger yields fell 0.2 percent and 1.3 percent in November and December 2008, respectively.

Early indications are that fourth quarter 2008 yields have leveled off or fallen, though DOT data are not yet available. More recently, fares and yields have begun to decline in 2009 as demand has continued to fall.

Airlines' Liquidity Deteriorated in 2008 Due to Volatile Fuel Prices

Over the past 3 years, U.S. passenger airlines improved their collective liquidity from a total of $18.6 billion at the start of 2005 to $28.1 billion at the end of 2007, but with the high fuel prices their cash reserves deteriorated to about $26.6 billion by the third quarter of 2008. (See fig. 5.) Greater liquidity improves a firm's ability to meet short-term liabilities with cash or marketable securities. Liquidity levels are especially important in the airline industry because cash balances help the airlines withstand potential future industry shocks, such as changes in demand or fuel prices, as well as pay down debt and reduce the risk of bankruptcy.

Figure 5: Liquidity for the U.S. Airlines, Third Quarter 2005 through Third Quarter 2008



Source: GAO analysis of DOT Form 41 data.

Note: The data represent the total liquidity (cash and short-term investments) for the third quarter of each year.

U.S. airlines are expected to report a further deterioration in their liquidity levels in the fourth quarter of 2008 as a result of losses on fuel hedges. For example, the 11 largest airlines reported to the SEC approximately $18 billion in liquidity for the fourth quarter of 2008, down from approximately $24 billion in the third quarter of 2008.

In 2008, the 11 largest airlines raised an estimated $8 billion in capital from a variety of sources, including advance frequent flyer mileage sales to credit card companies, equity and debt issuance, and asset sales.[21] For example, Delta Air Lines and American Express executed a credit card deal that boosted Delta's cash position by $1 billion. Continental Airlines generated $149 million by selling its interest in Copa Holdings (Airlines), while Southwest Airlines secured aircraft mortgage financing from seven European banks for $600 million. Even in Chapter 11 reorganization, Frontier Airlines was able to line up $30 million in financing from a group of lenders, including Republic Airways. These airlines' actions to improve liquidity lessened the possibility of their breaking debt covenants or facing bankruptcy and helped the airlines weather the increase in fuel prices. In the coming months, airlines may seek to sell or exchange other assets to increase their liquidity. However, airline analysts noted most airlines exhausted their available options to generate cash in 2008 and have limited cash-generating opportunities in 2009. Additionally, some analysts noted that sources of aircraft capital, such as the sale and leaseback of aircraft, are largely inaccessible, because of current credit market conditions. However, analysts believe that if fuel prices remain at or near current levels, the airlines will have sufficient cash flow to avoid depleting their cash balances.

The Industry's Financial Health in 2009 Is Uncertain Due to the Current Recession, Labor Costs, Debt, and Pension Obligations

The U.S. passenger airline industry's potential profitability in 2009 is uncertain due to the current recession.[22] At the beginning of 2009, some airlines and airline financial analysts forecast a return to profits for this year, primarily because of the dramatic decrease in fuel prices. For example, two analysts estimated profits of around $4 billion to $10 billion based on the assumption that jet fuel prices will remain low—around $55 to $62 per barrel of oil—and revenues would fall around 4.5 percent to 7 percent; however, the fuel savings will offset any declines in revenues due to reduced traffic and fares. Other analysts forecast revenue declines of 4 to 8 percent in 2009 based on deteriorating passenger demand. One Wall Street analyst estimated that at current fuel prices, airline revenues would

[21]For advance frequent flyer mileage sales, the credit card company holding the airline's frequent flyer credit card enters into an agreement to provide an advance payment for frequent flyer miles that the credit card company anticipates awarding in the future.

[22]Current forecasts by IHS Global Insight, a leading economic forecasting firm, predict that the U.S. economy will continue to contract during the first 3 quarters of 2009, but the economy is expected to begin recovering in the fourth quarter of 2009.

have to fall over 12 percent before the airlines would incur losses—a decline that would constitute a worse revenue environment than existed immediately after September 11, 2001. Additionally, another analyst estimated that an 8 to 12 percent decline in revenues would require economic growth, as measured by the gross domestic product, to fall at an unprecedented rate. However, even if the airline industry generates modest operating profits in 2009, it is unlikely to cover its cost of capital.

Despite earlier optimism regarding airline profitability for 2009, the situation now seems to be worsening. Early indications on bookings and revenues for the first 2 quarters of the year suggest that demand will be weaker than had been expected at the beginning of 2009. Analysts and some airlines are now seeing demand significantly weaken among their highest-paying customers—business and international travelers. Additionally, initial reports show that load factors are beginning to fall, and fares are declining. As such, prospects for a profitable year have become more uncertain.

Even if the airline industry generates an operating profit in 2009, its financial health is still under pressure from potentially higher costs for labor, one of the airlines' major expenses, in the coming years. According to labor union representatives, nearly every labor contract at every major airline is currently open or amendable by the end of 2009, totaling 83 open labor contracts at 34 legacy, low-cost, and other airlines.[23] (See app. II.) In large part, this situation exists because so many contracts were restructured during or under the threat of bankruptcy in 2003 and 2004. Of the 83 open contracts, 42 are currently in mediation with the National Mediation Board (NMB).[24] Depending on whether NMB moves to settle

[23]Airline labor contracts are governed under the Railway Labor Act. *See* 45 U.S.C. § 151, *et seq*. Under this act, airline labor contracts do not expire; rather, they reach an amendable date—the first day that the parties can be required to negotiate the terms of a new contract. Labor negotiations may begin before or after the amendable date, however. While a new contract is being negotiated, the terms of the existing contract remain in effect. Also, the extent of unionization among the major carriers varies significantly (see app. II).

[24]Under the Railway Labor Act, labor negotiations include a series of steps—which may include mediation, arbitration, and presidential interventions—specifically designed to avoid an impasse that would interrupt the flow of essential commerce. After exchanging proposed changes to contract provisions, the airline and the union engage in direct bargaining. If they cannot come to an agreement, the parties must request mediation assistance from NMB. By statute, if NMB is sought to mediate a dispute, it must make its best effort to bring the parties to an amicable settlement. If an amicable settlement cannot be reached by mediation, the controversy may be submitted to arbitration. *See* 45 U.S.C. § 151, *et seq*.

these contracts, airlines may be compelled to settle at an increased cost. For example, Southwest Airlines recently came to a tentative agreement with its pilots' union that includes increased wages and retirement benefits.

Although lower fuel prices will reduce the demand on cash balances, airlines have long-term obligations, including debt maturities and required pension contributions that could strain their cash balances in the coming years. Fitch Ratings estimates that the seven largest U.S. airlines face a total of $4.4 billion in debt and capital lease maturities in 2009 and will have approximately $6 billion more coming due in 2010. Airline analysts believe that if fuel prices remain at or near current levels, the airlines' cash flow should improve, making it possible for airlines to cover payments on their debt in 2009. Additionally, some airlines with defined benefit pension plans expect to have higher pension expenses in 2009 compared to 2008 because the value of their plans' assets fell due to declining stock market conditions.[25] Furthermore, because of current market conditions, two of the airlines—Delta and Hawaiian—expect the 2010 funding requirements to significantly exceed 2009 requirements; these contributions could adversely affect the airlines' financial condition. However, the extent of these airlines' overall funding requirements in 2009 and 2010 will depend on a number of factors, including the plans' asset levels and returns and corporate interest rates used to measure liabilities, as well as changes in pension laws.[26]

[25]The airlines with defined benefit plans include American Airlines, Continental Airlines, Alaska Air, Hawaiian Airlines, and Delta Airlines along with recently acquired Northwest Airlines. Some of these airlines have "frozen" plans, meaning some or all future pension accruals are limited for some or all plan participants. Depending on the type of freeze, assets and liabilities (and, therefore, the plan's funded status) can change. US Airways and United's plans along with Delta's pilot plan were terminated and the remaining assets and benefit obligations were assumed by Pension Benefit Guaranty Corporation.

[26]In the Pension Protection Act of 2006 (PPA), Pub. L. No. 109-280, Sec. 402, 120 Stat. 922, commercial airlines were given the option to amortize over 10 years (rather than seven) or amortize under an "alternative funding schedule," a 17-year amortization with specific requirements and restrictions. In determining contribution and amortization, the airlines were required to value assets at their fair market value under the PPA. However, the Worker, Retiree, and Employer Recovery Act of 2008 (WRERA), Pub. L. No. 110-458, Sec. 126, 122 Stat. 5116, relaxed this requirement under the "alternative funding schedule," allowing valuation of assets by either a fair market value determination or by averaging fair market values as set forth in 26 U.S.C. § 430(g)(3)(B), the latter of which is used for single-employer defined benefit pension plans.

Airlines Are Responding to Volatile Fuel Costs and a Weakening Economy by Reducing Their Domestic Capacity

Airline Industry Reduced Domestic Capacity

In responding to high fuel prices and a weakening economy, the U.S. passenger airline industry reduced domestic capacity (the number of scheduled seats) in 2008 by the largest percentage since the 2001 terrorist attacks. The capacity cuts were designed to reduce costs and help to push up fares—or at least maintain fares—by limiting the supply of airline seats relative to the demand. Compared with the same quarter in 2007, the industry reduced domestic capacity by 9 percent in the fourth quarter 2008.[27] In comparison, during the 1991 and 2001-2002 industry contractions, airlines reduced their capacity by about 4 percent and 12 percent, respectively. In the fourth quarter of 2008, legacy airlines reduced domestic capacity by 10 percent, whereas low-cost airlines reduced their capacity by 4 percent, and other airlines reduced capacity by 35 percent as compared with the fourth quarter of 2007.[28] (See table 2.) These cuts have continued into 2009. Legacy airlines moved some of their domestic capacity to their international operations for which capacity fell by only 3 percent during 2008. As passenger traffic levels have fallen, some airlines have begun announcing further capacity cuts in 2009.

