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 or group of counties. The second phase sample is a random digit dialing (RDD) sample of land-line (currently) and cell phone (in FY11) 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.

   Currently, within each PSU the Census Bureau selects two different samples from two different frames. One sample is selected from a landline frame. The landline frame is a list-assisted RDD sample of telephone numbers. It 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. For each PSU, sampling will be carried out independently using the GENSYS 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 independently using the GENESYS software. An EPSEM RDD sample is a single stage equal probability selection of sample telephone numbers.

   Once cell phone collection is implemented a second sample will be selected from the cellular frame. The cellular frame is also a RDD sample of telephone numbers from a database constructed by incorporating wire center data. A wire center is typically a general geographic area which is serviced by a defined set of exchanges. Each wire center has a set of area code exchanges (NPA-NXX) with the same first six digits that are dedicated to providing wireless service. It is not list assisted. There are no published or compiled lists of cellular telephone numbers available. The sample generation for the cellular frame is also an EPSEM sample where every possible

number has an equal probability of selection.

In practice, the type of phone service will be identified at the beginning of the first interview with a respondent. For the test, cell phone respondents who have moved out of the area for which they were selected will be eligible if their new residence is within the boundaries of another CPI PSU. Analysis of the test data will guide the CPI in how to best manage and weight these cases if they are used in production.

Data from the CE Quarterly Interview Survey were used to estimate the percentages of (i) cell-only, (ii) landline only, and (iii) both cell and landline households. The target number of interviewed cases required in TPOPS, in each PSU, will now be split into two frames based upon these percentages: (1) a landline number frame, and (2) a cell phone number frame. Households that fall into the 'Both' landline and cell phone category will be divided between the two frames based on results from the NHIS. NHIS asks households that had at least one landline and at least one cell phone what phone they mostly use.:. BLS will use the most recent data available when we implement a dual frame in production.

The Census Bureau is researching a weighting strategy that will allow cases for cell phones from the landline frame (respondents who have ported their landline number to a cell phone) and cases for landline numbers from the cell phone frame to be used. If a weighting strategy cannot be developed, the BLS will weight the frames separately and exclude the cases that cross from one frame to the other.

Approximately 5.7 telephone numbers are selected to get one completed interview in the first quarter of interviewing for landlines. The test conducted in the first quarter of 2011 will show the number of calls needed to get one completed cell phone interview. 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 2011-2013 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 survey

        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. The response rates (1997 through 2010) for TPOPS using AAPOR RR3 methodology are listed in the table below. While the 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.

Quarter	Interviews	Non Contacts	Refusals	Estimate of Unknown Population	Total	Response Rate
Q971	3453	429	1008	174.96	5065.00	68.20%
Q972	6330	940	1736	357.21	9363.20	67.60%
Q973	9217	978	2994	522.18	13711.20	67.20%
Q974	12086	1266	3800	741.15	17893.20	67.60%
Q981	11946	2026	3354	769.23	18095.20	66.00%
Q982	12000	2419	3363	747.63	18529.60	64.80%
Q983	11969	2690	3340	740.34	18739.30	63.90%
Q984	11996	2312	3601	910.71	18819.70	63.70%
Q991	11752	1496	3909	984.15	18141.20	64.80%
Q992	11514	1284	4034	793.26	17625.30	65.30%
Q993	10884	1907	3668	736.29	17195.30	63.30%
Q994	11,502	1,667	4,019	738.18	17926.20	64.20%
Q001	17,205	3,081	6,736	1367.80	28389.80	60.60%
Q002	16,666	4,004	6,455	1302.50	28427.50	58.60%
Q003	18,041	3,481	6,378	1292.80	29192.80	61.80%
Q004	17,904	2,320	6,094	1299.50	27617.50	64.80%

