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United States General Accounting Office
Washington, DC 20548

March 12, 2004

The Honorable John McCain
Chairman
The Honorable Ernest Hollings
Ranking Member
Committee on Commerce,
Science, and Transportation
United States Senate

The Honorable Trent Lott
Chairman
The Honorable John D. Rockefeller, IV
Ranking Member
Subcommittee on Aviation
Committee on Commerce,
Science, and Transportation
United States Senate

Subject: *Summary Analysis of Federal Commercial Aviation Taxes and Fees*

For 2001 through the third quarter of 2003, the U.S. airline industry reported operating losses of \$20.7 billion. A number of factors—including the economic slowdown, a shift in business travel buying behavior, and the aftermath of the September 11, 2001, terrorist attacks—contributed to these losses by reducing passenger and cargo volumes and depressing fares. To improve their financial position, many airlines cut costs by various means, notably by reducing labor expenditures and by decreasing capacity through cutting flight frequencies, using smaller aircraft, or eliminating service to some communities. Carriers have also reduced some airfares to encourage travel. Despite these efforts, several airlines filed for bankruptcy protection. It remains to be seen when the industry will emerge from this downturn.

In response to the industry's financial condition, Congress has provided several forms of financial relief. In September 2001, Congress passed the Air Transportation Safety and System Stabilization Act,¹ which authorized payments of up to \$4.5 billion in pretax cash assistance to reimburse air carriers for losses incurred as a direct result of the 4-day government shut-down of air traffic and incremental losses stemming

¹P.L. 107-42.

from the terrorist attacks and also authorized up to \$10 billion in loan guarantees to help airlines gain emergency access to capital.² In January 2002, Congress appropriated \$100 million for new or modified cockpit doors on commercial aircraft to improve security of the flight deck.³ In the fiscal year 2003 supplemental appropriations act, Congress appropriated \$2.4 billion in security cost relief for airlines.⁴

To provide information to Congress for its continuing deliberations about whether and, if so, how to provide additional help to the airline industry, you asked us to review the payments of major commercial aviation taxes and fees over the last 5 years. The federal government levies or approves various taxes and fees on the commercial aviation industry. These taxes and fees generally are levied as a percentage of the base ticket price or are assessed at a flat rate per occurrence (e.g., per departure or passenger enplanement). The revenues from these taxes and fees support various aspects of the civil aviation system—including operation of the air traffic control system, modernization of airport facilities, and support of aviation security related activities. As requested, we focused on the following research questions: (1) What are the major commercial aviation taxes and fees, how much is collected annually, and how are the proceeds used? (2) How did changes in aviation tax and fee collections compare with changes in the industry's operating revenues and expenses from 1998 through 2002? (3) How has the total amount of aviation taxes and fees paid varied among carriers? (4) In the two instances since 1996 when an aviation tax or fee was not collected, how did airfares change?

²As of December 1, 2003, the Air Transportation Stabilization Board, the entity created under P.L. 107-42 to administer the loan guarantee program, had approved at least \$1.2 billion in loan guarantees for seven airlines, including America West, ATA Airlines, and US Airways.

³Department of Defense and Emergency Supplemental Appropriations for Recovery from and Response to Terrorist Attacks on the United States Act, 2002, P.L. 107-117. The Federal Aviation Administration (FAA) distributed \$97 million of this amount to U.S. airlines (about \$13,000 per door).

⁴The Emergency Wartime Supplemental Appropriations Act of 2003, P.L. 108-11 (the act). Under the act, TSA was appropriated about \$2.3 billion to be remitted to U.S. flag carriers in the proportional share each carrier had paid or collected as of April 16, 2003, in passenger security and air carrier security fees—a pretax reimbursement of security costs and foregone revenues. The act also suspended collections of both security fees (the September 11 passenger fee for security and the aviation security infrastructure fee) for tickets sold during the last 4 months of fiscal year 2003; extended the War Risk Insurance Program—which provides insurance coverage for aircraft operations that are deemed essential to the foreign policy interests of the United States when commercial insurance is unavailable on reasonable terms—until the end of fiscal year 2004; granted a 26-week extension of unemployment benefits for laid-off airline workers; and included \$100 million to compensate air carriers for costs associated with reinforcing flight deck doors and locks. On May 16, 2003, the Transportation Security Administration (TSA) distributed \$2.3 billion to 66 U.S. air carriers. To receive a share of the funds, nine carriers were required to sign agreements limiting their top two executives' compensation. These nine included the following seven airlines we included in this study: American, ATA Airlines, Continental, Delta, Northwest, United, and US Airways. We did not include the other two carriers—Planet Airways and World Airways—in this study because they do not provide scheduled passenger service. The \$100 million for reinforcing flight deck doors was distributed to 58 carriers on September 24, 2003.

To answer these questions, we obtained and analyzed aviation tax and fee collection data for 1998 through 2002 from several federal agencies responsible for collecting and tracking the data, along with payment data from 12 airlines; analyzed Department of Transportation (DOT) data on the industry's operating revenues, expenses, and fares; reviewed the results of studies examining variations in the amount of taxes and fees paid by carriers and passengers; and analyzed fare changes in several markets after taxes lapsed or fees were suspended. This report addresses only certain of the taxes and fees paid by commercial passenger airlines and their customers. It excludes, for example, all corporate taxes and some fees that are paid to airports (e.g., landing fees). In addition, this report does not address non-U.S. commercial aviation taxes and fees. All dollar figures related to the analysis of taxes and fees are expressed in constant 2002 dollars. For more information on our scope and methodology and the steps we took to ensure data reliability, see pages 10 to 11. We conducted our review from February 2003 through February 2004 in accordance with generally accepted government auditing standards.

Summary

On October 31, 2003, we briefed your Committee staff on the preliminary results of this work. This report summarizes the information presented in that briefing. Enclosure I contains the finalized slides from that briefing. Enclosure II contains 2002 tax and fee payment data for 10 of the air carriers in this study.⁵

In summary:

- In 2002, the collections from 13 major commercial aviation taxes and fees—including the ticket tax and passenger fee for security—totaled about \$12.6 billion. These collections finance aviation infrastructure, including air traffic control, and services provided to the industry, such as security inspections. Collections did not cover all government aviation expenditures in 2002. For example, the taxes covered about 92 percent of the Federal Aviation Administration's (FAA) 2002 budget; the general fund covered the remainder.
- For 1998 through 2002, tax and fee collections rose in absolute terms and as a percentage of industry revenues and expenses. Collections of taxes and fees rose more than 15 percent during this period. Particularly after 2000, when industry revenues and expenses fell significantly, taxes and fees increased as a percentage of revenues and expenses. Similarly, because base airfares declined from 1998 through 2002, taxes and fees in 2002 accounted for a larger share of carriers' average annual airfares.

⁵Two carriers, JetBlue and Northwest, did not permit us to release their data.

- The total amount of taxes and fees paid by carriers in 2002 varied, largely based on passenger volume and the type of service provided. Additionally, according to a recent study by a team of researchers from the Global Airline Industry Program of the Massachusetts Institute of Technology (MIT) and from Daniel Webster College,⁶ the share of taxes and fees included in the final ticket price in the second quarter of 2002 varied by carrier type (e.g., low cost), trip length, and ticket price. This study (henceforth the “MIT study”) found that taxes and fees paid directly by air travelers added 15.5 percent, on average, to the cost of tickets sold during that quarter.
- During the 1996 ticket tax lapse and 2003 security fee holiday, carriers generally raised “base” airfares (i.e., airfares net of taxes and fees) compared with what they were in periods before the absence of the tax or fee. The effect of this to consumers was to maintain or increase gross fares. These fare increases were more moderate in markets where a low-cost carrier (e.g., Southwest) was operating and among leisure travelers.

Taxes and Fees Offset Some Federal Costs to Provide Aviation Infrastructure and Services

The 13 major commercial aviation taxes and fees fall into three main groups—transportation taxes, user fees, and passenger facility charges (PFC)—each of which is used to finance aviation infrastructure (e.g., airports, air traffic control) or services provided to the industry (e.g., security inspections, customs inspections). (See table 1.) Some of these taxes and fees apply only to the international portions of trips. (See slides 6 to 7.)

⁶“The Impact of Infrastructure-Related Taxes and Fees on Domestic Airline Fares in the United States,” Amedeo Odoni, MIT; Shiro Yamanaka, MIT; and Joakim Karlsson, Daniel Webster College, Working Paper, December 2003 (under review for publication in the *Journal of Air Transport Management*). This study estimated the effective tax rate on airfares. The study defined the effective tax rate as the percentage by which the base fare charged for a trip increased as a result of total taxes and fees paid directly by air travelers.

Table 1: Major Commercial Aviation Taxes and Fees and 2002 Collections

Type	Specific charges	Purpose	FY 2002 Collections (\$ billions)
Taxes	<ul style="list-style-type: none"> • Passenger ticket • Passenger segment • Waybill (cargo) • <u>International departure/arrival</u> • Fuel (commercial aviation jet) • Rural airports 	Finance the Airport and Airway Trust Fund, ^a which funds the Airport Improvement Program (AIP) and significant portions of FAA operations, including air traffic control and other items	\$8.6
Fees ^b	<ul style="list-style-type: none"> • <u>Animal and Plant Health Inspection Service (APHIS) passenger inspection</u> • <u>APHIS aircraft inspection</u> • <u>Customs inspection</u> • <u>Immigration and Naturalization Service (INS) inspection</u> • Passenger fee for security^c • Air carrier fee for security^c 	Finance inspections and other services provided to the industry	\$2.1
PFCs ^d	<ul style="list-style-type: none"> • Local tax assessed with federal approval 	Fund FAA-approved airport-related projects	\$1.9

Source: GAO.

Note: Charges shown underscored apply only to the international portions of trips. In this review, all taxes and fees except PFCs are reported on a fiscal-year basis. The passenger segment and international departures/arrivals taxes are indexed to inflation and increased slightly in January 2004.