[27]Because of the seasonal nature of the airline industry, financial and operating results are generally compared for the same time periods in each year.

[28]We categorized airlines into three groups based on prior GAO reports. The seven legacy airlines are Alaska, American, Continental, Delta, Northwest, United, and US Airways, and the six low cost airlines are AirTran, ATA, Frontier, Jet Blue, Southwest, and Spirit. The eight "other" airlines include Allegiant, Aloha, Expressjet, Hawaiian, Midwest, Sun Country and Virgin America. Schedule changes for regional carriers that provide service under code-sharing agreements with legacy carriers are captured in the legacy carriers' schedules.

Table 2: Percentage Change in Scheduled Domestic Seats (from Fourth Quarter 2007 to Fourth Quarter of 2008)

Carrier type	Percentage change from 4th quarter 2007 to 4th quarter 2008	Percent of total seats (4th quarter 2008)
Legacy	-10	69
Low-cost carrier[a]	-4	28
Other[b]	-35	3

Source: GAO analysis of OAG data.

Note: Seats are based on one-way, nonstop flights. Also, totals may not equal 100 percent due to exclusion of airlines with less than 400,000 seats in the fourth quarter 2007.

[a]Liquidation of ATA accounted for 1 percentage point.

[b]Liquidation of Aloha Airlines accounted for 31 percentage points.
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To Reduce Capacity, Airlines Adjusted the Composition and Size of Their Fleets

As U.S. airlines reduced their domestic capacity, they reduced the size of their active fleets by nearly 800 aircraft, or 18 percent, from 2007 to 2008 as well as changed the composition of their fleet.[29] The U.S. airline fleet is made up of four basic types of aircraft: widebody (twin aisle), narrowbody (single aisle), regional jets, and turboprops. According to schedule data submitted by the airlines, the airlines reduced their total available seats by about 22 million, or 9 percent, from the fourth quarter of 2007 to the fourth quarter of 2008 with the narrowbody aircraft accounting for 83 percent of this reduction.[30] However, the largest percentage reduction in seats (year over year) by a particular aircraft type occurred through the removal of widebody aircraft, such as 747s and A-330s, from domestic service. (See table 3.) Some legacy airlines shifted these aircraft to be used on international routes. Narrowbody aircraft, such as 737s and MD-80s, saw the second largest percentage reduction in capacity within a type of aircraft because these aircraft are older and less fuel efficient and therefore costlier to operate, especially when fuel costs are high, and we were told that many of these older aircraft are unlikely to return to service. For example, Alaska Airlines retired its entire fleet of MD-80s in 2008 and Continental Airlines retired many of its older generation 737 aircraft. Regional jets and turboprop planes, including the Embraer 175

[29]The data on the total number of active aircraft fleet are based on filings with SEC by American Airlines, Alaska Airlines, AirTran Airways, Continental Airlines, Delta Air Lines, Frontier Airlines, JetBlue Airways, Southwest Airlines, United Airlines, and US Airways. Spirit Airlines fleet information was obtained from the company's Web site.

[30]The total seat reduction is also comprised of 9 percent from regional jets, 5 percent from widebody aircraft, and 3 percent from turboprop aircraft.

regional jet and 76-seat DASH-8 Q400 turboprop, experienced the smallest percentage reduction in seat capacity by type of aircraft because airlines are switching to smaller aircraft on some routes in response to the decrease in passenger traffic.

Table 3: Percentage Change in Seats, by Aircraft Type (from Fourth Quarter of 2007 to Fourth Quarter of 2008)

Body type	Percent of total capacity	Percentage change
Regional Jet	21	-4
Turboprop	4	-6
Narrowbody	72	-11
Widebody	3	-18
Total	**100**	**-9**

Source: GAO analysis of OAG data.

In 2008, the airlines also changed the size of aircraft deployed in various markets. Most notably, while the regional jet and turboprop categories, which generally consist of aircraft with fewer than 100 seats, experienced a small percentage reduction in total seats by aircraft type, there was a marked shift from 50-seat and smaller aircraft to regional jets and turboprops with more than 50 seats. For example, the use of 70-seat Embraer 175 regional jet and 76-seat DASH-8 Q400 turboprop grew substantially, while many 50- and 37-seat regional jets and 19-seat turboprops were taken out of service in 2008. Smaller airports and communities that are linked as spokes to airline hubs such as Denver or Atlanta often rely on smaller aircraft (50 or fewer seats). Compared with the fourth quarter of 2007, capacity on smaller aircraft with 50 or fewer seats decreased by 17 percent in the fourth quarter of 2008. Capacity on larger aircraft (51 to 99 seats) increased by 23 percent during the same period. In addition, across all hub types, capacity declined on aircraft with 50 or fewer seats while capacity increased on larger aircraft with 51 to 99 seats. (See table 4.)

Table 4: Percentage Change in Seats, by Seat Configuration (from Fourth Quarter 2007 to Fourth Quarter 2008)

Seat range	Percent of total capacity	Percentage change
<=50	15	-17
>=100	75	-11
51-99	10	23
Total	**100**	**-9**

Source: GAO analysis of OAG data.

Airlines Cancelled and Deferred Aircraft Orders and Deliveries as Capacity and Traffic Decline

In line with reducing capacity, some U.S. airlines cancelled or deferred future aircraft deliveries as they realigned their fleets in preparation for less capacity growth. For example, during 2008, low-cost airline AirTran Airways deferred its purchase of 18 aircraft originally scheduled for delivery from 2009 through 2010. Continental Airlines pushed back the delivery of two widebody aircraft from 2009 to 2010. JetBlue Airways delayed delivery of 21 narrowbody aircraft until 2014 and 2015.[31] While details of deferrals and cancellations are often not disclosed, other carriers may be seeking to delay or cancel orders in the current economic environment

Workforce Reductions Have Followed Capacity Reductions and Reflect Financial Pressures on Airlines

In tandem with their capacity and fleet reductions, U.S. passenger airlines reduced their workforces. Since the middle of 2008, many airlines have announced job cuts as part of their capacity and cost reduction programs. U.S. airlines reduced their workforces by about 28,000 employees, or about 7 percent of total 391,918 employees from the fourth quarter of 2007 to the fourth quarter of 2008. The seven airlines that shut down in 2008 accounted for some of these reductions. For example, the shutdown of ATA resulted in a loss of over 2,300 employees. Employee reductions are common in the airline industry during industry contractions. During the 1991 and 2001 industry contractions, employment decreased between 5 percent and 12 percent, which was generally equal to the reduction in capacity.[32] Although the current employee reductions are less than the capacity cuts, the airlines, especially those that were previously in bankruptcy, may have already reduced employee levels, making further cuts difficult. However, the weakening economic climate will continue to push airlines to reduce more costs. In January 2009, United Airlines announced additional employee reductions by the end of 2009 in an attempt to reduce overhead costs.[33]

Airlines Raised Revenues through New Fees

Passenger airlines have increased fees for a variety of services, most notably for checked baggage. Specifically, five legacy and three low-cost airlines instituted a first-bag fee and all legacy airlines and all but one low-

[31]A Boeing machinist strike in 2008 will also delay the delivery of some aircraft.

[32]The employee reductions were calculated based on year-over-year changes in the fourth quarter.

[33]Many of these reductions may come via voluntary job-reduction programs.

cost airline have imposed second-bag fees. (See table 5.) Almost all of these baggage fees were introduced during 2008. In addition, many airlines instituted other fees for services provided before or during a flight such as seat choice or a pillow kit.

Table 5: Legacy and Low-Cost Airlines' Checked Baggage Fees, as of February 2009

Airline	1st bag fee (one way)	2nd bag fee (one way)	3rd bag fee (one way)
Legacy			
Alaska	$0	$25	$125
American	15	25	100
Continental	15	25	100
Delta/Northwest	15	25	125
United	15	25	125
U.S. Airways	15	25	100
Low-cost airlines			
AirTran	15	25	50
JetBlue	0	20	75
Frontier	15	25	50
Southwest	0	0	25
Spirit	15-25	15-25	100

Source: Calyon Securities and company reports.

Note: Baggage fees are usually waived for frequent fliers with elite status. Other airlines have also implemented similar fees.

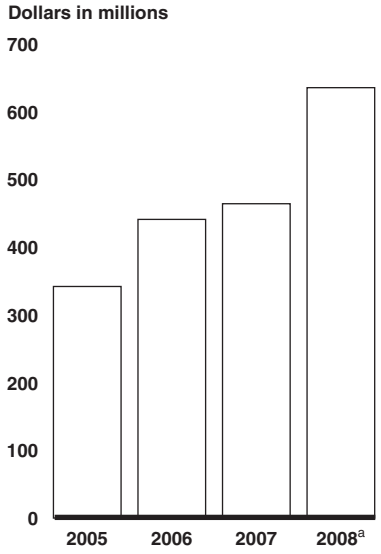
In 2008, the legacy and low-cost airlines generated about $8 billion in other revenues, which include fees for checked baggage, beverages, and food.[34] As figure 6 shows, revenue from excess baggage, including checked baggage fees, increased by 86 percent, from $341 million in 2005 to $635 million for the first 3 quarters of 2008.[35] While this revenue stream

[34]The earnings listed under other revenues vary by airline and can also include frequent flyer program revenue, flight change and reservation ticketing service charges, revenue from aircraft maintenance and staffing services to third parties, and commissions earned on tickets sold for other airlines and sales of tour packages. Also, some airlines report checked baggage fees as part of "other revenues;" others report checked baggage fees as part of passenger revenues.

[35]The revenues for excess baggage include all U.S. passenger airlines. Fees from first and second bags are reported in data on in excess baggage in DOT Form 41 data.

represented less than 1 percent of total operating revenues in 2008, it provided a new source of revenue for the airlines. Airlines and analysts expect these fees to remain and forecast that fee revenues are likely to increase substantially in 2009, despite reductions in passenger traffic, because many of the fees were not introduced until later in 2008.

