

## SUPPORTING STATEMENT

### **B. Collections of Information Employing Statistical Methods**

#### 1. Sample Selection and Universe

The universe of TPOPS is the civilian non-institutional urban population of the U.S.

The sample design for TPOPS is a two-phase sample where the BLS selects a sample of PSUs in the first phase and the Census Bureau selects a sample of telephone numbers within the PSUs in the second phase. For TPOPS a PSU is a county, group of counties or group of minor civil divisions. The second phase sample is a list-assisted random digit dialing (RDD) sample of land-line telephone numbers.

The BLS expects a total number of 14,320 completed interviews for each quarter, distributed over approximately 87 sample PSUs. (Note: Each respondent is in for 4 quarters. To maintain 14,320 completed interviews each quarter, new respondents are added each quarter while others drop. The 21,649 respondents from Question 12 in Section A include the cases that are added as old respondents drop out (or about 7,329 each quarter). The PSUs in TPOPS are of three types: (1) large self-representing (SR) Metropolitan Statistical Areas (MSAs), (2) medium and small non-self-representing (NSR) MSAs and (3) NSR urban, non-metropolitan areas in sample.

Within each PSU the Census Bureau selects a list-assisted RDD sample of telephone numbers. The sample design is called listed-assisted because the within PSU sampling frame includes all of the land-line telephone numbers in working banks with at least one telephone number listed in the white pages. Here a working bank is defined as the set 100 telephone numbers with the same first eight digits. Working banks are historically the unit which telephone companies use to manage telephone numbers.

The Census Bureau completes the sampling by using the GENESYS sample selection software created by the Marketing Systems Group. GENESYS software is used for a variety of reasons including the quarterly updating, cost effectiveness, and flexibility.

For each PSU, sampling will be carried out independently using the GENESYS software. Once the GENESYS sampling frame is subset into the appropriate PSUs, an EPSEM RDD sample of land-line telephone numbers for each PSU is selected. An EPSEM RDD sample is a single stage equal probability selection of sample telephone numbers.

Approximately 5.7 telephone numbers are selected to get one completed interview in the first quarter of interviewing. The reasons for not completing an interview include non-interviews and ineligible units. The three types of ineligible units for an RDD

survey include nonresidential units, nonworking numbers, and units not within the PSU boundaries.

## 2. Survey Design

### a. Data Collection

The design of the 2010-2012 TPOPS survey consists of the collection of the point-of-purchase information in roughly 57,280 households. The U.S. Bureau of the Census, acting as an agent for the U.S. Bureau of Labor Statistics, is responsible for the collection in all phases of the study.

Of the sample of telephone numbers, approximately 60 percent will be eligible residential households. Of these, approximately 45 percent of the units will participate in the survey. While this interview rate seems low, it is consistent with response rates achieved in random digit dial surveys throughout the survey industry. These response rates vary by PSU and the total designated sample by PSU is adjusted accordingly.

In the survey, one respondent will be interviewed for all members of one consumer unit (CU) in the sample household. A CU is defined as a person living alone or a group of two or more persons who are related by blood, marriage, or other arrangement, or a group of two or more persons who share major expenses. An early question will identify the CU member who is the “most knowledgeable” member (18 years of age or older). It is expected that in many cases this person will be the one who answers the phone.

Each CU may be contacted for an interview four times (once per calendar quarter) over a period of 1 year. Exceptions to this include those CUs identified as ineligible during their first interview and those CUs who refuse to participate in the survey in two consecutive quarters. The Census Bureau also does not call numbers identified as nonworking or nonresidential during their first interview.

The categories of goods and services for which TPOPS collects outlets are divided into 16 groups with each group comprising 12-16 categories. During a quarter, one of the 16 groups is asked in each PSU such that in any one PSU, over a 4 year period, all categories will be asked. It is also the case that in any given quarter, every category will be asked in at least one PSU.

Data from TPOPS are not used directly to produce published estimates. Instead, the data collected through TPOPS provide information used to produce the frame

and selection probabilities for the Commodities and Services component of the Consumer Price Index survey and to provide basic weights for lower level aggregation. For the technical details of the use of TPOPS data, see the BLS Handbook of Methods, Chapter 17, pages 15-16 and 21-22. A pdf version is on the BLS website: <http://www.bls.gov/opub/hom/pdf/homch17.pdf>

b. Quality Control

In this survey, the Census Bureau will maintain high levels of data accuracy and response rates through interviewer instruction, training, and close monitoring of the data. At the CATI facilities, staff will have the ability to monitor interviewers at any time and provide immediate verbal feedback.

3. Methods to Maximize Response.

RDD Telephone Surveys are expected to have high non-response rates. In the implementation of TPOPS, the following procedures are used to maximize response rates and reduce nonresponse:

- Advance letters are sent to all sample telephone numbers that can be associated with an address. To get the addresses, the sample of telephone numbers are provided to the private company First Data Solutions. They then match the telephone numbers to their files and return the associated addresses.
- Beginning in April, 2010, address will be collected in the first contact with a respondent. Letters or postcards will be sent to households prior to each subsequent quarter for which they are in sample.
- Floor Supervisors in each CATI facility attempt to convert each refusal.
- The data collection instrument is set up to check each address given for an outlet for proper format (i.e., a numeric entry for a street address, and a usable two alpha character state code).

In spite of these steps, non-response continues to be a concern. To date, however, the BLS has not identified a better and cost effective method for obtaining sampling frames for the CPI.

CPI conducted a non-response bias analysis in 2009 to attempt to determine if the TPOPS exhibits non-response bias. The goal of the TPOPS is to collect a representative frame of outlets from which to select the outlet sample for the CPI's pricing survey. Because there is no good source to determine how representative the outlets from TPOPS are, two proxies were used: demographics and expenditures. For the results of

these comparisons, see Attachment F, ‘Assessing Nonresponse Bias in the Telephone Point of Purchase Survey: A summary of four studies.’

#### 4. Testing of Procedures.

The BLS acceptance tests all CATI instruments before their implementation in the field. For each quarter that new sample is being introduced, BLS will review the instrument to ensure that the correct PSUs will be contacted. Any instrument changes are tested with mock scenarios to ensure the correct path is followed in a variety of circumstances. Additionally, cognitive testing is used for any questionnaire changes before implementation.

#### 5. Statistical Contact

The BLS has consulted the following individual:

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