^aFor more information about the status of the trust fund, see U.S. General Accounting Office, *Airport and Airway Trust Fund: Financial Outlook Is Positive, but the Trust Fund's Balance Would Be Affected If Taxes Were Suspended*, GAO-03-979 (Washington, D.C.: Sept. 15, 2003).

^bThe Customs Service and parts of APHIS and INS are now incorporated into the Department of Homeland Security (DHS). We did not analyze payments of the overflight fees since primarily operators of non-U.S. aircraft pay this fee, which partially funds the Essential Air Service program.

^cIn P.L. 108-11, Congress suspended collection of these fees from June 1, 2003, through September 30, 2003; the fees were reinstated on October 1, 2003.

^dPFCs are not federal fees; however, we included them in this analysis because similar analyses (e.g., those done by the Air Transport Association and MIT) have included them, and PFCs are a significant source of funds for aviation infrastructure. As of February 1, 2004, 312 locations were collecting PFCs.

In fiscal year 2002, collections of these taxes and fees totaled nearly \$12.6 billion (\$1.3 billion of which comprised security fee payments from U.S. and foreign carriers); however, these funds did not equal all government expenditures for aviation-related infrastructure and services. For example, security fee collections equaled about 22 percent of the Transportation Security Administration's (TSA) \$5.8 billion budget authority, most of which was directed to aviation security. Trust fund collections (ticket tax, fuel tax, etc.) covered 91.6 percent of FAA's \$13.5 billion budget authority.⁷ Security fees collected were required to be credited against

⁷FAA's budget authority also included \$28 million from overflight fees, which comprised less than 1 percent of the agency's total budget for 2002.

appropriations and returned to the general fund of the U.S. Treasury as offsetting collections. (See slides 8 to 9.)

Tax and Fee Collections Rose Although the Airline Industry Experienced Revenue and Expense Declines after 2000

From 1998 through 2002, collections of 13 commercial aviation taxes and fees increased, although the airline industry's revenues and expenses decreased after 2000; as a result, taxes and fees rose as a percentage of the industry's revenues and expenses. Tax and fee collections increased from about \$10.9 billion in 1998 to about \$12.6 billion in 2002 (15.6 percent). However, as the aviation industry responded to a unique combination of challenges—terrorist attacks on U.S. soil, an economic recession, wars in Afghanistan and Iraq, and the outbreak of severe acute respiratory syndrome (SARS) in Asia—revenues declined and, to a lesser extent, expenses decreased. Total revenues dropped 20.8 percent between 2000 and 2002 as passenger traffic and fares decreased. As revenues plummeted, carriers attempted drastic expense reductions. Industry expenses decreased nearly 10 percent between 2000 and 2002. Because of these decreases in revenues and expenses, taxes and fees rose from 8.9 to 11.8 percent of the industry's revenues and from 9.7 to 10.9 percent of the industry's expenses between 1998 and 2002. Taxes and fees also increased as a percentage of the carriers' average domestic fares during this period for 10 of the airlines we studied, primarily because carriers reduced their fares. (See slides 10 to 16.)

The Air Transport Association (ATA), the industry trade group that represents 26 cargo and passenger carriers, argues that taxes and fees have risen significantly over time. ATA's analysis suggests that taxes and fees increased 76 percent between 1992 and 2002. ATA estimated that the tax and fee share of a \$200 single-connection, domestic round-trip ticket—where the maximum possible PFC was levied—would have increased from \$29 in 1992 (15 percent) to \$51 in 2002 (25.6 percent). ATA officials characterized the level of federal aviation taxes and fees as a significant encumbrance on the financial performance of the industry, in large part because the industry at present lacks the pricing power to pass on such taxes and fees to consumers.⁸ Our analysis of this issue as well as current levels of taxation follows. (See slide 17.)

⁸In response to the financial distress that the airline industry experienced in the early 1990s, Congress created the National Commission to Ensure a Strong Competitive Airline Industry (the Commission) to investigate and study the financial condition of the airline industry, the adequacy of competition in the airline industry, and legal impediments to a financially strong and competitive airline industry (P.L. 102-581, as amended, P.L. 103-13). Among other things, Congress directed the Commission specifically to investigate and study whether changes were needed in the legal and administrative policies that govern the taxes and user fees imposed on U.S. airlines. The Commission's August 1993 report included several recommendations to lessen the tax burden on the industry, including rolling back the ticket tax and cargo waybill tax increases authorized by Congress in 1990.

Tax and Fee Payments Vary by Passenger Volume, Service, and Fares

The total amount of taxes and fees paid by carriers varies, largely based on passenger volume and the type of service provided. For example, our analysis of 2002 payments by 10 airlines showed that airlines enplaning more passengers generally remitted more taxes and fees to the government. Variations in carriers' tax and fee payments are also attributable to other service factors, such as how many segments are flown, whether international service is provided, or how much cargo is transported. (See slides 19 and 32 to 41.)

The amount of taxes and fees also varies according to carrier type (e.g., low cost), the total amount of airfares, and trip length. A study by the Global Airline Industry Program at MIT found that, as a percentage of ticket prices, taxes and fees were higher for passengers who purchased tickets on low-cost carriers (e.g., Southwest) or who purchased lower-priced tickets in general. According to the study, the average tax share for tickets purchased on low-cost carriers was 17.1 percent (based on a total average fare of \$198.17—i.e., tax- and fee-inclusive), compared with 14.6 percent (based on a total average fare of \$335.67) for tickets purchased on six major carriers. By fare group, the average tax share for fares up to \$200 was 22.3 percent, while the average tax share for fares from \$200.01 to \$400 was 16.4 percent. Thereafter, according to the study, the tax share decreased as fares increased. (See slides 20 to 22.)

Further, in contrast to ATA's widely disseminated estimate that the tax share of a final \$200 fare is 25.6 percent (or \$51),⁹ the MIT study estimated that the actual average tax share for tickets purchased during the second quarter of 2002 was 15.5 percent, or \$44.88 of the average domestic fare of \$289.96. (See slide 23.) To gain some perspective on how the effective tax rate may have changed over time, the study estimated that the overall effective tax rate in the second quarter of 1993 (when the only taxes and fees applied to airline tickets were the federal ticket tax and any applicable passenger facility charges) was 10.9 percent, significantly less than the overall estimated 15.5 percent in effect in the second quarter of 2002. This significant increase in the effective tax rate was due primarily to a sharp decline in the price of the average round-trip domestic base fare, which dropped from \$389.57 (adjusted to 2002 prices) in 1993 to \$289.96 in 2002. The average amount charged for taxes and fees in 1993 was \$42.44 (adjusted to 2002 prices) versus \$44.88 in 2002, a real increase of 5.7 percent.

⁹The ATA's estimate begins with the total ticket price (including taxes and fees) of \$200 for a single-connection, domestic round trip; to derive the base fare, it then deducts a \$4.50 PFC per segment, \$2.50 passenger fee for security per segment, the 7.5 percent passenger ticket tax, and the \$3.00 domestic passenger segment tax. This estimate has been highlighted by ATA in various publications, such as "Airlines in Crisis: The Perfect Economic Storm." ATA depicts other tax/fee scenarios on its Web site at www.airlines.org.

When the Ticket Tax and Security Fee Were Not Collected, Carriers Raised Certain Fares

In the two instances since 1996 in which Congress allowed the ticket tax to lapse and suspended the security fees, carriers generally raised “base” airfares (i.e., airfares net of taxes and fees), compared with what they were in periods before the absence of the tax or fee. To passengers, the final gross ticket price was generally the same or higher compared with prior periods. These fare increases were more moderate in markets containing a low-cost carrier than in markets where one was not present. Although we do not know the precise reasons for these fare increases, it may be that carriers were, in part, attempting to “capture” at least some of the revenue associated with the absent tax or fee that would normally have been remitted to the government. Carriers alter their fares in response to many factors, and more rigorous analysis would be needed to isolate the effect of each factor. Therefore, we cannot exclude other exogenous factors from accounting for these changes in base fares. That is, it is possible that the fare changes that occurred in these two instances may have been the result of factors other than the absence of a tax or fee and the presence or absence of low-cost carriers, such as changing economic and competitive conditions in those markets.¹⁰

- Our summary analysis of airfare changes in four markets¹¹ when the 10-percent passenger ticket tax was allowed to lapse for about 8 months in 1996 indicated that carriers generally increased their average base fares, compared with fares in effect in prior periods. To consumers, the average gross fares would appear to have stayed the same or increased.¹² For example, in the New York-Chicago and Billings-Minneapolis/St. Paul markets, where no low-cost carriers were operating, carriers raised their average base fares by as much as 52 percent over the average fares they had charged in the same period during the previous year. By comparison, in two markets with service from low-cost carriers, the average base fare increases were less than in the markets without a low-cost carrier. For example, in the Las Vegas-Los Angeles market, in which a low-cost carrier competed against two network airlines, all carriers raised their average base fares at some point during the tax lapse, but no one raised them

¹⁰Although it may appear that carriers succeeded in “capturing” these revenues when the taxes or fees were not in effect, the extent to which carriers may or may not have done so is uncertain, because the carriers’ various possible pricing options are not known. In addition, analyses of fare changes based on year-over-year analysis of quarterly data are less conclusive, because of the large number of factors that can influence fare levels over longer periods of time. For additional information on airline pricing, see U.S. General Accounting Office, *Aviation Competition: Restricting Airline Ticketing Rules Unlikely to Help Consumers*, GAO-01-831 (Washington, D.C.: July 31, 2001).

¹¹We actually studied 13 markets, but for illustration purposes, we included results from only 4 markets—representing a low-cost, business, leisure, and dominated market—in the briefing. The results from the remaining nine markets were generally consistent with these four.