Figure 6: U.S. Airline Revenue Collected from Baggage Fees, 2005 through 2008



Source: GAO analysis of DOT Form 41 data.

[a]2005 through 2007 represent data for the four-quarter period. 2008 represents data for only the first 3 quarters of the year.

Airline Industry Contraction Affects Airports, Passengers, and Federal Government Revenues

Despite Declining Passenger Traffic, Airports Generally Remain in Sound Financial Condition

Passenger traffic and associated revenues have decreased across airports of all sizes, but most airports are still financially sound. Domestic passenger traffic, as measured by enplanements, decreased 4 percent overall in 2008, but by the fourth quarter of 2008, enplanements were down 9 percent compared with the same period in 2007.[36] On average, domestic passenger enplanements decreased between 7 and 12 percent across airport hub sizes in the fourth quarter of 2008, compared with the fourth quarter of 2007, and medium-hub airports experienced the largest percentage decrease in enplanements. (See table 6.) Nevertheless, airport rating agencies indicated that the largest 100 rated commercial service airports are financially sound, especially larger commercial service airports.

Table 6: Average Percentage Change in Domestic Enplanements across Airport Hub Sizes, Fourth Quarter 2008 Compared with Fourth Quarter 2007

Airport hub size	Average percentage change in enplanements
Large	-7
Medium	-12
Small	-11
Nonhub	-11

Source: Analysis of DOT T-100 flight data as of December 2008.

Decreases in passenger traffic and airline capacity have reduced airport revenues, impairing the ability of airports to fund both day-to-day operations and future capital improvements. Airport revenue sources from the airlines include landing fees, which are typically based on the number of landings and aircraft weight; terminal rental charges; and fuel-related fees. A large segment of nonairline airport revenue comes from passenger-driven sources such as parking fees; rental payments from retail concessionaires; car rental surcharges; and per-passenger facility charges, which are included in ticketing fees. Based on an industry survey of large- and medium-hub airports, on average, airports earned at least $9 in passenger-based revenue for each enplaned passenger during fiscal year

[36]Enplanements are measured by the total number of passengers boarding a flight, including connecting passengers.

2007.[37] When revenues are averaged across airports of all sizes, airports draw approximately two-thirds of their total revenue from nonairline sources and the remaining one-third from airline rates and charges. Both types of revenue, however, are very sensitive to changes in passenger traffic. Fewer passengers traveling through an airport can mean less money spent on concessions, car rentals, and parking, and fewer flights can result in less money paid by the airlines to the airport in landing fees. For example, at Oakland International Airport, which experienced a 30 percent decrease in passenger enplanements from 2007 to 2008, food and beverage revenues decreased by 25 percent, and rental car revenues decreased by 20 percent. Officials at Sioux Gateway Airport in Sioux City, Iowa, which experienced a 50 percent decrease in passenger enplanements from 2007 to 2008, project that airport parking revenues will decrease by 24 percent and revenues from airline landing fees will decrease by 47 percent during fiscal year 2008 as a result of Frontier Airlines eliminating service to and from the airport.

With less passenger traffic, airports of all hub sizes will also take in less revenue from PFC collections.[38] Nearly all large-, medium-, and small-hub airports collect PFCs, which they use to fund capital development, both for smaller pay-as-you-go projects and for servicing bonds to finance larger projects. For the first time since the program's inception in 1991, total PFC collections declined during 2008. Specifically, total PFC collections in calendar year 2008 were about $150 million less than total collections in 2007. (See table 7.) Collections in 2009 will depend on how soon passenger traffic rebounds; however, according to an FAA official, current data indicate that PFC collections may continue to decline.

[37]This estimate is based on a survey sample comprising 72 U.S. airports, including 90 percent of large hub airports and 57 percent of medium-hub airports. See Airports Council International, *North American 2008 Benchmarking Survey (FY 2007)*, ACI World/North America Conference & Exhibition, Finance Seminar, September 21, 2008. The revenues represent concessions, parking, ground transportation, and car rental fees and surcharges.

[38]PFCs are a per-passenger charge of up to a statutory maximum of $4.50 that is levied by individual airports to fund FAA-approved projects that enhance safety, security, or capacity; reduce noise; or increase air carrier competition. 49 U.S.C. § 40117(b)(4).

Table 7: Total Passenger Facility Charge Collections, by Calendar Year

Calendar year	PFC collections (in millions)
2000	$1,557
2001	1,586
2002	1,857
2003	2,015
2004	2,231[a]
2005	2,448
2006	2,587
2007	2,806[b]
2008	2,660[c]

Source: FAA as of March 2009.

[a]Includes $8,155,034 in corrections to actual collection amounts reported for calendar years 1992 through 2003.

[b]Includes -$18,093,832 in corrections to actual collection amounts reported for calendar years 1992 through 2007.

[c]Includes $3,291,651 in corrections to actual collection amounts reported for calendar years 2005 through 2007.

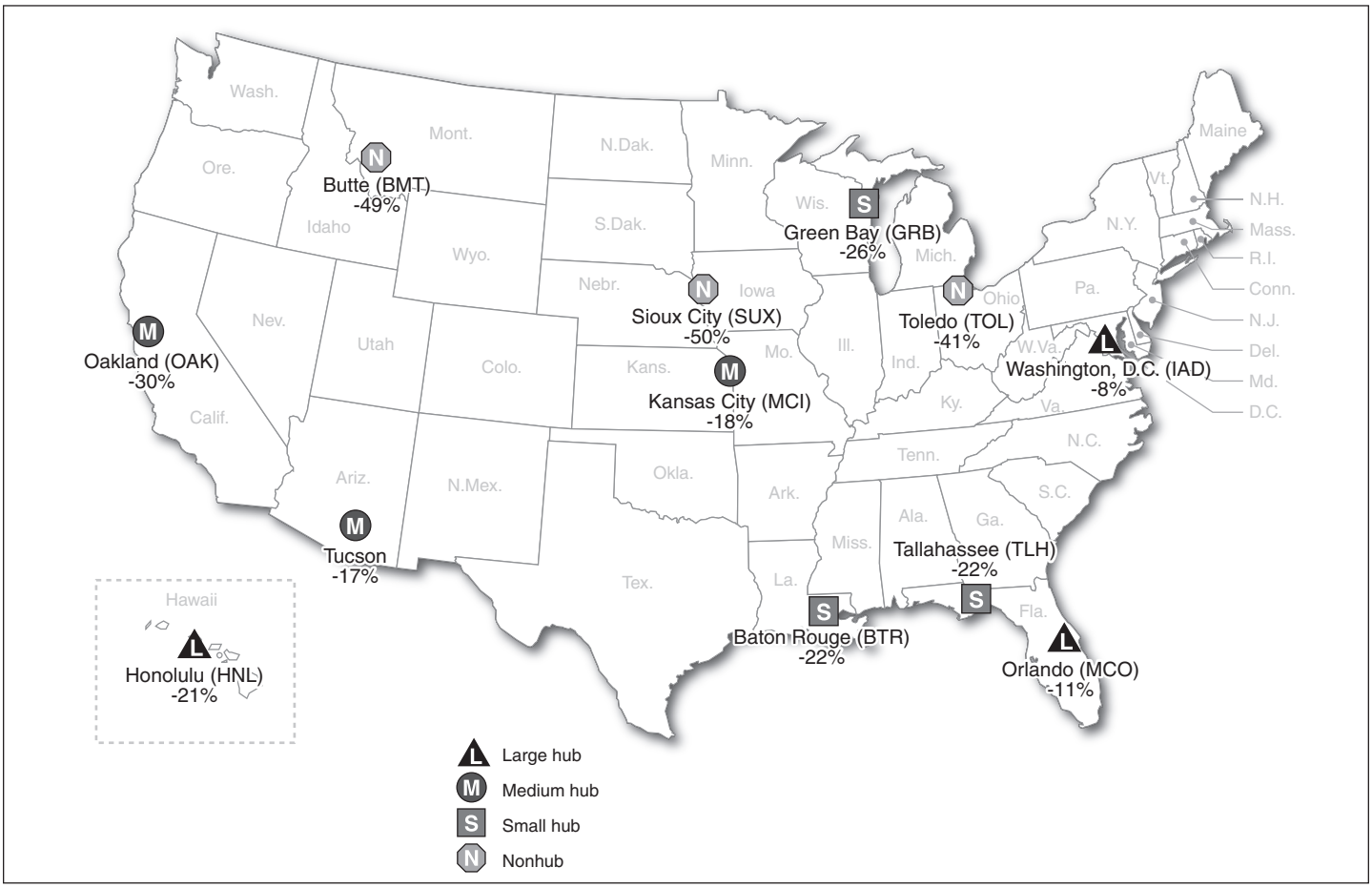
Despite reductions in overall airport revenues, U.S airports in general remain financially sound. According to major credit-rating agencies, the 100 largest rated airports generally have almost 1 year's worth of cash reserves to cover operating expenses (excluding debt service), and some also enjoy the financial backing of state and local governments. While some smaller airports may be more vulnerable to revenue fluctuations, according to airport rating agencies with whom we spoke, the cyclical nature of the airline industry has encouraged airport managers to build cash reserves that are sufficient to support airports through economic downturns.

In Response to Decreased Revenues, Many Airports Are Reducing Operating Costs, Delaying Capital Improvements, and Diversifying Nonairline Revenue

As revenues from airline and nonairline revenue sources have declined, many airports have taken steps to reduce operating costs, delay capital improvements, and diversify nonairline revenue streams. Our case studies of 12 selected airports illustrate how airports that experienced substantial declines in scheduled airline service during 2008 have responded to declining passenger traffic.[39] Overall, passenger traffic declined between 8 and 50 percent, but the declines varied by airport size at these 12 airports. (See fig. 7.)

