Preliminary Regulatory Analysis

Consumer Rulemaking NPRM:
Enhancing Airline Passenger Protections II

Contract No.:
GS-10F-0269K

Order No.:
DTOS59-09-F-10089

Project No.:
1029-000

Submitted To:

Office of the Assistant General Counsel
Aviation Enforcement and Proceedings
U.S. Department of Transportation
1200 New Jersey Avenue, SE
West Wing
Washington, DC 20590-0001

Submitted By:

Econometrica, Inc.
4416 East-West Highway
Suite 215
Bethesda, Maryland 20814

&

HDR Decision Economics
Silver Spring, Maryland

May 24, 2010

ECONOMETRICA, INC.

Table of Contents

Table of Contents
(continued)

Table of Contents
(continued)

List of Tables

Executive Summary

The Department of Transportation (DOT) is proposing a rule to provide airline passengers with additional protections in the areas of airline service provision and consumer information. Some of the provisions in this proposed rule build on regulatory requirements recently adopted as part of the Final Rule on Enhanced Airline Passenger Protections (EAPP1), which was published in the Federal Register on December 30, 2009. Econometrica and its subcontractor HDR Decision Economics were tasked with developing a regulatory evaluation for each of the requirements that are included in the Notice of Proposed Rulemaking (NPRM). This regulatory evaluation estimates the economic impact, in terms of benefits and costs, to passengers, U.S. and foreign air carriers and other entities regulated under this proceeding, as required by Executive Order (EO) 12866.[1]

In this preliminary analysis, we provide estimates of the benefits and costs for specific proposals in the NPRM that would add regulatory requirements in 11 areas, including extension of the EAPP1 requirements for tarmac contingency plans, customer services plans, and customer complaint responses to cover foreign carriers; expanded reporting of tarmac delays; changes in denied boarding compensation (DBC) requirements; and elimination of the break-out of government taxes and fees from advertised fares for air transportation. Benefits and costs are also estimated for alternatives to some of the proposed requirements.

For each area addressed in the NPRM, we present the rationale for adopting additional requirements. We also provide information on current regulatory requirements, Department enforcement policy, and industry practices; specify the nature of the benefits and costs involved in the proposals; and indicate the sources of data used to quantify (where possible) these benefits and costs. Benefit and cost estimates are presented for individual requirements, and aggregate benefits and costs of the proposed requirements are summarized as the present value of net benefits over 10- and 20-year time periods.

Most of the proposed requirements would cover carriers offering passenger service to domestic and international destinations. The U.S. air carriers that account for nearly all domestic passenger trips and about 60 percent of international passenger trips from or to U.S. airports are already required to comply with several of the proposed requirements. There are 88 foreign carriers that would be required to comply with the requirements for tarmac contingency plans, customer service plans (CSPs), and customer complaint responses adopted for U.S. carriers in the EAPP1 Final Rule. In addition to U.S. and foreign carriers, the proposed requirement that full fares be displayed in travel advertising and solicitations would also cover as many as 15,000 firms in the travel agent and tour operator sectors.

All quantified benefits and costs estimated for individual requirements were translated into current values for each year in the 10- and 20-year periods beginning with calendar year 2011.[2]

[1] An analysis of the impact of the proposed requirements on small carriers, travel agents, and tour operators is provided in the accompanying Regulatory Flexibility Analysis.

[2] In this analysis, the affected parties are assumed to be compliant with the proposed regulations by January 1, 2011, with the exception of the full-fare advertising provision of proposed Requirement 9, which is assumed to be take effect 30 days later.

In accordance with OMB guidelines, a discount rate of 7 percent is used in the primary analysis and is supplemented with overall estimates using a 3 percent discount rate as well**.**

Table ES1 - Present Value of Net Benefits for Proposed Requirements, 2011-2020

		PV (millions)
Total Quantified Benefits	10 Years, 7% discounting	$87.59
	10 Years, 3% discounting	$104.18
Total Quantified Costs	10 Years, 7% discounting	$25.98
	10 Years, 3% discounting	$28.45
Net Benefits	10 Years, 7% discounting	$61.61
	10 Years, 3% discounting	$75.73

*Note: Totals may not sum due to rounding.

The expected present value (PV) of passenger benefits from the proposed requirements included in the NPRM over a 10-year period using a 7 percent discount rate is estimated at $87.59 million. The expected present value of costs incurred by carriers and other sellers of air transportation to comply with the proposed requirements is $25.98 million over 10 years, discounted at 7 percent. The PV of net benefits for a 10-year period at a 7 percent discount rate is thus $61.61 million.

A comparison of the estimated benefits and costs for each of the 11 proposed requirements is provided in Table 33 in Section 7.2, along with information on additional benefits for which quantitative estimates could not be developed.

Substantial portions of the estimated benefits, costs, and net benefits from the proposed rule are attributable to the full-fare advertising provision of Requirement 7. The expected benefits estimated for this single provision total $73.50 million over the 10-year period from 2011 through 2020 using a discount rate of 7 percent. Benefits estimated for the full-fare advertising provision represent 84 percent of the total benefits estimated for all 11 proposed requirements during the period from 2011 through 2020.

The expected costs of complying with the full-fare advertising provision of Requirement 7 are estimated at $6.86 million over the 10-year period from 2011 through 2020 using a discount rate of 7 percent. Costs estimated for the full-fare advertising provision in Requirement 7 represent 26 percent of the total costs estimated for all 11 proposed requirements during the period from 2011 through 2020.

None of the present values for estimated benefits or for estimated costs associated with any of the other 10 requirements from 2011 through 2020 (discounted at 7 percent) are exceed $10 million.

This preliminary regulatory evaluation also includes a presentation of the annual benefits and expenditures associated with this proposed rule. Table ES2 provides our best estimate of the

annualized dollar amount of these benefits and costs expressed in 2011 dollars at 7 percent and 3 percent discount rates. We estimate that the benefits will be $25.59 million annualized at a 7 percent discount rate, or $25.01 million annualized at a 3 percent discount rate. Costs of this proposed rule are estimated to be approximately $5.97 million annualized at a 7 percent discount rate, or $5.26 million annualized at a 3 percent discount rate, over a 10-year period of analysis.[3]

Table ES2 - Annualized Benefits and Costs, 2011 through 2020, $ millions 2011

	Estimates			Units		
	Primary Estimate	**Low Estimate**	**High Estimate**	**Year Dollar**	**Discount Rate**	**Period Covered**
Annualized Monetized Benefits	$25.59	$11.27	$53.41	2011	7%	2011-2020
	$25.01	$10.99	$52.24	2011	3%	2011-2020
Annualized Monetized Costs	$5.97	$4.64	$7.52	2011	7%	2011-2020
	$5.26	$4.16	$6.54	2011	3%	2011-2020

This preliminary regulatory analysis indicates that adoption of the proposed requirements would result in projected benefits to the public that outweigh the estimated costs of the proposed rule.

[3] This statement is presented in essentially the same format as the accounting statement that OMB Circular A–4 requires for final rules.

Introduction

The Department of Transportation (DOT) is proposing a rule to provide airline passengers with additional protections in the areas of airline service provision and consumer information. Some of the provisions in this proposed rule build on regulatory requirements recently adopted as part of the Final Rule on Enhanced Airline Passenger Protections (EAPP1).[4]

Econometrica and its subcontractor HDR Decision Economics were tasked with developing a regulatory evaluation for each of the requirements that are included in the Notice of Proposed Rulemaking (NPRM). This regulatory evaluation estimates the economic impact, in terms of benefits and costs, to passengers, U.S. and foreign air carriers and other entities regulated under this proceeding, as required by Executive Order (EO) 12866.

The regulatory impact analysis (RIA) is conducted to determine the economic impact, if any, of the proposed rule and to assess whether, on balance, the rule is in the public interest. This analysis provides a baseline description of passenger protections, identifies the need for the proposed rule, and defines the analytic scope and parameters. It discusses the proposed rule's anticipated effects and presents a summary of the expected benefits and costs.

In this preliminary analysis, we provide estimates of the benefits and costs for specific proposals in the NPRM that would add regulatory requirements in the following areas:

Req. #	Requirement Description
1	Expansion of tarmac delay contingency plan requirements and extension of EAPP1 Final Rule requirements to cover foreign carriers
2	Expanded tarmac delay reporting and application to foreign carriers
3	Establishment of minimum standards for customer service plans (CSPs) and extension of EAPP1 Final Rule requirements to cover foreign carriers
4	Incorporation of tarmac delay contingency plans and CSPs into carrier contracts of carriage
5	Extension of EAPP1 Final Rule requirements for carriers to respond to consumer complaints to cover foreign carriers
6	Changes in denied boarding compensation (DBC) policy
7	Full-fare advertising and prohibition on opt-out provisions
8	Expanded requirements for disclosure of baggage and other optional fees
9	Prohibition on post-purchase price increases
10	Prompt passenger notification of flight status changes
11	Limitations on venue provisions in contracts of carriage.

This document provides a preliminary economic evaluation of the proposed requirements in each of these areas. It should be noted that the Department has also presented and discussed several alternatives and possible additional requirements in the NPRM which have not been incorporated into the proposed regulatory text.

[4] "Final Rule on Enhancing Airline Passenger Protections," DOT-OST-007-0022, December 30, 2009.

For each area addressed in the NPRM, we present the rationale for adopting additional requirements and in some cases, possible alternatives for achieving these objectives. We provide information on current regulatory requirements, Department enforcement policy, and industry practices; specify the nature of the benefits and costs involved in the proposals; and indicate the sources of data used to quantify these costs and benefits, where possible. Benefit and cost estimates are presented for individual requirements, and the aggregate benefits and costs of the proposed requirements are summarized as the present value of net benefits over 10- and 20-year time periods. The accompanying Regulatory Flexibility Analysis assesses the extent to which the costs associated with these requirements could impact small carriers, travel agents, and tour operators.

The scope of this analysis is broad, yet it involves estimating very detailed changes that can occur in a wide variety of situations. It was necessary to make many estimates and assumptions in cases where specific data were not available or to make the estimation exercise manageable. The Department solicits any comments to improve the analysis to the greatest extent possible. Comments may be submitted to the regulatory docket using any of the methods listed under "Addresses" in the preamble to the Proposed Rule. All input received during the public comment period will be considered.

1. An Overview of the Air Transportation Sector and Current Regulatory Structure

This section provides an overview of important features of the passenger air travel sector: U.S. and foreign carriers, airports, flights and passengers, regulatory authorities, and travel agencies and tour operators.

1.1. U.S. and Foreign Air Carriers

More than 200 domestic and foreign air carriers provide some combination of scheduled and non-scheduled passenger and all-cargo air service to U.S. and international destinations. All U.S. air carriers operating any aircraft of 60 seats or more must have a certificate under 49 USC 41102 (or an exemption issued by DOT from that section) to provide scheduled passenger service. Some carriers operating fleets consisting only of smaller aircraft may also be "certificated carriers." A relatively limited number of carriers operating small aircraft are authorized as "commuter air carriers" under the definition provided in 14 CFR 298.3(b). Foreign air carriers must hold permits issued under 49 USC 41302 (or an exemption issued by DOT from that section) to operate flights that arrive or depart at U.S. airports.

Several revenue- and aircraft size-based distinctions among categories of U.S. carriers are relevant for regulatory purposes. The most important of these are discussed in more detail below. In contrast, all foreign carriers operating flights to and from the United States are currently

subject to the same regulatory requirements and nearly all would be subject to the additional requirements being proposed by the Department in this proceeding.[5]

Reporting Carriers

The applicability of some current regulatory requirements varies not only between domestic and foreign carriers, but also between different categories of domestic carriers, based on the sizes of the aircraft operated or the carrier's share of total industry revenues from scheduled air passenger service on domestic routes. "Reporting carriers"—those that account for at least 1 percent of domestic scheduled passenger service revenues—must report information to the Bureau of Transportation Statistics monthly on lengthy tarmac delays, on-time performance (OTP), payment of denied boarding compensation (DBC), and other aspects of carrier performance. Reporting carriers include seven mainline carriers (Alaska, American, Continental, Delta/Northwest, Hawaiian, United, and US Airways), four low-cost model major airlines (AirTran, Frontier, JetBlue, and Southwest), and seven regional carriers (American Eagle, Atlantic Southeast, Comair, ExpressJet, Mesa, Pinnacle, and SkyWest).[6]

Table 1 - U.S. Carrier Scheduled Passenger Service, 2008

	Number of Carriers	Departures	Passengers	Passengers/ Departure
Reporting Carriers	18	7,559,996	667,562,183	88
Other U.S Carriers	99	2,640,027	88,265,323	33
Total	**117**	**10,200,023**	**755,827,506**	**74**
Reporting % of Total	15.4%	74.1%	88.3%	

Note: Delta and Northwest are shown as a single reporting carrier, although they did not consolidate reporting under the Delta name until 2010.

Source: BTS T-100 Segment database, 2008

Aircraft Size-Based Distinctions among U.S. Carriers

Many regulatory requirements apply only to carriers that operate at least one aircraft originally designed to hold 30 passengers or more. Carriers that provide passenger service using at least one aircraft originally designed to hold 30 passengers or more, but none that have more than 60 seats, are considered small businesses for purposes of assessing impact under the relevant requirements of the Regulatory Flexibility Act. There are also a significant number of carriers that operate only aircraft with fewer than 30 seats. The regulatory requirements for these carriers are less extensive than those for larger carriers. Finally, there are several carriers that do not offer scheduled service, but operate public charter flights. Most of these carriers provide charter service using at least one aircraft with more than 60 seats.

[5] Since the preliminary RIA was prepared, it has been determined that 2 of these 88 foreign carriers operate passenger service to and from the United States exclusively with aircraft having fewer than 30 seats. These two carriers would not have to comply with the proposed requirements that apply only to U.S. and/or foreign carriers that provide passenger service on at least one aircraft that has 30 or more seats.

[6] In 2009, two carriers (ExpressJet and Pinnacle) had market shares that did not meet this threshold but will continue to report these data voluntarily; both carriers are therefore included in the definition of "reporting carrier." Delta and Northwest reported as separate carriers through 2009, but reporting has been consolidated under the Delta name beginning in 2010.

Table 2 - Number of U.S. Carriers by Size Class, 2008

Group	Seat Criterion	Total	Out of Business	Active	Contract Carriers	Other
Large	> 60	41	2	39	17	22
Small	30 - 60	14	1	13	6	7
Very Small	< 30	43	8	35	2	33
Charter-only		19	2	17	0	17
Total		**117**	**13**	**104**	**25**	**79**

Note: 6 large contract carriers, 1 small contract carrier, and 12 other large carriers were reporting carriers in 2008.

Source: BTS T-100 Segment database, 2008; BTS B-43 Aircraft database, 2007

The U.S. domestic airline industry continues to undergo significant consolidation. Of the 117 U.S. carriers operating at the beginning of 2008, 13 were no longer providing service 2 years later. Some of the remaining carriers are wholly-owned subsidiaries, but are treated as separate airlines for some reporting and regulatory compliance purposes.

Mainline and Regional Airlines

Several U.S. carriers, including 6 of the 19 reporting carriers in 2009, operate flights primarily or exclusively on a contract basis, providing service primarily for the largest mainline network carriers. Most of these carriers do not sell scheduled air transportation services directly to the general public; the flights they operate are listed on the contracting carriers' schedules under code-share agreements. A few small regional carriers (e.g., Cape Air and Great Lakes) operate both contract and independently-marketed flights.

Regional carriers—both contract carriers and those that market flights independently—provide service to a much larger network of communities than do the mainline and low-cost national carriers. The Regional Airlines Association (RAA) estimates that its 68 member carriers provide the only scheduled service available at 442 of 635 U.S. airports.[7]

Regional carriers are typically subject to the same reporting and regulatory requirements as other airlines in the same size classes. In some instances, however, contract carriers must comply with their mainline partners' commitments and compliance requirements—including relevant provisions in the customer service plans and contracts of carriage that would be affected by the proposed requirements in this NPRM.[8]

1.2. Airports

The Federal Aviation Administration (FAA) categorizes airports based on the annual numbers of passengers boarded ("enplanements"). There were 503 U.S. airports with at least 2,500 passenger enplanements in 2008. More than two-thirds of domestic and international passengers departed

[7] Regional Airline Association, *2009 Annual Report.*

[8] The term "regional carrier" is also used to refer to U.S. airlines with less than $100 million in revenues annually, including those that independently market air transportation to the public. Most of these carriers are included in the "very small" category. A large number of them operate solely within the State of Alaska.

from 29 major metropolitan hubs, and another one-fifth from one of 37 medium hubs. On the other end of the size spectrum, there were 121 airports with 2,500–10,000 passenger enplanements in 2008. More than half of these (64) were located in Alaska.

Table 3 - Passenger Enplanements by Size of Airport, 2008

Category	Minimum %/# of Passengers	# of Airports	Passengers (millions)	% of Total	Passengers / Airport (millions)
Large Hub	>1% of total	29	504.0	68.5%	17.38
Medium Hub	>0.25% of total	37	147.0	20.0%	3.97
Small Hub	>0.05% of total	72	60.8	8.3%	0.84
Non-Hub	>10,000/year	244	22.9	3.1%	0.09
Other Commercial	>2,500/year	121	0.6	0.1%	0.00
Total		**503**	**735.3**		**1.46**

Source: Federal Aviation Administration, *Primary and Non-Primary Commercial Service Airports,* 2008

International flights depart from every large and medium hub, most small hubs, and about one-third of non-hub airports. However, only 7 of the 121 airports with between 2,500 and 10,000 passenger departures in 2008 offered international service.

1.3. Flights and Passengers

Airline passengers travel to both domestic and international destinations using both scheduled and non-scheduled (charter) service provided by U.S. and foreign carriers. Carrier-specific data on the annual numbers of domestic and international departures and passengers boarded for each type of flight are available from the Bureau of Transportation Statistics (BTS) T-100 database.

Most passenger travel is on scheduled service flights, and seven out of every eight scheduled flights are to destinations within the United States. Virtually all domestic flights are on U.S. carriers. Foreign carriers may transport passengers between two U.S. airports only on segments of flights that originate from or continue on to international destinations. U.S. carriers also account for a significant majority of international departures, although the share of passengers on international flights is split more evenly between U.S. and foreign carriers because the average number of passengers per departure is larger on flights operated by foreign carriers.

Table 4 - Scheduled Passenger Service: Departures and Passengers

	Domestic	International	Combined
Departures			
U.S. Carriers	9,373,657	826,366	10,200,023
Foreign Carriers	2,562	511,283	513,845
Total	**9,376,219**	**1,337,649**	**10,713,868**
Passengers			
U.S. Carriers	666,990,665	88,836,841	755,827,506
Foreign Carriers	526,450	69,539,809	70,066,259
Total	**667,517,115**	**158,376,650**	**825,893,765**
Passengers/Departure			
U.S. Carriers	71	108	74
Foreign Carriers	205	136	136
Total	**71**	**118**	**77**

Source: BTS *T-100 Segment database*, 2008

The total numbers of departures and passengers flown typically rise each year, but both fell in 2008 and again in 2009. The FAA Aerospace Forecast for 2009 anticipated an 8.0 percent drop from 2008 in passenger enplanements on U.S. carrier flights. This decline was expected to be more pronounced for domestic flights, with a projected decrease of 8.8 percent from 2008, compared with a forecast reduction of 2.4 percent for international flights. The FAA Aerospace Forecast projected even larger percentage decreases in capacity, measured by available seat miles (ASMs), as some carriers ceased operations or reduced the size of their aircraft fleets in active service.

1.4. Regulatory Authorities

The Office of the Secretary (OST) conducts economic licensing of U.S. carriers; establishes regulatory requirements relating to advertising and provision of scheduled and non-scheduled passenger service; issues guidelines and letters to codify and clarify Department enforcement policy; and enters into consent orders to enforce regulations and impose penalties for non-compliance. All of the proposed requirements evaluated in this regulatory analysis represent modifications or clarifications to existing OST rules and enforcement policy.

During 2008 and 2009 the OST entered into 48 enforcement orders with U.S. and foreign carriers, travel agencies, and tour operators. One-third of these consent orders involved non-compliance with established rules and policy relating to the advertising of air fares.

Regulatory authority for matters involving airports is vested in the FAA. Some of the proposed requirements (especially those relating to tarmac contingency plans) may have a limited impact on airport operations, but we have not estimated the costs, if any, that would be incurred by airport authorities.

Air travel security issues are under the jurisdiction of the Transportation Security Administration (TSA).

Arriving passengers on international flights need to be cleared for entry by Customs and Border Patrol (CBP) representatives. One provision in the NPRM would require covered carriers to coordinate their tarmac contingency plans with CBP authorities at diversion airports. This would ensure that arriving international passengers could be deplaned and allowed to leave the airport in a timely fashion.

1.5. Travel Agencies and Tour Operators

While most regulation of the air transportation sector is concerned with carriers and airports, other sellers of air transportation must comply with OST advertising regulations and guidelines. Travel agencies and tour operators are the two largest industry sectors (in addition to carriers) that sell tickets to passengers for scheduled service flights. These sales sometimes are made on a stand-alone basis and sometimes as part of a package that may include accommodations, activities, and ground transportation. Both carrier and non-carrier websites also offer packages that do not include any air transportation.

According to a recent study, about 17 percent of travel agencies have online ticketing capability. However, four large online travel agencies (OTAs)—Expedia, Orbitz, Priceline, and Travelocity—reportedly account for 96 percent of all online sales by travel intermediaries in the leisure travel market segment.[9] Howcver, the travel agent and tour operator sectors consist primarily of small businesses with fewer than 20 employees per firm.

Table 5 - Travel Agencies and Tour Operators, 2006

	Total Firms	Large OTAs	Online Sales Capability	Offline Sales Only	20+ Employees	<20 Employees
Travel Agencies	12,248	4	2,078	10,166	669	11,579
Tour Operators	2,629	0	447	2,182	254	2,375

Sources: Bureau of the Census, *County Business Patterns,* 2006; PhoCusWright, *The Role and Value of the Global Distribution Systems in Travel Distribution*, 2009.

2. Current Regulatory Requirements, Industry Practices, and Need for Additional Requirements

This section outlines the current regulatory requirements and/or DOT enforcement policy in each of the areas for which additional passenger protections are being considered, presents a summary of current industry practices in each of these areas, and describes the needs that would be addressed by each of the specific requirements proposed in the NPRM.

[9] PhoCusWright, *The Role and Value of the Global Distribution Systems in Travel Distribution*, November 2009.

2.1. Additional Requirements for Tarmac Contingency Plans

The EAPP1 Final Rule requires any certificated or commuter air carrier that offers scheduled passenger service or public charter service using any aircraft with 30 or more seats to develop a contingency plan for long delays on the tarmac for all flights they operate, including those on aircraft containing fewer than 30 seats. For domestic flights, carriers covered by the EAPP1 Final Rule have to ensure that (a) passengers on planes delayed on the tarmac for 2 hours will have access to food, water, clean lavatories, and the assistance of medical personnel if needed, and (b) passengers on planes delayed on the tarmac for 3 hours will be permitted to deplane, unless there is a safety and/or security-related impediment to deplaning passengers or air traffic control (ATC) advises the pilot that permitting passengers to return and deplane would significantly disrupt airport operations. The requirement for a tarmac contingency plan also applies to U.S. carriers operating international flights to and from the United States. However, carriers are allowed to set their own time limits in the contingency plans for deplaning international flights. Tarmac contingency plans must be coordinated with the authorities of large-hub and medium-hub airports.

As noted in Section 2.2 below, there were just over 900 tarmac delays of 3 hours or longer involving scheduled domestic flights operated by reporting carriers in 2009. While current regulations mandate reporting of tarmac delays only at large- and medium-hub airports, it is our understanding that every reporting carrier has provided the BTS with tarmac delay information for all of their scheduled domestic flights.[10] However, the EAPP1 Final Rule does not require assurance that carriers have coordinated their tarmac contingency plans with the authorities at the small-hub and non-hub airports they serve.

Foreign carriers are not required to comply with the EAPP1 Final Rule stipulations relating to carrier handling of lengthy tarmac delays. As Table 4 in Section 1.3 indicates, 44 percent of all passengers on international flights departing from the United States in 2008 flew on foreign carriers. Many of these flights departed from large-hub airports that have a history of problems with lengthy tarmac delays. Consequently, passengers who fly on foreign carriers lack the same minimum guarantee-of-service provision in the event of a lengthy tarmac delay that is currently afforded to travelers to and from the same destinations on covered U.S. carriers.