¹²For purposes of this analysis, “base fares” represent the value of the airfare net of the ticket tax. For example, if the total value of a ticket were \$400, the base fare would be \$363.64 (\$400 minus the 10-percent ticket tax, or \$36.36). (The current ticket tax rate is 7.5 percent.)

over 15 percent. Similarly, the presence of a low-cost carrier in the Los Angeles-San Francisco market appeared to moderate the extent of the increases in average base fares. After the tax was reinstated, most carriers increased these average base fares in these four markets (compared with the average base fares in effect during the fourth quarter of 1995), but not to the same extent as when the tax initially lapsed.¹³ (See slides 25 to 29.) In addition, when the tax had lapsed, carriers generally raised average fares more (in both absolute and relative terms) on “business” passengers than they did on “leisure” passengers.¹⁴

- When Congress gave the industry a temporary holiday from security fees by suspending collection of the fees from June 1 through September 30, 2003, carriers also increased their base fares, which would be consistent with them capturing the tax.¹⁵ In an analysis of week-over-week changes in fares offered by seven carriers in each of their 20 largest passenger markets, Harrell Associates—an industry consulting firm that specializes in airfare benchmarking—found that, when carriers were no longer required to add the security fee on top of their fares, carriers raised base “business fares” they offered by the amount of the security surcharge in over 80 percent of those markets.¹⁶ After the security fee was reimposed beginning in October 2003, carriers generally did not restore those base fares to their prior lower levels. For example, if an airline charged a base “business fare” of \$447 for a one-way flight between point A and point C over point B the week before the holiday, raised that fare to \$452 for the same ticket once the holiday began, and left the fare at \$452 when the holiday was over, it would appear to have captured the \$5 security surcharge. Harrell Associates’ data indicate that carriers were able to effectively capture the security fee on business fares, but not to the same degree on leisure fares, in most markets. We interpret this as an indication that, because of greater competition for leisure passengers, airlines were forced to relinquish potential revenue on some routes. (See slide 30.)

¹³In addition to not controlling for exogenous factors that could have affected fare changes during this period, our use of quarterly data in determining what fare changes occurred also make it difficult to isolate the effect of the tax on the fare changes observed.

¹⁴Airline ticket data do not indicate whether passengers are traveling for business or leisure purposes. To simplify our analysis, we assumed that travelers purchasing cheaper tickets were leisure travelers and those who purchased more expensive tickets—often fares available at the last minute—were business travelers.

¹⁵In a final rule on the security fee holiday, TSA interpreted the act (P.L. 108-11) to prohibit it from collecting the aviation security infrastructure fee (the “air carrier fee for security”) from airlines and from requiring passengers to pay the September 11 Security Fee (the “passenger fee for security”) if they purchased air transportation during the suspension period.

¹⁶Carriers included in the analysis are America West, American, Continental, Delta, Northwest, United, and US Airways. Domestic “business fares” are coach fares offered by carriers with three conditions: an advance purchase requirement of less than 3 days, fully refundable, and no minimum stay requirement. “Leisure fares” are restricted and include a longer advance purchase requirement, a required Saturday-night stay, and a financial penalty for changes or cancellations.

Concluding Observations

The commercial aviation taxes and fees we reviewed were all enacted to support the infrastructure and operation of the nation's aviation system. With the cyclical nature of the industry, these taxes have in recent years risen higher than in prior years as a percentage of airline revenues and expenses. This has certainly been the case since September 11, 2001, when the terrorist attacks and the ongoing economic downturn jeopardized the viability of the industry. Additional security fees and requirements were imposed on the industry, although they were offset by the government's assumption of many aviation security responsibilities as well as the security fee holiday and other governmental assistance. Furthermore, even though total collections of these taxes and fees have risen since 1998, the collections do not always cover the government's costs of providing aviation-related services. Indications are that the 2003 security fee "holiday" was financially positive for carriers, because they appear to have been able to retain revenues—on some fares—that would have ordinarily been remitted to the government. However, the overall effect of the holiday was limited by the amount of revenues carriers were able to retain—since carriers, for competitive reasons, may not have been able to capture the potential revenue from the fee on some routes.

Scope and Methodology

To identify major commercial aviation taxes and fees, how the proceeds are used, and the amount of annual collections, we reviewed Congressional Research Service and ATA studies of aviation taxes and fees as well as DOT, Office of Management and Budget, and agency data on collections. We also examined laws and regulations implementing the taxes and fees. To determine how changes in tax and fee collections compare with changes in industry revenues and expenses, we analyzed data from ATA and various federal agencies that collect these fees, in addition to DOT data on industry revenues and expenses. To determine how tax and fee payments vary among carriers, we analyzed tax and fee payment data from eight major and four low-cost carriers (AirTran, Alaska, America West, American, ATA Airlines, Continental, Delta, JetBlue, Northwest, Southwest, United, and US Airways) from 1998 to 2002.¹⁷ We also reviewed the results of a recent study from MIT's Global Airline Industry Program. To determine how airfares changed when a tax or fee was not collected, we analyzed changes in average quarterly base airfares charged by individual carriers in 13 markets for the quarters before, during, and after the 1996 lapse of the passenger ticket tax, including the four markets illustrated in the briefing--Billings-Minneapolis/St. Paul, Las Vegas-Los Angeles, New York-Chicago, and Los Angeles-San Francisco. We judgmentally selected these markets to illustrate differences in competition in business and leisure markets, with and without the competitive presence of low-cost airlines and to include a small community and a

¹⁷JetBlue began operating in 2000.

dominated market.¹⁸ The results from these markets cannot be generalized to the industry as a whole. We also reviewed trade literature to determine whether there had been any analyses of airfare changes relating to the 2003 security fee holiday. As a result of this review, we obtained and reviewed data from Harrell Associates related to their analysis of week-over-week airfare changes at the onset and conclusion of the 2003 security fee holiday. Because of data reporting delays, this was the only available analysis of fare changes related to the security fee holiday.

We performed various tests of reliability to each set of data analyzed. For data obtained from airlines or their trade association, since these data are proprietary, we were unable to independently verify them because we have no authority to require access to the underlying data. However, we applied logical tests to the data and found no obvious errors of completeness or accuracy. For data obtained from federal agencies (including data on airfares reported by individual carriers to DOT), we discussed their quality assurance policies and procedures with relevant officials. Along with our use of corroborating evidence, we believe that the data we used were sufficiently reliable.


Comments

We provided a draft of this report to DOT and the Department of Homeland Security (DHS) for their review and comment. DOT and DHS provided some technical and clarifying comments that we incorporated where appropriate. We also provided selected portions of a draft of this report to the Internal Revenue Service, airlines, and other groups cited to verify the presentation of factual material. We incorporated their technical clarifications as appropriate.

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¹⁸We defined “dominated market” as a city-pair market in which a single airline provides more than 50 percent of the available seating capacity.

Unless you publicly announce the contents of this report earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will provide copies to relevant congressional committees and other interested parties and will make copies available to others upon request. In addition, this report will be available at no charge on the GAO Web site at <http://www.gao.gov>. If you have any questions about this report, please contact me or Steve Martin at 202-512-2834. Other key contributors to this assignment were Janet Frisch, Stan Stenersen, Rich Swayze, and Pamela Vines.

A handwritten signature in black ink, reading "JayEtta Z. Hecker". The signature is written in a cursive style with a large, stylized "J" and "H".

JayEtta Z. Hecker
Director, Physical Infrastructure Issues

Enclosures

Briefing Slides



Commercial Aviation

Summary Analysis of Federal Commercial Aviation Taxes and Fees

Briefing for the
Subcommittee on Aviation
Committee on Commerce, Science, and Transportation
U.S. Senate

U.S. General Accounting Office



Overview

- Objectives
 - Information Sources and Data Reliability
 - Current Taxes and Fees
 - Changes in Tax and Fee Collections and Industry Revenues and Expenses from 1998 through 2002
 - Variations in Tax and Fee Payments
 - Changes in Airfares in Absence of Taxes or Fees
 - Summary
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Objectives

- What are the major commercial aviation taxes and fees, how much is collected annually, and how are the proceeds used?
 - How did changes in aviation tax and fee collections compare with changes in the industry's operating revenues and expenses from 1998 through 2002?
 - How has the total amount of aviation taxes and fees paid varied among carriers?
 - In the two instances since 1996 when an aviation tax or fee was not collected, how did airfares change?
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Information Sources and Data Reliability

- Information Sources

- Bureau of Transportation Statistics (BTS);
- Congressional Research Service (CRS) ;
- Massachusetts Institute of Technology (MIT);
- Air Transport Association (ATA);
- Several federal agencies responsible for collecting taxes and fees (e.g., Federal Aviation Administration (FAA), Transportation Security Administration (TSA));
- Eight major and four low-cost carriers; and
- Prior GAO work.

- Data Reliability

- We performed various tests of reliability to each set of data analyzed and, along with corroborating evidence, believe that the data we used were sufficiently reliable.
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What Are the Major Taxes and Fees, How Much Is Collected Annually, and How Are the Proceeds Used?

- Domestic taxes, fees, rates, and uses
- International taxes, fees, rates, and uses
- Aviation tax and fee collections in 2002 totaled about \$12.6 billion
- Fiscal year 2002 collections did not fully cover budget authority for TSA and FAA

What are the major taxes and fees, how much is collected annually, and how are the proceeds used?

Domestic Taxes and Fees, Rates, and Uses

Tax or fee	2004 Rate	Use
Passenger ticket	7.5% of domestic ticket price	Airport and Airway Trust Fund
Passenger segment ^a	\$3.10 per domestic flight segment	Airport and Airway Trust Fund
Waybill	6.25% of the price charged for transporting cargo by air	Airport and Airway Trust Fund
Fuel (commercial jet)	\$0.043/gallon	Airport and Airway Trust Fund
Rural airports	7.5% on domestic tickets to qualified rural airports exempt from segment tax	Airport and Airway Trust Fund
Passenger fee for security ^b	\$2.50 per enplanement and maximum \$5 per one-way trip	TSA
Air carrier fee for security ^b	Based on carriers' costs for security in 2000	TSA
Passenger facility charge (PFC)	Maximum of \$4.50 per enplaned passenger and \$18 per round trip	Airport-related projects; federal approval required

Source: GAO.
^aThe passenger segment tax is indexed to inflation and increased slightly in January 2004.
^b P.L. 108-11 suspended all security fee collections from June 1 through September 30, 2003.