[39]We selected our case study airports on the basis of three characteristics: hub size, geographic diversity, and overall degree of service reduction. All case study airports selected were among the 10 airports within their hub size to experience the greatest domestic capacity reductions, as measured by changes in numbers of scheduled seats, from the third quarter of 2007 to the third quarter of 2008. Case study airports do not constitute a representative sample of U.S. airports and information collected from case study airports is not generalizable to other U.S. airports.

Figure 7: Change in Passenger Enplanements at 12 Case Study Airports, Fourth Quarter 2007 and Fourth Quarter 2008



Sources: Analysis of DOT T-100 data; Map Resources (base map).

To offset reductions in overall revenue, airports have reduced their operating budgets. For instance, Bert Mooney Regional Airport in Butte, Montana, which experienced a 49 percent decline in passenger traffic in 2008, reduced its annual budget by 30 percent, and Austin Straubel International Airport in Green Bay, Wisconsin, which experienced a 26 percent decline in passenger traffic in 2008, reduced its annual budget by 12 percent. (See app. III and IV.) In light of these budget reductions, 11 out of 12 case study airports are reducing operating costs by instituting hiring freezes, laying off staff, or reducing or cutting employee overtime. For instance, at Kansas City International Airport in Kansas City, Missouri, airport management instituted a hiring freeze for nonessential personnel. As a result, approximately 100 of the airport's 550 full-time staff positions

were unfilled as of December 2008. Some airports, however, face additional challenges in compensating for revenue decreases. Small and nonhub airports, in particular, may have difficulty responding to decreases in revenue because many airports have relatively fixed operations costs and may therefore lack options for reducing expenditures. For instance, during 2008, Bert Mooney Regional Airport cut its full-time staff by 33 percent, reducing total staff positions from nine to six. Despite these reductions and additional cost-saving efforts to train police and fire staff to fill more than one position, an airport official projects a $120,000 operating budget shortfall for fiscal year 2010. According to this official, the airport could exhaust its cash reserves in late 2009 or early 2010.

In addition to taking steps to reduce operating costs, airports of all sizes are considering options to generate additional revenue, from increasing airline rates and charges to increasing nonairline fees such as parking fees. In addition, airports are diversifying nonairline revenue by developing new revenue sources. For example, airports have begun construction and rental of business parks, sold terminal space for advertising, and instituted fee-based wireless Internet service. In total, 6 of our 12 case study airports have increased nonairline fees in an attempt to raise additional revenue, and 10 of the 12 have taken steps to diversify their nonairline revenue. For example, Tallahassee Regional Airport officials increased airport parking fees by 25 percent during 2008 and recently completed the construction of a service center that will bring in additional revenue from general aviation and cargo traffic.

Many airports are also delaying or canceling scheduled capital improvements. In total, 10 of our 12 case study airports reported delaying or canceling capital improvements for reasons including decreased revenue, less immediate demand for projects intended to expand airport capacity, and problems accessing credit markets. (See table 8 and app. IV).[40] While reductions in capacity and passenger demand have temporarily decreased demand for some projects, such as those related to terminal construction and expansion, other projects remain airport priorities but cannot be completed for lack of available funding. Some delayed projects are fully designed with the necessary environmental approvals and need only funding to begin construction. Airport experts stated that in some cases, delays to capital improvements could leave airports unprepared for

[40]Capital improvement delays and cancellations cited by case study airport officials ranged from 1 to 2 years to indefinite project deferrals.

future increases in passenger traffic. However, the extent to which airports are delaying capital improvements varies. While some airports have drastically reduced their capital improvement programs, other airports have moved ahead with planned capital improvements. Some airports also indicated that they hoped to compete for the $1.1 billion in discretionary grants that will be awarded to airports under the American Recovery and Reinvestment Act of 2009.[41]

Table 8: Capital Improvement Projects at Case Study Airports Delayed or Canceled

Airport	Project description	Estimated project cost	Project status
Austin Straubel International Airport, Green Bay, Wisconsin	Parking lot and exit road expansion	$2.2 million	Canceled
Oakland International Airport, Oakland, California	Multiple projects including a new terminal building, cargo and passenger airline tenant support centers, and pavement rehabilitation	More than $1 billion	Canceled
Bert Mooney Regional Airport, Butte, Montana	Installation of additional runway lighting	$2.5 million	Delayed
	Terminal renovation to increase energy efficiency	$5 million to $7 million	Delayed
Sioux Gateway Airport, Sioux City, Iowa	Terminal renovation	$1.8 million	Delayed
	Runway reconstruction	$12 million	Delayed

Source: Airport officials.

According to airport experts and our case studies, airports vary in their ability to obtain funding for ongoing and planned capital improvement projects. In some cases, unstable financial markets have made it difficult for airports currently completing phased capital improvements to obtain financing to continue construction. For instance, Hartsfield-Jackson International Airport in Atlanta, Georgia, may have to halt a $1.63 billion project to construct a new international terminal because the airport has been unable to sell $600 million in municipal bonds in the face of opposition from a tenant airline. According to an airport official, this airline is concerned that a portion of the costs for additional capital improvements could be passed on to the airline in the form of increased rates and charges. Many airports have also had difficulty obtaining funding from the bond market for future capital improvements. Because of funding constraints, some small and nonhub case study airports reported that they are not pursuing funding from the bond market at all and are instead

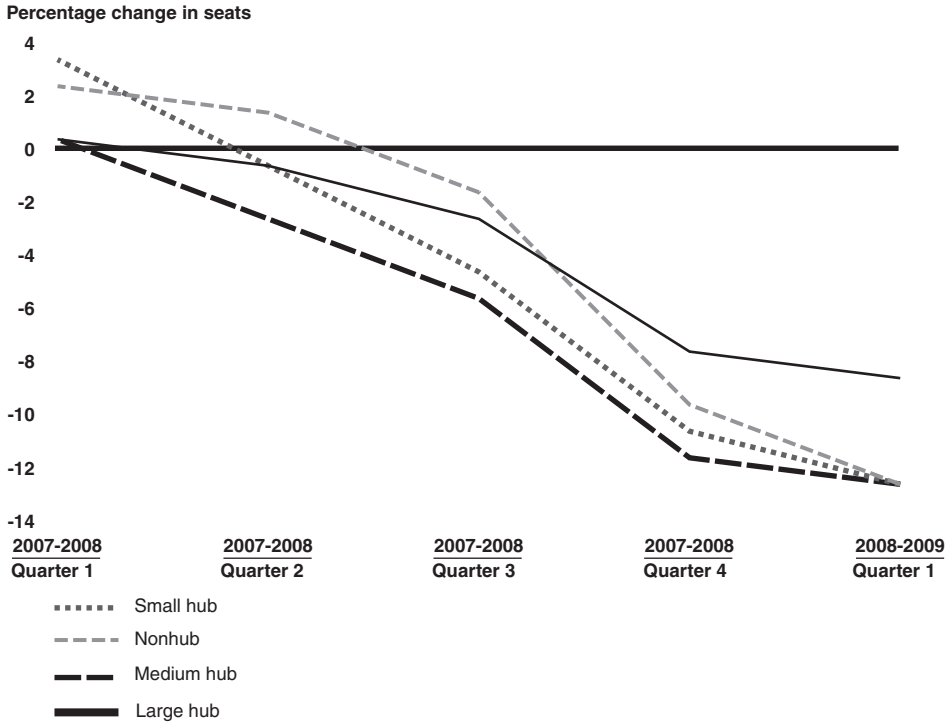
[41]Pub. L. No. 111-5, 123 Stat. 115, Title XII (2009).

relying on annual grants, such as those from AIP, to fund projects over an extended time frame, while some larger airports, such as Washington-Dulles International Airport outside Washington, D.C., have turned to short-term financing options, such as commercial paper money market securities, to fund needed improvements. On the other hand, airports that began projects prior to the ongoing economic downturn may be better positioned to complete those projects. For instance, officials from Kansas City International Airport stated that the airport has accelerated some projects to capitalize on low construction costs.

Some Passengers Have Lost Access to Markets, and Some Are Paying Higher Fares

Airline capacity reductions extend across airports of all sizes. From the fourth quarter of 2007 to the fourth quarter of 2008, large hub airports lost 8 percent of domestic scheduled seats, medium hub airports lost 12 percent, small hub airports lost 10 percent, and nonhub airports lost 11 percent. (See fig. 8.) As discussed earlier in this report, further capacity reductions are planned for the first half of 2009.

Figure 8: Percentage Change in Domestic Scheduled Seats by Airport Hub Size (from First Quarter 2007 through First Quarter 2009)



Source: GAO analysis of OAG data.

Note: Seats are based on nonstop, one-way flights.

As a result of airline capacity reductions, some passengers have lost some or—in the case of 38 small communities—all scheduled airline service. (See app. V.) From 2007 to 2008, the number of nonstop destinations declined across airports of all sizes. (See table 9.) For example, Little Rock National Airport, a small hub airport in Arkansas, had nonstop flights to 22 cities in the fourth quarter of 2007, but by the fourth quarter of 2008, had lost nonstop service to 6 of its destinations, including nonstop service to large hub airports at Washington-Dulles and Minneapolis, for a net decrease in destinations served by nonstop service of 27 percent. Additionally, Los Angeles International Airport lost nonstop service to 12 of its 92 destinations while gaining nonstop service to 4, for a net decrease in destinations served by nonstop service of 9 percent.

Table 9: Change in the Number of Nonstop Destinations by Airport Hub Size (from Fourth Quarter 2007 to Fourth Quarter 2008)

Airport hub size	Nonstop destinations 4Q07	Nonstop destinations 4Q08	Change in number of nonstop destinations	Percentage change
Large	2,810	2,607	-203	-7
Med.	1,400	1,210	-190	-14
Small	1,043	874	-169	-16
Nonhub	950	847	-103	-11

Source: GAO analysis of OAG data.

