Methodology

July 2010 – Omnibus Wk 1

Prepared by Princeton Survey Research Associates International

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The PSRAI July 2010 Omnibus Wk 1 obtained telephone interviews with a nationally representative sample of 1,007 adults living in the continental United States. Telephone interviews were conducted by landline (675) and cell phone (332, including 136 without a landline phone). The survey was conducted by Princeton Survey Research International (PSRAI). Interviews were done in English by Princeton Data Source from July 1-5, 2010. Statistical results are weighted to correct known demographic discrepancies. The margin of sampling error for the complete set of weighted data is ±3.8 percentage points.

# Design AND Data Collection Procedures

#### Sample Design

A combination of landline and cellular random digit dial (RDD) samples was used to represent all adults in the continental United States who have access to either a landline or cellular telephone. Both samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications.

Numbers for the landline sample were drawn with probabilities in proportion to their share of listed telephone households from active blocks (area code + exchange + two-digit block number) that contained three or more residential directory listings. The cellular sample was not list-assisted, but was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers.

#### Contact Procedures

As many as 5 attempts were made to contact every sampled telephone number. Sample was released for interviewing in replicates, which are representative subsamples of the larger sample. Using replicates to control the release of sample ensures that complete call procedures are followed for the entire sample. Calls were staggered over times of day and days of the week to maximize the chance of making contact with potential respondents. Each phone number received at least one daytime call.

For the landline sample, interviewers asked to speak with the youngest adult male or female currently at home based on a random rotation. If no male/female was available, interviewers asked to speak with the youngest adult of the other gender. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and gender when combined with cell interviewing.

For the cellular sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey.

# Weighting and analysis

Weighting is generally used in survey analysis to compensate for sample designs and patterns of non-response that might bias results. A two-stage weighting procedure was used to weight this dual-frame sample.

The first stage of weighting includes two adjustments to the sample. The first adjustment – the Probability of Selection Adjustment (PSA) - corrects for the fact that respondents in the landline sample have different probabilities of being sampled depending on how many adults live in the household. Since we only sample one person per household, adults who live with no other adults have a greater chance of being sampled than adults who live in multiple-adult households.

To compute the PSA, first define *n*1 as the number of respondents in the landline sample who live in single-adults households and *n*2 as the number of respondents in the landline sample who live in multi-adult households. The PSA equals:

The second sample adjustment corrects for the overlapping landline and cell sample frames. It balances the phone use distribution of the entire sample to match population parameters. The phone use parameter was derived from an analysis of the most recently available National Health Interview Survey (NHIS) data.[[1]](#footnote-1)

The second stage of weighting balances sample demographics to population parameters. The sample is balanced to match national population parameters for sex, age, education, race, Hispanic origin, region (U.S. Census definitions), population density, and telephone usage. The basic weighting parameters came from a special analysis of the Census Bureau’s 2009 Annual Social and Economic Supplement (ASEC) that included all households in the continental United States. The population density parameter was derived from Census 2000 data. The cell phone usage parameter came from an analysis of the January-June 2009 National Health Interview Survey.

Weighting was accomplished using Sample Balancing, a special iterative sample weighting program that simultaneously balances the distributions of all variables using a statistical technique called the *Deming Algorithm*. Weights were trimmed to prevent individual interviews from having too much influence on the final results. The use of these weights in statistical analysis ensures that the demographic characteristics of the sample closely approximate the demographic characteristics of the national population. Table 1 shows the population parameters used for weighting.

|  |  |
| --- | --- |
| **Table 1: Weighting Parameters** | |
|  | Parameter |
| Gender |  |
| Male | 48.5% |
| Female | 51.5% |
|  |  |
| Age |  |
| 18-24 | 12.6% |
| 25-34 | 17.8% |
| 35-44 | 18.2% |
| 45-54 | 19.6% |
| 55-64 | 15.1% |
| 65+ | 16.6% |
|  |  |
| Education |  |
| Less than HS Graduate | 14.1% |
| HS Graduate | 34.7% |
| Some College | 24.1% |
| College Graduate | 27.1% |
|  |  |
| Race/Ethnicity |  |
| White/not Hispanic | 68.8% |
| Black/not Hispanic | 11.5% |
| Hispanic | 13.7% |
| Other/not Hispanic | 6.0% |
|  |  |
| Region |  |
| Northeast | 18.5% |
| Midwest | 22.0% |
| South | 36.8% |
| West | 22.7% |
|  |  |
| County Pop. Density |  |
| 1 - Lowest | 20.1% |
| 2 | 20.0% |
| 3 | 20.1% |
| 4 | 20.2% |
| 5 - Highest | 19.6% |
|  |  |
| Phone Use |  |
| LLO | 11.7% |
| Dual | 64.7% |
| CPO | 23.6% |

1. Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, January-June, 2009. National Center for Health Statistics. December 2009. [↑](#footnote-ref-1)