What are the major taxes and fees, how much is collected annually, and how are the proceeds used?

International Taxes and Fees, Rates, and Uses

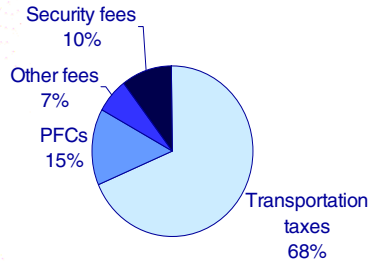
Tax or fee	2004 Rate	Use
International departures/arrivals taxes ^a	\$13.70 for each international departure and arrival	Airport and Airway Trust Fund
INS inspection fee	\$7 per arriving international passenger	INS
Customs inspection fee	\$5 per international passenger (not collected from passengers originating in Mexico, Canada, or U.S. territories)	Customs Service
Animal and Plant Health Inspection Service (APHIS) passenger inspection fee	\$3.10 per arriving international passenger (not collected from passengers originating in Canada)	APHIS/U.S. Department of Agriculture (USDA)
APHIS commercial aircraft inspection fee	\$65.25 per aircraft on international arrivals (not collected from aircraft operating solely between the United States and Canada)	APHIS/USDA

Source: GAO.

^aThe international departures/arrivals taxes are indexed to inflation and increased slightly in January 2004.

What are the major taxes and fees, how much is collected annually, and how are the proceeds used?

2002 Aviation Tax and Fee Collections Totaled About \$12.6 Billion



2002 Totals

(Dollars in millions)

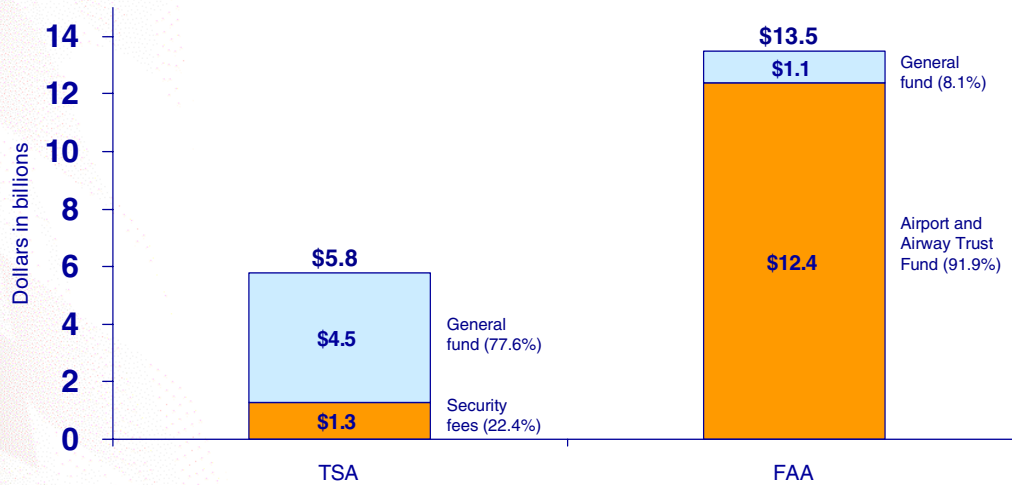
Transportation	\$8,603
PFCs	\$1,857
Security fees	\$1,298
Other fees	\$818
Total	\$12,576

Source: GAO analysis of ATA (transportation taxes), IRS (fuel tax), APHIS, Customs Service, FAA (PFC), TSA (security fees), and INS data.

Note: Transportation taxes include the passenger ticket tax, segment tax, waybill tax, international departures/arrivals tax, rural airports tax, and fuel tax. Other fees include the APHIS, Customs, and INS user fees. Security fees became effective in February 2002 and were suspended from June 1 through September 30, 2003.

What are the major taxes and fees, how much is collected annually, and how are the proceeds used?

In FY 2002, Collections Did Not Fully Cover TSA and FAA Budget Authority



Source: TSA and U.S. Budget for FY 2004.

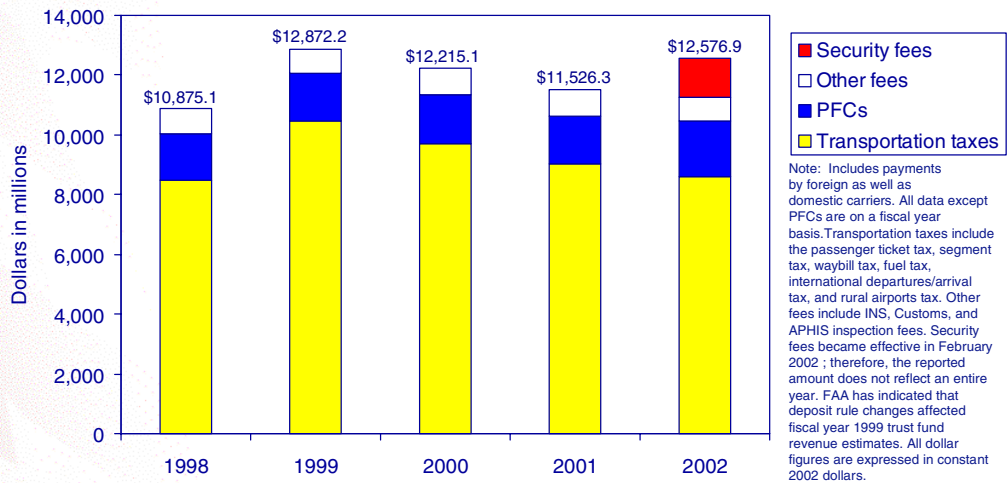
Note: For TSA, \$1.2 billion of the total \$1.3 billion in security fee collections were from U.S. carriers. FAA's 2002 budget authority also included \$28 million derived from oversight fees; these funds comprised less than 1 percent of the agency's total budget authority for that year.



How Do Changes in Collections Compare With Changes in Industry Revenues and Expenses from 1998 through 2002?

- Trends in tax and fee collections, 1998 to 2002
- Industry revenues and expenses, 1998 to 2002
- Tax and fee payments relative to expenses
- Tax and fee payments relative to revenues
- Taxes and fees as a share of domestic base fares, 1998 and 2002
- Changes in average domestic base fares between 1998 and 2002

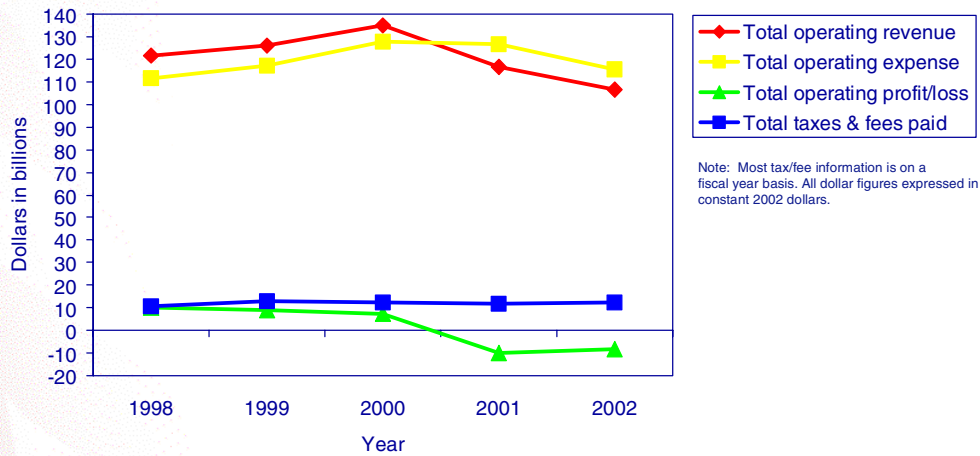
Tax and Fee Collections, 1998 to 2002



Source: GAO analysis of ATA (transportation taxes), IRS (fuel tax), TSA (security fees), APHIS, Customs Service, FAA (PFCs), and INS data.

How do changes in collections compare with changes in industry revenues and expenses from 1998-2002?

Industry Losses Largely Due to Lower Revenues

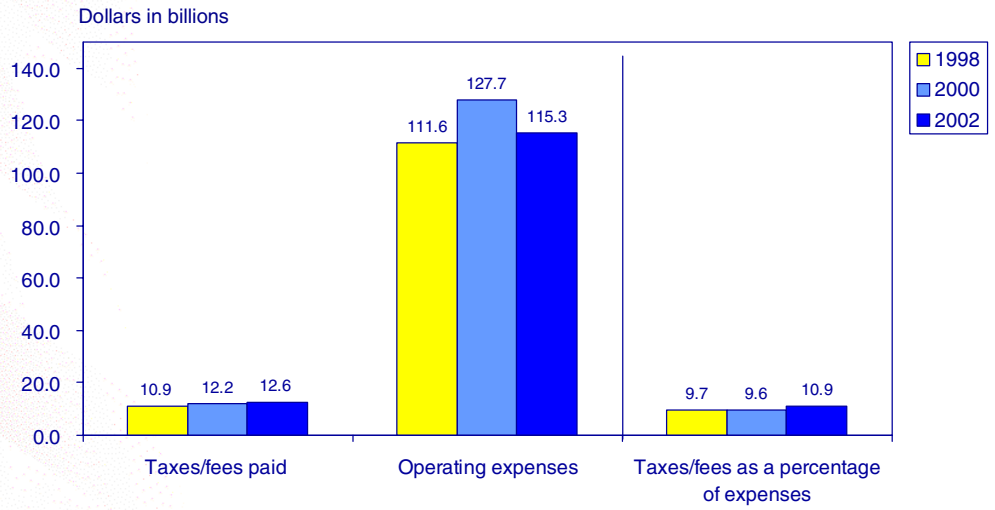


Note: Most tax/fee information is on a fiscal year basis. All dollar figures expressed in constant 2002 dollars.