Recent BTS data on tarmac delays associated with arriving aircraft indicate that these situations almost always arise as a result of landings at diversion airports. This is especially likely to be an issue in the event that an international flight is diverted to an airport that does not have CBP staffing in place at the time of the arrival. Without a CBP presence it may not be possible to admit (or readmit) to the United States passengers who are arriving on an international flight. These passengers may therefore not be allowed off of the airplane and into a diversion airport. The current EAPP1 requirements do not address this potential obstacle to avoiding or reducing the incidence of lengthy tarmac delays associated with inbound international flights.

[10] As noted above, the BTS also receives reports on tarmac delays of less than 3 hours on scheduled domestic flights operated by reporting carriers. The BTS may also have some information on delays involving flights operated by non-reporting carriers. These additional data were not obtained and reviewed as part of this regulatory evaluation.

2.2. Tarmac Delay Reporting

As noted above, reporting carriers are currently required to report flight delay data for regularly scheduled domestic flights, including information on all tarmac delays of 3 hours of more, to the BTS. Beginning with October 2008, these reports were required to include tarmac delays associated with flights that returned to the gate and subsequently departed; those that were diverted from their destination airports; and those that were ultimately cancelled.[11]

Just over 900 tarmac delays of 3 hours or more were reported to the BTS in 2009 by the 19 reporting carriers. Most of these involved delays at departure. Of the 77 delays associated with arriving flights, 75 involved landings at diversion airports. As Table 6 shows, the number of reported tarmac delays varied substantially on a month-to-month basis.

Table 6 - Number and Percent of Flights with Tarmac Times of 3 Hours or More

		Stage of Operation of the 3-Hour Tarmac Time				
	Total	Prior to Cancellation	Multiple Gate Departure	Taxi-Out	Taxi-In	At Diversion Airport
Jan 2009	87	7	10	70	0	0
Feb 2009	43	5	4	34	0	0
Mar 2009	88	6	9	66	0	7
Apr 2009	81	12	10	47	0	12
May 2009	35	7	2	25	1	0
Jun 2009	278	40	42	172	1	23
Jul 2009	164	21	20	105	0	18
Aug 2009	70	7	11	45	0	7
Sep 2009	6	0	0	4	0	2
Oct 2009	12	0	0	12	0	0
Nov 2009	4	0	1	2	0	1
Dec 2009	35	5	3	22	0	5
Year	**903**	**110**	**112**	**604**	**2**	**75**
% of Delays		12.2%	12.4%	66.9%	0.2%	8.3%

Source: BTS, *Monthly Summary of Tarmac Times Jan 2009 - Dec 2009*

At present, however, the Department does not collect information on the number and characteristics of tarmac delays associated with domestic flights operated by non-reporting U.S. carriers and with international flights operated by either U.S. or foreign carriers. Information about these delays would improve the Department's ability to understand the extent and causes of lengthy tarmac delays and provide the basis for assessing whether carriers are complying with current and proposed requirements for tarmac contingency plans.

[11] Final Rule on Revision of Airline Service Quality Performance Reports, Docket No. OST 2007-28522.

2.3. Minimum Standards for Customer Service Plans (CSPs)

Under the recently adopted Final Rule, any domestic certificated or commuter air carrier that operates scheduled passenger service is required to develop a customer service plan (CSP) that addresses the issues covered by the 12 areas of the Air Transport Association's (ATA) Customer Service Commitment (CSC). These carriers are also required to self-audit their adherence to this customer service plan. Airlines participating in the ATA CSC commit to the following:

1. Offering the lowest fare available
2. Notifying customers of known delays, cancellations and diversions
3. Delivering baggage on time
4. Setting a reasonable baggage liability limit
5. Allowing reservations to be held or canceled
6. Providing prompt ticket refunds
7. Properly accommodating passengers with disabilities and other special-needs passengers
8. Meeting customers' essential needs during lengthy tarmac delays
9. Handling "bumped" passengers with fairness and consistency
10. Ensuring good customer service from code-share partners
11. Ensuring responsiveness to customer complaints
12. Identifying the services it provides to mitigate passenger inconveniences resulting from cancellations and misconnects.

The EAPP1 Final Rule does not establish specific standards for most of these components (although some are already fixed by existing regulatory requirements), nor does the ATA CSC define the meaning of terms used in some of the 12 parts (e.g., "lowest fare," "timely reporting"). The current CSP requirements also do not apply to foreign carriers, which creates a potential disparity in the level of service guaranteed to passengers on international flights operated by U.S. and foreign carriers.

The lack of specified minimum standards for CSPs also makes it difficult for both passengers and the Department to evaluate the specific guarantees of service provision that are being made by carriers. In addition, passengers traveling to destinations outside the United States are not currently assured a minimum level of customer service in the areas addressed by the ATA CSC and EAPP1 Final Rule requirements if they choose to fly on a foreign carrier.

2.4. Incorporation of Tarmac Contingency Plans and Customer Service Plans into Contracts of Carriage

Under the EAPP1 Final Rule, covered U.S. carriers are required to develop tarmac contingency plans and to post them on their websites. The Final Rule also requires covered U.S. carriers to develop, follow, and self-audit compliance with customer services plans; these plans must also be posted on carrier websites. However, there is no specific requirement that these plans be incorporated into the carriers' contracts of carriage; the Department indicated in the Final Rule that it hoped that carriers would do so on a voluntary basis.

Similarly, the Department decided not to require that covered carriers incorporate the required CSPs into their contracts of carriage in the EAPP1 Final Rule.

A February 2010 review of the websites of reporting U.S. carriers that sell air transportation to the general public indicated that all have posted their CSPs, either on a stand-alone basis or as part of their contracts of carriage on their websites. However, we did not attempt to determine whether or not any carriers posted tarmac contingency plans or incorporated them into their contracts of carriage in advance of the April 2010 effective date for the requirements for these plans included in the Final Rule.

2.5. Requiring Foreign Carriers to Respond to Customer Complaints

The EAPP1 Final Rule requires covered U.S. carriers to acknowledge customer complaints in writing and to provide substantive responses to the concerns raised within specified time limits. In 2008 the Department received reports of almost 9,200 problems concerning service on U.S. carriers and an additional 1,200 complaints related to problems on foreign carriers. The share of total complaints relating to foreign carriers is higher than the proportion of passengers transported on these airlines.

Table 7 - Passenger Service Complaints Received by the Department, 2008

Complaint Category	Domestic	Foreign	Total
Flight problems (cancellations, delays, etc.)	3,011	218	3,229
Baggage	1,671	406	2,077
Reservations/ticketing/ boarding	1,147	186	1,333
Customer service	1,201	116	1,317
Refunds	632	139	771
Disability	428	46	474
Oversales	370	61	431
Fares	324	44	368
Discrimination	99	16	115
Advertising	28	7	35
Animals	5	0	5
Other (includes frequent flier)	278	33	311
Total	**9,194**	**1,272**	**10,466**
Passengers Boarded	755,827,506	70,066,259	825,893,765
Complaints per 100,000 Passengers	1.22	1.82	1.27

Source: OST, A*ir Travel Consumer Reports*, Jan-Dec 2008; BTS, *T-100 Segment database, 2008.*

The Department currently lacks the regulatory authority to require that foreign carriers respond to customer complaints within a specified time frame. As airline passengers become increasingly

familiar with the U.S. carrier CSPs mandated in the EAPP1 Final Rule, they are unlikely to be aware that these requirements do not apply to flights operated by foreign carriers when making decisions about booking international travel.

2.6. Changes in Denied Boarding Compensation (DBC) Policy

DOT requires that airlines pay specified amounts of denied boarding compensation (DBC) to passengers on an overbooked flight in cases where the carrier is not able to recruit a sufficient number of passengers to voluntarily surrender their boarding passes in exchange for cash and/or vouchers. While nearly 90 percent of boarding refusals attributable to carrier oversales in 2008 were resolved by recruiting volunteers, BTS data indicate that more than 65,000 passengers were involuntarily bumped from oversold flights operated by reporting carriers.[12]

Table 8 - Passengers Denied Boarding on Reporting Carriers, 2008

	Number	% of Total
Involuntarily Bumped Passengers	65,431	0.011%
# w/ DBC Paid	56,294	0.011%
Voluntarily Bumped Passengers	623,673	0.107%
Total Passengers Boarded	580,269,246	

Source: BTS, *Report of Passengers Denied Confirmed Space*, 2008

Currently, involuntarily bumped travelers are required to be given DBC equal to 100 percent of the fare (200 percent if alternative transportation is not provided within the specified time limits) to the next stopover on the flight itinerary, up to the cap specified in the regulation. In 2008, the maximum level of DBC for involuntarily "bumped" passengers on oversold flights was raised from $200 to $400 when alternative transportation is provided by the carrier within 2 hours for domestic flights and within 4 hours for international flights and from $400 to $800 otherwise.[13] Based on preliminary analysis of a sample of data from the BTS passenger origins and destinations (O&D) survey, about 7 percent of each-way fares on round-trip tickets and just under one-quarter of one-way fares exceed $400.[14]

The current DBC policy is not clear on the amount of compensation that must be paid to a holder of a zero-fare (e.g., tour consolidator or frequent flyer) ticket who is involuntarily bumped from an oversold flight. In the O&D survey data analyzed, about 4.5 percent of round-trip fares have an each-way value of less than $50, the minimum amount that the BTS includes in its statistical

[12] Under the present requirements, DBC must be paid only to passengers involuntarily bumped from flights on aircraft with 30 or more seats. Additionally, DBC does not have to be paid to passengers bumped from flights on 30-60 seat aircraft to reduce the amount and/or distribution of weight carried for safety reasons.

[13] DOT, "Final Rule on Oversales and Denied Boarding Compensation," DOT-OST-2001-9325-1328, April 18, 2008. The original maximum levels for DBC were established in 1978. The 1978 limits of $100 and $200 for DBC are equivalent to $650 and $1,300, respectively, in July 2009 after taking into account increases in the Consumer Price Index over the past 21 years.

[14] The sample analyzed included over one million records for flights originating in Illinois during the second quarter of 2008; the average fare for a round-trip ticket in this sample was $349. The O&D market file data do not identify the type of fares associated with individual tickets, but analysis of the accompanying coupon file indicates that first-class tickets accounted for about 10 percent of flights in the sample.

estimation of the average fares paid by passengers for air travel.[15] The Department is requesting information on current carrier practices with respect to compensation of these travelers, who may or may not be treated equitably.

Carriers are required to provide a full explanation of the DBC policy in written form, but airline representatives may not always provide complete information about the DBC regulation provisions when orally advising passengers who are involuntarily bumped. BTS Form 251 reports do not include the amounts of DBC paid in the form of vouchers rather than cash or check payments, nor is information available on the extent to which the value of these vouchers typically exceeds the prescribed amount of DBC payable by cash or check. Thus it is not possible to determine the number or share of passengers who would have been involuntarily bumped, but who chose to accept travel vouchers or coupons instead.

The current DBC requirements may not be sufficient to ensure that all passengers bumped from the same flight are treated equitably. Those flying on tickets that exceed the maximum DBC threshold will receive less compensation in relation to the amount of the fare paid; those flying on zero-fare tickets may not be compensated on a basis consistent with those who purchased tickets; and the extent and completeness of the verbal explanations of the compensation options available to potential volunteers for bumping on oversold flights may vary among passengers and/or gate agents.

2.7. Required Disclosure of Full Fares in Advertising and Prohibition on Opt-Out Provisions in Ticket Sales

Existing regulations require that advertising of air travel prices must include all fees, surcharges, and taxes. However, the Department has a long-standing enforcement policy that permits carriers and other sellers of air transportation to break out from the advertised price any airport or government fees that are charged on a fixed or per-segment basis.

In February 2010, we conducted a review of the prices advertised on the websites of five mainline carriers, three low-cost carriers, and the four largest online travel agencies (OTAs).[16] Of the eight carrier websites, only Delta's displayed the full-fare prices along with the pre-tax prices at the flight selection stage. All eight carrier websites displayed the additional fees at the flight booking stage.[17]

In contrast, full-fare prices were displayed for each available option at the flight selection stage on all four OTA sites, along with prices that did not include the additional taxes and fees. However, the full-fare prices were shown more prominently on the Expedia and Orbitz flight selection pages than on those for Priceline and Travelocity.

[15] Including one-way fares in the analysis does not materially alter the estimate of the proportion of passengers traveling on zero-fare tickets: just over 5 percent of one-way fares in this sample were below $50.

[16] For each of these sites, we requested two round-trip fares from Baltimore-Washington International Airport (BWI) to the George W. Bush Houston International Airport (IAH) departing on March 26, 2010, and returning on March 29, 2010. The review included capture of screen displays at the flight selection and booking stages.

[17] The United Airlines flight selection page displayed only the fare for a specific combination of outbound and return flights at a single time , so determining the full-fare price for each combination of available flights required return trips to the flight selection and booking pages.

At present there are no specific prohibitions on the ability of carrier, travel agency, and tour operator website purchase engines to include and charge for services in addition to the fare unless the purchaser takes affirmative action to opt-out of paying for these services. The most common charges added on this basis are for travel insurance and preferred seating assignments.[18]

Advertised prices that do not include the full amount of the fare being charged, including all mandatory fees and taxes, complicate consumer comparison of alternative travel itineraries to reach the same destination, which may involve different amounts of these mandatory fees and taxes. For example, booking a flight with a connection will incur additional airport departure and security fees that may partially or even totally offset the price advantage of a non-direct flight. Experienced travelers will incur longer search times to confirm that they have found the lowest or most appropriate fare when searching on multiple carrier or OTA sites. Inexperienced travelers may find themselves purchasing tickets at prices that are higher than those for other alternatives they reviewed once the charges for all mandatory fees and taxes are included. They may also unwittingly purchase optional services at prices that exceed what they would be willing to pay for these additions.[19]

In addition, substantial Department resources are required to review carrier, travel agent, and tour operator solicitations that have fees and taxes broken out of the advertised prices to determine if these advertisements comply with current enforcement policy.

2.8. Expanded Disclosure of Baggage Fees and Other Optional Fees

In recent years many of the major U.S. carriers have instituted additional charges for checked baggage. While consumer awareness of the existence of checked baggage fees is increasing rapidly, the major carrier and other online booking engines currently do not have an option that allows purchasers to calculate these fees and incorporate them into the prices displayed in flight search results. This complicates purchaser price comparisons and reduces the likelihood that advertised fares accurately represent the actual cost of air travel.

DOT issued guidance on May 19, 2008, published in the Federal Register at 73 F.R. 28854, that was designed to ensure that prospective air travelers receive timely and effective notice about charges for checked bags. The guidance references the steps needed to meet "implicit requirements" relating to the avoidance of unfair and deceptive practices with respect to disclosure of checked baggage fees. Specifically, DOT advised that:

> …air carriers and foreign air carriers should place a notice regarding the above-described additional baggage charges on the first screen in which the carrier offers a fare quotation of a

[18] Our research on full-fare advertising did not in most cases proceed to the step (after entry of credit card information) at which some booking engines may add charges for optional services on an opt-out basis. However, one large OTA site (Travelocity) added travel insurance at the flight booking stage on an opt-out basis.

[19] While consumers may report that they would not have purchased services such as travel insurance or preferred seating assignment on an opt-in basis, it is likely that many would do so if the price of these services was lower. For example, it is possible that nearly all passengers would purchase travel insurance if it were offered for $1 or less.

> specific itinerary selected by a consumer… Airline reservations agents should disclose these baggage charges and limitations during telephone or counter sales prior to completing a sale.[20]

The method by which notice must be provided is also specified in the guidance.

Based on a February 2010 review of reporting carrier websites, information on checked baggage fees and other optional fees appears to be available to most passengers on major airlines. In addition, information about the fees charged by major U.S. and foreign carriers are readily available on several OTA websites, including Expedia, Travelocity, and Kayak, in formats that facilitate cross-carrier comparisons by consumers.

However, it is possible that a significant number of travelers may visit only the site of the carrier on which they purchased a flight.[21] In many cases, these passengers would not be aware of the amounts of baggage fees and optional fees charged in the absence of notices on these sites, resulting in them incurring more charges for checked baggage and other optional services than if they had known about the additional costs for these items.

2.9. Prohibition on Post-Purchase Fare Increases

The Department is aware of several instances in the past few years in which tour operators have imposed post-purchase increases in the prices for air travel or combined travel packages on their customers. Consumers could also possibly find themselves incurring higher costs for air travel than were contracted for at the time of purchase because of increases in checked baggage fees, notwithstanding the May 19, 2008 DOT guidance on checked baggage fees, which states that:

> Internet displays and airline agents should also make clear when the added charges or revised policies are to take effect. In no case should more restrictive baggage policies or additional charges be applied retroactively to a consumer who purchased his or her ticket at a time when the charges did not apply, or when a lower charge applied.

A February 2010 review of reporting carrier websites indicated that all reported increases in checked baggage fees were accompanied by effective dates for the change specified in terms of when tickets were purchased.

It is possible that the current DOT guidance may not continue to be effective for enforcing the current prohibition on post-purchase price increases. Codifying this policy would also reduce the amount of resources and effort required for the Department to determine if entities are complying with its provisions.

2.10. Prompt Passenger Notification of Flight Status Changes

Passengers learn about changes in flight status (most importantly, delays or cancellations) by gate announcements, electronic displays at airports, checking carrier websites, and increasingly,

[20] Department of Transportation, "Guidance on the Disclosure of Policies and Charges Associated with Checked Baggage," 73 F.R. 28854, May 19, 2008.

[21] This is particularly likely to be true for passengers on low-cost airlines. About 75 percent of AirTran, JetBlue, and Southwest passengers reportedly book flights directly on the carrier websites.

by automated notifications sent to cell phones or e-mail accounts. At present there are no regulatory requirements relating to the methods of provision, accuracy, or timeliness with which carriers inform passengers about flight status changes.

In particular, carriers are not currently required to offer passengers the option to subscribe to e-mail or text messaging services that provide automatic notification of flight status changes. However, it is possible to sign up to receive these notifications on the websites of all but 2 of the 11 reporting carriers that sell tickets directly to the public. Flight status updates are also available from a number of third-party providers, including FlightStats.com, 4Info, and Google. A review of some airline passenger forums and other online sources indicates that in some instances, certain third-party notification services provide more timely updates on flight delays and cancellations than some of the carrier messaging systems offer.

Because of the increasingly widespread provision of real-time updates, passengers may reasonably expect that all of the channels from which they learn about flight status changes provide prompt updates as new information becomes available. In the absence of any current regulatory requirements, the speed of updates being posted could vary substantially among carriers or notification channels, and many consumers may not have sufficient information to assess which methods of notification provide relatively more prompt updates.

2.11. Limitations on Venue Provisions in Contracts of Carriage

There are currently no specific regulatory restrictions on the inclusion of venue provisions in carrier contracts of carriage. However, OST considers the inclusion of restrictive venue restrictions in contracts of carriage to be an unfair and deceptive trade practice. The Aviation Enforcement Office has threatened enforcement action against carriers that have previously included restrictions precluding passengers from filing suit in jurisdictions other than those in which the carriers were headquartered.

A February 2010 review of the contracts of carriage for the largest U.S. carriers indicated that only Spirit Airlines included a limitation on the venue for filing claims in its contract of carriage.

The absence of a prohibition on venue restrictions means that passengers of the same airline with the same complaint or claim may face very different costs to pursue the matter, depending on their proximity to the carrier's headquarters. In the case of Spirit Airlines, a passenger residing in Miami who had a claim arising from a round-trip flight to Los Angeles would need only make a short drive for a court appearance, while a passenger residing in southern California with the same type of claim on the same round-trip flight may need to incur substantially higher travel costs associated with pursuing a claim that must be filed in southeastern Florida.

3. Proposed Regulatory Requirements and Alternatives for Addressing Identified Needs

This section outlines the proposed regulatory requirements in each area for which additional passenger protections are being considered; describes the entities that would be affected by each

of the proposed requirements; and identifies regulatory and non-regulatory alternatives that would meet the passenger protection needs identified by the Department.

It is important to note that although the regulatory evaluation attempts to mirror the terms and wording of the proposed regulation, no attempt is made to precisely replicate the proposed regulatory language. Readers are cautioned that the actual regulatory text in the NPRM, and not the text of this regulatory evaluation, presents the specific proposed regulatory requirements..

3.1. Additional Requirements for Tarmac Contingency Plans

The Department is proposing to extend the coverage of the tarmac contingency plan requirements promulgated in the EAPP1 Final Rule to cover foreign carriers operating scheduled passenger service flights to and from the United States. In addition, covered U.S. and foreign carriers would now be required to coordinate their contingency plans with authorities at all U.S. airports with 10,000 or more passenger enplanements annually that the carrier services, including small-hub and non-hub airports that are not within the scope of the current EAPP1 requirements.[22] Finally, while U.S. carriers are currently required to coordinate their contingency plans and efforts with regularly used airports, the recent Final Rule does not specifically require that carriers must coordinate these contingency plans with Customs and Border Protection (CBP) officials to enable passengers on diverted incoming international flights to deplane after extended on-tarmac delays. The Department is proposing to add a requirement to ensure that carriers coordinate plans with appropriate CBP personnel at any U.S. airport that the carrier uses as a diversion airport for its international flights.

It is difficult to predict the length of a tarmac delay that would trigger mandatory deplanement of passengers—it may be as much as 6 hours for long cross-Pacific flights, but may be much shorter for flights to and from Canada, Mexico, and the Caribbean. For the base case in this regulatory evaluation, we have assumed that the tarmac delay limit in foreign carrier contingency plans (other than Air Canada's) would be 5 hours.[23]

The number of lengthy tarmac delays that would require carrier actions under the proposed requirements can be projected using the distribution of 2007–2008 tarmac delay times for reporting U.S carriers.[24]

[22] The Final Rule requires this assurance of coordination only with the authorities of large and medium hub airports—those that account for at least 1 percent, and between 0.25 and 1 percent, respectively, of total U.S. enplanements.

[23] Air Canada and Air Canada Regional already have a tarmac contingency plan in place that affords passengers protections against lengthy on-board delays that are at least equivalent to those guaranteed to passengers on U.S. carriers under the EPP1 Final Rule.

[24] This distribution was presented previously in the regulatory evaluation accompanying the EAPP1 Final Rule and is reproduced as "Number of Flights and Passengers with Extended Tarmac Delays," in the Source Notes section of the Appendix.

Table 9 - Projected Annual Numbers of Lengthy Tarmac Delays for Foreign Carriers

	Air Canada	Other Carriers	Total
2+ hour delay	77.30	221.78	299.08
3+ hour delay	17.37	49.83	67.20
4+ hour delay	3.18	9.13	12.31
5+ hour delay	0.45	1.30	1.75

Note: Air Canada's tarmac contingency plan has 60-minute food and water and 90-minute deplaning limits.

Source: Econometrica projections based on BTS tarmac delay reports for reporting carriers

As in the previous rulemaking, the Department may consider setting a maximum allowable time limit for tarmac contingency plans on international flights operated by both domestic and foreign carriers. The Department may also consider limiting the required coordination of plans to exclude non-hub airports if sufficient information exists to indicate that lengthy tarmac delays do not typically occur at these airports.

3.2. Expanded Reporting of Tarmac Delays

The Department is proposing to require all covered U.S. carriers and foreign carriers to report specified information to the BTS on all tarmac delays of 3 hours or more involving domestic flights or international flights departing from, or arriving at, a U.S. airport.

Information on 3-hour tarmac delays involving domestic flights of reporting carriers is available since October 2008. Reporting carriers reported tarmac delays of 3 hours or more for 903 flights in 2009; almost half of these delays occurred in June or July. These reporting carriers accounted for 77 percent of domestic departures and 49 percent of international departures in 2008. If tarmac delays of 3 hours or more are uniformly distributed among reporting carriers, non-reporting U.S. carriers, and foreign carriers, and between domestic and international flights, the projected number of reportable delays would be as shown in Table 10.[25]

[25] As noted above, of the 903 reported 3-plus hour tarmac delays reported in 2009, 77 involved arriving flights. We did not use separate delay projections for departures and arrivals in the evaluation of this proposed requirement.