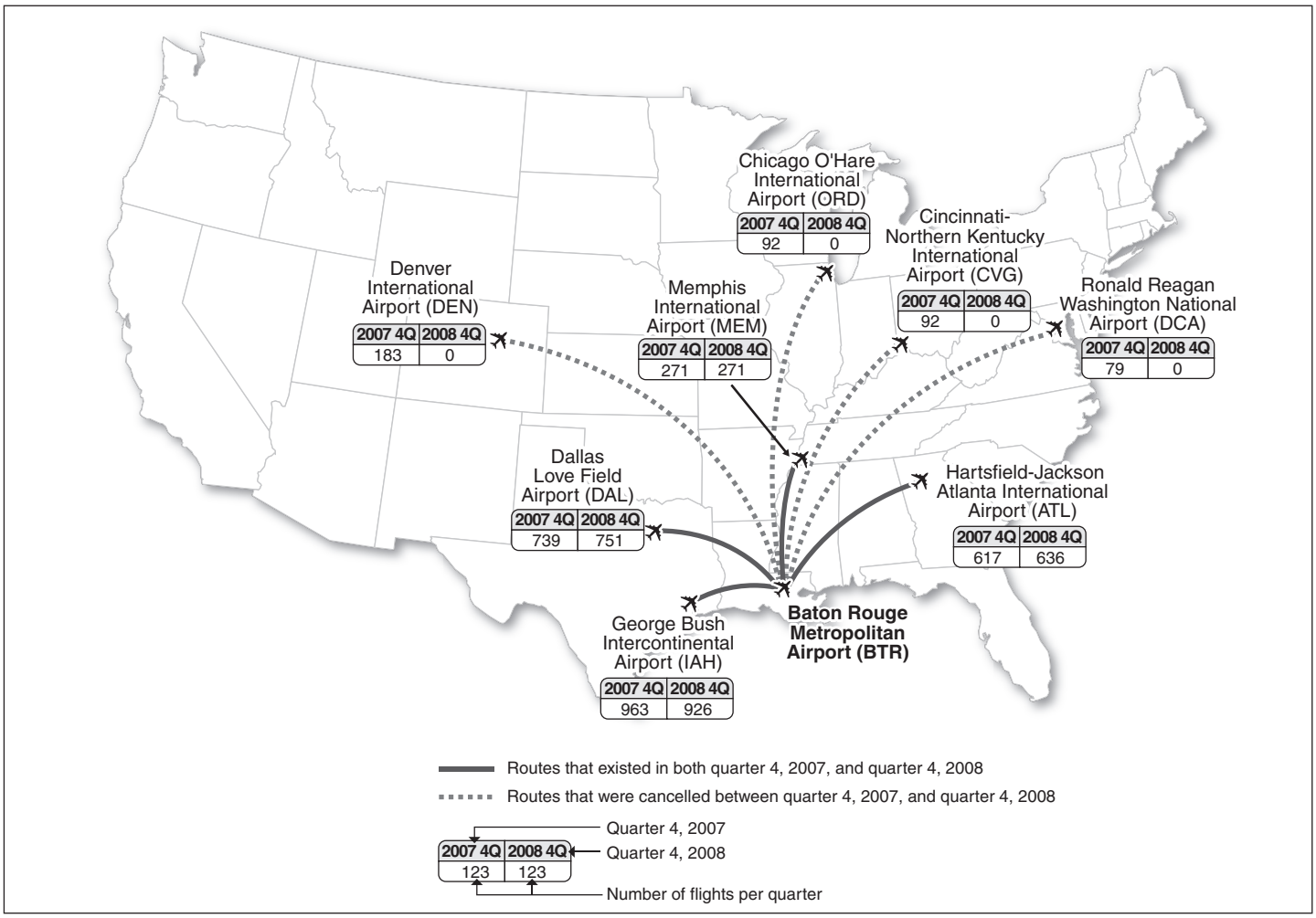
Note: Results across airport hub sizes cannot be added because some routes between airports of different hub sizes may be double counted.

From the fourth quarter of 2007 to the fourth quarter of 2008, 11 of our 12 case study airports lost nonstop service to between 6 and 63 percent of their nonstop destinations; however, not all of these losses had a significant impact on the ability of passengers to connect to their final destination through airline network hubs.[42] Despite overall reductions in service, 4 of our 12 case study airports did not lose nonstop service to any airline hubs, 3 lost nonstop service to 1 airline hub, and the remaining airports lost nonstop service to 2 to 5 airline hubs. (See app. III for more detailed information on case study airports' route losses.) For example, from the fourth quarter of 2007 to the fourth quarter of 2008, Kansas City International Airport lost nonstop service to 21 of its 69 total destinations; however, only 1 of these destinations was an airline network hub. For other airports, however, nonstop service to airline hubs has significantly declined. For instance, Baton Rouge Regional Airport lost nonstop service to four of its eight destinations, including losing nonstop service to three airline hubs.[43] (See fig. 9.)

[42]We are defining airline network hub in terms of how airlines utilize airports to distribute passengers within their service network, which is different than FAA's definition of an airport hub used elsewhere in this report.

[43]According to DOT and an airport official, Baton Rouge Metropolitan Airport experienced service increases following Hurricane Katrina in 2005. Some service losses at Baton Rouge Metropolitan Airport may be attributed to service returning to New Orleans International Airport.

Figure 9: Change in Nonstop Scheduled Routes Departing from Baton Rouge Metropolitan Airport (from Fourth Quarter 2007 to Fourth Quarter 2008)



Sources: GAO analysis of OAG data; Map Resources (base map).

Airline capacity reductions had a particularly significant impact on smaller airports. As airlines adjusted fleet size and reduced domestic capacity, some smaller airports experienced significant shifts in service and many lost scheduled service altogether. From the fourth quarter of 2007 to the fourth quarter of 2008, 38 airports lost all scheduled air service, approximately twice the number of airports that lost scheduled service from the fourth quarter of 2006 to the fourth quarter of 2007. (See app. V.) Additionally, nearly three times fewer airports regained service from the fourth quarter of 2007 and the fourth quarter of 2008, compared with the

same periods for 2006 and 2007. Of the 38 airports that lost all scheduled service, 14 were part of the Essential Air Service (EAS) program and were eligible to regain air service with government assistance. (See app. V.) According to DOT, these 14 airports are scheduled to have service restored by May 2009.[44] Additionally, 14 airports that had direct service to two or more markets in 2007 had direct service to only one market during the fourth quarter of 2008. While these airports do not represent a large share of the overall passenger traffic in the United States, officials from some airports and communities affected by the service reductions expressed concern about the impact of service losses and reductions on local businesses and residents.

In addition to service losses and reductions, passengers in some communities had fare increases. On average, domestic airfares increased by 18 percent from the third quarter of 2007 to the third quarter of 2008. At airports with capacity reductions of more than 10 percent, fares increased even more, with average airfares increasing by an average of 21 percent during the same time period. Case study airports also experienced fare shifts from the third quarter of 2007 to the third quarter of 2008, ranging from a 7 percent decrease in average fares to a 73 percent increase. In total, 4 of our 12 case study airports experienced airfare increases of more than 30 percent, 6 experienced increases of between 6 and 16 percent, and the remaining 2 airports experienced modest decreases, according to DOT data (see app. III). However, some data indicate that average fares decreased during the fourth quarter of 2008 and the first quarter of 2009. While domestic commercial airfare data were not yet available for these quarters, data from the Air Transport Association show that monthly domestic passenger yields, which represent the average price passengers pay to fly 1 mile (excluding taxes), decreased by 11 percent from October 2008 to January 2009.

[44]The EAS program was established in 1978 to ensure that small communities served by commercial air service prior to deregulation would maintain at least a minimal level of scheduled air service. DOT currently subsidizes commuter airline service to approximately 140 rural communities across the country.

Because of the Deteriorating Economy and Declining Passenger Traffic, Lower-than-Anticipated Trust Fund Revenues May Reduce the Trust Fund's Uncommitted Balance in 2009

With the declines in passenger traffic and aircraft operations and reduced fuel consumption, revenues to the Trust Fund are expected to fall significantly below forecasted levels in fiscal year 2009. [45] During fiscal year 2008, domestic passenger traffic (as measured by enplanements) declined 2 percent as compared to fiscal year 2007, whereas FAA had forecast a 1 percent increase. This difference resulted in lower revenues than FAA had forecast in its baseline estimate. Actual revenues of $12.06 billion in fiscal year 2008 were about 4 percent lower than the $12.62 billion in revenues that FAA forecast in its 2008 budget proposal in February 2007. As general economic conditions have continued to deteriorate, FAA officials have said they expect revenues to fall significantly below forecast levels throughout fiscal year 2009.[46] FAA recently forecast a 7.8 percent decrease in domestic passenger traffic for fiscal year 2009. According to FAA and Treasury officials, the Administration is considering transferring the responsibility for revenue forecasts for the Trust Fund to the Treasury Department in an effort to have all federal excise tax forecasts performed by the Treasury.

When actual revenues coming into the Trust Fund are below FAA's forecasted levels, the Trust Fund's uncommitted balance, or surplus, declines. Since the Trust Fund's creation in 1970, revenues have in the aggregate exceeded spending commitments from FAA's appropriations, resulting in a surplus.[47] In recent years, the Trust Fund's uncommitted balance has declined as it has been used to offset lower-than-forecast Trust Fund revenues. As we have previously reported, for each fiscal year beginning with 2001, actual revenues have been less than forecast, so that in each year since then the uncommitted balance has fallen.[48] Since FAA's

[45]Some of the decline in Trust Fund revenues could also be attributed to a decline in tax revenues from cargo and general aviation.

[46]FAA updates its revenues forecasts for the next fiscal year in a mid-session review. According to an FAA official, this update is provided to the appropriations committees and can be used in the appropriations process, depending on the status of the appropriations bills. The next revenue forecast will be provided as part of the President's Budget for fiscal year 2010.