Source: GAO analysis of ATA (tax) and BACK Aviation Solutions (DOT Form 41) data.

How do changes in collections compare with changes in industry revenues and expenses from 1998-2002?

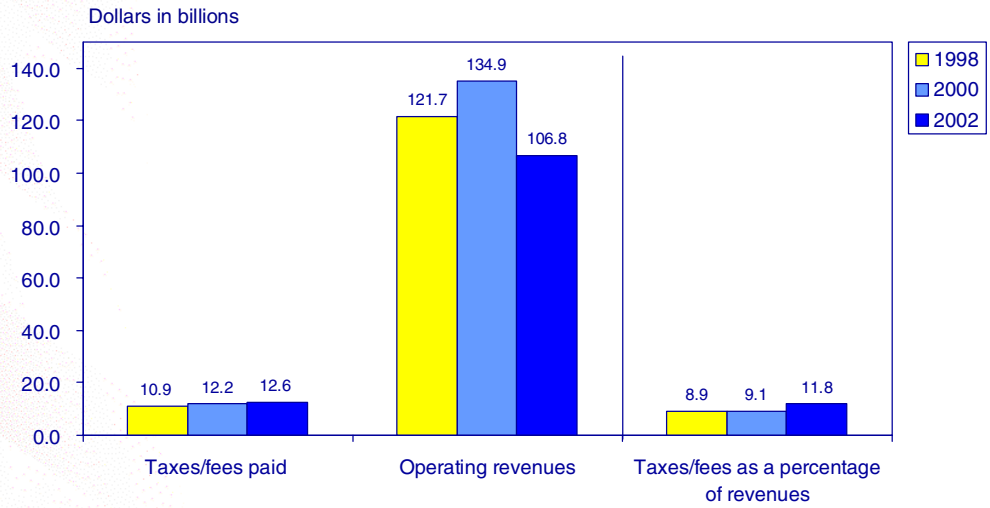
Industry Tax and Fee Payments Relative to Expenses



Source: GAO analysis of ATA (tax, agency fees), and BACK Aviation Solutions (DOT Form 41) data.

How do changes in collections compare with changes in industry revenues and expenses from 1998-2002?

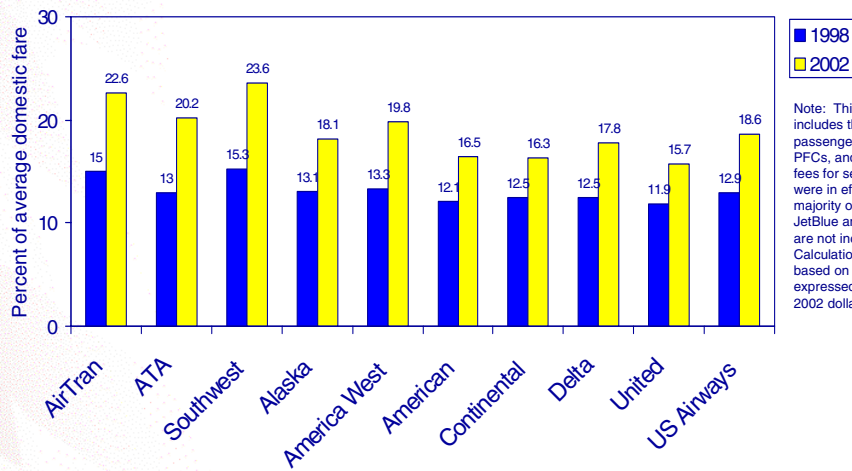
Industry Tax and Fee Payments Relative to Revenues



Source: GAO analysis of ATA (tax), agency (fee) and BACK Aviation Solutions (DOT Form 41) data.

How do changes in collections compare with changes in industry revenues and expenses from 1998-2002?

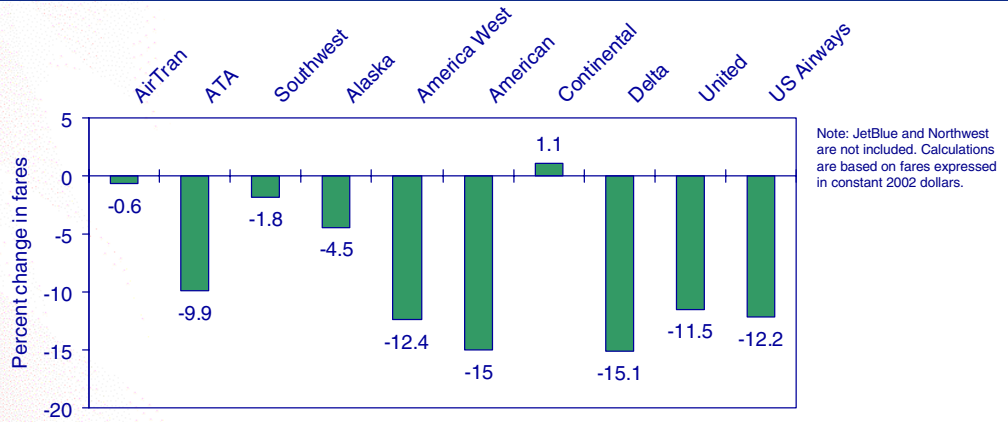
Taxes and Fees Accounted for a Larger Share of Carriers' Average Domestic Base Fares in 2002 ...



Source: GAO analysis of Bureau of Transportation Statistics (BTS) (fare) and ATA (rates) data.

How do changes in collections compare with changes in industry revenues and expenses from 1998-2002?

... Because Most Carriers' Average Domestic Fares Declined between 1998 and 2002



Source: GAO illustration of BTS data.



How do changes in collections compare with changes in industry revenues and expenses from 1998-2002?

ATA Estimated That Taxes and Fees Have Risen Significantly Over Time

- ATA estimated that the 2002 tax rate was **25.6 percent** (\$51) of a single connection domestic round-trip \$200 ticket, an increase of 76 percent since 1992.^a
- ATA maintains that taxes and fees encumber the industry's financial performance because carriers are not always able to pass these costs on to consumers.

^aThis figure has been disclosed by ATA in various publications, such as "Airlines in Crisis: The Perfect Economic Storm." ATA depicts other tax/fee scenarios on its Web site at www.airlines.org.

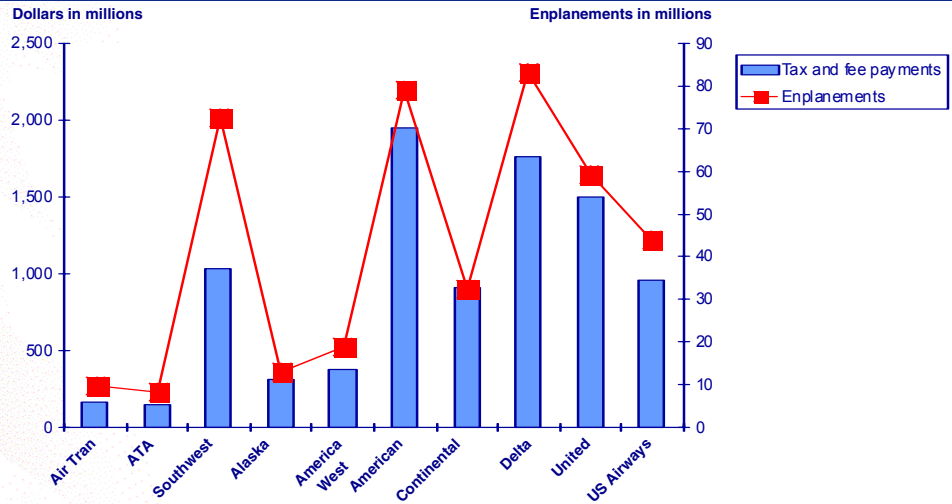


How Has the Total Amount of Aviation Taxes and Fees Paid Varied among Carriers?

- Variations in carrier tax and fee payments are attributable to variations in passenger volume and other service factors.
- An MIT study found that the share of taxes and fees included in the final ticket price paid by passengers varies by carrier type, trip length, and total fare amount.
- The MIT study estimates that the taxes and fees that are added directly to the base fare for a trip add, on average, 15.5 percent, to the cost of that ticket.

How has the total amount of aviation taxes and fees paid varied among carriers?

Carrier Tax Payments Vary, Primarily According to Passenger Volume, 2002



Source: GAO analysis of airline data.

Note: Northwest and Jetblue are not included because these carriers requested that we not report their data separately.

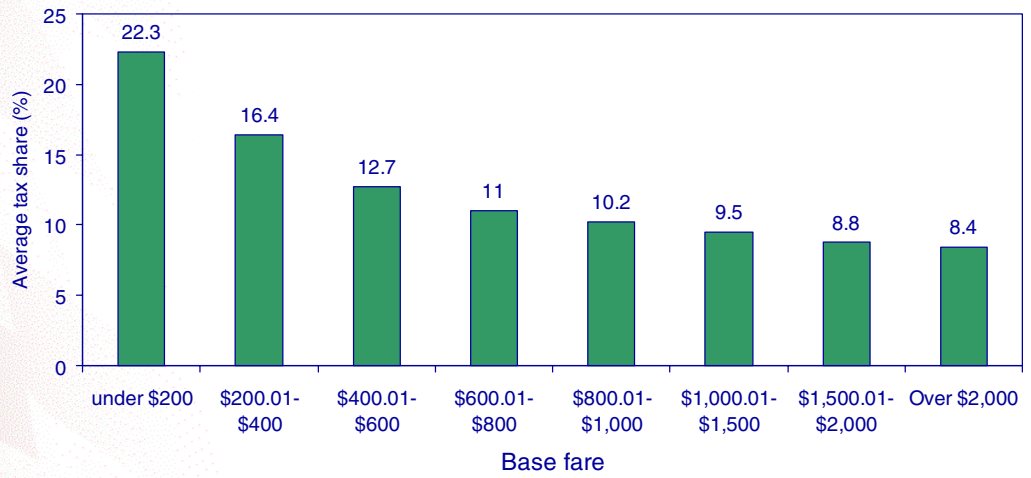
MIT Determined That the Tax and Fee Share of the Final Ticket Price Varies

- The MIT study analyzed 7.8 million ticket coupons from the 2nd quarter of 2002 and calculated the tax share using the ticket tax, passenger segment fee, passenger fee for security, and PFCs.
- The MIT study found that the share varies according to carrier type, the total fare amount, and trip length.
 - The share is higher for passengers who purchased lower priced tickets and for tickets sold by low-cost carriers.