Table 10 - Projected 3-Hour Tarmac Delays, 2009

		Total	Domestic	International
U.S. Carriers	Reporting	989	903	86
	Non-Reporting	289	268	21
	Total	1,278	1,171	107
Foreign Carriers		67	0	67
All Carriers		1,345	1,171	174

Source: Projections based on BTS tarmac delay reports for reporting carrier domestic flights (n=903).

3.3. Minimum Standards for Customer Service Plans (CSPs)

The Department is proposing to establish specific standards for the customer service plans (CSPs) required by the EAPP1 Final Rule. Some of these standards are already fixed by existing regulatory requirements. Foreign carriers would also be required to establish CSPs that would cover passengers on their flights to and from the United States; they would also be required to conduct the annual self-audits of compliance now required of covered U.S. carriers.

The proposed requirement would also stipulate that covered U.S. and foreign carriers would have to make the results of the required annual self-audits of compliance available for Department review on request for 2 years following the date on which the audit is completed.

For this analysis, we have assumed that subsidiaries of foreign carriers would not be required to develop independent CSPs. All 88 foreign carriers that are not subsidiaries of other foreign carriers with flights to and from the United States would need to develop, adhere to, and self-monitor compliance with their own CSPs.

3.4. Incorporation of Tarmac Contingency Plans and Customer Service Plans into Contracts of Carriage

The Department is proposing that U.S. carriers covered by the EAPP1 Final Rule and foreign carriers that would be covered under Requirements 1 and 3 of the proposed rule would be required to incorporate their tarmac contingency and customer service plans into their contracts of carriage. Because the EAPP1 Final Rule had not yet taken effect when this regulatory evaluation was prepared, it is not possible to determine whether any covered carriers may incorporate either of these plans into their contracts of carriage voluntarily in the absence of this proposed requirement being adopted.

3.5. Requiring Foreign Carriers to Respond to Customer Complaints

The Department is proposing to extend the requirements for covered U.S. carriers in the EAPP1 Final Rule relating to designation of an advocate for customers' interests; acknowledgement of customer complaints in writing; and provision of a substantive response to the concerns raised within specified time limits to provide passengers on foreign carrier flights to and from the United States with the same guarantee of response.

For this analysis, we have assumed that all 88 foreign carriers that are not subsidiaries of other foreign carriers with flights to and from the United States would need to respond to customer complaints in a manner that complies with the proposed requirement. The total number of customer complaints requiring responses is estimated to be 61 times the number of complaints reported directly to the OST, based on a 2001 report by the DOT Inspector General.[26] Improved carrier responsiveness to complaints was estimated to reduce the level of complaints by 20 percent in the DOT regulatory evaluation for the EAPP1 Final Rule.

Table 11 - Projected Number of Consumer Complaints (Foreign Carriers)

Variable	Estimate
Number of Complaints Received by DOT	1,272
Ratio of Total to Reported Complaints	61
Estimated Total Complaints	77,592
% Reduction from CSP Implementation	20%
Post-CSP Number of Complaints	62,074

Source: OST, Air Travel Consumer Reports, Jan-Dec 2008; DOT, "Final Report on Airline Customer Service Commitment," Office of the Inspector General, report AV-2001-020, February 12, 2001; and DOT, F*inal Regulatory Impact Analysis of Rulemaking on Enhanced Airline Passenger Protections*, December 17, 2009.

3.6. Changes in Denied Boarding Compensation (DBC) Requirements

The Department is proposing to make five changes in the existing requirements relating to denied boarding compensation (DBC):

- Carriers would be required to "advise each passenger solicited to volunteer for denied boarding, no later than the time the carrier solicits that passenger to volunteer, (1) whether he or she is in danger of being involuntarily denied boarding (in doing so, the carrier must fully disclose the boarding priority rules that the carrier will apply for that specific flight), and (2) the compensation the carrier is obligated to pay if the passenger is involuntarily denied boarding."
- The Department is also proposing to increase the maximum amount of DBC that must be paid to involuntarily bumped passengers from $400 to $650 when alternative transportation is provided by the carrier within 2 hours for domestic flights and within 4 hours for international flights and from $800 to $1,300 otherwise.
- A third proposal would clarify the existing DBC rule by explicitly stating that the definition of "confirmed reserved space" on a flight includes seats held by zero-fare tickets (e.g., tickets obtained from consolidators, as part of a tour package, or by using frequent flyer miles), thus entitling the holders to DBC if bumped. These passengers would be entitled to compensation at the lowest rate paid by cash, check or credit card for a comparable class of ticket on the same flight, up to the maximum amount currently specified.

[26] DOT, "Final Report on Airline Customer Service Commitment," Office of the Inspector General, report AV-2001-020, February 12, 2001." See the Source Notes section of the Appendix for further details.

- The Department is also proposing to implement a bi-annual inflation adjustment to the maximum DBC levels based on changes in the CPI-U, with the amount of the adjustment rounded to the nearest $25. Incorporating this adjustment would obviate the need for periodic notice and comment rulemakings while maintaining the real value of the maximum compensation amounts set forth in the existing DBC rule.
- Another proposed amendment would ensure that involuntarily bumped passengers are informed orally of their ability to receive payment of DBC to which they are entitled by cash or check, rather than in the form of free or discounted air transportation.

Changes in the DBC policy would require training and communications with gate agents for carriers in each airport they serve using aircraft with 30 or more seats. In this analysis, we have assumed that ¼ of the 94,000 airline employees reported in the "passenger handling" category on Schedule P-10 for 2008 would need to receive training and information on changes in the current DBC policy.[27]

The Department is considering extending the applicability of the DBC requirements to include flights sold on aircraft with 19 to 29 seats. This would increase the number of U.S. carriers covered by the DBC policy from 52 to as many as 87. These additional carriers would be considered small businesses under the definition currently used in Regulatory Flexibility Act (RFA) analyses prepared by the Department. In addition, carriers currently covered by the DBC policy that serve additional airports using only aircraft with 19 to 29 seats would incur training and communications costs for additional gate agents and other passenger handling personnel.

3.7. Required Disclosure of Full Fares in Advertising and Prohibition on Opt-Out Provisions in Ticket Sales

The Department is proposing to discontinue its current enforcement policy on full-fare advertising requirements, which permits carriers and other sellers of air transportation to break out from the advertised price any mandatory airport or government fees that are charged on a fixed or per-segment basis. The proposed regulatory language would prohibit break-out of these charges and fees from advertised fares. This would have the effect of reaffirming the stated policy and eliminating the variance from stated policy that limits consumers' access to full fare information when they are in the process of making air travel purchase decisions.[28]

These requirements would cover any advertising or solicitation by "a direct air carrier, indirect air carrier, an agent of either, or a ticket agent, for passenger air transportation, a tour (i.e., a combination of air transportation and ground accommodations), or a tour component (e.g., a hotel stay) that states a price for such air transportation, tour, or tour component." The policy would apply to all carriers, travel agencies, and tour operators, and cover both print and online advertising as well as online travel booking engines.

[27] Most air carriers with fewer than 2,000 employees report passenger handling personnel under the more general category of "Passenger/General Services & Administration." However, the total number of employees reported in this category by smaller carriers is about 7,400, the majority of whom are not likely to have responsibilities associated with boarding passenger flights.

[28] A previous reconsideration of this enforcement policy was conducted in Docket No. OST–2005–23194, which ended with the Notice of Proposed Rulemaking being withdrawn.

In addition, advertising and solicitations that display one-way fares for air transportation that are conditional on purchase of a round-trip ticket would be required to display in a conspicuous manner that they are "each-way fares."

The Department is also proposing to prohibit covered entities from requiring customers to purchase additional optional services in connection with air transportation (such as travel insurance or preferred seating assignment) unless a consumer affirmatively chooses to have any such services included in the purchase price.

Because of the long lead times involved in some forms of print media advertising vehicles (e.g., annual visitors' guides, promotional brochures for spring break travel packages), the Department is expected to permit covered entities to distribute or post advertising materials booked or produced before the rule date that comply with the current enforcement policy standards for a short period of time after the rule is published. This regulatory evaluation assumes that all print advertising created after the rule publication date will need to comply with the proposed requirement and that all online and print solicitations still in circulation would need to comply with the new requirements by the anticipated effective date for the rule.

In addition, the Department may consider restricting the applicability of this requirement to cover only the price for the air transportation component of a tour or tour component. This would permit covered entities to advertise prices for other travel-related services, such as hotels and ground transportation, on the same basis as businesses (including hotels and rental car companies) that are not under DOT jurisdiction. However, this alternative would increase the costs and difficulty of determining whether or not sellers of air transportation are complying with the proposed full-fare advertising requirements.

3.8. Expanded Disclosure of Baggage Fees and Other Optional Fees

The Department is proposing to require that each covered U.S. and foreign carrier disclose checked baggage fees on e-ticket confirmations; post notice of any increases in baggage fees on its home page and maintain any such notice for at least 3 months after the increase; and provide a link from its home pages to a page that contains a full disclosure of all optional fees for services that passengers may be charged by the airline.

The proposed regulatory language currently defines covered carriers as those that have ticket-capable websites accessible to the general public. Following this definition, we have assumed that carriers that operate flights only on a contract basis for other carriers would not incur costs to comply with these requirements. The Department may also consider extending these requirements to cover online travel agencies and other sellers of air transportation.

3.9. Prohibition on Post-Purchase Fare Increases

The Department is proposing to prohibit any "seller of scheduled air transportation, or of a tour or tour component that includes the price of scheduled air transportation" from making any post-purchase increases in the price of that air transportation, including, but not limited to, increases in checked baggage fees.

The Department does not believe that air carriers, travel agencies, and tour operators currently attempt to impose post-purchase fare increases on prior purchasers of air transportation, but lacks adequate information to confirm this assessment.

3.10. Passenger Notification of Flight Status Changes

The Department is proposing to require that reporting carriers provide information on flight status changes to passengers through whatever means they use (electronic messaging services, website flight status tools, departure/arrival boards at airports, and gate attendant announcements) within 30 minutes of when that information either becomes available to the carrier or should have become available to the carrier.

No information is currently available on the extent to which flight status updates are now disseminated to passengers by various communications channels within 30 minutes of new information becoming available. The Department is soliciting comments from parties who are able to provide information on this issue.

3.11. Limitations on Venue Provisions in Contracts of Carriage

The Department is proposing to codify its current enforcement policy on permissible restrictions imposed by venue provisions in carrier contracts of carriage. The proposed requirement would proscribe any such provisions from eliminating the right of consumers to bring claims against the carrier in any court with jurisdiction, treating any such restrictions as an unfair and deceptive trade practice.

The Department may also consider limiting the restrictions on venue provisions to ensure that customers have the ability to file claims in their State of residence, the State in which the ticket was purchased, and/or the State(s) of the flight's origin and destination.

4. Framework for Analysis of Benefits and Costs

The NPRM includes 11 requirements containing more than a dozen provisions that would provide airline passengers with additional protections. While the benefits and costs for each of 11 requirements were evaluated on a stand-alone basis, there are two dimensions of the evaluation that cut across the specific requirements: (1) the aspect of passenger air travel that would be addressed, and (2) the ability of passengers (or prospective passengers) to obtain needed services or information from other sources. The first of these considerations shapes the methodologies used to estimate benefits; the second informs the estimation of both benefits and costs. We also present a listing of the general assumptions used in developing these estimates.

4.1. Type of Air Travel Issues Being Addressed

The first is the element of passenger air travel that the proposed requirement would address:

- ***Carrier Service:*** Several of the requirements under consideration would standardize and/or improve aspects of service provision for passengers that have already booked flights (such as Requirements 9 and 10) and, in the case of tarmac delays (Requirement 1), already boarded the aircraft. In many of these areas, some carriers typically provide the level of service contemplated in the proposed regulations, but others fall short of the potential requirement to a degree that the service provided is qualitatively different from that which would be reasonable for consumers to expect. Adopting regulations to address these issues would reduce the amount of time consumers lose to delays, move some of the time spent waiting to more comfortable situations, and reduce uncertainty associated with air travel. There are also benefits to consumers at the time of purchase from limiting the frequency and consequences of possible service failures.

- ***Purchaser Information***: Other requirements would improve the extent and presentation of information available to consumers who are in the process of making air travel purchase decisions. While online search tools provide potential customers with access to much more extensive information about carriers, flight times, and prices than was previously available, it is often difficult to determine the final price of the purchase being contemplated. Adopting additional requirements for the provision of information about flight pricing, fees, and likelihood of delays (Requirements 2, 7, and 8) will reduce consumer search time and improve the chances that purchase decisions are made with sufficient information.

- ***Passenger Equity:*** Two types of possible requirements—those dealing with overbooking (Requirement 6) and limitations on venue provisions in contracts of carriage (Requirement 11)—primarily address carrier-passenger equity issues, but may have subtle economic effects as well.[29] Ensuring equitable treatment of involuntarily bumped passengers may reduce potential passenger reluctance to purchase and/or use consolidator or frequent flyer tickets for trips at busy air travel times. Eliminating restrictions on venue may prompt airlines to be more responsive to the complaints of unsatisfied passengers and avoid increased litigation exposure.

In our development of benefits estimation methodologies, we have therefore grouped the regulatory requirements under consideration into three categories based on the type of impact and benefits they are expected to have. The three major categories involve requirements to: (1) improve the delivery of services to passengers who have already booked air travel; (2) provide additional or clearer information to consumers who are making travel purchase decisions; and (3) provide more equitable treatment of similarly-situated passengers. The benefits that can be expected from adopting each of these three categories of requirements will need to be estimated using different approaches:

[29] More specifically, these provisions would ensure that similarly situated passengers would be treated equitably. For example, requiring an increase in the maximum DBC level to account for inflation would compensate future passengers who are involuntarily bumped at the same (real) rate as those who are currently denied the ability to board oversold flights. Prohibiting restrictions on the venue for filing claims would ensure that the costs and inconvenience associated with filing a consumer-related claim would be similar for consumers in different states, instead of varying with the distance between the carrier's and the passenger's home states.

- ***Carrier Service:*** In general, the benefits of requirements that would provide service improvements have been valued using the approaches already developed in the RIA for the recently adopted EAPP1 Final Rule. Provisions which would potentially improve carrier delivery of services have been evaluated by assessing the impact on the aggregate amount of time and the quality/comfort of where that time is spent (e.g., in the terminal vs. on the tarmac on diverted international flights) during travel for affected passengers. In some instances, the benefit of a proposed requirement will be to increase the certainty of service delivery within expected levels of provision quality and timeliness. Estimating the benefits of these requirements involved making an assessment of the likely ranges of uncertainty premiums that passengers might attach to air travel services.

- ***Purchaser Information:*** A consumer surplus methodology has been used to estimate the benefits of requirements that are expected to improve the availability and ease-of-use of pre-purchase air fare information. Evaluating the benefits for each requirement area involves developing an estimate of the number of prospective purchasers who would make use of the additional information and the value to these purchasers of having this additional information available. The estimated benefits also depend on the extent to which options are already available to consumers who wish to incorporate them into their purchasing decisions. In addition, valuation of the benefits from improved information required estimating the per-purchaser time savings from reduced search costs.

- ***Passenger Equity:*** The proposals that address passenger equity issues involve transfers from carriers to passengers. The amounts of these transfers are relatively straightforward to calculate in the case of the possible changes to the DBC policy, but the extent of any transfer resulting from limitations on carrier venue restrictions cannot be quantified.

4.2. Availability of Alternatives to Carrier Services or Information

The second cross-cutting dimension is the extent to which consumers have available alternatives to relying on the carrier to provide adequate service or to obtaining adequate information to inform purchase decisions:

- ***Post-Purchase Changes in Terms of Service:*** The requirements for tarmac contingency plans for foreign carriers and for all carriers to coordinate these plans with Customs and Border Protection at diversion airports fall at one end of the spectrum of situations with readily available alternatives, with well-publicized instances of passengers being held on-tarmac for prolonged periods of time. The proposals to modify the existing rules on overbooking and prohibit post-purchase increases in checked baggage fees and other optional fees also address situations where the carrier unilaterally makes post-purchase alterations in the terms of service. In these areas, the proposed requirements would limit the range of discretion that could be taken by one party to an airline travel contract (the carrier) in situations where the other party (the passenger) is unable to make welfare loss-mitigating responses to those actions.

- ***Pre-Travel Services or Information Available:*** In contrast, some of the deficiencies in the pre-purchase information available to potential purchasers of air travel on carrier websites

may be mitigated by use of other online booking services that provide more extensive or more readily accessible information. Similarly, electronic updates on flight status can be obtained from a variety of sources in addition to current carrier notification systems. The economic benefits of additional requirements in these areas depend on the extent of the time costs associated with the increased searching that must be undertaken to obtain the desired information from alternative sources, as well as the extent to which some purchasers of air travel would have access to information that they presently do not know how to obtain. The regulatory evaluation of these provisions includes an assessment of present industry and consumer practices to determine the incremental benefits of more extensive and universal information provision and the extent to which online purchasers of air travel make use of the information that is already available.

4.3. General Assumptions Used in Estimating Benefits and Costs

The ability to evaluate and interpret the results of an economic analysis depends to a significant degree on the documentation of the baseline data and assumptions used. The following general assumptions apply throughout the entire analysis of benefits and costs:

- In accordance with OMB guidelines, a real discount rate of 7 percent is used in the primary analysis and is supplemented with overall estimates using a 3 percent discount rate as well.
- The proposed requirements become effective on January 1, 2011, with quantifiable benefits and costs calculated over the 10-year period from 2011 through 2020. Supplementary results are calculated over a 20-year period from 2011 through 2030.
- This analysis includes benefits and costs for foreign business and citizens.
- The numbers of flights and passengers are assumed to have declined in 2009 and then increase annually beginning in 2010, based on current FAA forecasts.
- The value of travel time assumed to be at $28.60 per hour for all airline travelers while traveling based on Department guidance. The value of travel time for these consumers while searching on-line for fares is a weighted average (based on the portion of personal travelers and business travelers) of half of the average hourly earnings of travelers on personal trips and 100% of the average hourly earnings of travelers on personal trips as estimated by the U.S. Department of Transportation ($24.15).[30]
- The cost of air travel delay is estimated at $57.11 per *minute*[31] to carriers and $28.60 per hour[32] to passengers.
- The cost of a flight cancellation is estimated at $11,600 to carriers[33] per flight.

[30] U.S. Department of Transportation, "Revised Departmental Guidance: Valuation of Travel Time in Economic Analysis, February 11, 2003.

[31] "Evaluating the True Cost to Airlines of One Minute of Airborne or Ground Delay," University of Westminster, May 2004. Value in 2004 Euros, converted to dollars using the exchange rate of $1.364 per Euro in 2004, and inflated to 2008 dollars.

[32] Economic Values for FAA Investment and Regulatory Decisions, A Guide, Contract No. DFTA 1-02-C00200, prepared by GRA Inc.

[33] Estimate for 1998 in Zalman Shavell, "The Effects of Schedule Disruptions on the Economics of Airline Operations," The MITRE Corporation, April 14, 2000, adjusted to 2010.

A more detailed listing of the baseline data and assumptions used in developing these estimate is provided in an attached Appendix.

4.4. Alternatives Considered

The Department is considering several alternatives for achieving the goals of improved passenger protections in some of the areas addressed by the proposed rule. Benefits and costs were specifically estimated for four alternatives for comparison with the proposed rule:

- ***Requirement 1 - Alternative A***: The Department requires a maximum time limit of 4 hours, instead of a carrier-determined limit (expected to be 5 hours), for tarmac delays before requiring the deplaning of passengers on international flights.
- ***Requirement 1 - Alternative B***: The contingency plan requirements for foreign carriers apply only to those carriers with at least one flight designed to seat 61 or more passengers.
- ***Requirement 7 - Alternative C***: The full fare advertising requirement would apply to carrier websites only.
- ***Requirement 7 - Alternative D***: The effective date for full fare advertising for carriers and other advertisers of air travel would be within 30 days of final rule publication.

The benefits and costs of these alternatives are compared with those for the base case in Section 7.4.

5. Estimated Benefits of Proposed Requirements

This section presents the methodology used to evaluate the benefits for each of the proposed requirements in the NPRM; preliminary estimates for the components that could be evaluated quantitatively; and descriptions of the benefits for which no quantitative estimates could be developed.

5.1. Additional Requirements for Tarmac Delay Contingency Plans

Extending the EAPP1 Final Rule's contingency plan requirements for domestic carriers contingency plans to foreign carriers will provide passengers on foreign carriers' flights departing from or arriving to the United States with the same benefits that passengers on flights of domestic carriers currently receive. Benefits are measured as the total value of improvements in comfort and certainty, measured using premiums on the value of time, for passengers that are expected to experience greater comfort in waiting and/or certainty of departure or arrival time as a result of the proposed requirement. The benefits from greater comfort are estimated as follows:[34]

[34] A similar methodology was used to estimate the benefits of tarmac contingency plans for domestic carriers in the regulatory analysis that accompanied the EAPP1 Final Rule. The only variance from the approach used in that analysis is that benefits for "meeters and greeters" are not included here, as nearly all arriving international flights

- This proposed requirement will shift the portion of total trip time spent in less comfortable conditions (such as the sixth hour on a plane spent sitting on the tarmac) to being spent in more comfortable conditions (such as waiting in an airport terminal). No change in overall trip time is assumed except in cases of flight cancellation.

- While studies that specifically address consumer responses to long on-board air travel delays have not been located, estimates from studies of consumer behavior and user experience on other modes of transportation are available to use as proxies. Specifically, analyses on transit systems provide estimates of "premiums" on the value of user time based on the value people place on quicker or easier access to move from one place to another and on improved comfort during travel. This regulatory analysis adopts the premiums on the value of time used in the RIA for the EAPP1 to evaluate applying a similar requirement to covered U.S. carriers.[35]

- The value of the projected difference in comfort resulting from the proposed requirement is estimated using a percentage of the base value of travel time saved (or "premium"), developed from survey-based estimates of the values attached by travelers to different waiting, walking and transfer conditions. Since no specific estimate of time values for level of service ratings for airline travel are available, values were taken from other modal studies. The most applicable study estimated a time-value premium based on differing levels of service that incorporated factors such as comfort, convenience and reliability for various categories of public transportation and auto users. In this research, "level of service ratings" were used to determine the value of different time spent in different conditions. Based on this study, a premium of 0.34 was used for the greater comfort derived from access to food, water and clean lavatory facilities; a premium of 0.68 was used for the greater comfort of waiting in the terminal rather than in a plane on the tarmac. These premiums are within the range found for the value transit passengers place on being able to sit versus stand (0.20 and 0.87 in two studies that address the quality of travel experience).[36]

---

with extensive on-tarmac delays are at airports to which the planes have been diverted and therefore are unlikely to keep "meeters and greeters" waiting in the arrival airport.

[35] For example, studies show that transit riders value sitting more than standing without regard to any change in total travel time required. Travelers also prefer to spend time in transit rather than part of the time waiting for service if total trip length is the same. See William Waters, *The Value of Times Savings for the Economic Valuation of Highway Investments in British Columbia*, BC Ministry of Transportation and Highways, 1992, as discussed in *Transportation Cost and Benefit Analysis – Travel Time Costs*, Victoria Transport Policy Institute, revised August 10, 2007 and Marcus von Wartburg and W.G. Waters II, Chapter 2: *Congestion Externalities and the Value of Travel Time Savings*, in *Towards Estimating the Social and Environmental Costs of Transportation in Canada*, Anming Khang, et al, eds. Center for Transportation Studies, University of British Columbia, August 2004, for reviews of the literature.

[36] William Waters presents data that the difference between the value of time sitting versus standing is 0.20 of the prevailing wage rate (William Waters, *The Value of Times Savings for the Economic Valuation of Highway Investments in British Columbia*, BC Ministry of Transportation and Highways, 1992, as discussed in Transportation Cost and Benefit Analysis – Travel Time Costs, Victoria Transport Policy Institute, revised August 10, 2007). An older study (P.B. Goodwin) presents premiums ranging from 0.25 to 0.87 (averaging 0.50) for sitting versus standing in either a public or segregated (demand response only) vehicle (P.B. Goodwin, *Human Effort and the Value of Travel Time*, Journal of Transport Economics and Policy, January 1976).

