

APPENDIX A

TECHNICAL INFORMATION

The questionnaire used in this survey is designed to meet the information requirements of the Office of Management & Budget (OMB) and a number of government sponsors, airlines, and other users of travel statistics, including:

- The International Trade Administration (ITA), Office of Travel and Tourism Industries (OTTI) and the Bureau of Economic Analysis of the U.S. Department of Commerce.
- Participating airlines, both U.S. flag and foreign flag carriers.
- Private and government organizations (U.S. and foreign) concerned with tourism and its development.

Geographic Structure of Survey

Overseas Regions and Countries. The world regions used in these statistical series are essentially the same ones developed for the *U.S. International Air Travel Statistics* (USIATS) 1992 database. The USIATS regions are widely used in the analysis of international air passenger traffic. Appendix D lists the countries and territories in each region and illustrates the make-up of the regions in a map. The only difference between these regions and those of the USIATS involves Mexico, Egypt and Indonesia. In ITA, Office of Travel and Tourism Industries' tables, Mexico is taken out of the Mid-America Region and

treated in a separate series of statistical tables, and the remaining countries become the Central American Region. Egypt is included in the Middle East Region and not in Africa. Beginning with the first quarter of 1990 Indonesia is included in the Far East Region in ITA, Office of Travel and Tourism Industries' statistics and not Oceania. These changes in region assignment result in improved data correlation with the 1994 database, which is used as an integral part of the weighting process.

United States. The statistics for the United States and its territories are produced for a modified version of Census Divisions as shown in Appendix E. Statistics are also developed for states, large metropolitan areas, and selected major tourist attractions to the extent that response frequencies for these places permit.

Participation in the Survey

Airline involvement is on a voluntary basis among airlines invited to participate. Factors influencing the selection of an airline for an invitation to participate in the survey include the airline's market share in the geographic area under consideration, the desirability of having both a U.S. and a foreign flag carrier for each area, and the necessity of keeping costs to a minimum. A variety of factors influence an airline's decision to accept the invitation to participate. Still other factors influence the airline's successful completion of one or more flight kits. Airlines

participating in the 2003 Survey of International Air Travelers are listed in Appendix C. The number of airlines completing one or more flight kits in the four quarters of 2003 is shown on the following page.

A flight kit is a survey bag containing 125 questionnaires (unless other amounts were requested by the airline), a pack of questionnaires in the various available languages, instruction sheets for the flight crew, and pencils.

The number of participating airlines is shown in the following table, and varies by quarter depending on the number of new survey participants in a particular quarter, the number of non-participants resulting from civil unrest, strikes, takeovers, and individual airline agreements with the ITA, Office of Travel and Tourism Industries.

Number of Participating Airlines 2003	
Quarter	No. Airlines
First	51
Second	51
Third	55
Fourth	53

Once an airline has agreed to participate, the next step in the survey is to make sure that questionnaires are completed on the sampled flights. The response rates for airlines returning flight kits in 2003 are highlighted in the table below.

2003 Flight Response Rates			
Quarter	Number Sent	Number Completed	Percent Complete
First	1,455	1,048	72%
Second	1,356	898	51%
Third	1,331	711	53%
Fourth	1,396	672	48%
Total	5,538	3,329	56%

A flight kit is considered complete if one or more questionnaires for the sample flight (or a substitute flight) have been filled out. A number of factors lead to a flight kit not being completed, including:

- The kit is delayed in transit to the airline.
- The kit is delayed in the airline’s own mail system.
- The kit is not put on the airplane.
- The flight attendant fails to distribute the questionnaires (is possibly too busy or unwilling to distribute them).
- The completed kit is lost in the internal airline mail or U.S. mail.

Once the questionnaires reach the appropriate airplane, the success of the survey depends on how many questionnaires are actually completed. For flights on which surveys were conducted, the estimated response rates for adults for 2003 are given in the following section.