Source: "The Impact of Infrastructure-Related Taxes and Fees on Domestic Airline Fares in the United States," Amedeo Odoni, MIT; Joakim Karlsson, Daniel Webster College; and Shiro Yamanaka, MIT; working paper, December 2003; under review for publication in the *Journal of Air Transport Management*.

How has the total amount of aviation taxes and fees paid varied among carriers?

MIT: Passengers Who Purchased Lower Priced Fares Pay a Higher Rate of Taxes and Fees



Source: MIT.

How has the total amount of aviation taxes and fees paid varied among carriers?

MIT: Low-Cost Carriers Have a Higher Average Tax Share

Low-Cost Carriers

- Average tax share for 3 low-cost carriers is **17.1%**
 - \$33.94 in taxes
 - \$198.17 average round-trip base fare
 - Low-cost carriers are ATA Airlines, JetBlue, and Southwest

Major Carriers

- Average tax share for 6 major carriers is **14.6%**
 - \$48.88 in taxes
 - \$335.67 average round-trip base fare
 - Major carriers are American, Continental, Delta, Northwest, United, and US Airways

Source: MIT.

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MIT's Estimate of the Average Tax Share of the Final Ticket Price Is Lower Than ATA's

- ATA has estimated that the final tax share of a single-connection domestic round trip \$200 ticket is **25.6 percent**.
 - Base fare = \$148.84
 - Taxes and fees = \$51.16
- MIT estimated that the average tax share is **15.5 percent**.
 - Average round-trip base fare = \$289.96
 - Taxes and fees = \$44.88
- Both estimates include the ticket tax, passenger segment fee, passenger fee for security, and PFC.

Sources: ATA and MIT.



In Two Instances Since 1996 When an Aviation Tax or Fee Was Not Collected, How Did Airfares Change?

- 1996 passenger ticket tax lapse (January 1 through August 27, 1996)
- 2003 security fee holiday (June 1 through September 30, 2003)

In two instances since 1996 when a tax or fee was not collected, how did airfares change?

1996 Passenger Ticket Tax Lapse (January 1 through August 27)

- The 10-percent passenger ticket tax lapsed from January 1 through August 27, 1996.
- We analyzed fare changes from 1995 to 1996 in four markets with different characteristics to illustrate how carriers responded to the tax lapse.
- Carriers raised base airfares compared with what they were in periods before the absence of the tax.
- To consumers, average gross fares would appear to have stayed the same or increased.
- Airfare increases were more moderate in markets with a low-cost carrier and among leisure travelers.

Note: We analyzed fare changes in a total of 13 markets, but for illustration purposes included the results from four markets. The results from the remaining nine markets were generally consistent with these four.

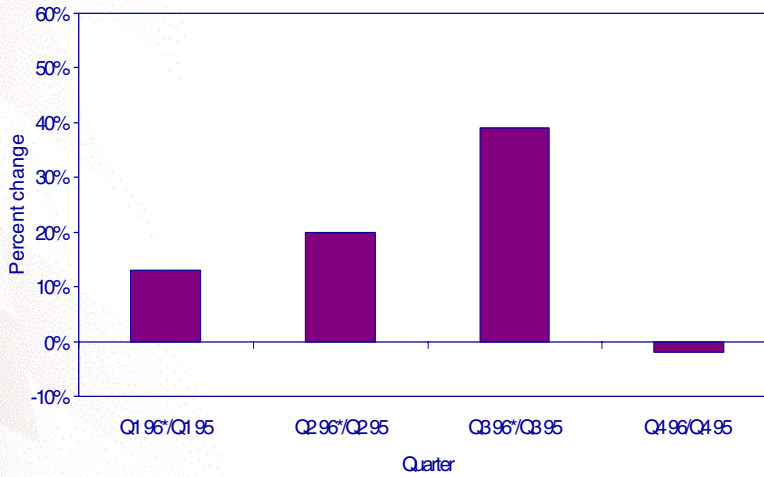
25

In two instances since 1996 when a tax or fee was not collected, how did airfares change?

Billings, MT -- Minneapolis/St. Paul Market

Served by Northwest Airlines
Small community with dominated market

Average Northwest Base Fares Increased throughout Period of Tax Lapse



*Indicates no passenger ticket tax in effect this quarter.

Note: Year-over-year percentage changes are calculated on average (mean) fares, expressed in constant 2002 dollars. Only carriers with at least 10 percent passenger share that served the market the entire period are shown. We defined "dominated market" as a city-pair market in which a single airline provides more than 50 percent of the available seating capacity.

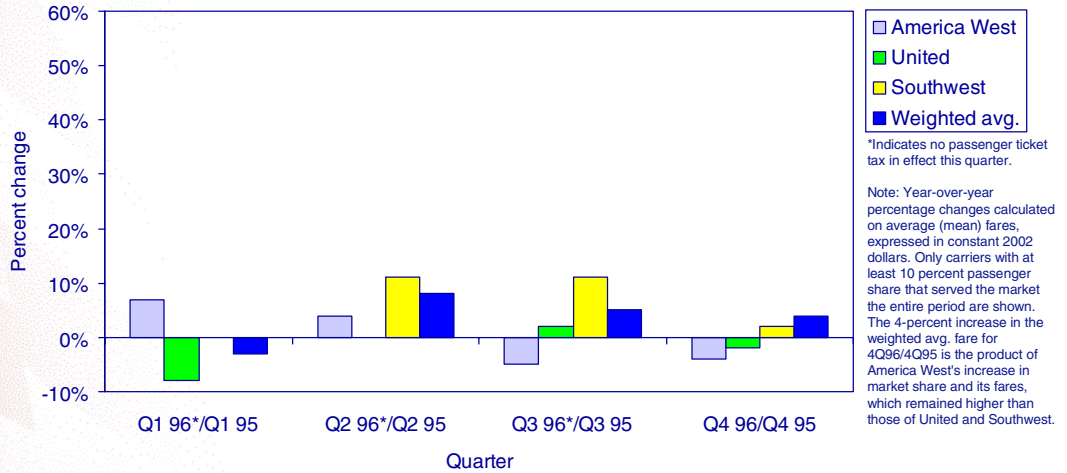
Source: GAO analysis of BTS traffic and fare data.

In two instances since 1996 when a tax or fee was not collected, how did airfares change?

Las Vegas -- Los Angeles Market

Served by America West, Southwest, and United
Leisure market with low-cost carrier

All Carriers Eventually Raised Average Base Fares



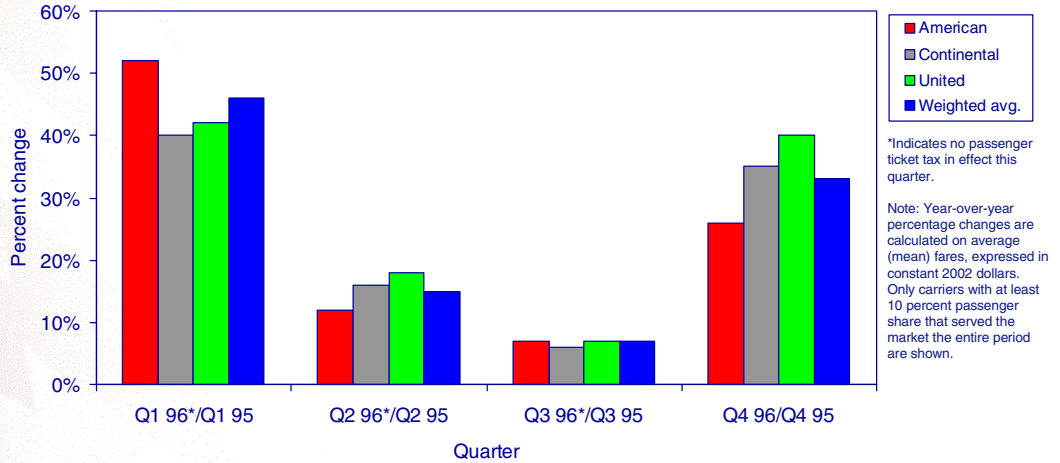
Source: GAO analysis of BTS traffic and fare data.

In two instances since 1996 when a tax or fee was not collected, how did airfares change?

New York -- Chicago Market

Served by American, Continental, and United Business market without low-cost carrier

**Base Fares Increased Significantly When Taxes Initially Lapsed
and When Reinstated**



Source: GAO analysis of BTS traffic and fare data.

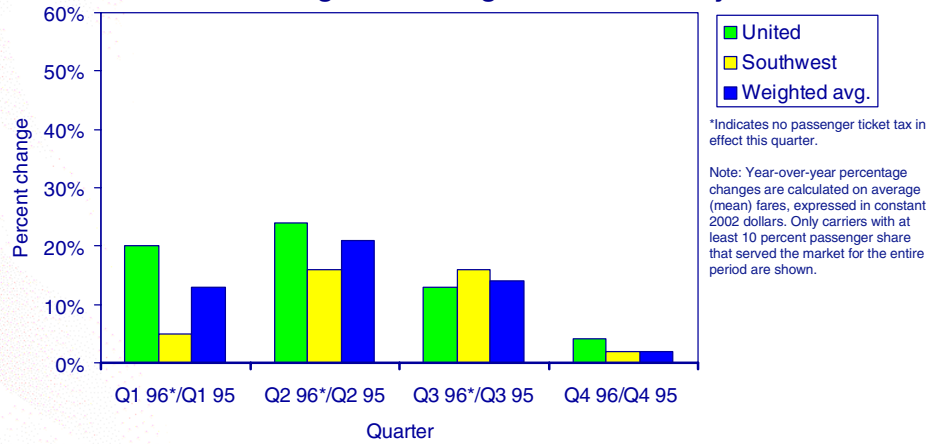
In two instances since 1996 when a tax or fee was not collected, how did airfares change?