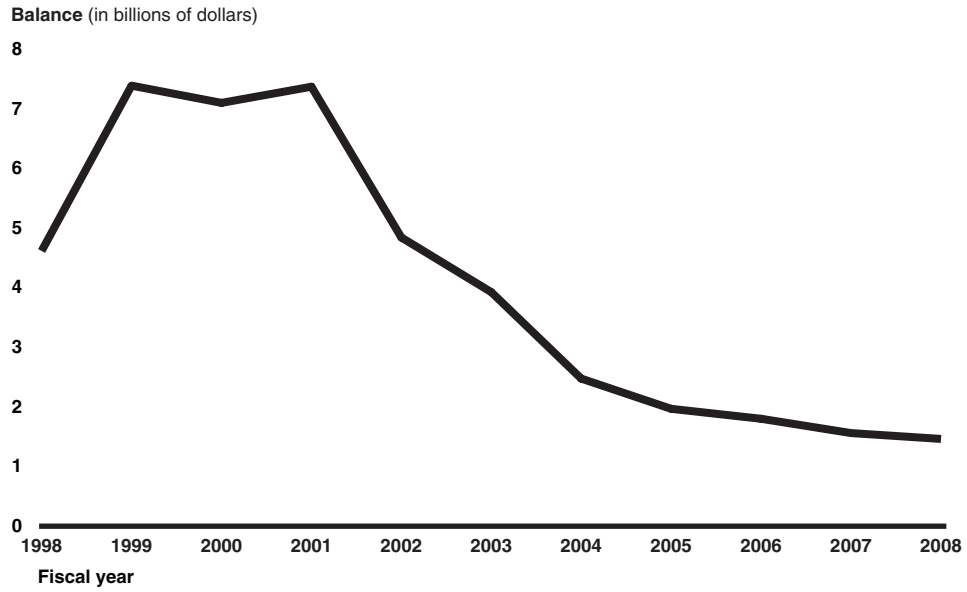
[47]FAA considers annual appropriations from the Trust Fund as part of its committed balance—that is, these funds are committed for specific purposes but have not yet been liquidated through outlays. The committed balance consists of both obligated and unobligated amounts. The uncommitted balance represents the revenues in the Trust Fund that have not yet been appropriated or authorized with contract authority.

[48]GAO, *Federal Aviation Administration: An Analysis of the Financial Viability of the Airport and Airway Trust Fund*, GAO-06-562T (Washington, D.C.: Mar. 28, 2006).

forecasts are based on information from the first quarter of the preceding fiscal year, its revenue forecasts are inherently uncertain because it is difficult to anticipate future events that may significantly affect the demand for air travel, the fares that passengers pay, and other variables that affect Trust Fund revenues. One of the greatest declines in the uncommitted balance occurred in 2002 following the sudden drop off in aviation activity after the terrorist attacks of September 11, 2001. The Trust Fund's uncommitted balance, which exceeded $7.3 billion at the end of fiscal year 2001, has since dropped to about $1.4 billion at the end of fiscal year 2008. (See fig. 10.) In the fiscal year 2009 omnibus appropriation, Congress increased the General Fund contribution to FAA's operations and decreased FAA's appropriation from the Trust Fund by approximately $1 billion less than what was originally outlined in FAA's fiscal year 2009 budget proposal. According to FAA, this action was in response to the anticipated decline in Trust Fund revenues for fiscal year 2009. Because of this lower appropriation from the Trust Fund, FAA does not expect the uncommitted balance to decrease significantly during fiscal year 2009. However, the Congressional Budget Office recently forecast the uncommitted balance to fall to $752 million.[49] Until actual revenues coming into the Trust Fund for the entire year are known and compared with money appropriated from the Trust Fund, it is difficult to determine the extent to which, if any, the Trust Fund's uncommitted balance will have fallen in fiscal year 2009.

[49]According to FAA, a revised estimate for the Trust Fund's uncommitted balance and revenues for fiscal year 2009 will be published with the upcoming fiscal year 2010 President's budget details expected to be released in early May.

Figure 10: Airport and Airway Trust Fund End-of-Year Uncommitted Balance, Fiscal Years 1999 through 2008



Source: FAA.

A further decline in the Trust Fund's uncommitted balance could pose budgetary challenges for FAA.[50] If the actual Trust Fund revenues continue to fall below forecasted levels, there could be a risk of overcommitting available resources from the Trust Fund—meaning revenues could be insufficient to cover all of the obligations that FAA has the authority to incur.[51] As the Trust Fund's uncommitted balance approaches zero, this decline signals to FAA that limited revenues are available to incur new obligations while still covering expenditures on existing obligations and increases FAA's challenge in moving forward with planned projects and programs. FAA officials noted that they closely monitor the Trust Fund's available cash and FAA's obligations to ensure enough cash and budget

[50]We have identified the funding of the nation's surface transportation system on our high-risk list because of the federal, state, and local governments' challenges in providing funds to maintain and expand the nation's surface transportation system. See GAO, *High-Risk Series: An Update*, GAO-09-271 (Washington, D.C.: January 2009).

[51]An obligation is an action that creates a legal liability or definite commitment on the part of the government to make a disbursement at some later date. FAA's fiscal year appropriations and authorization provide the legal authority for FAA to incur obligations and make payments out of the Trust Fund (through the Treasury).

authority are available to cover FAA's expenditures and obligations. In the short term, if there was a risk of overcommitting Trust Fund resources, FAA officials noted that they might be required to delay obligations for capital programs if they do not have adequate revenues in the Trust Fund to cover those obligations—unless additional funding were authorized and appropriated from the General Fund.[52] To reduce the potential impact of future Trust Fund revenue shortfalls and make it less likely that the Trust Fund's uncommitted balance would reach zero, the House of Representatives' current FAA reauthorization bill includes a provision that would limit the budgetary resources made available from the Trust Fund to 90 percent, rather than 100 percent, of forecasted revenues and carry over any remaining positive balance to a subsequent year.[53] Congress would need to provide an additional General Fund contribution in the first 2 years to make up the difference.

In the longer term, future Trust Fund revenues under the current tax structure may be lower than previously anticipated. For example, the Congressional Budget Office is now forecasting about $18 billion less in Trust Fund revenues from 2009 through 2017 than it forecast in 2007 for that same time period. Given the decline in expected future revenues, appropriations from the Trust Fund under current law will be lower in

[52]According to FAA officials, they would start by deferring or deobligating some existing obligations related to FAA's capital programs to continue to first fund operating expenses, such as air traffic control and safety inspections. These actions would ensure that the agency did not incur obligations in excess of the Trust Fund's cash balance, which could potentially lead to a violation of the Antideficiency Act. This act prohibits an officer or employee of the federal government from incurring an obligation, or making an expenditure, in advance or in excess of an appropriation or fund. 31 U.S.C. § 1341(a)(1). However, FAA's aviation programs are partly funded with contract authority, which is an exemption to the Antideficiency Act and authorizes FAA to incur obligations in advance or in excess of an appropriation. This authority permits FAA to incur obligations in excess of the revenue in the Trust Fund. However, FAA must receive an appropriation from the Trust Fund in order to liquidate these obligations. If there is not adequate revenue in the Trust Fund, the obligation cannot be liquidated. Because of the uncertainty in forecasting, the addition of revenues into the Trust Fund throughout the fiscal year, and the mix of FAA programs funded through contract authority and through regular appropriations, it may be difficult for FAA to determine at what point it would violate the Antideficiency Act. Accordingly, FAA must carefully manage its obligations and expenditures so that it can take action before it reaches the point where it could potentially incur an Antideficiency Act violation.

[53]This provision is contained in H.R. 915, 111th Cong. (2009), introduced on February 9, 2009, but was amended from 95 percent to 90 percent on March 5, 2009. H.R. 2881, 110th Cong. (2007), which was introduced last session, passed in the House on September 20, 2007, and included a provision to limit FAA's budget authority to 95 percent.

future years than has been expected unless new revenue sources are found. To maintain appropriations consistent with the level that earlier forecasts would have afforded, Congress could take action such as increasing the General Fund contribution or increasing Trust Fund revenues. For example, Congress could generate additional revenue for the Trust Fund by adding airline fees, such as those recently established for checked bags, to the current tax base. Under the governing Internal Revenue Service (IRS) regulations, services beyond those to transport passengers, such as checking baggage, are not included in the tax base for the Trust Fund.[54] Concurrent with the rise in fuel prices in 2008, many airlines instituted new fees for checking first and second bags and for other services, instead of raising fares. To the extent that airlines continue to rely on revenues from baggage fees instead of revenues from higher fares, the Trust Fund will not benefit because the additional fees, under current IRS regulations, do not generate additional ticket tax revenues, whereas higher fares would. Had the $635 million in baggage fees collected by airlines in the first 3 quarters of 2008 been taxed at the same 7.5 percent rate as fares are taxed, an additional $47.6 million in revenue would have been generated for the Trust Fund.[55]

Conclusions

Since 2001, the U.S. passenger airline industry has experienced substantial losses and numerous bankruptcies and liquidations. The industry struggled to weather financial pressures even before fuel prices rose to historic levels during 2008, forcing many airlines to reduce capacity in order to survive. The current economic downturn and associated declines in passenger demand for air travel have led some airlines to consider additional cuts in capacity for 2009 and have increased concerns about the financial health of some airports and passengers' access to a vibrant aviation system. While passenger demand may recover in the long term, the near-term effects on the financial health of the Trust Fund may warrant congressional response.

[54]These regulations (26 C.F.R. §§ 49.4261-7, 49.4261-8 (2008)) were promulgated in 1959 (24 Fed. Reg. 9668 (Dec. 3, 1959)) under authority provided in 26 U.S.C. § 7805. The regulations were amended in 1962 (27 Fed. Reg. 11223 (Nov. 14, 1962)) and have not been amended since that time.