Passenger Response Rate

Each quarter, airline passenger response rates for the survey are calculated in order to determine relative survey performance. Factors affecting passenger response rate include:

- Language barriers
- Variation in on-board survey distribution methods
- Short flight length, or nighttime flights
- Limited questionnaire supply
- Overall cooperation by flight crew and passengers

Response rate calculations are based on the number of questionnaires distributed on each flight compared to the number completed. This methodology has been modified, making response rate comparisons to previous years difficult. A description of the modifications follows:

- *Prior to 1991:* In calculating response rates it was assumed that surveyed flights had 100% passenger loads, and all had received questionnaires. All flights designated by the sample were counted even if the flight was never actually surveyed. This method *drastically* understated passenger response rates.
- *Beginning in 1991:* The flight crew was requested to record the number of questionnaires distributed. For those flights returning this information, the number of completed questionnaires was taken as a percent of the total number distributed. This methodology change caused an increase in response rate compared to previous years.

- *Beginning in 1993:* Boarding area refusals were calculated into the passenger response rate.¹ These refusals had not previously been calculated, and this caused a decrease in response rate over 1992.

ITA, Office of Travel and Tourism Industries feels that the current method of passenger response rate calculation more accurately reflects the true passenger response rate than previous methods. ITA, Office of Travel and Tourism Industries will continue its effort towards improving response rates.

For the 2003 survey period, the passenger response rate was 46%.

Sample Design

The sample is designed around the geographic detail desired for the resulting estimates and the specific airlines willing to participate in the survey. The design is a stratified, two-stage cluster sample, where scheduled flights are randomly selected from strata defined by airline and foreign destination in the first stage. The responding travelers on each flight constitute the second stage of the sample. When the survey is conducted on a selected flight, those passengers who respond are considered to represent all passengers on that flight.

The development of the sample was influenced by the number of travelers to and from the United States by country of residence, area visited, and scheduled international air carrier. The design was also influenced by the

¹ For a limited number of flights, surveying is done in the boarding areas.

desired accuracy and detail of the resulting estimates, the airlines' willingness to participate in the survey, the availability of a sample frame, and the costs of the survey.

Stratification is used to ensure that all participating airlines and residents of countries of interest appear in the sample. In the case of foreign flag carriers, stratification by airline alone is sufficient in most cases, since they tend to serve mainly residents of their native countries and U.S. residents on flights to the United States. U.S. carriers, serving several markets of interest, are stratified by carrier and foreign destination.

Flights are selected within each stratum by simple random sampling through the use of a random number generator. Since a random sample of passengers on a flight would be difficult for the flight crews to implement, the second-stage sample includes all passengers on a given flight who respond to the survey.

The sample frame (list from which the sample is drawn) is the monthly Official Airline Guide roster of scheduled flights departing the U.S. Although quarterly estimates are the goal, sampling is performed monthly to distribute the sample over each quarter. Flights are surveyed during the third full week of each month.

Sampling flights one week out of the month simplifies the operating procedures for the airlines and facilitates the processing of the survey materials.

The number of flights to be sampled from each stratum is determined on a per stratum basis, with consideration given to the number of flights, number of passengers

carried, foreign destinations, number of participating U.S. and foreign carriers serving the area, and airline cooperation.

In practice, some departures from the original sample design are necessary. Substitution for sampled flights is permitted in some circumstances. It has been acceptable, for example, for an airline to change the day of the flight to be surveyed if circumstances prevent the survey's execution on the sampled day.

For various reasons, a few airlines occasionally do not participate in some months of a quarter, so their samples are not distributed over all months of the quarter. In certain cases, strata are eliminated from the sample because of difficulties by the airline in conducting the survey on the desired routes.

Estimation and Reliability of Results

The survey responses are the primary data source for computing estimates. Information developed from the Department of Homeland Security Forms I-92 (for this report), and I-94 (for the Overseas and Mexican travelers to the U.S. reports) are also used.