Los Angeles -- San Francisco Market

Served by Southwest and United

Business market with low-cost carrier

Both Carriers Raised Base Fares but Network Carrier's Base Fares Showed a Larger Percentage Increase Initially



Source: GAO analysis of BTS traffic and fare data.

In two instances since 1996 when a tax or fee was not collected, how did airfares change?

2003 Security Fee Holiday (June 1 to September 30)

- At the outset of the holiday, network carriers raised business fares; the fare hike did not hold for the lowest-priced leisure fares.
 - Carriers raised fares for tickets sold on 80 percent of the routes; the exceptions were routes where network carriers were competing with low-cost carriers.
- After the security fees were reinstated in October 2003, carriers generally did not restore base fares to their prior levels, effectively capturing the security surcharge.

Source: Harrell Associates.

Note: Harrell Associates monitors the top 20 routes of seven network carriers and does not include Southwest.

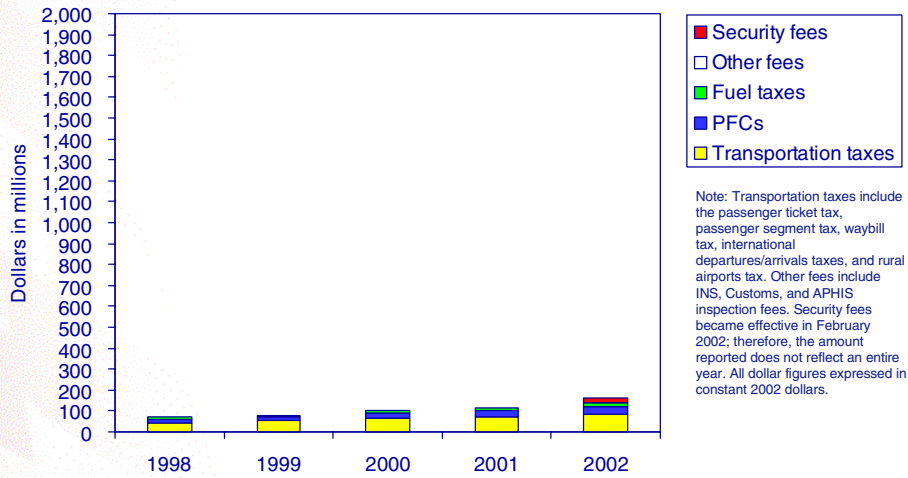
Summary

- Thirteen major taxes and fees supported aviation infrastructure and services in 2002. Collections totaled about \$12.6 billion but did not cover all expenditures.
 - Collections rose 15.6 percent from 1998 to 2002, but industry revenues and expenses fell significantly after 2000. Carrier taxes and fees in 2002 accounted for a larger share of base fares because fares declined from 1998.
 - The total taxes and fees paid by carriers in 2002 varied based on passenger volume and other factors. MIT found that the tax share is higher for lower priced tickets and low-cost carriers. MIT's estimated average tax share of 15.5 percent is lower than ATA's estimate of 25.6 percent.
 - During the 1996 tax lapse and 2003 security fee holiday, carriers increased base airfares compared with what they were before the absence of the tax or fee. Consumers saw a stable or somewhat increased gross fare. Fare increases were more moderate in markets with a low-cost carrier.
-

Taxes and Fees Paid by 10 Airlines, 1998-2002



AirTran Airways Taxes and Fees Paid, 1998-2002

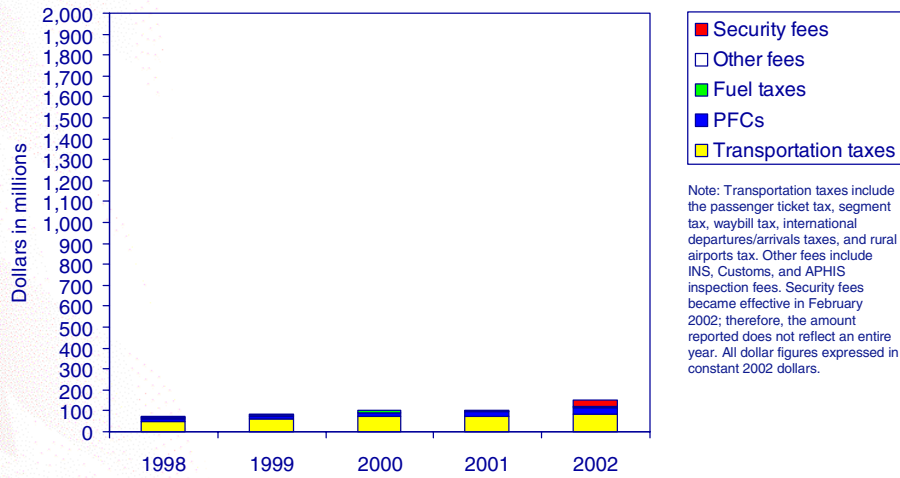


Note: Transportation taxes include the passenger ticket tax, passenger segment tax, waybill tax, international departures/arrivals taxes, and rural airports tax. Other fees include INS, Customs, and APHIS inspection fees. Security fees became effective in February 2002; therefore, the amount reported does not reflect an entire year. All dollar figures expressed in constant 2002 dollars.

Source: GAO analysis of AirTran data.



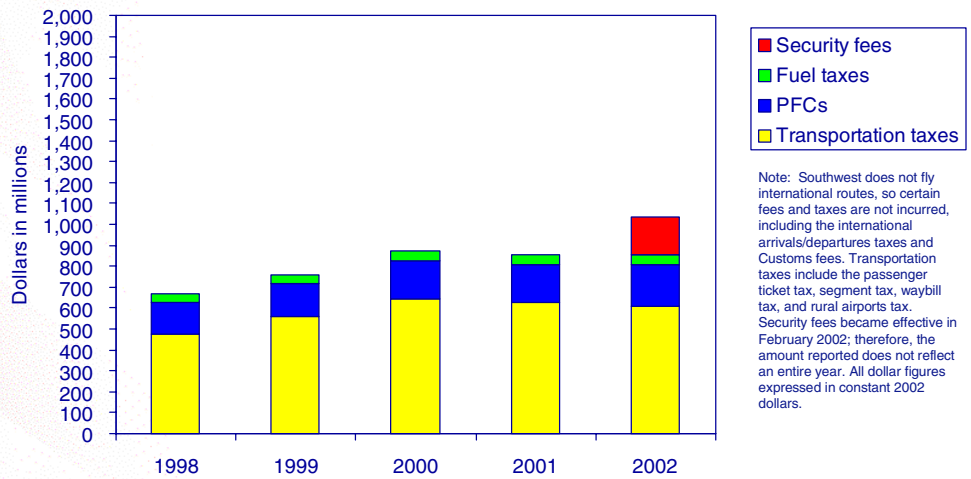
ATA Airlines Taxes and Fees Paid, 1998-2002



Note: Transportation taxes include the passenger ticket tax, segment tax, waybill tax, international departures/arrivals taxes, and rural airports tax. Other fees include INS, Customs, and APHIS inspection fees. Security fees became effective in February 2002; therefore, the amount reported does not reflect an entire year. All dollar figures expressed in constant 2002 dollars.

Source: GAO analysis of ATA Airlines data.

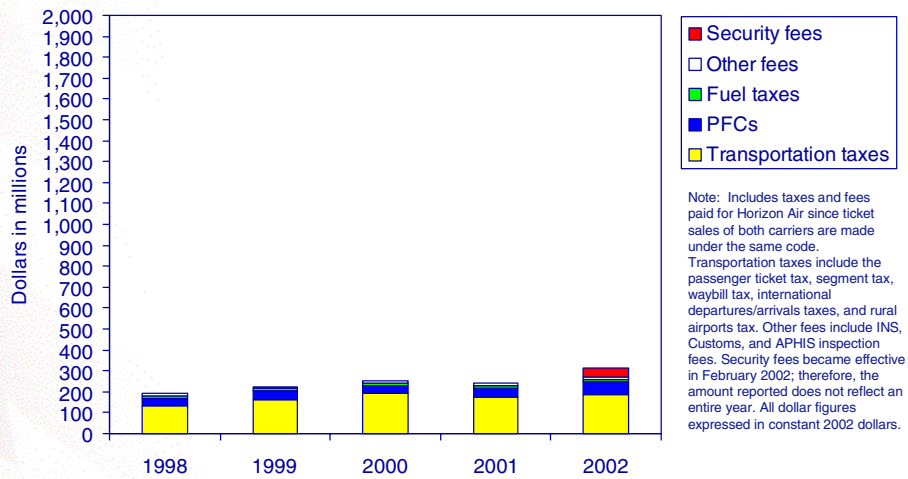
Southwest Airlines Taxes and Fees Paid, 1998-2002



Note: Southwest does not fly international routes, so certain fees and taxes are not incurred, including the international arrivals/departures taxes and Customs fees. Transportation taxes include the passenger ticket tax, segment tax, waybill tax, and rural airports tax. Security fees became effective in February 2002; therefore, the amount reported does not reflect an entire year. All dollar figures expressed in constant 2002 dollars.