Q011	17,821	2,819	5,671	1345.10	27656.10	64.40%
Q012	13,680	2,357	4,731	963.40	21731.40	63.00%
Q013	13,641	2,411	4,503	944.50	21499.50	63.50%
Q014	13,824	2,290	4,424	935.60	21473.60	64.40%
Q021	13,240	1,934	4,753	891.50	20818.50	63.60%
Q022	13,166	2,559	5,144	996.60	21865.60	60.20%
Q023	13,602	2,001	5,087	984.20	21674.20	62.80%
Q024	13,684	2,178	5,136	955.00	21953.00	62.30%
Q031	14,210	2,233	5,431	1033.30	22907.30	62.00%
Q032	14,084	2,920	5,019	1015.70	23038.70	61.10%
Q033	13,705	2,352	5,402	1020.60	22479.60	61.00%
Q034	13,759	2,132	5,618	1076.00	22585.00	60.90%
Q041	13,303	2,611	5,714	1055.70	22683.70	58.70%
Q042	11,297	5,042	5,363	1557.90	23259.90	48.60%
Q043	12,643	4,364	4,664	1534.70	23205.70	54.50%
Q044	13,999	4,160	5,097	1200.20	24456.20	57.20%
Q051	14,245	4,562	5,223	1271.40	25301.40	56.30%
Q052	15,021	4,822	5,934	1274.70	27051.70	55.50%
Q053	14,961	4,796	5,808	1225.80	26790.80	55.80%
Q054	14,851	5,978	6,732	1254.20	28815.20	51.50%
Q061	15,009	6,983	7,825	1338.40	31155.40	48.20%
Q062	15,121	6,649	7,414	1498.20	30682.2	49.30%

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Q063	14,939	7,532	5,857	1488.80	29816.80	50.10%
Q064	15,197	5,391	7,391	1237.70	29216.70	52.00%
Q071	13,276	7,130	6,553	1365.10	28324.10	46.90%
Q072	13,869	8,006	7,102	1576.00	30553.00	45.40%
Q073	13,538	7,332	7,032	1385.90	29287.90	46.20%
Q074	13,264	6,881	6,457	1216.40	27818.40	47.70%
Q081	13,207	6,506	5,898	1101.30	26712.30	49.40%
Q082	9,996	7,315	4,742	1252.00	23305.00	42.90%
Q083	11,507	5,992	5,458	1124.60	24081.60	47.80%
Q084	12,687	6,125	6,877	1276.80	26965.80	47.10%
Q091	13,083	7,487	6,193	1369.98	28132.98	46.50%
Q092	13,670	7,612	5,976	1308.96	28566.96	47.85%
Q093	14,108	6,848	6,296	1329.21	28581.21	49.36%
Q094	13,466	6,998	6,289	1351.35	28104.35	47.91%
Q101	13,761	6,586	6,139	1400.49	27886.49	49.35%
Q102	13,867	6,185	6,492	1404.27	27948.27	49.62%
Q103	13,705	6,024	6,773	1317.33	27819.33	49.26%
Q104	12,985	6,236	6,513	1330.56	27064.56	47.98%

In the survey, one respondent will be interviewed for all members of one household in the sample household. An early question will identify the household member who "has knowledge of the household expenditures" (18 years of age or

older). It is expected that in many cases this person will be the one who answers the phone.

Each household may be contacted for an interview four times (once per calendar quarter) over a period of 1 year. Exceptions to this include those households identified as ineligible during their first interview and those households 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.

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 samples of telephone numbers are provided to the private company Telematch. They then match the telephone numbers to their files and return the associated addresses.

➢ Beginning in April, 2010, addresses are collected in the first contact with a respondent. Letters or postcards are 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.

Currently the Telephone Point of Purchase Survey (TPOPS) does not include cell phone numbers in its frame. This presents a coverage issue: we do not collect outlets and expenditures from households that have only cell phones. To resolve this issue, CPI plans to include a cell phone frame in the TPOPS in the fourth quarter of 2011. Because the percentage of cell phone users differs by PSU, Census will conduct a test to determine the cell phone hit rate in each PSU in February, 2011.

The main goal of this test is to determine hit rates by PSU to be able to more accurately determine the number of cell phone numbers that need to be called to result in a productive interview. The results will optimize the production samples for the inclusion of a cell phone frame for TPOPS in the fourth quarter of 2011.

This test will also be used to evaluate how often cell phone numbers move out of the geographic area for which they were selected.

An additional goal is to test the new instrument for both the cell phone and the landline frames to make sure the correct paths are followed.

BLS conducted cognitive testing to determine the best way to ask the phone usage questions for the test. A debriefing with interviewers will take place after the test to determine if other questions need cognitive testing and to obtain feedback on the instrument.

5.   Statistical Contact

The BLS has consulted the following individual:

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