For the U.S. resident reports the survey responses provide information on distributions of variables and relationships among survey items as well as specifics relating port of debarkation to the residence of the passenger. The I-92 data provide total passenger volumes by port of debarkation and the number of U.S. and non-U.S. citizens. The I-94 data provide information on country of residence of visitors to the U.S.

A weight is calculated for each survey respondent. This weight is defined as the number of passengers, departing from the United States via scheduled international air carriers that are represented by the respondent. Calculation of the weight is a multi-step process.

- a. The initial weight of a respondent is one, unless children are part of his or her travel party, in which case, the initial weight has a value greater than one, depending on the number of children and the size of the travel party.
- b. Although there is non-response on each flight surveyed, the respondents are considered a random sample of the passengers, and each weight is increased to cover the non-response on the flight.
- c. Each weight of a respondent in a stratum is increased to represent all travelers on all flights on the stratum.
- d. The I-92 data are incorporated into the weights by port of debarkation to represent not only the participating, but also the non-participating, airlines in the survey.

The weights are then applied to calculate the distributions, means, and medians found in the published tables.

Because of the multistage nature of the sample design and the resulting computational burden, sampling variability has not been calculated for the estimates. Instead, the reliability of a set of related estimates is indicated by the number of respondents to the relevant

questionnaire items. The more respondents, the more reliable the estimate. Judgment must be used in deciding on the degree of confidence to place in an estimate, and in its proper use. Likewise, non-response errors have not been estimated and may be significant, especially when combined with sampling variability.

A low number of respondents for a quarterly estimate can cause severe distortion because of the large influence any one respondent exerts on the overall value of the estimate.

Questionnaire Enhancements

Since its inception in 1982/83, the questionnaire has had numerous enhancements. The enhancements are described below:

- *Second quarter 1985:* the questionnaire was streamlined for ease of administration. Questions were added related to trip planning process, leisure/recreation activities, and airline services.
- *1990:* Greater detail was requested on many questions, including package tours, international trip frequency, and pre-trip planning. Questions were added on main destination, airline ratings and personal safety. Valid ranges for many questions were extended to allow for economic and demographic changes. Geographic coding was also expanded to improve the detail of origin and destination information available.
- *1993:* Questions were added on main purpose of trip, airline seating area, airport attribute ratings, passport

control and customs attribute ratings, occupation, and categories of personal safety threats. The international telephone service questions were deleted. Many existing questions were either re-worded or the response choices were expanded.

- 1996: Questions were added on zipcode (Q2), country of birth (Q3), and methods of payment for trip expenses (Q17). To better track the travel flows of the international traveler, connecting flight information was added (Q5). Questions were added to provide an estimate on the number of trips taken in the past twelve months and past five years (Q27). Modifications were made to other questions. These modifications include:
 - ◆ The questions on main purpose of trip and other purposes of trip were modified to align responses to the World Tourism Organization categories (Q10).
 - ◆ The leisure activities question contained four new categories: visiting small towns and villages, cultural heritage sights/activities, environmental/ecological excursions, and ethnic heritage sights/activities (Q19).
 - ◆ The reasons for flying this airline were modified to select the three main reasons (Q22).
 - ◆ Two attributes were added to the airport ratings question. They are airport terminal cleanliness and international traveler facilities (Q24).

A copy of the questionnaire can be found in Appendix B.

Report Enhancements

1990: Beginning in 1990, Indonesia was moved from Oceania to the Far East region. This resulted in improved data correlation with the I94 database, which is used as an integral part of the weighting process. Many additional changes were made, which are addressed in the appendices of the 1990 - 1992 reports.

1993: With the 1993 questionnaire enhancement, report changes were made. They are addressed in the 1993-1995 report text.

