

RESEARCH AND INNOVATIVE TECHNOLOGY
ADMINISTRATION
BUREAU OF TRANSPORTATION STATISTICS
OMB CLEARANCE PACKAGE
Section B

for
CLEARANCE TO CONDUCT THE OMNIBUS HOUSEHOLD
SURVEY
FROM FY 2010 THROUGH FY 2012

Prepared by
Office of Survey Programs
Bureau of Transportation Statistics
Research and Innovative Technology Administration

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B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection methods to be used. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.

The potential respondent universe or population for the RITA/BTS Omnibus Household Survey is the non-institutionalized population, aged 18 and older, who live in the United States. The sampling frame for the Omnibus Household Survey will be all U.S. residential landline telephone numbers. The survey contractor uses a sampling design constructed to produce samples that are proportional to population size, resulting in nationally representative samples of residential landline telephone numbers. Individual survey respondents within selected households will be chosen at random. Based on similar surveys, a sample will consist of 6,000 usable phone numbers.

The contractor will select a “nation-wide” sample that: 1) is a probability sample which conforms to list-assisted random digit dialing (RDD) methodology, 2) is representative of the 50 United States and the District of Columbia, 3) uses a random method to select the adult household respondent. The contractor will ensure that the sample includes only individuals who are 18 years of age or older (adults) and are non-institutionalized. There will be a minimum of 1,000 completed interviews for the “nation-wide” sample with a minimum response rate of 50 percent. In addition, the contractor will select a “targeted” sample of households in large metropolitan areas using the same sampling methodology specified for the “nation-wide” sample. There will be a minimum of 500 completed interviews for the “targeted” sample with a minimum response rate of 50 percent. For the national sample, the 2008 and 2009 OHSs achieved response rates of 53.35% and 44.1%, respectively.

Attachment VII is the Survey Documentation for the October 2009 OHS. This attachment contains details on both nation-wide and targeted sample designs, weighting procedures, response rate calculations, data collection schedule, interviewing procedures, and quality control procedures for the survey.

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.

Data will be collected from individuals within sampled households. Based on projected contact rates, refusal rates, and response rates, sample size for the Omnibus Household Survey will be selected to yield approximately 1,500 completed interviews per data collection effort. This sample size will be adequate for making inferences to the population on selected variables using univariate and simple multivariate analyses. Other variables and more complex multivariate analyses will require multiple data collection periods to achieve the accuracy needed for making population inferences.

The OHS schedule is extremely tight to accommodate the needs of the different departmental administrations for fast turnaround of performance and customer satisfaction information. In general, data collection will begin on the first week of the month. The data collection period will

last up to one month or 31 calendar days. Professional survey interviewers will interview respondents by telephone and enter responses into computer-assisted telephone interviewing (CATI) questionnaires. Immediately following data collection, data will be processed into a public use micro data file and delivered to RITA/BTS.

The data processing step includes computing and assigning weights to adjust data to population totals, account for unequal probabilities of sample selection, and account for non-response. Public use data will be stripped of all personal identifiable information (such as names and telephone numbers) and disclosure limitation methods will be applied.

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 collections 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.

The OHS has maintained a response rate of around 50% since the survey began in August 2000 through the implementation of specific response rate improvement techniques. These techniques include the use of an advance letter to inform households about the survey and to let them know that an interviewer will call; repeated callback attempts for each telephone number; availability of a toll-free number for respondents to call in to complete the interview in the event they are not home when the interviewer calls and leaves a message; and the use of refusal avoidance specialists at the telephone call centers to convince a reluctant respondent to participate. We expect to continue the use of these techniques for future Omnibus Household Surveys.

Despite our best efforts, however, some non-response will occur, because the survey is voluntary and respondents do have the right of refusal. While a 50 percent response rate is not unreasonable for a customer satisfaction RDD survey, it is not satisfactory for use in terms of potential non-response bias. RITA/BTS conducted thorough studies of non-response bias for the OHS in the past three years.

In 2008, RITA/BTS conducted a research study that used an alternative weighting method to estimate non-response bias in all key OHS measures. Its analyses showed that non-response biases in all key OHS measures were very small. In most cases, the size of the non-response bias was around 1%. The results of the study were presented at the 2008 Joint Statistical Meetings and published in its proceedings (Attachment VIII).

In 2010, RITA/BTS conducted another research study that used multinomial logistic regression models to determine whether considerable effort and money expended by the OHS to interview difficult-to-contact respondents not only improved the OHS response rate but also resulted in a set of respondents that was a more accurate representation of the OHS target population in terms of key demographic characteristics. Findings of this study suggested that additional effort expended in recruiting reluctant respondents by the OHS would most likely result in more accurate estimates of population characteristics that are of interest in OHS. The results of the study were presented at the 2010 Joint Statistical Meetings and published in its proceedings (Attachment IX).

RITA/BTS will continue the general investigation it is currently conducting on non-response bias in RDD household surveys on transportation-related topics. Adjustments for non-response will be made during the development of the final weights in order to improve estimation accuracy.

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.

The content of the OHS was reviewed by an outside panel of experts in transportation and/or survey methodology. It was cognitively tested at the Bureau of Labor Statistics Behavioral Science Research Laboratory. The survey will be modified and reviewed by the Office of Survey Programs using feedback from a number of DOT operating administrations or offices in light of the DOT's strategic goals. The OHS contractors pre-test the questionnaire prior to interviewing. RITA/BTS staff also pretest the questionnaire during development, as well as when the programmed version of the questionnaire is delivered from the Contractor. The goals of pre-testing will be to ensure that the amount of time to administer the survey is appropriate; questions and instructions are easy to understand and/or complete; and transitions and overall flow of the questionnaire is smooth. In addition, staff members with an expertise in survey research methods are utilized prior to and after pretesting to conduct an "expert review" of the survey questions.

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.

The specifications for the sample design, data collection, questionnaire content, and data production are under the supervision of RITA/BTS. RITA/BTS is solely responsible for the review of final survey questionnaires, data, and technical documentation. The points of contact at RITA/BTS are:

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