In addition, the simple existence of contingency plan to address long on-tarmac delays may have a benefit to passengers, because they would have more knowledge about carrier policies and know that there are limits on a plane sitting on the tarmac without working lavatories, as well as how long the plane can sit on the tarmac before food and water are provided and before passengers must be allowed to deplane. For instance, if a passenger waits for 1.5 hours on the tarmac, he or she knows that food, water and lavatory facilities will be guaranteed if the delay continues. Measuring the benefits to passengers provided by this guarantee requires the estimation of a "certainty premium" that places a monetary value on the knowledge that future discomfort will be avoided.

No research studies were located that directly quantify the value of decreased anxiety during extended on-tarmac waiting periods. Consequently, based on studies of auto and public transit passengers' value of levels of service summarized above, a conservative estimate of a 1 percent premium was selected as a proxy for the value of the decreased anxiety/discomfort passengers would place on knowledge that a contingency plan exists to address conditions and airline commitments during on-tarmac delay situations.[37] The total value of this benefit is calculated as the product of of the hours spent by all passengers waiting on the tarmac for more than one hour, the premium for decreased anxiety/greater security of knowing a tarmac contingency plan exists (assumed to be 0.01), and the DOT-specified value of time for air travelers.

For passengers waiting on the tarmac after two hours and who have not deplaned, a premium of 0.34 is used to valued the benefits of ensured access to adequate food, water and lavatory facilities. The total value of this benefit is calculated as the product of the hours spent by all passengers waiting on the tarmac for more than two hours, the premium for greater comfort (assumed to be 0.34), and the DOT-specified value of time for air travelers.

Benefits to passengers allowed to deplane after a tarmac delay of a specified length accrue from the greater comfort of waiting in the terminal, instead of on the plane on the tarmac. The total value of this benefit is calculated as the product of the amount of time that would have been spent on the tarmac by passengers, the premium for greater comfort associated with time spent waiting in the terminal rather than on the tarmac (assumed to be 0.68), and the DOT-specified value of time for air travelers.

This proposed requirement may result in some flights being cancelled *that would not otherwise have been cancelled* in order to free up needed gates. The additional cancellations will result in additional costs to passengers and carriers.[38] These passengers would thus experience a "disbenefit" or negative impact because the cancellation will increase overall travel time. The

[37] A recent review of literature on the value of travel time found changes based on various level of comfort as low as 8%, or .8, (Chapter 5, *Transportation Cost and Benefit Analysis – Travel Time Costs*, Victoria Transport Policy Institute, revised August 10, 2007)..

[38] While there is some research into the factors behind flight cancellations (such as hub destination, weather, time of day, day of the week) little data exists to estimate the incremental impact on flight cancellations arising from additional delays due to outside requirements. One of the few such studies was conducted on airport closures for security reasons and found an additional 5% of flights were cancelled when the closure time was extended by one hour (Nicholas Rupp, George Holmes and Jeff DeSimone, "Airline Schedule Recovery After Airport Closures: Empirical Evidence since September 11th," NBER Working Paper No. 9744, June 2003).

increase in travel time is valued using DOT estimates for air travelers and research on the average increase in trip time when a flight is cancelled.[39]

The benefits of the proposed requirements for domestic and foreign carriers to coordinate contingency plans with airport authorities at small hub and non-hub airports and with CBP authorities at diversion airports are difficult to quantify. The regulatory evaluation prepared in support of the EAPP1 Final Rule assumed that the recently adopted regulations would be adequate to ensure complete compliance by carriers. However, the proposed enhancements to the contingency plan requirements may increase the probability that covered domestic carriers completely comply with the EAPP1 requirements. The benefits of these enhancements are therefore estimated to range from zero to 1 percent of the total benefits previously estimated for domestic carriers' tarmac contingency plans.

The estimates of benefits incorporate two key assumptions:

- The distribution of on-tarmac delays among foreign carriers' flights to and from U.S. airports is identical to the distribution of reporting domestic carriers' flights.[40]
- The rate of increase in flight cancellations due to the implementation of contingency plans is similar to the incremental cancellation rate for domestic carriers' due to contingency plan requirements.[41]

The estimated benefits for the proposed requirement are as follows:

Table 12 - Illustration of Benefits Estimation for First Year, Requirement 1

	2011
Monetized Time Saved from Comfort (1+ hour delays)	$33,949
Monetized Time Saved from Access (2+ hour delays)	$179,020
Monetized Time Saved from Comfort (5+ hour delays)	$501
Monetized Savings from Added Coordination with CBP	$0
Monetized Benefits from Coordination w/ Additional Airports	$7,984
Monetized Benefits from All Components	**$221,454**
Total Component Benefits (millions)	$0.23

[39] Estimates of the likely number of flights that would exceed each of the time limits (or triggers) for both arriving and departing flights are needed for these calculations, but the BTS does not currently collect these data from foreign carriers. Therefore, the distribution of arriving and departing flights of US reporting carriers by the length of on-tarmac delay was applied to the numbers of flights operated by foreign carriers. Because carriers would be able to set the time limit for deplaning and the difficulties associated with cancelling international flights, the proposed requirement is expected to result in very few additional flight cancellations (see the source notes in the Appendix for additional details).

[40] Data for the distribution of flights by length of on-tarmac delay are not available for foreign carriers, which are not required to report on-time statistics to BTS.

[41] The proposed requirement allows a foreign carrier to determine what the time-limit for deplaning will be, as long as it is made available on its website beforehand, which gives the carrier greater flexibility in limiting cancellations.

A complete presentation of the procedures used to calculate these benefits is provided in the attached appendix.

Adoption of this proposed requirement may provide several additional categories of potential benefits that could not be quantified in this regulatory evaluation, including the following:

- ***Improved Management of Flight Delays***. As with domestic carriers, there is a possibility that the existence of contingency plans for long on-board delays could lead to heightened sensitivity to additional delay costs among foreign carrier management. This could lead to improved management of delayed flights, diversion schedules, and other flight management issues as carriers have additional incentive to avoid long on-board delays.

- ***Decreased Anxiety with Regard to Flying***. Knowing that contingency plans exist may bring relief during long on-board delays and lower overall flight anxiety for some passengers, making some passengers less uneasy about overall about traveling by air. This may lead to a significantly improved travel experience for some passengers (more so than is estimated) and may even lead to an increase in overall demand for air travel.

- ***Reduced Stress among Delayed Passengers and Crew***. A possible decrease in passenger anxiety, together with improved comfort and convenience brought by contingency plans, may lead to reduced stress among delayed passengers and crew. This may decrease minor conflicts and occasional altercations that arise when people are under stress for extended periods in close quarters.

- ***Improved Overall Carrier Operations***. Carriers may be able to improve general operations based on analysis of data now required to be stored on substantive delays and carrier responses. This recalls the business management maxim, "What you can measure, you can manage." If carriers measure substantive delays and their responses to them, the result will establish benchmarks for improvements. From these benchmarks, carriers can improve service, leading to more unquantified passenger benefits.

- ***Improved Customer Good Will towards Carriers***. As the level of service provided by carriers improves and complaints decline, overall customer good will towards carriers should improve. Improved good will may lead to a slight increase in demand.

The Department is expressly soliciting comments regarding the estimation of the percentage of international flights which are likely to have on-tarmac delays of greater than two hours, greater than three hours, greater than four hours, and greater than five hours. The Department is also expressly soliciting comments regarding the estimation of a premium on the value of time for certainty/security of knowing that if carriers are required to have contingency plans and the premiums for time spent with access to food, water and clean lavatories after 2 hours of on-tarmac delays and for the time spent in an airport instead of on-tarmac after an extended period of time.

5.2. Expanded Reporting of Tarmac Delays

This requirement would result in more complete information being made to be available to Department, which could improve their ability to identify, analyze, and respond to issues and enforcement matters relating to carrier adherence to tarmac contingency plans. Passengers may also benefit from the BTS making available delay statistics from more carriers of air travel. However, it is not possible to quantify the benefits from these improvements in data coverage and availability.

Since these data will be used for tarmac delay reports published by the BTS, it is also possible that benefits may accrue to consumers as they become more aware of the range of incidents of long on-tarmac delays and adjust their purchasing decisions. Such a scenario would result in improved performance among carriers, especially among international carriers who may set a time limit for on-tarmac delays before allowing deplaning that is greater than the 3 hour requirement for domestic flights. This analysis does not attempt to estimate such benefits at this point.

There is also a possibility that the publication of incidents of lengthy on-board delays could generate increased negative passenger attention, in turn leading to heightened sensitivity to additional delay costs among carrier management. This could lead to improved management of delayed flights, diversion schedules, and other flight management issues, as carriers have additional incentive to avoid long on-board delays.

5.3. Minimum Standards for Customer Service Plans

The Department believes that the proposed minimum standards will assist carriers in better preparing their customer service plans and decrease confusion among carrier and consumers as to the Customer Service Plans requirements. Since there has not yet been an opportunity to assess the impact of Customer Service Plans for domestic carriers, benefits for the new guidelines have not been estimated yet.

Regarding the requirement that foreign carriers have customer service plans, it is assumed that adoption of a customer service plan will improve the level of service provided. As noted in the Regulatory Impact Analysis for Enhance Airline Passenger Protections, a review of data from domestic carriers that were self-auditing compliance with customer service plans previous to the proposed rule showed a greater reduction customer complaints beginning in the two years after adoption of self-auditing than for carriers that did not audit in the same time frame.[42] The historical difference in complaint rates between carriers that self-audited and those that did not is used to estimate the decline in complaints for carriers that will now audit compliance. A preliminary estimate of benefits from requiring foreign carriers to implement and self audit-

[42] For carriers implementing self audits of adherence to customer service plans, complaints decline in the 2 years following implementation by 39%. During the same years, carriers that did not self-audit saw only a drop of 19% in complaints. New self auditing carriers are expected to see a 10% decline in complaints, or half the difference in historical complaint rates between previously self-auditing carriers and other carriers. See the appendix for more details.

customer service plans is presented using a premium on the value of that trip (represented by average ticket price) of 0.054:[43]

Table 13 - Illustration of Benefits Estimation for First Year, Requirement 3

	2011
Number of Complaints (Foreign Carriers)	1,275
Complaint Multiplier (ratio of higher # of complaints received by carriers vs. sent to BTS)	61
Number of "Ground Level" Complaints	**77,775**
Percentage Reduction of Complaints by Implementing CSP	20%
Reduction in Complaints	**15,555**
Benefits from Premium on Complaint Free Air Travel	
Premium on Foreign Flights for Complaint-Free Travel	1.054
Average Price of Airfare (Domestic)	$316.44
Average Price of Airfare (International)	$1,955.00
Percentage of Foreign Carriers PAX that Fly Domestic Routes	0.75%
Weighted Average Air Fare	$1,942.69
Average Savings per Complaint Free Flight per Complaining Passenger	**$97.13**
Benefits from Loss of "Bad Experience" Trips	**$755,463**
Total Component Benefits (millions)	$0.76

Adoption of this proposed requirement may provide several additional categories of potential benefits that could not be quantified in this regulatory evaluation, including the following:

- ***Decreased Confusion and Uncertainty Regarding Department's Requirements.*** The specification of standards for the provisions required in carrier customer service plans should lead to a decrease in confusion among carriers and passengers as to what protections are actually provided by the customer service plans. The decrease in confusion may also lead to less time spent by carriers answer consumer questions regarding the plans.

- ***Value of Improved Customer Service Based on Self-Auditing of Adherence to Customer Service Plans for Foreign Carriers***. Historical data on complaints filed with DOT shows that carriers that implement customer service plans and self-audit adherence to the plan have fewer complaints than other carriers. This presumably is based on an improvement in services from carriers to passengers, including better baggage handling, fewer ticketing errors, less discrimination and other problems for passengers. Carriers

[43] This approach requires several assumptions that may be misleading, including: that each avoided complaint affects one individual flight in equal proportion to all complaints; that premiums on the comfort of travel are applicable to all customer complaints, including problems with fares, ticketing, discriminatory events, delayed flights, etc.; and that complaints are equally distributed for all trip lengths and should therefore be considered preliminary and open to public comment.

are providing service in a better manner to consumers, but the value of this change is difficult to estimate.

- ***Improved Customer Good Will towards Carriers***. Simply having standards to which all carriers can refer may, by itself, lead to improvements in overall customer satisfaction more quickly and more efficiently than without the standards. This effects would, in turn, lead to greater customer good will sooner than would otherwise be the case, and/or a decrease in costs as carriers implement and manage adherence to their customer service plans.

5.4. Incorporation of Tarmac Contingency Plans and Customer Service Plans into Contracts of Carriage

It was not possible to develop quantitative estimates of benefits for this requirement. However, it is possible that simply incorporating the customer service plan into the contract of carriage, independent of any action to audit adherence to that plan, will cause customer service to improve. Carriers will be required both to incorporate their customer service plans into their contracts of carriage and to self-audit their adherence to those plans. There are sufficient examples of carriers that have adopted an audit of their customer service plan to estimate the impact of such action on overall customer service, but not enough information to track the impact of incorporating those plans into the contract of carriage.

5.5. Requiring Foreign Carriers to Respond to Customer Complaints

The benefits of this provision include reduced barriers to filing a complaint, saving time, and increasing satisfaction due to more prominently displayed complaint filing information. Quantitative benefits associated with reducing time required to file a complaint, which includes time spent locating the appropriate address to send the letter or email but not the resolution of complaints, are estimated in the same manner as for domestic carriers under the previous regulation.

Table 14 - Illustration of Benefits Estimation for First Year, Requirement 5

	2011
Number of Complaints (Foreign Carriers)	1,275
Complaint Multiplier (# of Complaints not filed actually received by Carriers)	61
Number of "Ground Level" Complaints to Foreign Carriers	77,775
Benefits from Increase in Consumer Surplus	
Percent Change in Cost of Complaining	3.23%
Elasticity of Cost of Complaining	1.07
Percentage Increase in Complaints	3.47%
Incremental Increase in Number of Complaints	2,698
Decrease in the Cost of Complaining	$0.32
Benefits from Increase in Consumer Surplus	**$432**
Total Component Benefits (millions)	$0.00

As with passengers on domestic carriers covered under the EAPP1 Final Rule, passengers on flights of foreign carriers who file complaints may experience greater reassurance and less agitation while awaiting resolution of a complaint. Passengers may feel that their complaints are legitimate when carriers respond to them specifically instead of just noting that a communication has been received. However, this analysis does not include a quantitative analysis of increased satisfaction from these responses because of a lack of information about likely carrier responses and the degree of impact on consumers. The Department is expressly soliciting comments regarding estimating the dollar value to customers of receiving a response to their complaint which acknowledges the issues involved, instead of a more generic acknowledgement of the communication.

5.6. Changes in Denied Boarding Compensation (DBC) Policy

Several of the proposed changes in the current DBC policy would increase the amounts paid by carriers to passengers who are bumped involuntarily from oversold flights. However, any benefit to passengers in the form of higher DBC compensation payments would be offset by a cost to carriers of the same amount. As such, the value of these additional payments represents a transfer from carriers to passengers and not a net economic benefit of the proposed requirements.

It is possible that some passengers—those who feel that all the costs of a trip (including monetary outlays, time, risks of travel, etc.) just barely outweigh the benefits—may decide that the improved DBC policies make travel more comfortable or less risky and decide to purchase a ticket or a trip that otherwise would not have occurred. This would lead to increased economic activity, which would represent a net benefit to the rule, but more data and research are needed before estimating such benefits.

It is also possible that carriers may reduce overbooking rates on some flights in response to the potential increase in DBC compensation costs. However, while fewer passengers would be involuntarily bumped in this scenario, it is likely that other passengers would now not be able to purchase tickets and ultimately travel on their preferred flights since fewer tickets would be sold. A reduction in involuntary bumping would generate an increase in social welfare, and reduction in being able to travel on preferred flights would result in a loss of social welfare. It is likely that the negative impact would outweigh the positive impact, since involuntary bumping is required to resolve overbooking on only a small percentage of all flights that are oversold. However, adequate information to calculate the costs and benefits of this potential impact has not been located and therefore no estimates of the positive or negative benefits resulting from changes in overbooking rates are included in this evaluation.

Adoption of this proposed requirement may provide additional categories of potential benefits that could not be quantified in this regulatory evaluation, including the following:

- ***Decrease in Confusion Regarding Denied Boarding Compensation Provisions***. The requirement that carriers must provide information regarding customer DBC rights in the same manner as other compensation is offered (such as a carrier coupon) should decrease confusion among passengers. When passengers are presented information in different formats (such as orally and written), there are an ample opportunities for confusion.

- ***Decreased Resentment among Some Passengers Regarding Different Compensation Received***. Under current guidelines, some passengers on the same flight and entitled to the same amount of compensation may unwittingly chose different methods of compensation and resent what that other passengers received (such as cash).

5.7. Required Disclosure of Full Fares in Advertising and Prohibition on Opt-Out Provisions in Ticket Sales

Passengers benefit from full-fare advertising in one of two ways: either by making more informed, and thus "better" purchasing decisions, or by saving time searching for the full-fare in individual or across multiple websites. Passengers are assumed to fall into one of two categories: 1) those who visit multiple ticketing websites to ensure that they can adequately compare prices with all fees and taxes across the universe of websites (some of which include all taxes and fees and some of which do not), rather than comparing currently displayed fares (some of which do not include these taxes and fees) and 2) passengers who do not seek and review pricing data on multiple websites to compare all available prices inclusive of taxes and fees. The first group is referred to as Multi-Site Shoppers regarding Taxes and Fees; the second as One-Site Shoppers or Non-Shoppers regarding Taxes and Fees. Only those passengers who purchase tickets online would benefit from this provision of the rule.

Under the proposed rule, passengers who already search for full fare information and compare ticket prices among carriers, the Multi-Site Shoppers regarding Taxes and Fees will avoid the additional time needed to ensure that they are looking at comparable prices and are making decisions based upon the actual final cost of purchase. Note that the provision will not eliminate the value of comparison shopping across websites for prices, it will simply eliminate the need to search multiple websites for the best fares including all taxes and fees and/or the need for additional time to collect full-fare information on website sites that do not provide full-fare prices up-front (such as sites requiring a consumer to select a flight and continue partially through the purchase process in order to see the full-fare price).

The analysis uses estimates of domestic travelers and the proportion of tickets purchased online to estimate the total number of consumers who could potentially benefit. We estimate benefits for that portion of the travelers assumed to be Multi-Site Shoppers and the portion who are assumed to be as One-Site Shoppers or Non-Shoppers regarding Taxes and Fees. The Multi-Site Shoppers regarding Taxes and Fees are assumed to be shopping for an average of 2.6 people, which is the average travel party size on commercial airlines. The number of tickets purchased online is therefore divided by 2.6 to arrive at an estimate of the number of persons searching multiple web sites and making purchases. The analysis assumes that these purchasers would save an average of 5 minutes of search and/or estimation time if all websites presented full-fare information up-front. This time saving was multiplied by a value of time derived from the US Department of Transportation data developed for estimating air travelers value of time and uses a weighted average of the estimated non-work value of time of leisure travelers and the average hourly earnings of business travelers ($24.14 per hour, see Source Notes and Appendix for greater detail).

While independent data is available on the percentage of air passengers who purchase tickets on-line and for the value of time for air travelers, independent estimates have not yet been found for the:

- Percent of online air tickets purchased by consumers who search and examine multiple websites to compare fares and who spend time specifically examining prices including all taxes and fees while shopping for the best price.
- Average amount of time that these consumers would save if all websites presented full-fare information up front.

The estimate of 2 percent of online purchasers searching multiple websites is a conservative estimate prepared for this analysis. The likely amount of search time that would be saved has been estimated from a review of online purchase websites. The Department is specifically seeking comment on whether these estimates are appropriate and if other, better estimates are available (see the source notes section of the Appendix for more information).

Of the other passengers who do not fully-search online carrier websites and online travel agencies to ensure that they are making decisions based upon the entire fare, some make a suboptimal choice and purchase air travel at a price higher than desired. A consumer surplus methodology is used with estimates of consumer price sensitivity for airfare, to estimate what is essentially a "deadweight loss" arising from some consumers at the margins making purchases at a price higher than is optimum. Using estimates of price sensitivity (price elasticity), the change in demand due to the increase in full fare due to the undisclosed taxes and fees is estimated, and the value of reduced efficiency from non-equilibrium purchases is estimated.

The number of potentially affected ticket purchases was derived from the total number of travelers, adjusted to reflect the proportion of tickets purchased online, and purchasers who searched multiple websites (noted above). This figure was further adjusted by a conservative estimate that 90 percent of these consumers are already purchasing from a website which is compliant or may adjust their purchase between different carriers. The analysis does not attempt to value the adjustment of consumer purchases from one carrier to another.

While no evidence was found directly measuring the differential impact that the timing of the appearance of the full-fare purchase price would make on air ticket purchaser decisions, research on the impacts in similar situations demonstrates that the timing of the presentation of the full-price can have substantial impacts on the final demand. One study used a field experiment to compare purchases at grocery stores when prices were posted with and without sales tax and found that presenting price tags including taxes on the shelf (i.e. when first encountering the opportunity to select the product for purchase) led to an overall decrease in purchases by 8 percent, even though demand for groceries is relatively more inelastic (i.e. less sensitive to unit changes in price) than demand for air travel.[44]

This analysis uses a more conservative method of estimating the impact of full-fare advertising than the 8 percent decline in demand noted above. A national elasticity of -0.4 estimated by the

[44] Raj Chety, Adam Looney and Kory Kroft, "Salience and Taxation: Theory and Evidence," *American Economic Review*, 2009.

International Air Transport Association ("Air Travel Demand") was used together with average ticket prices and the costs of fees which are not currently required to be included when prices are first posted in order to estimate average change in price and resulting reduction in demand that would occur (estimated at 2 percent) from full-fare pricing up-front.[45]

Table 15 - Illustration of Benefits Estimation for First Year, Requirement 7

	2011
Number of Tickets for Domestic Flights Sold by Reporting Carriers	236,903,727
Percentage of PAX using U.S. Domestic Reporting Carrier	88%
Number of Total Passengers on Domestics Flights	270,251,225
Percentage of Domestic Passengers to Total Passengers on U.S. Carriers(Dom & Int)	87%
Number of Total Tickets for U.S. Carriers	310,434,804
Percentage of PAX using internet for Airfare Purchase	72%
Tickets Purchased on Websites to Purchase Airfare	223,513,059
Multi-Site Shoppers regarding Taxes and Fees	
Passengers Who Research Airfare Prices on Multiple Websites for lowest Taxes and Fees	2%
Passengers Who Benefit from Amending Price Advertising	4,470,261
Average Travel Trip Party Size	2.6
Passengers Who Benefit from Amending Price Advertising per Trip Party	**1,719,331**
Value of Time for Passenger (Personal Non-Traveling)	$24.15
Average Incremental Time Spent by Savvy Passengers finding Taxes and Hidden Fees (hours)	0.08
Average Cost per Search per Passenger for Airline Taxes and Fees	$2.01
Monetized Time Saved from Reduction in Search Cost	**$3,460,154**

[45] Derived from data in the BTS American Travel Survey; see source notes in the Appendix for greater detail.

Table 15, ctd. - Illustration of Benefits Estimation for First Year, Requirement 7

	2011
One-Site Shoppers or Non-Shoppers regarding Taxes and Fees	
Passengers	219,042,798
Percentage of Passengers Using Websites Already Presenting Full Fare	90%
Passengers Benefit from Amending Price Advertising	**21,904,280**
Percentage of Total Price of Taxes Revealed (Price Increase)	5%
Average Price of Airfare (Domestic)	$316.44
Average Price of Airfare (International)	$1,955.00
Percentage of Passengers in U.S. Carrier Flights that are Domestic Flights	87%
Weight Average Airfare for Passengers of U.S. Domestic Carriers	**$528.54**
Revelation in Price ("Increase in Price")	$26.43
National Level Elasticity for Air Travel Demand	-0.4
Percentage Decrease in Demand	-2%
Decrease in Passengers	438,086
Monetized Benefits from Elimination of Dead Weight Loss	**$5,788,643**
Multiplier to Account for 6-Month Lag in Benefits	0.5
Total Component Benefits (millions)	**$4.62**

A complete presentation of the procedures and formulas used to calculate these benefits is provided in the attached appendix.

The full-fare advertising requirement may also improve customer good will towards carriers. With all carriers consistently providing full-fare advertising to consumers, customers may perceive the carriers are treating them more "honestly." Some customers may have more positive experiences purchasing tickets than otherwise, making them slightly more likely to travel by air in the future, or to avoid the carriers or websites used previously.