[55]As previously mentioned, the airlines' fees for checked baggage can be included in other revenues; however, some of the airlines' other revenues, including revenue from flight change fees, are taxed. In addition to the checked baggage fees, the recently instituted fees collected for other items, such as meals and beverages, are not subject to any tax, but these amounts are small compared with the revenues generated from checked baggage.

Volatile fuel prices, the economic downturn, and the airlines' response to these pressures have, in turn, affected others: airports, communities, passengers, and the Trust Fund. Airports are generally better able to withstand a downturn in air travel than airlines, but at some airports, passenger traffic has taken a more significant downturn, and some of these airports are struggling to adjust quickly enough. In addition, some communities and passengers are losing service and facing higher fares—a trend that may continue. Finally, although FAA received additional General Fund money in its fiscal year 2009 appropriation to offset lower-than-anticipated Trust Fund revenues,[56] the Trust Fund's uncommitted balance could potentially fall close to zero in the near future, since revenues coming into the Trust Fund have consistently fallen short of forecasts. A further decline in the uncommitted balance toward zero warns FAA that funds may not be available to start or continue some projects for which appropriations have been made. The declining uncommitted balance also signals to Congress that it may need to make some difficult choices about whether to reduce FAA's appropriations or to take actions to either increase revenues going into the Trust Fund or increase appropriations from the General Fund for FAA.

Matter for Congressional Consideration

Given the inherent uncertainty of forecasting revenues and the deteriorating uncommitted balance of the Trust Fund, Congress should consider working with FAA to develop alternative ways to reduce the risk of overcommitting budgetary resources from the Trust Fund. Better matching of actual revenues to the appropriation from the Trust Fund would help to ensure sufficient Trust Fund revenues are available to cover all the obligations that FAA has the authority to incur, thus reducing the risk of disruptions in funding for aviation projects and programs. One approach would be to appropriate less than 100 percent of the forecasted revenues, especially until a sufficient surplus is established to protect against potential disruptions in revenue collection. This change would reduce the likelihood that FAA would incur obligations in excess of the cash needed to liquidate these obligations and thus reduce the risk of delaying or terminating projects. Another approach would be to target a minimum level for the Trust Fund's uncommitted balance and base appropriations on the goal of maintaining that target level. This change would make it more likely that uncommitted resources would be available to FAA in the event that actual revenues fell short of forecasted revenues

[56]Omnibus Appropriations Act of 2009, Pub. L. No. 111-8, 123 Stat. 524, Sec. 104 (2009).

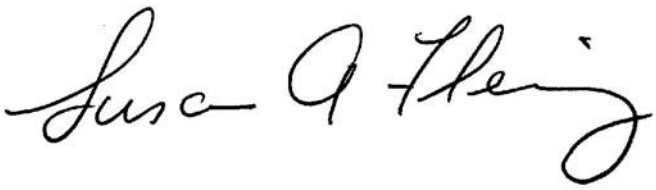
in a future year. Either approach would result in fewer available resources for some period of time, unless a General Fund contribution made up the difference.

Agency Comments and Our Evaluation

We provided a draft of this report to DOT for their review and comment. DOT officials provided some clarifying and technical comments that we incorporated where appropriate.

As arranged with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 2 days after the report date. At that time, we will send copies of this report to the Secretary of Transportation and the Acting Administrator of the Federal Aviation Administration. The report is also available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staff have any questions concerning this report, please contact me at (202) 512-2834 or flemings@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Staff members making key contributions to this report are listed in appendix VI.



Susan Fleming
Director, Physical Infrastructure Issues

Appendix I: Scope and Methodology

To determine how the financial condition of the U.S. passenger airline industry has changed, the principal factors affecting its condition, and its future prospects, we analyzed financial and operational data, reviewed relevant studies, and interviewed industry experts. We analyzed the Department of Transportation's (DOT) Form 41 financial and operational data submitted to DOT by airlines from the years 1990 through the third quarter of 2008—the most recent and complete data available. We obtained these data from BACK Aviation Solutions, a private contractor that provides online access to U.S. airline financial, operational, and passenger data with a query-based user interface. All dollar figures in this report are nominal unless otherwise noted. To assess the reliability of these data as well as DOT's T-100 enplanement data and origin and destination (OD1B) data and the Official Airline Guide (OAG) schedule data, we reviewed the quality control procedures used by BACK Aviation and DOT and subsequently determined that the data were sufficiently reliable for our purposes. The data for the fourth quarter of 2008 represent the 11 largest airlines that report to the Securities and Exchange Commission (SEC), including Alaska Airlines, American Airlines, Continental Airlines, Delta Air Lines, United Airlines, US Airways, AirTran Airways, Frontier Airlines, JetBlue Airways, Southwest Airlines, and Hawaiian Airlines, since data for all U.S. passenger airlines were not yet available from DOT. In the first 3 quarters of 2008, these airlines' operating revenues represented 75 percent of U.S. domestic passenger airline revenues and, therefore, provide a good indication of the overall financial status of the industry in the fourth quarter of 2008. Although the airlines' SEC filings include audited financial data, we also compared financial data from airlines' previous SEC filings with historical data from BACK Aviation and determined that the data were sufficiently reliable for our purposes. We also reviewed government and expert data analyses, research, and studies, as well as our own previous studies. The expert research and studies, where applicable, were reviewed by a GAO economist or were corroborated with additional sources to determine that they were sufficiently reliable for our purposes. Finally, we conducted interviews with DOT and Federal Aviation Administration (FAA) officials, airlines and their trade associations, credit and equity analysts, labor representatives, industry experts, and academics. The analysts, experts, and academics were identified and selected based on literature review, prior GAO work, and recommendations from within the industry.

To identify how airlines have responded to factors affecting their financial condition, we interviewed airline managers, trade association representatives, and industry experts. We analyzed OAG schedule data to determine the airlines' changes in domestic capacity and fleet mix. We also

reviewed the airlines' SEC filings to identify the total number of active fleet for the U.S. passenger airline industry. We analyzed DOT data on airline employment to determine changes in employee levels. To assess the airlines' fees, we reviewed company reports and analyzed DOT Form 41 data.

To assess how changes in the U.S. passenger airline industry have affected airports, passengers, and the Airport and Airway Trust Fund (Trust Fund), we analyzed DOT data on enplanements and OAG data on airline schedules; spoke with airport consultants, FAA officials, and industry associations; and conducted 12 case studies of large, medium, small, and nonhub airports from different regions of the United States. These case studies allowed us to assess airport actions in response to airline service reductions, including changes to capital improvement plans, operating budgets, and rates and changes. We selected our case study airports on the basis of three characteristics: hub size, geographic diversity, and overall degree of service reduction. All case study airports selected were among the 10 airports within their hub size to experience the greatest domestic capacity reductions, as measured by changes in numbers of scheduled seats when comparing the third quarter of 2007 with the third quarter of 2008. Among the airports that experienced the greatest domestic capacity reductions, three airports from each hub size were selected as case study airports based on geographic distribution throughout the United States. Case study airports do not constitute a representative sample of U.S. airports and information collected from case study airports is not generalizable to other U.S. airports. To assess how changes in the passenger airline industry have affected passengers, we analyzed DOT data on fares and OAG data on airline schedules. Our assessment of change in average fares from the third quarter of 2007 to the third quarter of 2008 included an assessment of change in average stage length to ensure that fare changes were not attributable to changes in stage length.[1] To assess the effect on the Trust Fund, we interviewed FAA officials and reviewed DOT data on the Trust Fund, relevant legislation, and prior GAO reports.

We conducted this performance audit from July 2008 to April 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient,

[1]Average stage length, as weighted by the number of passengers, did not change significantly from the third quarter of 2007 to the third quarter of 2008.

appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: U.S. Passenger Airline Labor Contracts and Their Amendable Dates

Airline	Pilots	Flight attendants	Mechanics & related	Dispatchers	Agents
AirTran	**4/1/05**	**11/30/08**	**10/1/09 (Mechanics)** 8/31/11 (GSE) 6/1/11 (Stock)	**12/31/08**	Nonunion
Air Wisconsin	10/1/11	**10/1/08**	**8/1/08**	1/2/12	1/29/12
Alaska	**5/1/07** TA reached 3/09	5/1/12	**10/16/09 (Mechanics)** 7/19/10 (Stock/ramp)	6/30/10	7/19/10
American	**4/30/08**	**4/30/08**	**4/30/08 (Mechanics and ramp)**	**4/30/08**	Nonunion
American Eagle	10/31/13	**10/27/09**	**10/2/07**	**1/27/08**	**1/23/08**
Atlantic Southeast	11/21/10	7/21/11	Nonunion	**4/19/06**	Nonunion
Cape Air	**Initial mediation**	Nonunion	Nonunion	Nonunion	Nonunion
Colgan Air	**Initial negotiations**	4/30/14	Nonunion	Nonunion	Nonunion
Comair	3/1/11	12/31/10	12/31/10	Nonunion	Nonunion
CommutAir	**Initial negotiations**	**Initial negotiations**	Nonunion	Nonunion	Nonunion
Compass	4/1/13	Nonunion	Nonunion	Nonunion	Nonunion
Continental	**1/1/09**	**12/31/09**	**12/31/08**	**12/31/08**	Nonunion
Delta, including Northwest	12/31/12 (Delta and Northwest)	Nonunion (Delta) 12/31/11 (Northwest)	Nonunion (Delta) 12/31/11 (Mechanics—Northwest) 12/31/10 (Stock/ramp—Northwest)	12/31/13 (Delta) 12/31/11 (Northwest)	Nonunion (Delta) 12/31/10 (Northwest)
ExpressJet	11/30/10	7/31/10	**8/1/09**	**7/7/09**	Nonunion
Frontier	3/2/12	Nonunion	10/31/11 (Mechanics) 9/16/15 (Cleaner) 10/31/11 (Stock)	9/15/12	Nonunion
GoJet	1/19/13	Nonunion	Nonunion	Nonunion	Nonunion
Great Lakes	**9/16/09**	**3/31/03**	**11/1/05** **4/1/02 (Stock)**	**Initial negotiations**	Nonunion
Gulfstream	**7/1/09**	**Initial mediation**	Nonunion	Nonunion	Nonunion
Hawaiian	**6/30/07**	**10/31/07** TA reached 2/09	**3/31/08**	**11/30/07**	**3/31/08** TA reached 3/09
Horizon	**9/13/06**	**11/21/07**	**11/30/08**	**10/6/08**	Nonunion
IslandAir	**11/30/07**	**7/31/07**	**11/4/06** **8/31/08 (Stock)**	**9/30/08**	**7/31/07**

