

**SUPPORTING STATEMENT PART B
VOLUNTARY CUSTOMER SURVEY**

B. Collection of Information Employing Statistical Methods

1. Describe (including numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection has been conducted previously, include the actual response rate achieved during the last collection.

The third column of Table 1 shows the number of passengers that we expect to arrive at the airports while our interview teams are conducting the survey. We based these estimates on 2009 passenger arrival data that CBP gave us for the periods that we anticipate our interview teams will be onsite. Our interview teams will make use of more detailed data in order to determine the best locations and time of day in which to conduct the interviews.¹ These teams will be onsite at each airport for seven days. CBP chose these twenty sites because they these sites are part of CBP’s “Model Ports Initiative.”

Previous research has indicated that, using best survey research practices, the highest achievable response rate for intercept surveys is 85%.² Using these same best practices, we hope to achieve a response rate greater than 80%. However, for our sample size calculations we assume a more conservative 70% response rate.

Table 1. Estimated Total Passenger Arrival during Time of Surveys³

	Total 2009 Arrivals	Estimated Passengers While Team is Onsite	Interview Attempts Required Adjusted for Population and Assumed Refusal Rate	Interviews/Day
Atlanta	4,246,251	72,944	1,502	215
Boston	1,422,367	27,374	1,467	210
Chicago	4,234,030	81,716	1,504	215
Dallas (DFW)	2,139,727	38,169	1,482	212
Detroit	1,366,691	30,827	1,473	210
Ft. Lauderdale	1,166,264	19,465	1,445	206

¹ CBP has provided us with passenger arrival data that is broken down by time of day, day of the week, and arrival terminal for each airport. Our teams will use this data in order to determine the best times and places to conduct their interviews at each airport.

² RTI international achieved this response rate in a survey conducted at a mixture of land and air ports of entry on the Northern and Southern borders of the United States. See http://www.rti.org/pubs/aapor07_ellis_paper.pdf for more details concerning this study. Other intercept surveys cited in this paper reported much lower response rates. RTI’s study only had the ability to interview respondents in English and Spanish. In their study, they cite the lack of other languages as one factor that lowered their response rate.

³ The numbers on this table do not add up exactly due to rounding error.

Honolulu	1,702,554	32,642	1,476	211
Houston (IAH)	3,603,327	60,171	1,497	214
Las Vegas	479,544	10,230	1,380	197
Los Angeles	4,797,572	87,911	1,506	215
Miami	5,652,167	107,167	1,509	216
New York (JFK)	10,659,478	200,638	1,516	217
Newark	4,913,870	93,504	1,507	215
Orlando	1,018,352	18,121	1,439	206
Philadelphia	1,552,944	26,449	1,465	209
San Francisco	3,694,993	66,967	1,500	214
San Juan	762,669	12,339	1,403	200
Sanford, FL	231,869	6,351	1,305	186
Seattle	1,147,297	19,655	1,445	206
Washington (IAD)	2,881,779	54,893	1,495	214

Total Interview Attempts Required: 29,316
Average # Interviews Per day 209

The languages we chose for our survey are in boldface in Table 2. We inferred these languages from country of origin data provided by CBP. We assumed that passengers coming from Germany, Netherlands, Austria, Denmark, and Sweden speak English since such a high proportion of people in these countries are fluent in English. With these languages available, we estimate that we will have the ability to interview 85% of the incoming passengers from foreign countries in a language they can speak. The inclusion of additional languages would not significantly increase this percentage.

Table 2. Languages Spoken by Passengers Arriving from Outside U.S. in 2008

Language	Speakers	Percent of All Foreign Passengers
English	16,83,8094	42%
Spanish	7,389,140	19%
Japanese	2,964,898	7%
French	1,678,471	4%
Chinese	1,237,966	3%
Hindi	1,120,382	3%
Italian	1,098,663	3%
Portuguese	968,495	2%
Korean	920,488	2%
Arabic	323,174	1%
Russian	33,017	0%
Other	5,089,580	13%

2. Describe the procedures for the collection of information including:

- **Statistical methodology for stratification and sample selection,**
- **Estimation procedure,**
- **Degree of accuracy needed for the purpose described in the justification,**
- **Unusual problems requiring specialized sampling procedures, and**
- **Any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

We will be conducting an intercept survey using a 1 in 4 systematic sampling procedure – in other words, we will attempt to interview one out of every four passengers that have cleared primary screening. The sample will be sufficiently large to allow us to make inferences about the populations of incoming passengers at each airport in the study with a 95% level of confidence and a +/- 3% margin of error. We do not include a power analysis because this would require us to formulate a null and alternate hypothesis in order to make the power calculation. Our survey is for information gathering rather than hypothesis testing so we do not have null and alternate hypotheses at this time.