1996: There were a number of new tables added to the 1996 report:

- Table 4, Question 8: “Means Of Booking Air Trip”
- Table 7, Question 9: “Prebooked Lodging”
- Table 15, Question 27b: “Int’l. Trips Last 12 Months”
- Table 16, Question 27c: “Int’l. Trips Last 5 Years”
- Table 18, Question 14d: “Number of Destinations”
- Table 25, Question 17: “Trip Expense Payment Method”
- Table 26, Question 22b: “Main Factor in Airline Choice”
- Table 27, Question 22a: “Factors in Airline Choice”
- Table 28, Question 23b: “Type of Airline Ticket”
- Table 29, Question 23a: “Seating Area”

Because of the questionnaire changes, there are tables found in past reports that are not directly comparable to 1996 and 1998. These include those described below:

- Table 10, Question 10a - “Main Purpose of Trip”, and Table 11, Question 10b - “Purpose of Trip”: ITA now uses the World Tourism Organization’s recommended categories for purpose of trip. The tables reported two new categories - “Health Treatment” and “Religion/Pilgrimages”. The table no longer shows the category “Accompany Spouse on Business”. The wording has been changed in one category from “Vacation/Holiday” to “Leisure/ Recreation/Holidays”. The previous “Business” category was changed to “Business/Professional” and the “Convention/Conference/Trade Fair” was changed to “Convention/Conference/Trade Show”. Other categories remain the same. In addition, to provide an estimate on the combined business and convention market as well as the leisure/recreation/holidays and visit friends and relatives categories, ITA, Office of Travel and Tourism Industries has combined the estimates and provided them in Table 11.
- Table 1, Question 2a - “State/City of Residence”: Certain states/cities represented in previous reports may or may not be represented due to fluctuations in sample size.
- Table 2, Question 7a - “Advance Trip Decision” and Table 3, Question 7b - “Advance Airline Reservation”: These two tables have a “Same Day” category added.
- Table 5, Question 6 - “Information Sources”: This table has a new category added, “In-Flight Information Systems”.

- Table 21, Question 2b - “Main Destination” and Table 22, Question 14a - “International Destinations”: Destinations have been added or deleted based upon the sample collected.
- Table 23, Question 19 - “Leisure Activities”: Four new activities were reported.

Finally, to accommodate the new information collected and reported in the new tables, the number of crosstabs in this report was reduced in 1996 when compared to past reports. Please remember that the survey responses are maintained in a database, and customized reports may be developed to provide information collected in the survey that is not shown in this report. Please consult the questionnaire to determine if there are other column headings or tables you would like to see based upon the In-Flight Survey data. Call ITA, Office of Travel and Tourism Industries or the contractor for the survey to determine the availability of customized reports (see introductory section for phone numbers).

APPENDIX C

List of U.S. and Foreign Flag Carriers Voluntarily Participating in the Survey in 2003*

Aerolineas Argentinas	America West	Lacsa	Philippine Airlines
Aeromexico	Asiana Airlines	KLM	Qantas
Aero Postal	Avianca	Korean Air	Royal Air Maroc
Air China	Bahamas Air	Jalways	SAS
Air France	British Airways	Japan Airlines	Saudi Arabian Airlines
Air Jamaica	BWIA	Kuwait Airways	Singapore Airlines
Air Micronesia	China Airlines	Lan Chile	South African Airways
Air New Zealand	Continental Airlines	LOT Polish Airlines	TACA
Alaska Airlines	Delta Air Lines	Lufthansa	Tarom
Alia – Royal Jordanian	EVA	Malaysian Airlines	Turkish Airlines
Alitalia	Finnair	Mexicana	United Airlines
All Nippon Airways	Iberia	Northwest Airlines	US Airways
American Airlines	Icelandair	Olympic Airways	Varig Brazilian Airlines
			Virgin Atlantic

**In addition to the above airlines, intercepts were collected at Sanford International Airport for the following charter airlines: Air 2000 LTD, Air Atlanta Icelandic, European Airways, John Mason Cook, Monarch Airlines, and My Travel. For more information on the data collected at Sanford please refer to Page vii of the Introduction, under "Survey Participation".*