Airline	Pilots	Flight attendants	Mechanics & related	Dispatchers	Agents
Mesa	11/2010	**6/13/06**	Nonunion	Nonunion	Nonunion
Mesaba	6/1/12	6/1/12	6/1/12	6/1/12	Nonunion
Midwest	**8/31/08**	**7/24/08**	Nonunion	Nonunion	Nonunion
Piedmont (Merged with Allegheny)	**5/17/09**	**8/31/09**	**2/25/09 (Piedmont)** 2/3/10 (Allegheny) **Mediation for combined collective bargaining agreement** **Initial negotiations (Stock)**	**2/24/09**	Nonunion
Pinnacle	**4/30/05**	1/31/11	Nonunion	1/1/14	3/18/10
PSA	**7/1/09**	**8/31/09**	**9/24/09**	**Initial Mediation**	12/15/10
Republic / Chautauqua / Shuttle America	**10/17/07**	**9/1/09**	Nonunion	6/2/12 (Chautauqua only)	11/19/12 (Chautauqua only)
SkyWest	Nonunion	Nonunion	Nonunion	Nonunion	Nonunion
Spirit	**1/31/07**	**8/6/07**	Nonunion	7/26/12	Nonunion
Southwest	**8/31/06** TA reached 3/09	**5/31/08** TA reached 3/09	8/16/12 (Mechanics) **8/16/08 (Stock)** **2/16/09 (Cleaner)**	**11/30/09**	**10/31/08 (CSA)** 6/30/11 (Ramp)
Trans States	**8/1/06**	2/20/13	Nonunion	Nonunion	Nonunion
United	**12/31/09**	1/7/10	**12/31/09 (Mechanics)** **12/31/09 (Stock/ramp)**	1/1/10	**12/31/09**
US Airways[a]	**12/31/09 (US Airways)** **12/30/06 (America West)**	12/31/11 (US Airways) **5/4/04 (America West)**	12/31/11	**12/31/09**	1/1/12 (CSA) 12/31/11 (Ramp)

Source: F&H Solutions Group.

Note: The contracts in bold represent those that are amendable on or before December 31, 2009. Labor classifications include Customer Service Agent (CSA); Ramp Worker (Ramp); Stock and Supply Worker (Stock); Aircraft housekeeping (Cleaner); Aircraft Mechanics (Mechanics); Ground Support Equipment Personnel (GSE). Nonunion means that no labor union represents the particular work group at that airline. Also, "TA reached" means that the airline and union have reached a tentative agreement on month and year mentioned in the table.

[a]Since the merger, US Airways has been in the process of integrating labor agreements between US Airways and America West Airlines between the pilots and the flight attendants.

Appendix III: Impact of U.S. Passenger Airline Industry Contraction on Case Study Airports

Airport	Change in enplanements (4Q07 to 4Q08)[a]	Change in capacity – total scheduled seats (4Q07 to 4Q08)[b]	Markets served (nonstop)[c]				Change in airfares[d]		
			4Q07	4Q08	Percentage change[e]	Hubs lost	3Q07	3Q08	Percent change
Dulles (IAD)	-8%	-11%	83	83	0	0	$199	$224	12
Honolulu (HNL)	-21%	-19%	32	30	-6	0	137	180	32
Orlando (MCO)	-11%	-13%	85	72	-15	0	124	141	13
Kansas City (MCI)	-18%	-19%	69	48	-30	1	139	160	16
Oakland (OAK)	-30%	-26%	37	26	-30	5	126	134	6
Tucson (TUS)	-17%	-14%	28	18	-36	2[f]	128	142	11
Baton Rouge (BTR)	-22%	-23%	8	4	-50	3	194	193	-1
Green Bay (GRB)	-26%	-19%	11	8	-27	3	188	261	38
Tallahassee (TLH)	-22%	-28%	9	7	-22	1	229	214	-7
Butte (BTM)	-49%	-61%	2	1	-50	0	193	214	11
Sioux City (SUX)	-50%	-45%	2	1	-50	1	268	356	33
Toledo (TOL)	-41%	-54%	8	3	-63	3	117	204	73

Source: GAO analysis of DOT data.

[a]GAO analysis of DOT T-100 data as of December 2008.

[b]GAO analysis of OAG data as of December 2008.

[c]GAO analysis of OAG data as of December 2008.

[d]GAO analysis of DOT OD1B as of September 2008

[e]Calculation of percentage change in fares is based on fare data to two decimal places.

[f]Tucson Airport also gained service to one airline hub from fourth quarter 2007 to fourth quarter 2008.

Appendix IV: Airport Actions in Response to U.S. Passenger Airline Industry Contraction

		Lease type			Airport actions						
Airport	Hub size	Airside	Landside	Overall budget change	Delay or cancel capital projects	Hiring freeze	Staff lay-offs	Other, staff related[a]	Increase airline fees	Increase non-airline fees[b]	Plans to diversify non-airline revenue
Dulles (IAD)	Large	Compensatory	Compensatory	+0.8%	✓			✓		✓	✓
Honolulu (HNL)	Large	Residual	Residual	-10.0%	✓	✓		✓	✓	✓	✓
Orlando (MCO)	Large	Hybrid	Hybrid	0.0	✓	✓		✓		✓	✓
Kansas City (MCI)	Medium	Residual	Compensatory	-6.3%		✓		✓			✓
Oakland (OAK)	Medium	Residual	Hybrid	-5.5%	✓						
Tucson (TUS)	Medium	Residual	Residual	-0.4%	✓			✓			✓
Baton Rouge (BTR)	Small	Hybrid	Hybrid	0.0		✓		✓			✓
Green Bay (GRB)	Small	Hybrid	Hybrid	-11.6%	✓		✓			✓	✓
Tallahassee (TLH)	Small	Hybrid	Hybrid	[c]	✓	✓		✓	✓	✓	✓
Butte (BTM)	Non-hub	Hybrid	Hybrid	-30.0%	✓		✓	✓	✓		
Sioux City (SUX)	Non-hub	Hybrid	Compensatory	-5.0%	✓		✓			✓	✓
Toledo (TOL)	Non-hub	Compensatory	Hybrid	-12.5%	✓	✓	✓	✓			✓

Source: Airport officials.

Notes:

Compensatory lease: The airport operator assumes the major financial risk of running the airport and sets rates and charges to recover the costs of the facilities and services that the airlines use.

Residual lease: The airlines collectively assume significant financial risk by agreeing to pay any costs of running the airport that not allocated to other users or covered by nonairline revenue.

Hybrid lease combines certain elements compensatory and residual lease agreements.

Landside lease includes area of the airport such as terminals and airport access.

Airside lease includes areas of the airport such as runways and taxiways.

[a]Includes reductions to training and travel budgets, pay freezes, and reductions to overtime hours.

[b]Includes parking fees, car rental surcharges, and non-airline rents.

[c]Budget reduction to be determined.

Appendix V: U.S. Airports with Loss of All Commercial Service from Fourth Quarter 2007 to Fourth Quarter 2008

Airport
1. Bridgeport, Conn.
2. Bedford/Hanscom, Mass.
3. Brookings, S. Dak.
4. Boulder City, Nev.
5. Bluefield, W.V.
6. Cape Newenham, Alaska
7. El Dorado, Ariz.[b]
8. Wildman Lake, Alaska
9. Excursion Inlet, Alaska[a]
10. Grand Canyon, Ariz.
11. Grand Canyon West, Ariz.
12. Glendive, Mont.[a]
13. Glasgow, Mont.[a]
14. Grand Island, Neb.[a]
15. Gallup, N. Mex.
16. Hot Spring, Ark.[b]
17. Harrison, Ark.[b]
18. Havre, Mont.[a]
19. Kingman, Ariz.[a]
20. Kirksville, Mo.[a]
21. Kinston, N.C.
22. Jonesboro, Ark.[b]
23. Sandy River, Alaska
24. Lopez Island, Wash.
25. Tampa (MacDill Air Force Base), Fla.
26. Jackson, Tenn.[b]
27. Wolf Point, Mont.[a]
28. Owensboro, Ky.[b]
29. Portage Creek, Alaska
30. Portsmouth, N.H.
31. Roche Harbor, Wash.
32. Rosario, Wash.
33. Santa Fe, N. Mex.
34. Pinehurst, N.C.
35. Philadelphia, N.J.
36. Blue Mountain, Alaska
37. Westsound, Wash.
38. Youngstown, Ohio

Source: GAO Analysis of OAG data.

[a]Airport participating in the Essential Air Service (EAS) program with service restored as of February 2009.

[b]Airport participating in EAS without service as of February 2009. Service scheduled to be restored in May 2009.

Appendix VI: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

In addition to the contact named above, Paul Aussendorf (Assistant Director), Amy Abramowitz, Lauren Calhoun, Jay Cherlow, Elizabeth Eisenstadt, Heather Krause, Hannah Laufe, Brooke Leary, SaraAnn Moessbauer, Dominic Nadarski, and Taylor Reeves made key contributions to this report.

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