By requiring that a customer take a specific action to opt-out of the purchase of an additional service or amenity, some customers mistakenly make a purchase they did not want or intend. Some customers may misunderstand or simply miss the fact that an op-out feature is an additional, optional purchase. By prohibiting opt-outs for additional services and amenities, this provision will increase consumer welfare by decreasing unwanted purchases. While the nature of this effect is well understood, adequate information needed to estimate these benefits has not yet been found.

The Department is expressly soliciting comments regarding the estimation of several factors in the estimation of benefits for this provision, including that average search time saved for passengers who already search for full fare information; the percent of passengers who spend time searching websites to find full fare ticket information; the percent of online ticket purchasers who purchase only from websites which provide full-fare pricing up-front; the percent of passengers who are fully aware of added fees and taxes when purchasing tickets from web pages that do not automatically display that data up front; the likely change in demand for

those passengers not aware of taxes and fees until the end of the purchase process; and the percentage of airline customers who purchase additional services and amenities due to an opt-out feature who would otherwise not have made that purchase.

5.8. Expanded Disclosure of Baggage Fees and Other Optional Fees

Insufficient data was found to adequately estimate the benefits from adoption of this proposed requirement. However, the provisions included in requirement 8 may provide potential benefits that could not be quantified in this regulatory evaluation, including the following:

- ***Decrease in Time at Check-in.*** Some consumers are not fully aware of their carrier's baggage fees until they arrive for check-in, even though all the information is available on line at the time of purchase. In such cases, some passengers may be delayed at check-in as they attempt to repack so as to reduce their checked-in baggage. Such situations not only increase the amount of time spent checking-in, but also increases time spent waiting for those later in line. Ensuring that baggage fees are prominently displayed will minimize such problems.
- ***Improved Customer Good Will towards Carriers***. With all carriers consistently providing full information regarding checked baggage fees to consumers in a conspicuous placement, customers may perceive that carriers are treating them more "honestly." Some customers may have more positive experiences than otherwise, making them slightly more likely to travel by air in the future.

It should also be noted that if some passengers are not currently fully aware of baggage fee changes currently and become so due to the proposed rule, a portion of those passengers may decide to pack differently. These passengers would be more likely to take more into the cabin with them, which may lead to further crowding in the cabin.

5.9. Prohibition on Post-Purchase Fare Increases

The Department has determined that currently, carriers are essentially already compliant but that some tour operators who provide packages which include air transportation (plus cruises, hotel, etc.) may not be. Benefits from this provision accrue from the increase certainty in price (level of comfort) when purchasing packages include air travel. The benefit of this provision in addition to the value of the price increase is some level of comfort or certainty to the passenger. For this analysis a provisional estimate of incremental benefit was made by adding a premium to the value of search time and purchase time of air travelers.

Table 16 - Illustration of Benefits Estimation for First Year, Requirement 9

	2011
Number of Tickets for Domestic Flights Sold by Reporting Carriers	236,903,727
Percentage of PAX using U.S. Domestic Reporting Carrier	88%
Number of Total Passengers on Domestics Flights	270,251,225
Percentage of Domestic Passengers to Total Passengers on U.S. Carriers(Dom & Int)	87%
Number of Total Tickets for U.S. Carriers	309,829,668
Percentage of Passengers Who Purchase Airfare Outside of The Internet	28%
Number of Passengers Who Purchase their Airfare on Travel Websites	**86,752,307**
Percentage of Non-Internet Using Passengers Purchasing Through Carriers	80%
Number of Passengers Who May Benefits from Prohibition of Post-Purchase Increase	**17,350,461**
Benefits of Certainty	
Value of Time for Passenger (Personal Non-Traveling)	$24.15
Premium on Certainty of Purchase	1.01
Incremental Savings per Passenger per Hour	0.24
Average Amount of Time Spent Purchasing Airfare	0.17
Average Savings per Passenger	**$0.04**
Monetized Benefits of Certainty	**$698,356**
Total Component Benefits (millions)	**$0.70**

In addition to the benefits for which quantitative estimates could be developed, a prohibition on post-purchase increases may well lead to an improvement in consumer good will toward non-carrier travel organizations such as ticket agents and tour operators.

The Department is expressly soliciting comments regarding the estimation of the appropriate premium on the value of air ticket purchasers' time from the certainty that there will be no post-purchase price increase, as well as the estimation of the average amount of time to purchase ticket. In addition, the Department is interested in comments on other methodologies to value the benefit to consumers of knowing that their tour package price is a final price.

5.10. Prompt Passenger Notification of Flight Status Changes

Conceptually, being assured that carriers will promptly disseminate information about flight status changes may reduce the time and amount of effort that passengers expend to check on possible flight delays and cancellations, allow passengers (and those meeting arriving passengers) to leave a smaller margin of safety in choosing what time to leave for the airport,

and help travelers feel more secure while traveling to the airport, knowing that they will be promptly updated if the status of their flight changes.

The Department currently does not have information on the extent to which reporting carriers currently comply with the proposed requirement. Consequently, it is not possible to develop quantitative estimates of the benefits that passengers would receive from any changes in the promptness with which carriers notify travelers about flight status changes.

5.11. Limitations on Venue Provisions in Contracts of Carriage

The benefits from this provision include avoidance of cost that some claimants may incur to travel to other states or for hiring out-of-state lawyers. In addition, some lawsuits with merit may not be filed because of the financial and time costs of filing in another state and potentially having to travel there for adjudication. The courts of law are one avenue of ensuring appropriate company conduct toward consumers. By adding limits as to where a lawsuit can be filed, carriers may stifle the number of legitimate lawsuits filed. If legitimate lawsuits act as a deterrent to unlawful corporate behavior, it is possible that their limitation may lead to an increase in some inappropriate or unlawful actions unchecked.

6. Estimated Costs of Proposed Requirements

This section presents the methodology used to evaluate the costs for each of the proposed requirements in the NPRM; preliminary estimates for the components that could be evaluated quantitatively; and descriptions of the costs for which no quantitative estimates could be developed.

The costs for domestic carriers to comply with Requirements 1 (tarmac contingency plans), 3 (customer service plans), and 5 (complaint response) were estimated in the regulatory evaluation for the EAPP1 Final Rule. The costs estimates in this analysis assume that the per-carrier costs of compliance are equal for domestic and foreign carriers.

Per-hour costs for various categories of carrier, travel agent, and tour operator employees were estimated using BLS wage rates, increased by 30 percent to reflect fringe benefits (per FAA guidance), and rounded up to the nearest $5 increment. A mark-up of 150 percent was applied to each of these per-hour cost estimates to account for supervisory and management communication, training, and oversight time, as well as corporate overhead.

6.1. Additional Requirements for Tarmac Delay Contingency Plans

Foreign carriers (other than Air Canada) will incur one-time costs to develop and implement tarmac delay contingency plans and per-flight costs that vary with the length of time that the delayed aircraft remains on the tarmac. In Section 3.1 we estimated that these carriers would have needed to apply these plans to respond to an expected average of 222 tarmac delays of 2 or more hours in 2009. About nine of these delays would have extended to the 4-hour mark, and a delay of 5 hours or more can be expected to occur once every 9 months. In the baseline scenario,

we have assumed that foreign carrier contingency plans will contain a 5-hour time limit after which passengers must be afforded the opportunity to deplane in the absence of any Department-specified threshold. Costs were also estimated for an alternative scenario in DOT sets a 4-hour maximum limit to deplane passengers in foreign carrier contingency plans (Alternative A) and for a scenario in which compliance with this requirement is limited to foreign carriers that operate flights to and from the U.S. using at least one plane with more than 60 seats (Alternative B).[46]

Specific compliance cost elements include:

- Staff and management costs to develop, post, and monitor the contingency plan and to collect data on actions triggered by the plan.
- Per-person costs to provide adequate food, water, and lavatory facilities and medical attention. The per-person cost to provide adequate food and water was assumed to be $3.71.[47]
- Per-person costs associated with deplaning and reboarding passengers. Per-person costs for passengers on flights required to taxi back to the gate (instead of using buses and mobile stairs) are based on the average taxi time and fuel burn per minute by plane size. Per-person costs were also calculated for passengers deplaned on the tarmac and transferred to the terminal by bus. Airport boarding and deplaning fees were included in the unit costs for both groups of passengers.

For this analysis, we have assumed that the unit costs for foreign carriers to comply with the proposed requirements would be equal to those estimated for domestic carriers in the regulatory evaluation for the EAPP1 Final Rule, as follows:

Table 17 - Unit Costs for Requirement 1

	Base	Low	High
Fixed costs of developing tarmac delay contingency plan, per-carrier	$22,500	$11,250	$45,000
Fuel costs of tarmac delay contingency plans (4+ hours with reboarding), per-flight	$176.48	$88.24	$352.96
Per-passenger costs of tarmac delay contingency plans (2+ hour delays)	$3.71	$1.86	$7.42
Additional per-passenger costs of tarmac delay contingency plans (4+ hours with reboarding)	$2.74	$1.37	$5.48

Source: DOT, "Final Regulatory Impact Analysis of Rulemaking on Enhanced Airline Passenger Protections," December 17, 2009.

[46] All but the few smallest foreign carriers would be required to have tarmac contingency plans under this alternative.

[47] Carrier costs for servicing toilets are expected to be minimal. This analysis assumes that no increase in on-board medical personnel or equipment will be needed to comply with the proposed requirement.

Based on these estimates and assumptions, costs incurred by affected carriers to comply with proposed Requirement 1 in the base case are expected to be $2.098 million in 2011 and $147,804 in 2012.

Table 18 - Estimated Compliance Costs for Requirement 1

	2011	2012
Development of contingency plan		
Number of foreign carriers without compliant contingency plans	87	
Cost per carrier of developing contingency plan	$22,500	
Cost of developing contingency plans	**$1,957,500**	**$0**
Variable costs of tarmac delay contingency plans		
Average number of passengers per segment, non-Air Canada foreign carriers	165	165
Projected tarmac delays of 2+ hours, non-Air Canada foreign carriers	214	218
Passengers affected by tarmac delays of 2+ hours on non-Air Canada foreign carriers	37,865	39,607
Per-passenger costs of tarmac delay contingency plans, all delays	$3.71	$3.71
Projected tarmac delays of 5+ hours, non-Air Canada foreign carriers	1.3	1.3
Passengers affected by tarmac delays of 5+ hours on non-Air Canada foreign carriers	222	232
Additional per-passenger costs of tarmac delay contingency plans, 5+ hour delays with reboarding	$2.74	$2.74
Per-flight fuel costs of tarmac delay contingency plans, 5+ hour delays with reboarding	$176.48	$176.48
Variable costs of tarmac delay contingency plans	**$141,309**	**$147,804**
Total costs of tarmac delay contingency plans	**$2,098,809**	**$147,804**

Note: Number of flights and passengers incurring tarmac delays increases in subsequent years by the growth rates for international passengers and flights projected in the 2009 FAA Aerospace Forecast.

The estimated costs incurred by affected carriers to comply with proposed Requirement 1 are slightly higher in the Alternative A scenario and slightly lower in the Alternative B scenario.

6.2. Expanded Reporting of Tarmac Delays

In Section 3.2 we estimated that in 2009 there were 264 3-hour tarmac delays on flights operated by non-reporting U.S. carriers and 61 on flights operated by foreign carriers that would have to be reported to the BTS under Requirement 2.

Reportable tarmac delays on domestic flights occurred at a rate of about 13 per 100,000 departures in 2009. Carriers that expect to report an average of 1 tarmac delay monthly (i.e., those that have more than 100,000 departures annually) are assumed to set up systems to program the collection and transmission of tarmac delay data in an electronic format suitable for submission to the BTS. There are 10 non-reporting U.S. carriers and one foreign carrier that would be expected to exceed this threshold number of reportable tarmac delays annually.[48]

For this analysis, we have utilized the following estimates of per-carrier costs for the steps that would be required to achieve compliance with the provisions in proposed Requirement 2:

Table 19 - Unit Costs for Requirement 2

	Base	Low	High
Set-up costs to program flight delay data in BTS format (first year)	$35,000	$10,000	$60,000
Annual costs to maintain/update programming (future years)	$3,500	$1,000	$6,000
Per-report costs for data collection, form completion and review, and forwarding to BTS (first year)	$1,200	$600	$1,800
Per-report costs for data collection, form completion and review, and forwarding to BTS (future years)	$600	$300	$900

Sources: Set-up costs for programming are from RIA in RITA-2007-28522-0012. Per-report cost based on $30/hour in direct labor wages and benefits, $45/hour for management review and corporate overhead.

[48] The affected carriers would include five regional carriers that provide passenger service using at least one aircraft with 61 or more seats (Colgan, Horizon, Mesaba, PSA, and Republic) and five carriers that operate at least one aircraft with 30 to 60 seats (Air Wisconsin, Cape Air, Chautauqua, Piedmont, and Trans States). It is possible that Piedmont would be able to report through its parent company (US Airways). Among foreign carriers, only Air Canada/Air Canada Regional would be expected to have an average of 1 or more reportable tarmac delays monthly.

Based on these estimates and assumptions, costs incurred by affected carriers to comply with proposed Requirement 2 are expected to be $796,309 in 2011 and $248,473 in 2012.

Table 20 - Estimated Compliance Costs for Requirement 2

	2011	2012
Automated reporting system (carriers with >100k departures/year)		
Cost of initial system setup	$35,000	$0
Maintenance/update costs per year	$0	$3,500
Number of carriers not currently reporting with >100k departures/year	11	11
Total cost of automated reporting system	**$385,000**	**$38,500**
Filing individual reports (carriers with <100k departures/year)		
Cost per hour of reporting	$75	$75
Hours required per report	16	8
Reportable tarmac delays per year, non-reporting US carriers	278	284
Reportable tarmac delays per year, foreign carriers	65	66
Total cost of filing individual reports	**$411,309**	**$209,973**
Total cost of reporting tarmac delays	**$796,309**	**$248,473**

Note: Number of flights with reportable tarmac delays increases in subsequent years by the total departure growth rate projected in the 2009 FAA Aerospace Forecast.

6.3. Minimum Standards for Customer Service Plans

The 88 foreign carriers that are not subsidiaries of other foreign carriers would have to develop, implement, and self-audit compliance with customer service plans (CSPs) that meet the minimum standards set forth in the proposed requirement. The regulatory evaluation for the EAPP1 Final Rule provided separate compliance cost estimates for large and small domestic U.S. carriers. We have adopted a similar treatment here, assuming that the 10 foreign carriers that boarded at least one percent of all international passengers (about 150,000 enplanements) in 2008 would need to develop and implement more extensive CSPs. The Department is soliciting comments as to whether this size-based distinction appropriately captures the likely extent of variation in compliance costs among foreign carriers.

Per-carrier compliance costs to develop and self-audit acceptable CSPs are assumed to be equal to those estimated for domestic carriers in the RIA for the EAPP1 Final Rule:

Table 21 - Unit Costs for Requirement 3

	Base	Low	High
Develop and implement CSP (large carriers)	$35,000	$17,500	$70,000
Develop and implement CSP (other carriers)	$3,850	$1,925	$7,700
Annual cost of CSP self-audit (large carriers)	$56,800	$28,400	$113,600
Annual cost of CSP self-audit (other carriers)	$6,248	$3,124	$12,496

Source: DOT, "Final Regulatory Impact Analysis of Rulemaking on Enhanced Airline Passenger Protections," December 17, 2009. Large carriers are those with at least 1% of passengers on international flights to and from the United States.

Based on these estimates and assumptions, costs incurred by affected carriers to comply with proposed Requirement 3 are expected to be $1,705,644 in 2011 and $1,055,344 in 2012.

Table 22 - Estimated Compliance Costs for Requirement 3

	2011	2012
Cost of developing customer service plans (CSPs)		
Number of large foreign carriers (>1% of international passengers)	10	10
Number of other foreign carriers	78	78
Cost of implementation, large foreign carriers	$35,000	$0
Cost of implementation, other foreign carriers	$3,850	$0
Annual self-audit, large foreign carriers	$56,800	$56,800
Annual self-audit, other foreign carriers	$6,248	$6,248
Total cost of customer service plans	**$1,705,644**	**$1,055,344**

6.4. Incorporation of Tarmac Contingency Plans and Customer Service Plans into Contracts of Carriage

Incorporating tarmac contingency plans and customer service plans into carrier contracts of carriage is estimated to involve minimal administrative and website programming costs. In addition, the Department is not able to estimate the number of carriers that would incorporate these plans into their contracts of carriage voluntarily if this proposed requirement was not adopted. Therefore, quantitative estimates of carrier compliance costs have not been developed for this provision.

6.5. Requiring Foreign Carriers to Respond to Customer Complaints

The 88 foreign carriers that are not subsidiaries of other foreign carriers would have to comply with the minimum standards for responding to customer complaints set forth in the proposed requirement. The regulatory evaluation for the EAPP1 Final Rule provided separate compliance cost estimates for large and small domestic U.S. carriers. We have adopted a similar treatment here, assuming that the 10 foreign carriers that boarded at least one percent of all international

passengers (about 150,000 enplanements) in 2008 would need to develop and implement more extensive systems and procedures to handle complaints from customers on flights to and from the United States. The Department is soliciting comments as to whether this size-based distinction appropriately captures the likely extent of variation in compliance costs among foreign carriers.

Per-carrier compliance costs are assumed to be equal to those estimated for domestic carriers in the RIA for the EAPP1 Final Rule:

Table 23 - Unit Costs for Requirement 5

	Base	Low	High
Establish/upgrade complaint handling system and procedures (large carriers)	$41,371	$20,686	$82,742
Establish/upgrade complaint handling system and procedures (other carriers)	$4,261	$2,131	$8,522
Per-complaint cost to respond	$1.85	$0.93	$3.70

Source: DOT, "Final Regulatory Impact Analysis of Rulemaking on Enhanced Airline Passenger Protections," December 17, 2009. Large carriers are those with at least 1% of passengers on international flights to and from the United States.

Based on these estimates and assumptions, costs incurred by affected carriers to comply with proposed Requirement 5 are expected to be $860,905 in 2011 and $114,837 in 2012.

Table 24 - Estimated Compliance Costs for Requirement 5

	2011	2012
Cost of responding to complaints		
Number of large foreign carriers (>1% of international passengers)	10	
Number of other foreign carriers	78	
Cost of implementation, large foreign carriers	$41,371	
Cost of implementation, other foreign carriers	$4,261	
Cost of implementing response systems	$746,068	$0
Number of complaints	64,099	67,048
Per-complaint response cost	$1.85	$1.85
Cost of responding to individual complaints	$118,583	$124,038
Total cost of responding to complaints	**$864,651**	**$124,038**

Note: Number of passengers complaining increases in subsequent years by the international passenger growth rate projected in the 2009 FAA Aerospace Forecast.

6.6. Changes in Denied Boarding Compensation (DBC) Policy

As noted in Section 5.3, any increases in the amount of DBC that would be paid under these proposed amendments represent transfers from carriers to passengers, rather than actual

economic costs and benefits. However, there are also real economic costs associated with implementing changes in the DBC policy and updating the maximum amounts payable on a bi-annual basis. These costs will be higher in the first year than in subsequent years because the proposed changes to the current DBC policy include new provisions relating to zero-fare tickets and verbal explanations provided to passengers who may be involuntarily bumped from oversold flights.

The 2008 BTS P-10 schedule data on airline employment indicate that there were approximately 94,000 people employed in "passenger handling" positions, a category which includes reservations staff (both at airports and in call centers), ticket agents, gate or boarding attendants, and airport lounge staff, but not flight-related or baggage handling employees. For this analysis we have assumed that carriers will need to train and communicate with one-quarter of these employees to implement the new DBC policy in the first year. We have assumed that half as much time per-employee will be needed to train and communicate with gate attendants and other relevant carrier employees when the threshold amount of DBC is increased biennially in alternating future years.[49]

For this analysis, we have utilized the following estimates of per-employee costs for the steps that would be required to achieve compliance with the provisions in proposed Requirement 6:

Table 25 - Unit Costs for Requirement 6

	Base	Low	High
Cost per gate attendant for communication and training (first year changes to DBC policy)	$10.00	$5.00	$20.00
Cost per gate attendant for communication and training (biennial updates to maximum DBC amount)	$5.00	$2.50	$10.00

Source: Per-employee cost based $60/hr in direct labor wages and benefits, $90/hour for management review and corporate overhead.

[49] For this analysis, the Department has assumed that any bi-annual changes in the maximum DBC limit will be made using the July CPI-U and become effective on January 1st of the following year. These costs may be increased if the adjustments must be made more rapidly, because it reduces the opportunities for carriers to communicate changes to gate agents and other passenger-handling personnel who must be informed.

Based on these estimates and assumptions, costs incurred by affected carriers to comply with proposed Requirement 6 in the base case are expected to be $235,000 in 2011 and $117,500 in each future year in which the maximum DBC limit is increased.

Table 26 - Estimated Compliance Costs for Requirement 6

	2011	DBC Update Years*
Training costs for gate agents		
Minutes required to train agents on zero-fare and verbal notification DBC policy changes	10	0
Minutes required to train agents on biennial DBC inflation adjustments	0	5
Cost per hour of training (gate agent wages + overhead including supervisory review time)	$60	$60
Number of gate agents	23,500	23,500
Total cost of training gate agents	**$235,000**	**$117,500**

* "DBC Update Years" are those years in which the maximum amount of DBC will be adjusted, starting 2013 and biennially thereafter.

6.7. Required Disclosure of Full Fares in Advertising and Prohibition on Opt-Out Provisions in Ticket Sales

Compliance costs would be incurred to revise both online and print media advertising by carriers, travel agents, and tour operators that do not currently display in their advertising and solicitations full fares that include all applicable taxes and fees. The extent of these costs will depend in part on the length of time between the date on which the rule is published and the effective date of this requirement. In the base case analyzed in this evaluation, sellers of air transportation will need to ensure that any new print advertising developed after the rule date will need to comply with the proposed requirement, but will be able to distribute advertising already in production or distribution until the effective date for the rule. In this scenario, most (90 percent) print advertising materials will not require revisions, either because they do not display prices, display prices that include full fares for any air transportation being sold, or are not expected to remain in circulation by the effective date of the rule.[50] We also estimated costs for an alternative scenario (Alternative D) in which 25 percent of current print media advertising materials would have to be revised.

For this analysis, large travel agencies and tour operators are defined as those with 20 or more employees. Our cost estimates assume that these companies will incur larger per-firm costs to revise online and print media advertising and solicitations that do not display full fares for air transportation. Small travel agents and tour operators with fewer than 20 employees are assumed to incur smaller per-firm costs to revise print advertising materials.

[50] For example, advertising for spring break travel packages that does not reflect full fares for any air travel could be distributed after an assumed rule publication date of January 1, 2010, as long as it did not offer tours that could be booked 180 days later.

The unit costs for revising online and print advertising materials to comply with the proposed requirement are as follows:

Table 27 - Unit Costs for Requirement 7

	Base	Low	High
Website reprogramming to display full fares, remove any opt-outs (large firms)	$12,000	$6,000	$24,000
Website reprogramming to display full fares, remove any opt-outs (small firms)	$3,000	$1,500	$6,000
Modify print media advertising (large firms)	$12,000	$6,000	$24,000
Modify print media advertising (small firms)	$3,000	$1,500	$6,000

Source: Unit cost for both web programming and print advertising assumed to be $60/hr in direct labor wages and benefits, $90/hour for management review and corporate overhead.

It should be noted that these per-advertiser cost estimates do *not* include costs for carrier, travel agency, and tour operator websites to bring the price displays on their online flight selection pages into compliance with *current* Department guidelines and enforcement policy (see the discussion in Section 2.7).

Based on the base case estimates and assumptions, costs incurred by affected carriers to comply with proposed Requirement 7 are expected to be $6.86 million in 2011. Of this total, $5.4 million is associated with revisions to print media advertising materials. If the provisions in this requirement are applied only to carrier websites (Alternative C), then compliance costs would be much lower ($1.4 million in 2011). For the second alternative scenario (Alternative D), compliance costs are estimated to be $15.0 million in 2001; $13.6 million of this total would be associated with revisions to print media advertising materials.