APPENDIX D

WORLD BY REGION AND COUNTRY OR TERRITORY

Mexico

Mexico City
Guadalajara
Monterrey
Acapulco
Other Mexico

Central America

Belize
Costa Rica
El Salvador
Guatemala
Honduras
Nicaragua
Panama Republic
San Andres Island

South America

Argentina
Bolivia
Brazil
Chile
Columbia
Ecuador
French Guiana
Guyana
Paraguay
Peru
Surinam
Uruguay
Venezuela

Caribbean

Anguilla Island
Antigua
Aruba
The Bahamas
Barbados
Bermuda
Cuba
Dominica
Dominican Republic
Grand Cayman
Grenada
Guadeloupe
Haiti
Jamaica
Martinique
Montserrat Island
Neth. Antilles
Providential Islands
St. Barthelemy
St. Kitts/Nevis
St. Lucia
St. Vincent
Trinidad/Tobago
Turks/Caicos
Virgin Islands/ U.K.

Europe

Austria
Belgium
Bosnia-Herzegovina
Bulgaria
Byelarus (Belarus)
Croatia
Czech Republic
Denmark
Finland
France
Georgia
Germany
Greece
Holy See
Hungary
Iceland
Ireland
Italy
Kazakhstan
Kyrgyzstan
Lithuania
Luxembourg
Malta
Moldova
Netherlands
Norway
Poland
Portugal
Romania
Russia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
Turkmenistan
Ukraine
United Kingdom
Uzbekistan
Yugoslavia

Africa

Algeria
Cameroon
Canary Islands
Cape Verde Island
Eritrea
Ethiopia
Gabon
Ghana
Ivory Coast
Kenya
Liberia
Madagascar
Morocco
Nigeria
SW Africa/S. Africa
Senegal
Togo
Zambia

Middle East

Egypt*
Bahrain
Cyprus
Iran
Iraq
Israel
Jordan
Kuwait
Lebanon
Saudi Arabia
Syria
Turkey
United Arab Emirate

Asia

Bangladesh
Brunei
China/Mainland
China/Taiwan
Hong Kong
India
Indonesia**
Japan
Korea-South
Malaysia
Okinawa/Ry Island
Pakistan
Philippines
Singapore
Thailand

Oceania

American Somoa
Australia
Cook Islands
Fiji Islands
French Polynesia
Kiribati
Marshall Islands
Micronesia
Nauru Republic
New Zealand
Papua/New Guinea
Tonga

*In the 1982 statistics of this survey, Egypt was in the Africa region.

**Prior to 1990, Indonesia was reported in the Oceanic region.

APPENDIX E

U.S.A. BY ITA, OFFICE OF TRAVEL AND TOURISM INDUSTRIES - CENSUS DIVISIONS

<u>New England</u>	<u>Middle Atlantic</u>	<u>East North Central</u>	<u>West North Central</u>	<u>South Atlantic</u>	
Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	New Jersey New York Pennsylvania	Illinois Indiana Michigan Ohio Wisconsin	Iowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	Delaware District of Columbia Florida Georgia Maryland North Carolina South Carolina Virginia West Virginia	
<u>East South Central</u>	<u>West South Central</u>	<u>Mountain</u>	<u>Pacific*</u>	<u>Pacific Islands*</u>	<u>Atlantic Islands*</u>
Alabama Kentucky Mississippi Tennessee	Arkansas Louisiana Oklahoma Texas	Arizona Colorado Idaho Montana Nevada New Mexico Utah Wyoming	Alaska California Oregon Washington	American Samoa Guam Hawaii Trust Territories	Puerto Rico U.S. Virgin Islands

*ITA, Office of Travel and Tourism Industries division different from definition used by U.S. Bureau of Census.