We will not use stratification because this would require knowledge of the populations of incoming passengers that we do not have. For example, we only have country-of-origin data from the passengers for the entire year of 2008. We do not have this data broken down by week or even month.

- **Estimation procedure,**

Given the above assumptions, the next step is to use the appropriate mathematical formulas to translate these assumptions into required interview attempts. The required sample size at each airport to meet the above assumptions is:

$$n_0 = \frac{Z^2 pq}{e^2} \quad \text{Where } Z=1.96, p=.5, q=.5, \text{ and } e=.03.$$

The above equation results in a value of 1067 for n_0 . This is the unadjusted number of interviews that would be required at each airport -- if we assumed no refusals and did not adjust for the total number of passengers arriving at the airport during the time that the interviewers were onsite. To adjust this number properly, we first make a correction based on the number of passengers that we anticipate coming through the airports during the times in which we will conduct the interviews. Since we anticipate conducting the interviews in October or November, we obtained passenger arrival data from CBP for October and November of 2009, assuming that these figures should be similar in October and November of 2010. With this figure, we used the following formula to adjust our required sample size:

$$n(\text{adjusted}_1) = \frac{n_0}{1 + \frac{(n_0-1)}{N}} \quad \text{Where } N \text{ is the total population of passengers.}$$

Our final step is to adjust based on our assumed response rate (rr) of 70%. Here is the final adjustment:

$$N(\text{adjusted}_2) = \frac{n(\text{adjusted}_1)}{rr}$$

- **Degree of accuracy needed for the purpose described in the justification,**

The sample size required for a confidence level of 95% and a margin of error of +/- 3% will vary by airport according to that airport's number of incoming passengers during the week of the study. This required sample size will vary from 1305 passengers at Sanford, Florida to 1516 passengers at New York (JFK). Across all airports, our estimated total sample size adds up to 29,316 passengers.

- **Unusual problems requiring specialized sampling procedures, and**

Given the fast-paced and chaotic nature of passenger movements after they have completed primary screening, a systematic sampling procedure is the only feasible sampling strategy. This is particularly true for passengers that do not have checked luggage. However, we have no reason to believe that passengers with checked luggage will have a significantly different experience from customers without checked luggage unless customs officials select them for secondary screening. The experience of passengers selected for secondary screening is outside the scope of our survey.⁴

- 3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collection based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.**

A number of procedures are in place to encourage travelers to participate and to maximize data quality. We will work to achieve sound response rates by:

- Intercepting travelers in baggage claim areas where they are in less of a hurry and easier to approach;
- Using airport information systems and signage to pre-alert passengers to the survey in advance of entering fielding zones;
- Ensuring field interviewers are easily identifiable by participants through use of semi-formal uniforms and identification badges; and
- Ensuring interviewers are well-trained in techniques for building rapport with multi-cultural respondents and gaining cooperation (including respect for respondents' rights, follow-up skills, knowledge of study objectives and sensitivity to cultural differences that may exist among target groups).

- 4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test**

⁴ CBP officials inform us that only 4.5% of passengers are selected for secondary screening. The fact that customs officials selected these passengers indicates that they differ systematically from passengers that customs officials do not select for secondary screening. Additionally, we would expect much lower response rates from passengers once they have cleared secondary screening since they do not have to wait for their luggage but are free to leave the area. Given that the purpose of this study is to assess the experience of typical passengers, we have determined that conducting interviews of passengers after they have cleared primary screening gives us the best opportunity to assess this experience.

or set of tests may be submitted for approval separately or in combination with the main collection of information.

We will monitor data collection activities throughout fielding periods and take corrective action when problems arise. The following structures are in place to ensure the quality of data collection activities:

- a. Pretest of fielding protocols at Washington-Dulles International Airport (IAD), a site that processes travelers from multiple international points of origin. Based on the observations at this site, we will adjust our survey instrument, interview, and data collection protocols as necessary to ensure optimal participation rates and quality of collection activities.
- b. Establish data collection, transfer and security protocols to ensure quality and consistency of data collection processes. These protocols include strict procedures for data collection and storage during fielding operations, password-secured and encrypted electronic collection and storage devices, and stringent control of paper-based versions. PDA collected data will be transferred to our processing facility electronically to a secure database that is subject to FISMA data security protocols, which are in full compliance with HHS, DOJ, and DoD requirements for the protection of human subjects. Paper-versions will be mailed directly to the processing facility where they are scanned into the secure database and hard copies shredded.
- c. Routine monitoring of response totals and data verification. Throughout fielding periods CBP will verify data quality using standard protocols and check daily to ensure total completed surveys are sufficient to meet statistical objectives. We will adjust time periods for fielding surveys as necessary to make certain results are representative.

5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

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