Table 28 - Estimated Compliance Costs for Requirement 7

	2011 only
Reprogramming websites to show full fares	
Number of large U.S./foreign carriers	110
Largest online travel agencies (OTAs)	4
Number of small/very small U.S. carriers (assume ½ have websites currently showing full fares, none have opt-outs)	40
Hours required to reprogram noncompliant websites, large carriers/largest OTAs	80
Hours required to reprogram noncompliant websites, small/very small carriers	20
Cost per hour of web programming (wages plus overhead including supervisory review)	$150
Total cost of reprogramming	**$1,428,000**
Modification of print advertising to reflect full fares	
Number of large U.S./foreign carriers	110
Largest online travel agencies (OTAs)	4
Number of other large online travel agencies/tour operators (20+ employees)	923
Hours required to modify large firm print advertising	80
Number of small/very small U.S. carriers (assume ½ have print ads currently showing full fares, none have opt-outs)	40
Number of offline travel agencies (tickets sold via GDS or other airline systems)	11,579
Number of offline tour operators (assume tickets not sold independently of package)	2,375
Hours required to modify small firm print advertising	20
Percentage of advertising requiring revision with effective date of 07/01/2010 (full-fare only)	10%
Cost per hour of print advertising revision (wages plus overhead including supervisory review)	$150
Total cost of revising print advertising	**$5,436,600**
Total cost of revising websites and advertising	**$6,864,600**

No additional compliance costs would be incurred in subsequent years, as sellers of air transportation have the option of displaying full-fare prices in all future advertising and solicitations.

6.8. Expanded Disclosure of Baggage Fees and Other Optional Fees

Because most carriers already post notices on their websites with current fees for checked baggage and other optional products and services, the compliance costs for the provisions of this requirement that apply to carrier websites are limited to the incremental costs of updating and posting notices when these fees changes. However, carriers may incur more significant costs to program e-ticket generators to display any checked baggage fees that may apply. The Department does not have extensive information about the likely magnitude of these costs. For this analysis, we have utilized the following estimates of per-carrier costs for the steps that would be required to achieve compliance with the provisions in proposed Requirement 8:

Table 29 - Unit Costs for Requirement 8

	Base	Low	High
Add/remove notice of increased baggage fees to website (1 time/year)	$600	$300	$1,200
Program e-tickets to include bag fees (one-time cost)	$6,000	$3,000	$12,000
Post list of optional fees (1 time/year)	$1,200	$600	$2,400

Source: Unit cost for both web programming and print advertising assumed to be $60/hr in direct labor wages and benefits, $90/hour for management review and corporate overhead.

Based on these estimates and assumptions, costs incurred by affected carriers to comply with proposed Requirement 8 are expected to be $906,000 in 2011 and $246,000 in 2012.

Table 30 - Estimated Compliance Costs for Requirement 8

	2011	2012
Reprogramming websites after baggage fee increases		
Number of large/small/foreign carriers	110	110
Hours required to update/post/remove increased fee notices	4	4
Cost per hour of web programming (wages plus overhead including supervisory review)	$150	$150
Total cost of baggage fee disclosure updates	**$66,000**	**$66,000**
Reprogramming e-tickets to display baggage fees		
Number of large U.S./foreign carriers	110	
Hours required to reprogram e-tickets	40	
Cost per hour of web programming (wages plus overhead including supervisory review)	$150	
Total cost of reprogramming e-tickets	**$660,000**	**$0**
Reprogramming websites after optional fee increases		
Number of large U.S./foreign carriers	110	110
Number of small/very small U.S. carriers	40	40
Hours required to update/post/remove increased fee notices	8	8
Cost per hour of web programming (wages plus overhead including supervisory review)	$150	$150
Total cost of optional fee disclosure updates	**$180,000**	**$180,000**
Total cost of posting baggage/optional fee information	**$906,000**	**$246,000**

6.9. Prohibition on Post-Purchase Fare Increases

Most, if not all, domestic and foreign carriers are believed to be currently complying with this proposed requirement. Some travel agents and tour operators may not be following current Department guidelines that prohibit post-purchase price increases without prior disclosure to, and agreement by, customers at the time of purchase. However, we have no information on the number of travel agents and tour operators that may engage in practices that would be proscribed by this requirement. In any event, it is unlikely that there are significant compliance costs associated with refraining from imposing post-purchase price increases on future purchasers of air transportation and travel packages.

6.10. Prompt Passenger Notification of Flight Status Changes

The Department does not have information on the extent to which the 19 reporting U.S. carriers currently comply with the proposed requirement. Consequently, it is not possible to develop quantitative estimates of the compliance costs, if any, that may be incurred by the carriers to which this requirement would apply.

6.11. Limitations on Venue Provisions in Contracts of Carriage

Air travelers are expected to be slightly more likely to pursue claims against carriers in the absence of venue restrictions in carrier contracts of carriage, because they would be able to avoid the time and financial costs of out-of-state travel to adjudicate these claims. However, the Department does not possess adequate information to estimate the costs associated with lawsuits that would be incurred by carriers.

7. Results and Discussion of the Benefit and Cost Analysis

The goal of a regulatory impact analysis is to estimate the incremental benefits and costs of adopting proposed requirements. The difference between benefits and costs quantified over the planning horizon lifecycle and discounted to the present represents the primary indicator of regulatory value.[51] A present value (PV) of net benefits greater than zero indicates that measured benefits exceed measured costs and that the regulation is likely to increase the general level of economic welfare accordingly. A PV of net benefits that is less than zero means that measured costs exceed measured benefits.

This section summarizes the benefits, costs, and net benefits estimated for the proposed requirements included in the NPRM. A requirement-by-requirement comparison of benefits and costs, and estimates for benefits and costs for possible regulatory alternatives, follow.

7.1. Overall Net Benefits of the Proposed Requirements

All quantified benefits and costs estimated for individual requirements were translated into current values for each year in the 10- and 20-year periods beginning with calendar year 2011.[52] In accordance with OMB guidelines, a real discount rate of 7 percent is used in the primary analysis and is supplemented with overall estimates using a 3 percent discount rate**.**

The expected present value (PV) of passenger benefits from the proposed requirements included in the NPRM over a 10-year period using a 7 percent discount rate is estimated at $87.59 million. The expected present value of costs incurred by carriers and other sellers of air transportation to comply with the proposed requirements is $25.98 million over 10 years,

[51] This follows the guidance of OMB Circular A-4, which stipulates that this difference—the net present value (NPV)—should be regarded as the principal measure of value produced by a benefit-cost analysis. Further, Executive Order 12866 states that agencies should attempt to maximize the net benefits of their rulemakings, subject to statutory requirements.

[52] The affected parties are assumed to be compliant with the proposed regulations by January 1, 2011, with the exception of the full-fare advertising provision of proposed Requirement 9.

discounted at 7 percent. The PV of net benefits for a 10-year period at a 7 percent discount rate is thus $61.61 million. Using a 3 percent discount rate, the PV of net benefits for 2011 through 2012 is estimated at $75.73 million.

Table 31 - Present Value of Net Benefits for Proposed Requirements, 2011-2020

		PV (millions)
Total Quantified Benefits	10 Years, 7% discounting	$87.59
	10 Years, 3% discounting	$104.18
Total Quantified Costs	10 Years, 7% discounting	$25.98
	10 Years, 3% discounting	$28.45
Net Benefits	10 Years, 7% discounting	$61.61
	10 Years, 3% discounting	$75.73

*Note: Totals may not sum due to rounding.

The NPV of net benefits is higher when estimated over a 20-year period, with the present values of benefits and costs estimated at $150.51 million and $34.09 million, respectively, using a 7 percent discount rate. This is because many of the benefits from the proposed requirements will accrue to passengers on an ongoing basis, while most of the costs to comply with these requirements will be incurred by carriers, travel agents, and tour operators on a one-time basis.

The estimated NPV of net benefits for the 20-year period is $116.41 million using a 7 percent discount rate, and $170.44 if a 3 percent discount rate is used.

Table 32 - Present Value of Net Benefits for Proposed Requirements, 2011-2030

		PV (millions)
Total Quantified Benefits	20 Years, 7% discounting	$150.51
	20 Years, 3% discounting	$212.84
Total Quantified Costs	20 Years, 7% discounting	$34.09
	20 Years, 3% discounting	$42.40
Net Benefits	20 Years, 7% discounting	$116.41
	20 Years, 3% discounting	$170.44

7.2. Net Benefits of Specific Proposed Requirements

A requirement-by-requirement summary of benefit and cost estimates, as well as the unquantifiable benefits identified, is provided in the table below.

Table 33 - Comparison of Requirement-Specific Benefits and Costs, 2011-2020

(discounted at 7%/year to 2011 $ millions)

Requirement 1: Expansion of tarmac delay contingency plan requirements and extension of EAPP1 Final Rule requirements to cover foreign carriers	**Total**
Estimated Quantified Benefits	$1.99
Estimated Quantified Costs	$3.24
Net Benefits	**-$1.25**
Additional Benefits not Quantified in this Evaluation:	
• Improved Management of Flight Delays	
• Decreased Anxiety with Regard to Flying	
• Reduced Stress among Delayed Passengers and Crew	
• Improved Overall Carrier Operations	
• Improved Customer Good Will towards Carriers	
Requirement 2: Expanded tarmac delay reporting and application to foreign carriers	**Total**
Estimated Quantified Benefits	not estimated
Estimated Quantified Costs	$2.31
Net Benefits	**not estimated**
Additional Benefits not Quantified in this Evaluation:	
• Increased Efficiency of US DOT Oversight and Enforcement Office Operations	
• Improved Management of Flight Delays	
Requirement 3: Establishment of minimum standards for customer service plans (CSPs) and extension of EAPP1 Final Rule requirements to cover foreign carriers	**Total**
Estimated Quantified Benefits	$6.25
Estimated Quantified Costs	$8.58
Net Benefits	**-$2.33**
Additional Benefits not Quantified in this Evaluation:	
• Decreased Confusion and Uncertainty Regarding Department's Requirements	
• Value of Improved Customer Service Based on Self-Auditing of Adherence to Customer Service Plans for Foreign Carriers	
• Improved Customer Good Will towards Carriers	

Table 33, ctd. - Comparison of Requirement-Specific Benefits and Costs, 2011-2020
(discounted at 7%/year to 2011 $ millions)

Requirement 4: Incorporation of tarmac delay contingency plans and CSPs into carrier contracts of carriage	**Total**
Estimated Quantified Benefits	not estimated
Estimated Quantified Costs	not estimated
Net Benefits	**not estimated**
Additional Benefits not Quantified in this Evaluation:	
• Decreased Occurrence of and Improved Resolution of Customer Complaints	
Requirement 5: Extension of EAPP1 Final Rule requirements for carriers to respond to consumer complaints to cover foreign carriers	**Total**
Estimated Quantified Benefits	$0.00
Estimated Quantified Costs	$1.82
Net Benefits	**-$1.82**
Additional Benefits not Quantified in this Evaluation:	
• Decreased Anger toward Carriers During Resolution of Complaints	
Requirement 6: Changes in denied boarding compensation (DBC) policy	**Total**
Estimated Quantified Benefits	not estimated
Estimated Quantified Costs	$0.66
Net Benefits	**not estimated**
Additional Benefits not Quantified in this Evaluation:	
• Decrease in Confusion Regarding Denied Boarding Compensation Provisions	
• Decreased Resentment among Some Passengers Regarding Different Compensation Received	
Requirement 7: Full-fare advertising and prohibition on opt-out provisions	**Total**
Estimated Quantified Benefits	$73.50
Estimated Quantified Costs	$6.86
Net Benefits	**$66.64**
Additional Benefits not Quantified in this Evaluation:	
• Travelers Less Likely to Mistakenly Purchase Unwanted Services and Amenities	
• Improved Customer Good Will Towards Carriers	
Requirement 8: Expanded requirements for disclosure of baggage and other optional fees	**Total**
Estimated Quantified Benefits	not estimated
Estimated Quantified Costs	$2.51
Net Benefits	**not estimated**
Additional Benefits not Quantified in this Evaluation:	
• Decrease in Time at Check-in	
• Improved Customer Good Will towards Carriers	

Table 33, ctd. - Comparison of Requirement-Specific Benefits and Costs, 2011-2020
(discounted at 7%/year to 2011 $ millions)

Requirement 9: Prohibiting Post-Purchase Increase	**Total**
Estimated Quantified Benefits	$5.83
Estimated Quantified Costs	not estimated
Net Benefits	**not estimated**
Additional Benefits not Quantified in this Evaluation:	
• Improved Customer Good Will towards Carriers	
Requirement 10: Prompt passenger notification of flight status changes	**Total**
Estimated Quantified Benefits	not estimated
Estimated Quantified Costs	not estimated
Net Benefits	**not estimated**
Additional Benefits not Quantified in this Evaluation:	
• Greater Comfort and Certainty from Knowing that Information Will Be Available In Timely Manner	
Requirement 11: Limitations on venue provisions in contracts of carriage	**Total**
Estimated Quantified Benefits	not estimated
Estimated Quantified Costs	not est
Net Benefits	**not est**
Additional Benefits not Quantified in this Evaluation:	
• Improved Customer Good Will towards Carriers	
Requirements 1 -11: TOTAL	**Total**
Estimated Quantified Benefits	**$87.6**
Estimated Quantified Costs	**$26.0**
Net Benefits	**$61.6**

Substantial portions of the estimated benefits, costs, and net benefits from the proposed rule are attributable to the full-fare advertising provision of Requirement 7. The expected benefits estimated for this single provision total $73.50 million over the 10-year period from 2011 through 2020 using a discount rate of 7 percent. Benefits estimated for the full-fare advertising provision represent 84 percent of the total benefits estimated for all 11 proposed requirements during the period from 2011 through 2020.

The expected costs of complying with the full-fare advertising provision of Requirement 7 are estimated at $6.86 million over the 10-year period from 2011 through 2020 using a discount rate of 7 percent. Costs estimated for the full-fare advertising provision in Requirement 7 represent 26 percent of the total costs estimated for all 11 proposed requirements during the period from 2011 through 2020.

None of the present values for quantified benefits or costs associated with any of the other 10 requirements from 2011 through 2020 (discounted at 7 percent) are estimated to exceed $10 million.

7.3. Annualized Benefits and Costs

This preliminary regulatory evaluation also includes a presentation of the annual benefits and expenditures associated with this proposed rule. The table provides our best estimate of the annualized dollar amount of these benefits and costs expressed in 2011 dollars at 7 percent and 3 percent discount rates. We estimate that the benefits will be $25.59 million annualized at a 7 percent discount rate, or $25.01 million annualized at a 3 percent discount rate. Costs of this proposed rule are estimated to be approximately $5.97 million annualized at a 7 percent discount rate, or $5.26 million annualized at a 3 percent discount rate, over a 10-year period of analysis.[53]

Table 34 - Annualized Benefits and Costs, 2011 through 2020, $ millions 2011

	Estimates			Units		
	Primary Estimate	Low Estimate	High Estimate	Year Dollar	Discount Rate	Period Covered
Annualized Monetized Benefits	$25.59	$11.27	$53.41	2011	7%	2011-2020
	$25.01	$10.99	$52.24	2011	3%	2011-2020
Annualized Monetized Costs	$5.97	$4.64	$7.52	2011	7%	2011-2020
	$5.26	$4.16	$6.54	2011	3%	2011-2020

7.4. Benefits and Costs for Alternative Requirement Scenarios

Benefit and cost estimates were also developed for four alternative requirement scenarios: two for Requirement 1 (Alternatives A and B) and two for Requirement 7 (Alternatives C and D). The only significant variation in benefits is for Alternative C, in which the full-fare advertising provision is assumed to cover only carrier websites.

Table 35 - Benefits and Costs for Base Case and Four Alternative Scenarios

Present Value, 2011-2020 ($ millions 2011)

	Discount Rate	Base Case	Requirement 1		Requirement 7	
			Alternative A	Alternative B	Alternative C	Alternative D
Total Benefits	7%	$87.59	$87.68	$87.59	$48.80	$92.19
	3%	$104.18	$104.28	$104.18	$57.96	$108.78
Total Costs	7%	$25.98	$25.28	$25.84	$20.49	$34.13
	3%	$28.45	$27.70	$28.32	$22.97	$36.60
Net Benefits	7%	$61.61	$62.40	$61.75	$28.31	$58.06
	3%	$75.73	$76.58	$75.87	$34.99	$72.18

See Section 4.4 for a description of the four alternative scenarios analyzed.

[53] This statement is presented in essentially the format as the accounting statement that OMB Circular A–4 requires for final rules.

7.5. Conclusion

This preliminary regulatory analysis indicates that adoption of the proposed requirements would result in projected benefits to the public that outweigh the estimated costs of the proposed rule.

Appendix: Estimation of Benefits

The table below lists overall inputs and assumptions into the benefits calculations. Inputs that are sourced as "*estimate*" are subject matter expert estimates that are used where more precise data were not found. The Department is particularly interested in any additional, evidence-based estimates for these variables which are more robust than the current estimates. Following the table below are formulas listing for the benefits calculations and tables detailing the first year's estimates.

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
U.S. Carrier Flight Data					
Number of Annual Passengers using Air Travel (Domestic & International) for All U.S. Carriers, Market	740,454,238	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -8.03% in 2009, 1.96% in 2010, and 2.6% beyond.
Percentage of PAX (Dom & Int) using Reporting U.S. Carriers, Market	87.93%		2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Number of Annual Passengers using Air Travel (Domestic) for All U.S. Carriers, Market	651,703,245	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -8.8% in 2009, 1.9% in 2010, and 2.4% and beyond.
Percentage of PAX (Dom) using Reporting U.S. Carriers, Market	87.66%		2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Number of Annual Passengers using Air Travel (International) for All U.S. Carriers, Market	88,750,993	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -2.4% in 2009, 2.4% in 2010, and 4.4% beyond.
Percentage of PAX (Int) using Reporting U.S. Carriers, Market	89.93%		2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Number of Annual Passengers using Air Travel (Domestic & International) for All U.S. Carriers, Segment	755,827,506	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -8.03% in 2009, 1.96% in 2010, and 2.64% beyond.
Percentage of PAX (Dom & Int) using Reporting U.S. Carriers, Segment	88.01%		2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Number of Annual Passengers using Air Travel (Domestic) for All U.S. Carriers, Segment	666,990,665	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -8.8% in 2009, 1.9% in 2010, and 2.4% beyond.
Percentage of PAX (Dom) using Reporting U.S. Carriers, Market	87.76%		2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Number of Annual Passengers using Air Travel (International) for All U.S. Carriers, Segment	88,836,841	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -2.4% in 2009, 2.4% in 2010, and 4.4% beyond.
Percentage of PAX (Int) using Reporting U.S. Carriers, Market	89.87%		2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Number of Annual Flights (Domestic & International), All U.S. Carriers	10,200,023	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -5.7% in 2009, and 2.1% beyond.
Percentage of Flights (Dom & Int) from Reporting U.S. Carriers	64.12%		2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -5.7% in 2009, and 2.1% beyond.
Number of Annual Flights (Domestic), All U.S. Carriers	9,373,657	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -5.7% in 2009, and 2.1% beyond.
Number of Annual Flights (International), All U.S. Carriers	826,366	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -5.7% in 2009, and 2.1% beyond.

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Foreign Carrier Flight Data					
Number of Annual Passengers using Air Travel (Domestic & International) for All Foreign Carriers, Market	68,976,137	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -0.9% in 2009, 4.2% in 2010, and 4.6% beyond.
Number of Annual Passengers using Air Travel (Domestic) for All Foreign Carriers, Market	34,450	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -0.9% in 2009, 4.2% in 2010, and 4.6% beyond.
Number of Annual Passengers using Air Travel (International) for All Foreign Carriers, Market	68,941,687	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -0.9% in 2009, 4.2% in 2010, and 4.6% beyond.
Number of Annual Passengers using Air Travel (Domestic & International) for All Foreign Carriers, Segment	70,066,349	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -0.9% in 2009, 4.2% in 2010, and 4.6% beyond.
Number of Annual Passengers using Air Travel (Domestic) for All Foreign Carriers, Segment	526,450	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -0.9% in 2009, 4.2% in 2010, and 4.6% beyond.
Number of Annual Passengers using Air Travel (International) for All Foreign Carriers, Segment	69,539,809	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -0.9% in 2009, 4.2% in 2010, and 4.6% beyond.

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Number of Annual Flights (Domestic & International), All Foreign Carriers	513,845	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -5.9% in 2009, and 2.1% beyond.
Number of Annual Flights (Domestic), All Foreign Carriers	2,562	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -5.9% in 2009, and 2.1% beyond.
Number of Annual Flights (International), All Foreign Carriers	511,283	FAA	2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	Only includes Scheduled Passenger Flights. Uses the FAA forecasted growth of -5.9% in 2009, and 2.1% beyond.
Tarmac Delays (Taxi-In and Tax-Out Delays)					
Taxi In - Percentage of Passengers with Tarmac Delay Over 1 hours	0.0420%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Passengers with Tarmac Delay Over 2 hours	0.0030%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Flights with Tarmac Delay Over 1 hours	0.0323%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Flights with Tarmac Delay Over 2 hours	0.0024%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per	

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
				On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Passengers with Tarmac Delay Over 3 hours	0.0006%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Flights with Tarmac Delay Over 3 hours	0.0004%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Passengers with Tarmac Delay Over 4 hours	0.0001%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Flights with Tarmac Delay Over 4 hours	0.0001%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Taxi In - Percentage of Passengers with Tarmac Delay Over 5 hours	0.0000%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Flights with Tarmac Delay Over 5 hours	0.0000%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Passengers with Tarmac Delay Over 6 hours	0.0000%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi In - Percentage of Flights with Tarmac Delay Over 6 hours	0.0000%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Passengers with Tarmac Delay Over 1 hours	0.7347%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics	

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
				(BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Passengers with Tarmac Delay Over 2 hours	0.0755%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Flights with Tarmac Delay Over 1 hours	0.8391%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Flights with Tarmac Delay Over 2 hours	0.0881%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Passengers with Tarmac Delay Over 3 hours	0.0182%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Flights with Tarmac Delay Over 3 hours	0.0200%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis	

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
				of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Passengers with Tarmac Delay Over 4 hours	0.0039%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Flights with Tarmac Delay Over 4 hours	0.0037%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Passengers with Tarmac Delay Over 5 hours	0.0005%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Flights with Tarmac Delay Over 5 hours	0.0005%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Taxi Out - Percentage of Passengers with Tarmac Delay Over 6 hours	0.0001%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Taxi Out - Percentage of Flights with Tarmac Delay Over 6 hours	0.0001%		2007-2008	Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections analysis of data on Reporting Carriers as per On-Time Performance database, Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Value of Time					
Value of Travel Time Per Passenger (Personal Travel)	$23.30		2000	FAA Office of Aviation Policy and Plans - "Economic Values for FAA Investment and Regulatory Decisions, A Guide"	
Value of Travel Time Per Passenger (Business and Personal)	$28.60		2000	FAA Office of Aviation Policy and Plans - "Economic Values for FAA Investment and Regulatory Decisions, A Guide"	
Value of Time for Air Passenger (Time Not Traveling)	$24.15			HDR|Decision Economics; FAA Office of Aviation Policy and Plans - "Economic Values for	Weighted value using 50% of hourly earnings of air travelers on personal travel and 100% of hourly earnings of business air travelers; earnings estimates from FAA Office of Aviation Policy and Plans - "Economic Values for FAA Investment and Regulatory Decisions, A Guide"
Other Variables					

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Percentage of Flights Canceled (same-day)	1.95%		2008	Bureau of Transportation Statistics (BTS) -RITA Database, On-Time Performance Statistics	
Average Price of Airfare (Domestic)	$246		2008	American Express Business Travel	
Average Price of Airfare (International)	$1,955		2008	American Express Business Travel	
Number of Complaints (Both U.S. and Foreign Carriers)	10,473		2008	Office of Aviation Enforcement and Proceedings "Air Travel Consumer Report" Issued January 2009 - December 2009	
Number of Complaints (Foreign Carriers)	1,275		2008	Office of Aviation Enforcement and Proceedings "Air Travel Consumer Report" Issued January 2009 - December 2009	
Complaint Multiplier (# of Complaints not filed actually received by Carriers)	61		2009	"Final Report on Airline Customer Service Commitment," Office of the Inspector General, US Department of Transportation, report AV-2001-020, February 12, 2001 and "Air Travel Consumer Report, U.S. Department of Transportation."	
Average Travel Trip Party Size	2.60			Bureau of Transportation Statistics (BTS), American Travel Survey	
Percentage of Passengers That Are Round-Trips	71%		2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	http://www.transtats.bts.gov/Oneway.asp?Display_Flag=0&Percent_Flag=0
Req 5: Application of Tarmac Delay Policy and Contingency Plan to Foreign Carriers					
Number of Passengers Who Travel on Foreign Carriers Already in Compliance	25,341,355		2007-2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	
Number of flights From Foreign Carriers Already in Compliance	115,907		2007-2008	Bureau of Transportation Statistics (BTS) -RITA Database, Aviation Statistics	