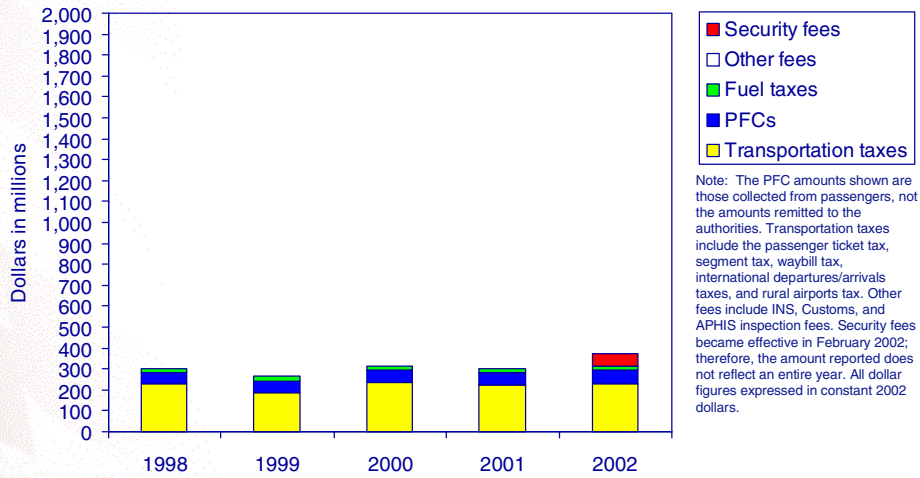
Source: GAO analysis of Southwest data.

Alaska Airlines Taxes and Fees Paid, 1998-2002



Source: GAO analysis of Alaska data.

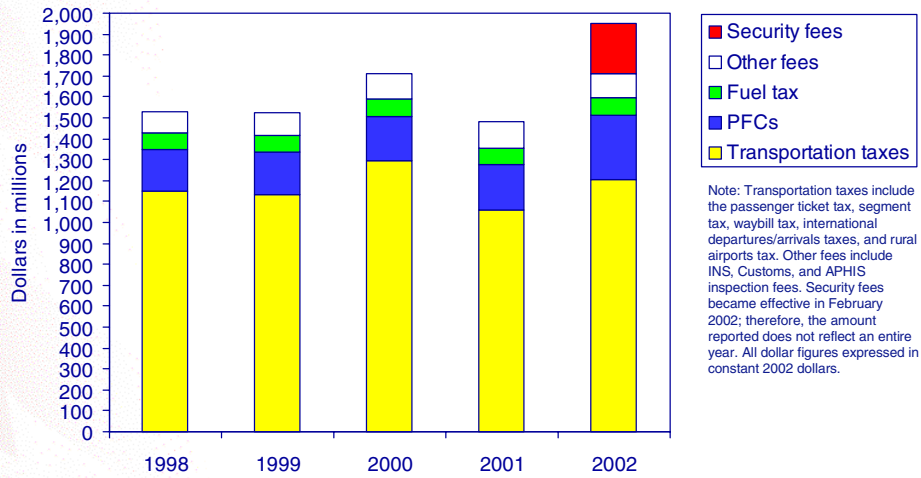
America West Taxes and Fees Paid, 1998-2002



Source: GAO analysis of America West data.

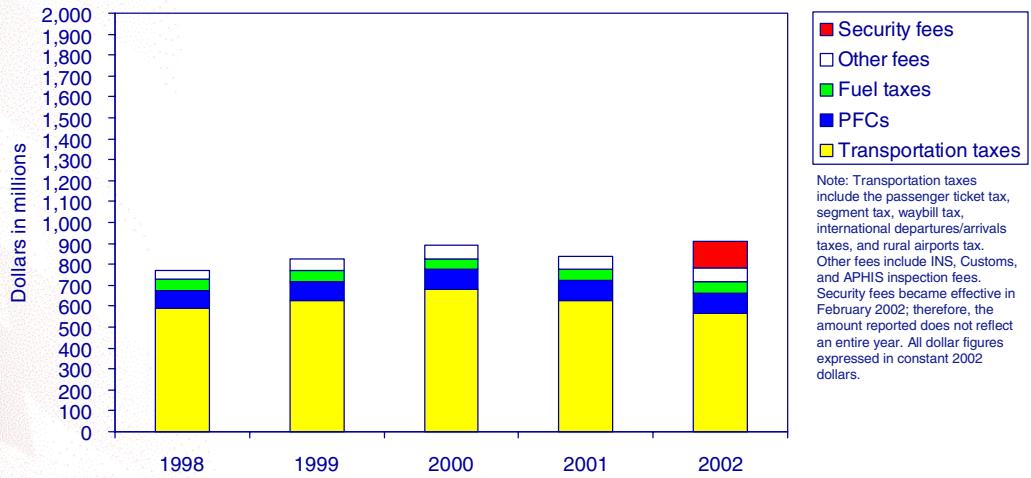


American Airlines Taxes and Fees Paid, 1998-2002



Source: GAO analysis of American data.

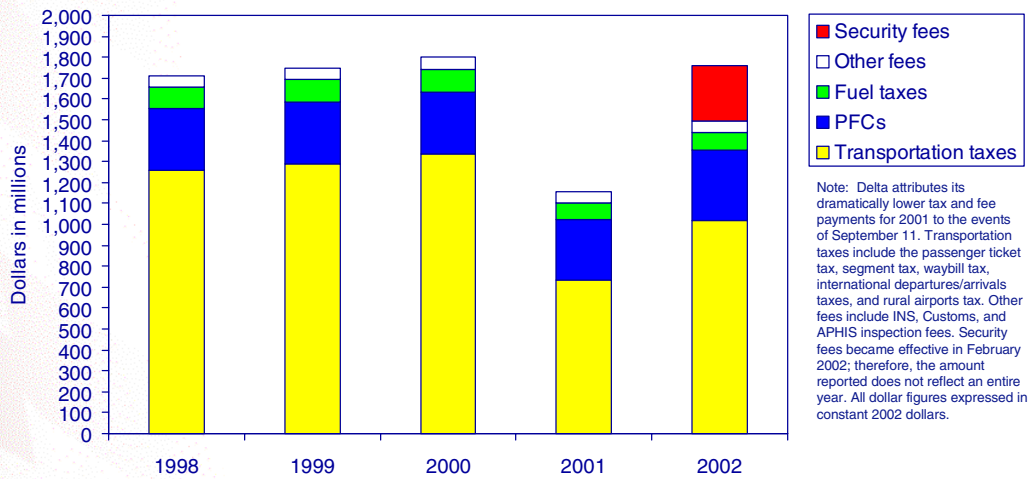
Continental Airlines Taxes and Fees Paid, 1998-2002



Source: GAO analysis of Continental data.



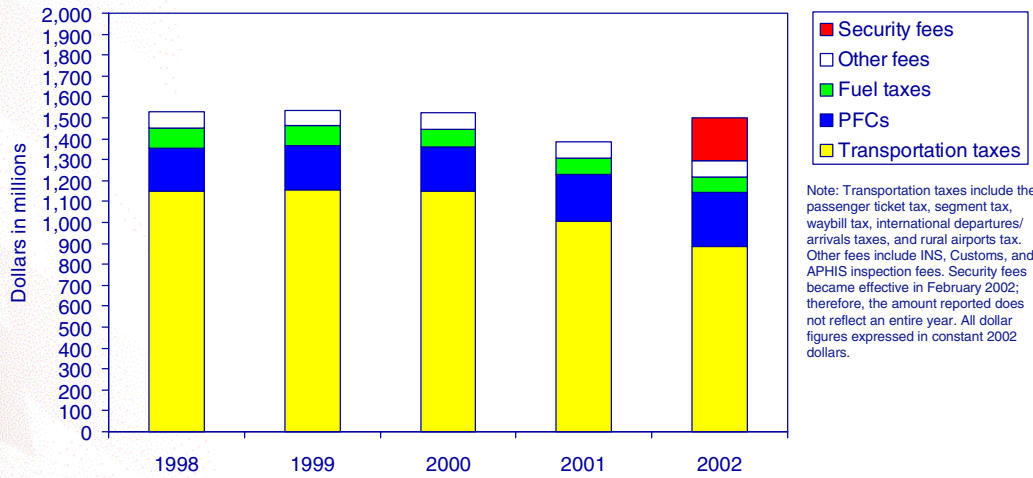
Delta Air Lines Taxes and Fees Paid, 1998-2002



Source: GAO analysis of Delta data.



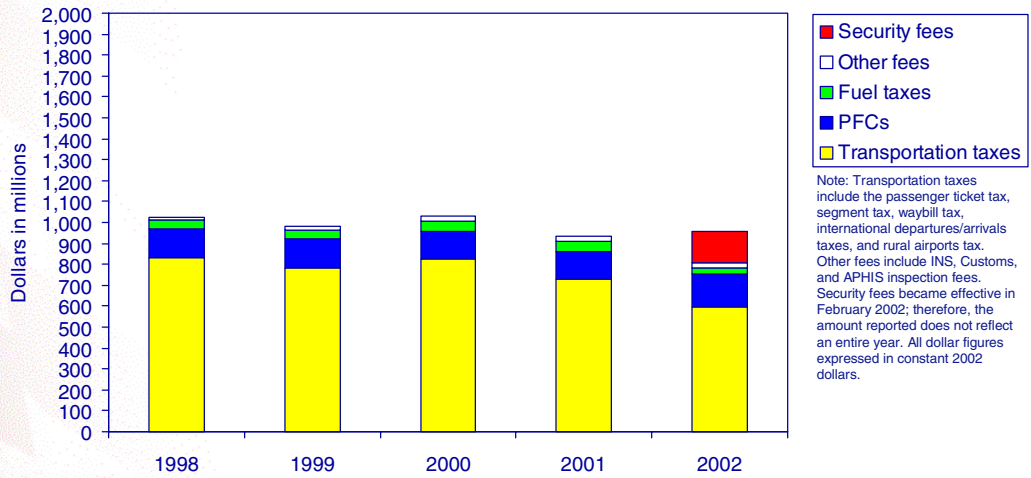
United Airlines Taxes and Fees Paid, 1998-2002



Note: Transportation taxes include the passenger ticket tax, segment tax, waybill tax, international departures/arrivals taxes, and rural airports tax. Other fees include INS, Customs, and APHIS inspection fees. Security fees became effective in February 2002; therefore, the amount reported does not reflect an entire year. All dollar figures expressed in constant 2002 dollars.

Source: GAO analysis of United data.

US Airways Taxes and Fees Paid, 1998-2002



Source: GAO analysis of US Airways data.

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