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Estimated Number of Flights 3-Hour Tarmac Delay for Foreign Carriers	61	1%	2009		
Average Wait Time After An Hour Tarmac Delay (Taxi-In Passengers) (hours)	0.36		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After An Hour Tarmac Delay (Taxi-Out Passengers) (hours)	0.45		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After 2 Hours Tarmac Delay (Taxi-In Passengers) (hours)	0.51		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After 2 Hours Tarmac Delay (Taxi-Out Passengers) (hours)	0.68		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After 3 Hours Tarmac Delay (Taxi-In Flights) (hours)	0.53		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After 3 Hours Tarmac Delay (Taxi-Out Flights) (hours)	0.59		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After 4 Hours Tarmac Delay (Taxi-In Flights) (hours)	0.56		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After 4 Hours Tarmac Delay (Taxi-Out Flights) (hours)	0.58		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After 5 Hours Tarmac Delay (Taxi-In Flights) (hours)	0.50		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
					RIA Enhanced Airline Passenger
Average Wait Time After 5 Hours Tarmac Delay (Taxi-Out Flights) (hours)	0.71		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After 6 Hours Tarmac Delay (Taxi-In Flights) (hours)	0.50		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Average Wait Time After 6 Hours Tarmac Delay (Taxi-Out Flights) (hours)	0.71		2009	Flight on-tarmac delay distribution from U.S. DOT Final RIA Enhanced Airline Passenger Protections	Calculated using BTS data subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger
Comfort Knowing There is a Contingency Plan					
Number of Tarmac Delays of 1 or more of Non-Compliant Foreign Carriers	2,022				Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections
Percentage of 1+ Hr Delays that Are Arrivals	4%				Distribution of flights by delay time from U.S. DOT Final RIA Enhanced Airline Passenger Protections
Premium for Reduced Anxiety from Contingency Plan	1.01		2009	As used for domestic carriers in U.S. DOT Final RIA Enhanced Airline Passenger Protections	See source notes
Benefit from Provision of Adequate Food, Drink, and Lavatory Access					

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Number of 2+ Tarmac Delays From Non-Compliant Foreign Flights	210				Calculated using BTS data from subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger Protection
Percentage of 2+ Hr Delays that Are Arrivals	3%				Calculated using BTS data from subject matter expert using distribution of delays for domestic flights in the U.S. DOT Final RIA Enhanced Airline Passenger Protection
Premium for Access to Food, Drink, and Lavatory	1.34		2007	As used for domestic carriers in U.S. DOT Final RIA Enhanced Airline Passenger Protections	See Source Notes titled "Value of Time Premiums for Differing Qualitative Levels of Service"
Waiting at Gate Instead of the Tarmac					
Premium of Waiting at Gate Instead of on Tarmac	1.68			As used for domestic carriers in U.S. DOT Final RIA Enhanced Airline Passenger Protections	See Source Notes, "Value of Time Premiums for Differing Qualitative Levels of Service"
Benefits to Carriers					
Average Cockpit Crew Wage (per hour)	$68.50		2009	Standardized Occupational Components for Research and Analysis of Trends in Employments System, from Occupational Employment and Wages (OES) program, BLS	
Average Cockpit Crew per Airplane	2.00		2009	As used in U.S. DOT Final RIA Enhanced Airline Passenger Protections	See Source Notes, "Average Cockpit Crews per Type of Aircraft."
Average Flight Attendant Crew Wage (per hour)	$42.43		2009	Standardized Occupational Components for Research and Analysis of Trends in Employments System, from Occupational Employment and Wages (OES) program, BLS	

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Average Flight Attendant Crew per Airplane	12.00		2009	As used for domestic carriers in U.S. DOT Final RIA Enhanced Airline Passenger Protections	Assuming Large Aircraft for Foreign Carriers. See Source Notes, "Average Number of Flight Attendents per Aircraft Type."
Benefits from Extending Coordination to CBP to Small Hub and Non Hub Airports					
Annual Benefits from Component 1 in EAPP1 Rule RIA (includes large and medium hubs already)	$ 1,596,885			U.S. DOT Final RIA Enhanced Airline Passenger Protections	See Source Notes, "Benefits to Passengers from Deplaning, Annually."
Percentage of Benefits that can accrue due to coordination with CBP and that were not considered in RIA for Enhanced Airline Passenger Protections previously	0.5%			*Estimate*	*Estimate*
Application of Customer Service Plan (CSP) to Foreign Carriers					
Percentage Reduction of Complaints by Implementing CSP	20%			U.S. DOT Final RIA Enhanced Airline Passenger Protections	Estimate from historical complaint data. See Source Notes, "Change in Complaints due to Self Auditing of Customer Service Plans."
Benefits from Premium on Complaint Free Air travel					
Premium on Foreign Flights for Complaint-Free Travel	1.05			*Estimate*	Estimated as a value between the premium for knowing that a plan exists and the premium for greater comfort from access to food and water
Applying the Requirements to Respond to Consumer Problems to Foreign Carriers for Their Scheduled Service to and from U.S.					
Benefits from Increase in Consumer Surplus and Decline in Deadweight Loss					
Percent Change in Cost of Complaining	3.23%		2009	Derived from BLS, subject matter experts as in Table A-22 from U.S. DOT Final RIA Enhanced Airline Passenger Protections	See Source Notes, "Value of Time to Prepare and File a Complaint."

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Elasticity of Cost of Complaining	1.07		1980	Morris, David. "The Cost of Complaining and the Efficiency of Consumer Complaints Agencies". Journal of Consumer Studies and Home Economics, 1980	
Decrease in the Cost of Complaining	$ 0.32		2009	Derived from change in cost of complaining as per U.S. DOT Final RIA Enhanced Airline Passenger Protections	
Amend Price Advertising (Full Fare and Opt-Out)					
Percentage of Passengers Who Use the Internet for Ticket Purchases	74%		2009	Hoffman, Cole. "The Role and Value of the Global Distribution Systems in Travel Distribution". Interactive Travel Services Association.	
Average Incremental Time Spent by Passengers who already search for full fare information finding Taxes and Hidden Fees (hours)	0.08			*Estimate*	Estimated from examined of carrier and ticketing websites
Passenger Benefits for Passengers Who Already Compare Full Fares					
Passengers Who Research Airfare Prices on Multiple Websites Specifically for lowest Taxes and Fees	2%			*Estimate*	*Estimate*
Passenger Benefits for Passengers Not Currently Comparing Full Fares					
Percentage of Passengers Not Searching to Compare Full Fare Who Purchase from Compliant Websites	90%			*Estimate*	*Estimate*
Percentage of Total Price of Taxes Revealed (Price Increase)	5.0%		2006	Bureau of Transportation Statistics (BTS), American Travel Survey	Used the 16 percent as a high, and then subtracted 7.5% of USDOT tax already shown in all airfares
National Level Elasticity for Air Travel Demand	-0.4		2009	International Air Transport Association. "Air Travel Demand"	The lowest elasticity (since not really measuring a change in price, but a revelation in price)

Overall Inputs Assumptions in Benefits Analysis

Common Assumptions	Average Value	Growth Rate Used	Source data year	Source	Notes
Average Price of Airfare (Domestic)	$246		2008	American Express Business Travel	
Average Price of Airfare (International)	$1,955		2008	American Express Business Travel	
Prohibiting Post-Purchase Increase					
Benefits of Certainty					
Percentage of Passengers Who Purchase Airfare Outside of The Internet	28%		2009	Hoffman, Cole. "The Role and Value of the Global Distribution Systems in Travel Distribution". Interactive Travel Services Association.	
Percentage of Non-Internet Using Passengers Purchasing Through Carriers	80%			*Estimate*	*Estimate*
Premium on Certainty of Purchase	1.01			*Estimate*	As proxy used same premium as used for Premium for Reduced Anxiety from Contingency Plan
Average Amount of Time Spent Purchasing Airfare (hours)	0.17			*Estimate*	*Estimate*

Req. 1: Application of Tarmac Delay Policy and Contingency Plan to Foreign Carriers

The formula below illustrates the inputs and calculations used to estimate benefits for this provision. The abbreviation PAX is used for the word passenger(s)

Overall Assumptions

(1) Passengers Who May Benefit= PAX using Foreign Carriers (Dom & Int'l), Segment
–PAX on Foreign Carriers already in Compliance

(2) Flights That May Benefit= No. of Foreign Carrier Flights (Dom & Int'l)
– No. of Flights on Foreign Carriers already in Compliance

(3) Avg. No. of PAX Who May Benefit Per Flight That May Benefit= Passengers Who May Benefit *(1)*
÷ Flights That May Benefit *(2)*

Benefits from Comfort of Knowing There is a Contingency Plan

In-Scope Passengers (Arrivals) = Number of Flights with a Tarmac Delay Over 1+ hour On Foreign Carriers Not Already Compliant
X % of Flights with Tarmac Delay Over 1+ hour that are Arrivals
X Avg. No. of PAX Who May Benefit Per Flight *(3)*

Flight In-Scope Passengers (Departures)= Number of Flights with a Tarmac Delay Over 1+ hour On Non-Compliant Foreign Carriers
X % of Flights with Tarmac Delay Over 1+ hour that are Departures
X Avg. No. of PAX Who May Benefit Per Flight *(3)*

Incremental Savings per Hour from Contingency Plan= Value of Travel Time
X Premium of Comfort

Total Savings from Arrivals= In-Scope Passengers (Arrivals)
X Incremental Savings per Hour from Contingency Plan
X Avg. Wait Time After Hour Tarmac Delay (Arrivals)

Total Savings from Departures= In-Scope Passengers (Departures)
X Incremental Saving per Hour from Contingency Plan
X Avg. Wait Time After Hour Tarmac Delay (Departures)

Calculation of Benefits= Total Savings from Arrivals
+ Total Savings from Departure

Benefit from Provision of Adequate Food, Drink, and Lavatory

In-Scope Passengers (Arrivals) = Number of Flights w/ Long Tarmac Delays Two+ Hours on Foreign Carriers Not already Compliant
X % of 2+ Hr Delays that are Arrivals
X Avg. No. of PAX Who May Benefit per Potential Flight *(3)*

In-Scope Passengers (Departures) = Number of Flights w/ Long Tarmac Delays Two+ Hours On Non-Compliant Carriers
X % of 2+ Hr Delays that are Departures
X Avg. No. of PAX Who May Benefit per Potential Flight *(3)*

Incremental Savings per Hour from Food, Drink, Lavatory=
Value of Time
X Premium of Comfort

Total Savings from Arrivals=
In-Scope Passengers (Arrivals)
X Incremental Savings per Hour from Food, Drink, Lav
X Avg. Wait Time After 2 Hour Tarmac Delay (Arrivals)

Total Savings from Departures=
In-Scope Passengers (Departures)
X Incremental Saving per Hour from Food, Drink, Lav
X Avg. Wait Time After 2 Hour Tarmac Delay (Depart)

Calculation of Benefits=
Total Savings from Arrivals
+ Total Savings from Departures

Benefit from Waiting at Gate Instead of Airplane

In-Scope Passengers (Arrivals):
Number of Flights with On Tarmac Delays 6+ hours On Non-Compliant Foreign Carriers
X % of 6+ Hr Delays that are Arrivals
= No. of Flights with 6+ Hr Arrivals Tarmac Delays
– No. of Flights that get Canceled after 6 Hour Tarmac Delay (Arrivals)
= No. of Flights with a "true" Tarmac Delay over 6 hours

X Avg. No. of PAX Who May Benefit Per Flight *(3)*

In-Scope Passengers (Depart):
Number of Flights with On Tarmac Delays 6+ hours On Non-Compliant Foreign Carriers
X % of 6+ Hr Delays that are Departures
= No. of Flights with 6+ Hr Departure Tarmac Delays
– No. of Flights that get Canceled after 6 Hour Tarmac Delay (Departures)
= No. of Flights with a "true" Tarmac Delay over 6 hours
X Avg. No. of PAX Who May Benefit Per Flight *(3)*

Incremental Savings per Hour from Waiting at the Gate=
Value of Time
– (Value of Time ÷ [1 + Premium of Comfort])

Total Savings from Arrivals=
In-Scope Passengers (Arrivals)
X Incremental Savings per Hour from Waiting at Gate
X Avg. Wait Time After 6 Hour Tarmac Delay (Arrivals)

Total Savings from Departures=
In-Scope Passengers (Departures)
X Incremental Saving per Hour from Waiting at Gate
X Avg. Wait Time After 6 Hour Tarmac Delay (Depart)

Calculation of Benefits=
Total Savings from Arrivals
+ Total Savings from Departures

Benefits to Carriers

In-Scope Flights=
Number of Flights with On Tarmac Delays 6+ hours On Non-Compliant Foreign Carriers
X % 6+ Hr Tarmac Delays that are Arrivals

Average Hourly Cost for Flight Crew=
(Avg. Cockpit Crew Wage
X Avg. No. of Cockpit Crew Per Flight)
+ (Avg. Flight Attendant Wage
X Avg. No. of Flight Attendants per Flight)

Calculation of Benefits=
In-Scope Flight
X Average Hourly Cost for Flight Crew
X Avg. Wait Time after 3 Hour Tarmac Delay (Arrival)

Dis-Benefits to Consumers from Cancelled Flights

In-Scope Flights Cancelled Due to Rule=
Number of Flights with On Tarmac Delays 6+ hours On Non-Compliant Foreign Carriers
X Additional cancelled flights

Calculation of Dis-Benefits=
Number of In-Scope Flights Cancelled Due to Rule
X Average Number of Passengers per flight
X Net Increase in Total Trip Time (avg. increase in trip time due to a cancelled flight minus the 5 hours spent delayed on tarmac) (hours)
X Passengers value of time (hours)

Application of Tarmac Delay Policy and Contingency Plan to Foreign Carriers - General Assumptions	**2011**
Number of Annual Passengers using Air Travel (Domestic & International) for All Foreign Carriers, Segment	72,352,053
Number of Passengers Who Travel on Foreign Carriers Already in Compliance	25,939,791
Passengers Who May Benefit	**46,412,262**
Number of Annual Flights (Domestic & International), All Foreign Carriers	494,732
Number of flights From Foreign Carriers Already in Compliance	118,644
Number of Flights that May Benefit	**376,088**
Average Passengers per Flight for Potential Benefits	123

Application of Tarmac Delay Policy and Contingency Plan to Foreign Carriers - Benefits After 1+ Hr Tarmac Delay	2011
Comfort Knowing There is a Contingency Plan	
Number of 1+ Tarmac Delays From Non-Compliant Foreign Flights	2,137
Value of Time for Passenger (All Purpose)	$28.60
Premium for Reduced Anxiety from Contingency Plan	1.01
Incremental Savings per Hour per Passenger with a Contingency Plan	**$0.29**
Percentage of 1+ Hr Delays that Are Arrivals	3.83%
Number of Arrival Flights with 1 hr Tarmac Delays that May Benefit	82
Passengers Who May Benefit & Experience Over an Hour Tarmac Delay during Arrivals	**10,101**
Average Wait Time After An Hour Tarmac Delay (Taxi-In Passengers) (hours)	0.36
Average Savings per Passenger with a Contingency Plan during Arrivals from Comfort	$0.11
Total Savings with a Contingency Plan during Arrivals from Comfort	**$1,111**
Number of Departure Flights with 1 hr Tarmac Delays that May Benefit	2,055
Passengers Who May Benefit & Experience Over an Hour Tarmac Delay during Departures	**253,603**
Average Wait Time After An Hour Tarmac Delay (Taxi-Out Passengers) (hours)	0.45
Average Savings per Passenger with a Contingency Plan during Departures from Comfort	$0.13
Total Savings with a Contingency Plan during Departures from Comfort	**$32,968**
Monetized Time Saved from Comfort	$34,080

Benefit from Provision of Adequate Food, Drink, and Lavatory Access - Benefits After 2+ Hr Tarmac Delay	**2011**
Value of Time for Passenger (All Purpose)	$28.60
Premium for Access to Food, Drink, and Lavatory	1.34
Incremental Savings per Hour per Passenger with Access to Food, Drink, and Lavatory	**$9.72**
Number of 2+ Tarmac Delays From Non-Compliant Foreign Flights	222
Percentage of 2+ Hr Delays that Are Arrivals	2.89%
Number of Arrival Flights with 2 hr Tarmac Delays that May Benefit	6
Passengers Who May Benefit & Experience Over 2+ Tarmac Delay during Arrivals	**792**
Average Wait Time After 2 Hours Tarmac Delay (Taxi-In Passengers) (hours)	0.51
Average Savings per Passenger with Access to Food, Drink, and Lavatory during Arrivals	$4.96
Total Savings with Access to Food, Drink, and Lavatory during Arrivals	**$3,927**
Number of Departure Flights with 2 hr Tarmac Delays that May Benefit	215
Passengers Who May Benefit & Experience Over 2 Hours Tarmac Delay during Departures	**26,533**
Average Wait Time After 2 Hours Tarmac Delay (Taxi-Out Passengers) (hours)	0.68
Average Savings per Passenger with Access to Food, Drink, and Lavatory during Departures	$6.61
Total Savings with Access to Food, Drink, and Lavatory during Departures	**$175,443**
Monetized Time Saved from Access	$179,369

Waiting at Gate Instead of the Tarmac - Benefits After 6+ Hr Tarmac Delay	**2011**
Value of Time for Passenger (All Purpose)	$28.60
Premium of Waiting at Gate Instead of on Tarmac	1.68
Incremental Savings per Hour per Passenger Waiting in Airport	**$20.09**
Number of X+ Tarmac Delays From Non-Compliant Foreign Flights	0.3
Percentage of X+ Hr Delays that Are Arrivals	0%
Number of Arrivals with X+ Hrs Tarmac Delays from Non Compliant Foreign Flights	-
Percentage of Flights Canceled (same-day)	2%
Number of Flights Canceled After Over X Hours of Tarmac Delay during Arrivals	-
Number of Flights that Experience Over X Hours Tarmac Delay during Arrivals (minus Cancellations)	-
Passengers Who May Benefit & Experience Over 3 Hours Tarmac Delay during Arrivals	**0**
Average Wait Time After 6 Hours Tarmac Delay (Taxi-In Flights) (hours)	0.5
Average Savings per Passenger Waiting at the Airport during Arrivals	$9.72
Total Savings Waiting at the Airport during Arrivals	**$0**
Taxi Out - Percentage of Flights with Tarmac Delay Over 6 hours	0.00%
Number of Flights that May Benefit & Experience Over 3 Hours Tarmac Delay during Departures	0
Percentage of Flights Canceled (same-day)	2%
Number of Flights Canceled After Over 3 Hours of Tarmac Delay during Departures	0
Number of Flights that Experience Over 3 Hours Tarmac Delay during Departures (minus Cancellations)	0
Passengers Who May Benefit & Experience Over 3 Hours Tarmac Delay during Departures	**36**
Average Wait Time After 6 Hours Tarmac Delay (Taxi-Out Flights) (hours)	0.71
Average Savings per Passenger Waiting at the Airport during Departures	$13.81
Total Savings Waiting at the Airport during Departures	**$501**
Monetized Time Saved from Comfort	$501

Benefits to Carriers - Benefits After 6+ Hr Tarmac Delay	2011
Taxi In - Percentage of Flights with Tarmac Delay Over 6 hours	0.00%
Number of Flights that May Benefit & Experience Over 3 Hours Tarmac Delay during Arrivals	**0**
Average Wait Time After 6 Hours Tarmac Delay (Taxi-In Flights) (hours)	0.5
Average Cockpit Crew Wage (per hour)	$68.89
Average Cockpit Crew per Airplane	2
Average Flight Attendant Crew Wage (per hour)	$42.26
Average Flight Attendant Crew per Airplane	11.57
Average Hourly Cost for All Flight Crew	$627
Average Savings from Flight Crew Wage per Flight that Experiences Over 3 Hours Tarmac Delay during Arrivals	**$313**
Monetized Savings from Added Coordination with CBP	$0

Benefits from Extending Coordination to Small Hubs and Non-hub Airports - General Benefits	2011
Annual Benefits from Component 1 in EAPP1 Rule RIA (includes large and medium hubs already)	$1,596,885
Percentage of Benefits that can accrue that were not considered previously	0.50%
Monetized Benefits from Coordination with Small Hubs and Non-hub Airports	**$7,984**

Req. 7: Amend Price Advertising (Full Fare and Opt-Out)
The formula below illustrates the inputs and calculations used to estimate benefits for this provision:

Overall Assumptions

No. of Round Trip Purchases=	No. PAX Who Use U.S. Carriers (Dom & Int'l), Market
	X % of PAX Who Purchase Airfare via Internet
	= No. of PAX who Purchase Airfare via the Internet
	X % of PAX that are Making Round Trips
No. of One-Way Purchases=	No. PAX Who Use U.S. Carriers (Dom & Int'l), Market
	X % PAX Who Purchase Airfare via the Internet
	= No. of PAX who Purchase Airfare via the Internet
	X % of PAX that are Making One-Way Trips
In-Scope Passengers=	No. of Round Trip Purchases
	+ No. of One-Way Purchases

Benefits to Passengers who already search for full fare information

In-Scope Passengers=	(1) Passengers Who May Benefit
	X % of On-Line Customers Who Research Multiple Websites (one of which does not use full-fare advertising up-front)
	÷ Average Number of People in Travel Party
Calculation of Benefits=	**In-Scope Passengers**
	X Avg. Extra Time Spent on Internet Searching for Taxes/Fees
	X Value of Time

Benefits to Passengers Who Do Not Currently Compare Full Fares (Elimination of Dead-Weight Loss)

In-Scope Passengers=	*(1)* Passengers Who May Benefit
	X (1- On-Line Customers Who Research on Multiple Websites (one of which uses hidden fees)
	X (1-% of PAX Who Use Website Already Showing Full Fare)
Decrease in Price=	Weighted Average Price of Airfare
	X % of Airfare that Make-Up Hidden Fees
Increase in Market Demand=	**In-Scope Passengers**
	X Decrease in Price
	X Elasticity of Air Travel Demand

Calculation of Benefits= (In-Scope Passengers
X Decrease in Price)
+ (Increase in Market Demand
X ½
X Decrease in Price)

Req. 9: Prohibiting Post-Purchase Increase

The formula below illustrates the inputs and calculations used to estimate benefits for this provision:

Overall Assumptions

In-Scope Passengers= No. of Passengers Using U.S. Carriers, Market
X % of Passengers Who Buy Airfare Outside Online
X (1-% of Non-internet PAX buying through Carriers)

Benefits of Uncertainty

Calculation of Benefits= **In-Scope Passengers**
X Value of Time
X Premium for Increased Comfort from Knowing Will Be Notified

Source Notes

Number of Flights and Passengers with Extended Tarmac Delays

Variable Description: The number of flights and passengers for foreign flagged carriers by amount of on-tarmac delay time is estimated using the distribution of flights by on-tarmac delay for domestic 'reporting carriers' (those with 1% or more of scheduled passenger service) since foreign carriers do file the necessary detailed statistics with the Federal government. To estimate delays, the ratios each of delay, by length, for reporting domestic carriers were used on the foreign carrier flight population to estimate number of delays at each time interval.

Source: Percentages as reported in Enhanced Airline Passenger Protection (EAPP1) Regulatory Impact Analysis. Original data flight data are from the Bureau of Transportation Statistics (BTS).

Percentage Distribution of Tarmac Delays

Arrivals (Taxi-In)	Passengers	Percentage	Flights	Percentage
Up to 1/4 hours	309,583,268	49.79397%	3,689,525	50.12271%
1/4 and1/2 hours	18,414,418	2.96181%	172,488	2.34327%
1/2 and 3/4 hours	2,215,131	0.35629%	20,584	0.27964%
3/4 and 1 hours	477,573	0.07681%	4,279	0.05813%
1 - 1.25 hours	153,870	0.02475%	1,404	0.01907%
1.25 - 1.5 hours	53,289	0.00857%	482	0.00655%
1.5 and 2 hours	35,826	0.00576%	316	0.00429%
2 and 2.5 hours	12,888	0.00207%	122	0.00166%
2.5 and 3 hours	2,434	0.00039%	27	0.00037%
3 and 3.5 hours	2,434	0.00039%	18	0.00024%
3.5 and 4 hours	239	0.00004%	4	0.00005%
4 and 4.5 hours	295	0.00005%	3	0.00004%
4.5 and 5 hours	0	0.00000%	0	0.00000%
5 and 6 hours	51	0.00001%	1	0.00001%
More than 6 hours	0	0.00000%	0	0.00000%
Total Population	621,728,440	100%	7,360,984	100%

Departures (Taxi-Out)	Passengers	Percentage	Flights	Percentage
Up to 1/4 hours	166,397,035	26.76362%	2,404,297	32.66271%
1/4 and1/2 hours	139,537,841	22.44354%	1,638,730	22.26238%
1/2 and 3/4 hours	23,204,937	3.73233%	277,711	3.77274%
3/4 and 1 hours	5,948,002	0.95669%	76,709	1.04210%
1 - 1.25 hours	2,246,710	0.36137%	29,968	0.40712%
1.25 - 1.5 hours	1,023,316	0.16459%	13,900	0.18883%
1.5 and 2 hours	828,564	0.13327%	11,415	0.15507%
2 and 2.5 hours	269,388	0.04333%	3,729	0.05066%
2.5 and 3 hours	86,689	0.01394%	1,284	0.01744%
3 and 3.5 hours	64,326	0.01035%	911	0.01238%
3.5 and 4 hours	24,667	0.00397%	289	0.00393%
4 and 4.5 hours	14,378	0.00231%	167	0.00227%
4.5 and 5 hours	6,528	0.00105%	65	0.00088%
5 and 6 hours	2,682	0.00043%	30	0.00041%
More than 6 hours	495	0.00008%	8	0.00011%
Total Population	621,728,440	100%	7,360,984	100%

Passenger Value of Time

Variable Description: This is the monetized value of time for air passengers. This estimate is used to calculate time savings and increased level of comfort.

Estimates of the value of time for air travelers while traveling are those prepared by the Department of Transportation for economic analyses. The value of time for air travelers while not traveling was estimated using earnings estimates used by the Department of Transportation for calculation of the above estimates as follows: a weighted average (by proportion of all travelers) of a) 100% times the average hourly earnings of those traveling by air on business and b) 50% times the average hourly earnings of those traveling by air for personal trips.

Source: U.S. Department of Transportation, "Revised Departmental Guidance Valuation of Travel Time in Economic Analysis", 2003.

Value of Time

	Lower 10% Limit	Median	Upper 10% Limit
Value of Time for Passenger (Personal Non-Traveling)	$24.15	$21.74	$26.57
Value of Time for Passenger (All Purpose Traveling)	$28.60	$23.80	$35.60
Meeter-and-Greeter VOT	$10.60	$8.82	$13.19

Number of Air Carrier Complaints

Variable Description: This is the annual number of complaints filed with an air carrier i. Complaints can relate to flight problems, oversales, customer service, lost baggage, etc. Baseline figures are taken from data compiled by the US Department of Transportation. But since carriers receive many more complaints than are filed with the US Department of Transportation a complaint 'multiplier' is used calculate the actual number of "ground-level" complaints received by carriers from passengers.

Source: U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings, "Air Travel Consumer Report", January 2008 – December 2008; Final Report on Airline Customer Service Commitment," Office of the Inspector General, US Department of Transportation, report AV-2001-020, February 12, 2001 and "Air Travel Consumer Report, U.S. Department of Transportation.

2008 Filed Complaints

	Lower 10% Limit	Median	Upper 10% Limit
Number of Complaints (Both U.S. and Foreign Carriers)	10,473	9,426	11,520
Number of Complaints (Foreign Carriers)	1,275	1,148	1,403
Complaint Multiplier (# of Complaints not filed actually received by Carriers)*	61	61	61

* Multiplier Source: "Final Report on Airline Customer Service Commitment," Office of the Inspector General, US Department of Transportation, report AV-2001-020, February 12, 2001 and "Air Travel Consumer Report, U.S. Department of Transportation.

Factor to Adjust Number of Annual Complaints to Covered Carriers that Do Not Already Self-Audit Adherence to Customer Service Plans

Variable Description: Using complaint data reported for domestic carriers as proxy for foreign carriers, **m**easures the average number of complaints to all covered carriers that are not already self-auditing adherence to customer service plans. The DOT Air Travel Consumer Reports lists complaints received by the Department, but not complaints directly to the carriers. The DOT Inspector General found in 2001 that it received 1,352 complaints for the 10 major airlines, but that those carriers received 82,587 complaints, or **61** times the number of complaints recorded by DOT. To arrive at a total number of complaints for covered carriers, the number of complaints in DOT Air Travel Consumer Reports for covered carriers that are not already self-auditing adherence to customer service plans was multiplied by 61.

Source: "Final Report on Airline Customer Service Commitment," Office of the Inspector General, US Department of Transportation, report AV-2001-020, February 12, 2001 and "Air Travel Consumer Report, U.S. Department of Transportation.

Average Travel Trip Party Size

Variable Description: This figure is the estimated average number of people per group or trip on a commercial airline flight. This variable may also be interpreted as the average number of tickets purchased per trip or transaction. The average trip party size for flight travel is estimated at 2.6.

Source: American Travel Survey, 1995, downloaded from RITA Database.

Average Price of Airfare

Variable Description: Estimate of average prices for domestic and international flights. A weighted average of the two estimates is calculated to arrive at an all-purpose average price of airfare.

Source: American Express Business Travel, "Domestic and International Airfare Increased in 2008 as Hotel Rates Decreased", April 2009.

Average Price of Airfares

	Median
Average Price of Airfare (Domestic)	$246
Average Price of Airfare (International)	$1,955
Weighted Average Airfare	$464

Percentage of Passengers Purchasing Airfare Online

Variable Description: Estimate of the proportion of passengers purchasing airfares on websites. This data also distinguishes between passengers purchasing on online travel agencies (OTAs) or carrier web sites, but is combined to form an estimate of all online air ticker purchases.

Source: PhoCusWright and Interactive Travel Services Association, "The Role and Value of Global Distribution Systems in Travel Distribution", 2009.

Proportion of Online Consumers for Flight Travel

	Median
Percentage of Passengers Who Purchase Airfare on Carrier Websites	34%
Percentage of Passengers Who Purchase Airfare on OTAs	38%

Elasticity of Air Travel Demand

Variable Description: This elasticity estimates the percentage change in demand in relation to a change in price. The elasticity is applied to current demand in response to up-front advertising of hidden fees. Since this is a *revelation in prices* rather than an increase, a low elasticity is used to represent this change. An elasticity of -0.4 is used in the analysis.

Source: International Air Transport Association, "Air Travel Demand", 2009.

Elasticity of Demand for Complaining

Variable Description: This figure (1.0741) estimates the change in number of complaints due to a unit change in the cost of complaining.

Source: David Morris, "The Cost of Complaining and the Efficiency of Consumer Complaints Agencies," Journal of Consumer Studies and Home Economics, 1980.

Value of Time Premiums for Differing Qualitative Levels of Service

Variable Description: Several aspects of Provision 5 of the Proposed Rule will shift the portion of total trip time spent in less comfortable conditions (such as the fifth hour on a plane waiting on the tarmac) to time spent in more comfortable conditions (the fifth hour spent in the terminal). The value of the difference in comfort is estimated using the base value of travel time saved (as noted above) and applying a premium to that time. Estimates for this "comfort premium" were developed from economic literature on transportation. Premiums have been derived from survey-based data that reflect travel time values which incorporate the quality waiting, walking and transfer conditions. Level of service ratings were rider-determined and are used to determine the value of different levels. The values used can be seen in the table below.

Source: Level of service estimates of value of travel time from Todd Litman, "Valuing Transit Service Quality Improvements," the Victoria Transport Policy Institute, 2007.

Value of Time Premiums for Differing Qualitative Levels of Service

Category	LOS A - C	LOS D	LOS E	LOS F	*Ratio of A-C to D (Proxy for 2-5 Hours Delay)*	*Ratio of A-C to E (Proxy for >5 Hours Delay)*
Adult transit passenger - seated	35%	47%	58%	70%	1.34	1.68
Adult transit passenger - standing	50%	67%	83%	100%	1.34	1.68

Note: LOS refers to level-of-service and incorporates qualitative factors such as comfort, convenience and reliability for various modes' waiting, walking, and transfer conditions. LOS A refers to the best conditions and F to the worst. The difference in the value of time between the average for LOS rating A-C and LOS rating D is used to estimate a premium for the greater comfort from access to food, water and clean lavatory facilities. The difference in the value of time between the average for LOS rating A-C and LOS rating E for transit passengers is used to estimate a premium for the greater comfort of waiting in the terminal instead on in the plane on the tarmac.[54]

Cockpit Crew per Aircraft Type

Variable Description: Average cockpit crew per aircraft type. Based on the variety of sub-types of aircraft (e.g., there are six commonly used versions of the 747), crew members for some types of aircraft are based on unweighted averages of these versions. Data as prepared for Final RIA on Rule Enhancing Airline Passenger Protections, December 2009

Data Sources: Variety of airline manufacturer websites.

Average Cockpit Crews per Type of Aircraft

Average Cockpit Crews per Type of Aircraft			
Variable	**Lower 10% Limit**	**Median**	**Upper 10% Limit**
Average Cockpit Crew for "Large" Aircraft (747)	2	2	2
Average Cockpit Crew for "Medium" Aircraft (A320)	2	2	2
Average Cockpit Crew for "Small" Aircraft (Fairchild F-27)	2	2	2
Average Cockpit Crew for "Tiny" Aircraft (Saab-Fairchild 340/B)	2	2	2

Note: 747 is for 747-400 and 747-8 models;

Source: Various Aircraft Manufacturer websites.

[54] These premiums are similar to premiums estimated for the value of sitting instead of standing during a transit trip, which have ranged from 20% to 50%. See Marcus von Wartburg and W.G. Waters II, "Chapter 2: Congestion Externalities and the Value of Travel Time Savings," in *Towards Estimating the Social and Environmental Costs of Transportation in Canada*, Anming Khang, et al eds., Center for Transportation Studies, University of British Columbia, August 2004 and P.B. Goodwin, "Human Effort and the Value of Travel Time," *Journal of Transport Economics and Policy*, January 1976.

Number of Flight Attendants by Aircraft Type

Variable Description: Average number of non-cockpit crew members. These are predominantly, if not entirely, flight attendants. Data as prepared for Final RIA on Rule Enhancing Airline Passenger Protections, December 2009.

Data Sources: Various aircraft manufacturer websites.

Average Number of Flight Attendants per Aircraft Type

Average Number of Flight Attendants per Aircraft Type			
Variable	**Lower 10% Limit**	**Median**	**Upper 10% Limit**
Average Flight Attendant Crew for "Large" Aircraft (747)	9	12	14
Average Flight Attendant Crew for "Medium" Aircraft (A320)	4	5	6
Average Flight Attendant Crew for "Small" Aircraft (Fairchild F-27)	1	1	1
Average Flight Attendant Crew for "Tiny" Aircraft (Saab-Fairchild 340/B)	1	1	1

Note: Information for Fairchild F-27 FH-227E variant; Data for A320 and 747 based on unweighted average of commonly used variants of A320 and 747.
Source: Various Aircraft Manufacturer websites.

Average Commuting Times to and From Airports

Variable Description: This is the average time it takes an individual to travel from the airport to the Hilton Hotel located closest to the airport or in the closest downtown metropolitan area – for example, the time it would take to travel from the Cincinnati Airport to the downtown Cincinnati Hilton. If a Hilton Hotel was not available, a hotel of similar reputation was used as a proxy.

This term was calculated by estimating travel time from each class of airport (i.e., large hub, medium hub, etc.). This, in turn, was done by estimating the travel times for each airport that composed each category. Travel times were weighted by airline passengers departing from each airport. These figures can be seen in the below table. Average travel time for all airports was also calculated. This was weighted by passenger departures from each category of airport. The upper and lower 10% boundary ranges were the actual 10% upper and lower ranges based on the results derived for each category of airport.

All times are for "non-peak," as defined by GoogleMap.com's "destination" feature. It is assumed that travel times to and from airports are equal.

Data Sources: Travel times estimated from "directions" feature of GoogleMaps.Com for airports. Passenger departures used as a basis of weighing were from the Federal Aviation Administration's Air Carrier Activity Information System.

Cost of Posting a Contingency Plan Dealing with Flight Delays on an Airline's Website

Variable Description: This is the cost of posting a contingency plan dealing with flight delays on an airline website.

Source: Estimate provided by subject matter experts among HDR IT staff compared against figures provided by reporting carriers to modify computer systems to provide additional reporting data to BTS regarding cancellations, diversions and gate returns, as reported in Regulatory Evaluation on Revision or Airline Service Quality Performance Reports, US Department of Transportation, Docket No OST 2007-28522 for reasonableness.

Cost of Posting a Contingency Plan Dealing with Flight Delays on an Airline's Website

Source	Lower 10% Limit	Median	Upper 10% Limit
Regulatory Evaluation on Revision of Airline Service Quality Performance Reports*	$10,000	$22,500*	$30,000
Subject Matter Expert	$15,000	$22,500	$30,000
In Use	$15,000	$22,500	$30,000

*Median estimated based upon high and low.

Cost of an Average Airline Meal

Variable Description: This is the average national cost of an airline meal per passenger in the U.S. in 2007.

Data Sources: Karen Aho, "The Death of the Airline Meal," MSN Money, Feb. 22, 2008.

Cost of an Average Airline Meal per Passenger (2009 Dollars)

	Lower 10% Limit	Median	Upper 10% Limit
Cost of Average Airline Meal Per Passenger	$2.65	$3.71	$4.77

Updated with the Congressional Budget Office (CBO) 2009 inflation forecast, 0.1%.

Cost of Deplaning Passengers (per Passenger)

Variable Description: This is the cost of deplaning passengers on a per passenger basis. The cost is what an airport would charge airlines to deplane passengers. This is assumed to be $1.37 per passenger (in 2008 dollars). This is the fee that Atlanta International Airport charged airlines to deplane passengers.

Source: Paul Meyer, Operations Department, Atlanta International Airport.

Average Cost to an Air Carrier of a Flight Cancellation

Variable Description: This is the cost to airlines, of a flight cancellation. In 1998 this value was estimated at $11,600.[55]

Source: Zalman Shavell, "The Effects of Schedule Disruptions on the Economics of Airline Operations," The MITRE Corporation, April 14, 2000.

Forecast Average Growth of Airline Passenger Traffic (per Year) on U.S. Airlines

Variable Description: This is the estimated annual growth in airline passenger traffic (defined as paying passengers) transported by U.S. carriers on both domestic and international trips from and to airports in the U.S. forecast for the future. These rates are applied in the year 2011 and beyond.

Source: US DOT 2007 FAA Aerospace Forecast Fiscal Years 2007 – 2020, available at: http://www.faa.gov/data_statistics/aviation/aerospace_forecasts/2007-2020/

Forecast Growth of Airline Passenger Traffic (per Year) on U.S. Airlines

Domestic & Int'l Flights	Domestic Flights	International Flights
2.6%	2.4%	4.4%

Forecast Growth of Airline Passenger Traffic (per Year) on Foreign Airlines

Domestic & Int'l Flights	Domestic Flights	International Flights
4.6%	4.6%	4.6%

Cost of Complaining

Variable Description: These are the elements that comprise the cost incurred by the passenger to file a complaint. In the absence of information breaking down complaints to carrier by method used to file, one third of complaints are assumed to be submitted online, one third via mail, and one third via phone. Cost components independent of time include: for writing a letter, $0.42 for a stamp and $.10 for paper and envelope; for making a phone call, $0.15 phone charge; for emailing a complaint, it was assumed that the incremental cost for those choosing the method would be $0. The value of a consumer's time is assumed at the average hourly wage rate and the amount of time required to prepare and file a complaint varies from 10 to 30 minutes.

[55] Zalman Shavell, "The Effects of Schedule Disruptions on the Economics of Airline Operations," The MITRE Corporation, April 14, 2000.

Value of Time to Prepare and File a Complaint

Cost Component			Lower 10% Limit (10 Minutes Spent)	Median (20 Minutes Spent)	Upper 10% Limit (30 Minutes Spent)
Materials Cost		% of complaints			
Materials cost of letter writing:					
Stamp	$ 0.42				
paper and envelope	$ 0.10				
		33%	$ 0.17	$ 0.17	$ 0.17
Equipment cost of calling:					
Phone charge	$ 0.15				
		33%	$ 0.05	$ 0.05	$ 0.05
Additional equipment/materials cost of going online:					
	$ -	33%	$ -	$ -	$ -
Time Spent (variable from 10 to 30 minutes)					
Value of Time for Air Passengers	$28.60 per hour		$9.53	$ 4.77	$14.30
Total			**$ 9.76**	**$ 4.99**	**$ 14.52**

Source: Bureau of Labor Statistics; subject matter experts.

Cost to Airlines of Providing Information to Travelers on how to File a Complaint on Website or at Check-In Counter for Reporting Carriers and Non-Reporting Carriers (Also used as proxy for Cost to Airlines of Implementing a Customer Service Plan for Reporting Carriers and Non-Reporting Carriers)

Variable Description: The cost of modifying a website for reporting carriers would be, based on subject matter expert opinion, between $10,000 and $60,000 (with $35,000 the most likely cost and a 90% probability of the actual number falling within the $10,000 to $60,000 range).

The cost for reporting carriers to modify counters to provide information to customers on how to file complaints is estimated at $6,347. At OfficeDepot.com, on May 1, 2008 an acrylic engraved wall sign cost $13.99. The national median salary for a building and grounds maintenance employee, according to the BLS was, $9.75 in 2006. Inflating this to 2008 terms (using national Employment Cost Index from the Bureau of Labor Statistics) it becomes $10.26. According to the FAA "Calendar Year 2006 Passenger Activity Commercial Service Airports in US", there were 566 airports in the United States that handled passenger flights. If it is assumed that each airport, on average, requires 20 signs and that it takes maintenance employee one hour to put each sign up, sign costs would be $158,367 and labor costs $114,558 for a grand total of $272,925. In 2007 there were 43 air carriers in the United States with gross revenues of $20 million or higher. Dividing total costs of $272,925 by 43 carriers results in a mean airline cost of $6,347.

It is assumed that since reporting carriers have much larger operations, on average, than non-reporting carriers, the implementation costs for non-reporting carriers would be proportionally smaller. Websites for some carriers could be updated with a simple link that would require less than a day of an experienced computer programmer's time (at a median hourly wage in 2008 of $33.47 an hour). The average cost for non-reporting carriers is therefore assumed to be lower than for reporting carriers, and is estimated at 11% of that for reporting carriers, reflecting the portion of passengers on non-reporting carrier flights, or $4,261.

This cost to provide information to customers is also used as a proxy to estimate the costs of implementing a customer service plan for reporting carriers and non-reporting carriers (at the same ratios as above).

Source: Estimate for website modification provided by reporting carriers to modify computer systems to provide data for additional reporting requirements per Final Rule on Airline Service Quality Performance Reports (as reported in Draft Regulatory Evaluation on Revision of Airline Service Quality Performance Reports, U.S. Department of Transportation, Docket No. OST 2007-28522, November 2007), used as a proxy. This also used to as proxy for cost to implement customer service plan.

Additional Costs to Provide a Response to all Complaints Within 60 Days Which Specifically Address Individual Passenger Complaints

Variable Description: This is the incremental cost, to airlines, of providing a response to a passenger complaint within a 60 day period from which the complaint was lodged. Theses responses need not be resolutions to the problems raised, rather a targeted acknowledgement of the type/purpose of the complaint. It is assumed that carriers will be able to develop response templates which will streamline this process. This cost assumed to be the equal to the additional labor cost of handling a complaint, estimated at $1.34, when compared to a standard acknowledgement that a communication was received (for example, the difference between sending a letter that the complaint regarding a baggage delay is being examined versus sending a standard response simply thanking the customer for their letter). This number was estimated by finding the hourly wage of "Office and Administrative Support Workers" in the United States (median of $13.08 per hour in 2006 dollars), inflating it to 2008 dollars ($13.60) and adding benefits of 35% of wages ($18.10). Assuming that a standard, targeted response to an average complaint can be sent in six additional minutes yields a cost of $1.85 per hour.

Source: Office and Administrative Support Worker wage data from the Bureau of Labor Statistics, 2006 Occupational Employment Survey; Benefits for national airlines were calculated based on data from Aviation Specialists Group, Inc., *Economic Values for FAA Investment and Regulatory Decisions, A Guide*, Contract No. DFTA 01-02-C00200, p. 4-4. This report was prepared for the Federal Aviations Administration's Office of Aviation Policy and Plans, U.S. Federal Aviation Administration.

Summary of Annual Costs for Self-Auditing Service for Reporting and Non-Reporting Carriers

Variable Description: This is the annual cost to reporting carriers of self-auditing additional service (customer complaint) calls stemming from the implementation of the new regulations. The mean annual salary of a customer service representative in 2007, according to the BLS, was $31,040. The Department of Homeland Security 2006 Cost-Benefit Analysis Guidebook[56] recommends using a mark-up of 32.8% to wages to take into account benefits received over and above wages.

In addition to the costs of the customer representative, it is assumed that the airlines also hire a contractor to test the quality of the customer service representatives. Northwest contracts a third party to place "mystery calls" to five reservations centers to test DOT mandates and other compliance issues. The Northwest Airlines customer service plan (available at www.nwa.com/plan/comm5.html) describes that this service is extrapolated to include 100 calls per center per quarter (500 calls/quarter) to test their customer service plan compliance and adjust training/coaching accordingly. Extrapolating further, 2,000 external audit calls need to be made each year. Each of these is assumed to cost $15 per hour and last an average of 30 minutes. The total annual cost of this external audit process is estimated at $15,000 per airline.

It is assumed that since reporting carriers have much larger operations, on average, than non-reporting carriers, the implementation costs for non-reporting carriers would be proportionally smaller. The average cost for non-reporting carriers to self-audit is at 11% of that for reporting carriers, reflecting the portion of passengers on non-reporting carrier flights, or $6,248.

Data Sources: Mean starting salary of customer service representative was from the Bureau of Labor Statistic's *May 2007 National Occupational Employment and Wage Estimates*; Benefits multiplier from U.S. Department of Homeland Security, *2006 Cost-Benefit Analysis Guidebook*; Data regarding Northwest external audit costs a subject matter expert.

Annual Costs to Airlines of Self Auditing Customer Complaint Calls

	Cost
Customer Service Cost	$41,798
Mystery Calling Contract	$15,000
Total	**$56,798**

Source: Bureau of Labor Statistics' May 2007 National Occupational Employment and Wage Estimates; Benefits multiplier from U.S. Department of Homeland Security, 2006 Cost-Benefit Analysis Guidebook; Data regarding Northwest external audit costs from subject matter expert.

Change in Complaints Due to Self Auditing of Customer Service Plans

Variable Description: This variable measures the decrease in customer complaints that would occur due to self-auditing of adherence to customer plans. For those four carriers which have already implemented self audits (Alaska in 2000, Continental in 2001, Northwest in 1999,

[56] Page 15.

Southwest in 1999), the average change in complaints in the two years following implementation was calculated to be -39%. During those same periods, the change in complaints to carriers that did not self audit was calculated to be -19%, a difference of 20 percentage points from self-auditing carriers. Under the conservative assumption that those carriers most likely to benefit from self audits of customer service plans were the first to implement them, remaining carriers that will now implement self audits as a result of the Final Rule are expected to realize an improvement in complaint rates equal to half of difference in comparative complaint rates noted above, i.e., a 10% decrease in complaints.

Source: Calculations based on data from DOT Air Travel Consumer Report, 1998 through 2007. Information on self auditing of customer service plans from DOT and email communication.