

## Study Design & Documentation

### Introduction

The GfK Group (GfK, formerly Knowledge Networks) conducted the Chicago Council Biannual Study 2014 behalf of The Chicago Council of Global Affairs. Specifically, the study examines the American public's attitudes and perceptions of a range of US and International public policy. The survey was conducted using sample from KnowledgePanel®.

### Sample Definition

The target population consists of the following: non-institutionalized adults age 18 and over residing in the United States with an oversample of Hispanic adults.

To sample the population, GfK sampled households from its KnowledgePanel, a probability-based web panel designed to be representative of the United States.

### Data Collection Field Period & Survey Length

The data collection field periods were as follows:

Stage	Start Date	End Date
Pre-Test	04/24/2014	04/25/2014
Main	05/06/2014	05/29/2014

Participants completed the main survey in 37 minutes (median).

### Survey Completion and Sample Sizes

The number of respondents sampled and participating in the survey, the survey completion rates for the screener and main interview, and the incidence/eligibility rate are presented below.

### Key Survey Response Statistics: Main Interview

Sample	N Sampled for Main Survey	N Completed Main Survey	Main Survey Compl. Rate
Main Sample	3,146	1,914	61%
Hispanic Oversample	759	339	45%

Of the 2,243 cases completing the main survey, 2,108 cases were determined to be valid cases to be included in the final analyses. The 142 cases were excluded due to a combination of factors.

Respondents were included if they failed at least one of three key checks:

1. **Speedsters:** Respondents who completed the survey in 10 minutes or less.
2. **Refused 50% or more of questions:** Respondents who refused to answer 50% or more of the survey.
3. **Data Check Score of 3 or 4:** Respondents who failed 3 or 4 of the quality checks implemented (see criteria below).
  1. Completed survey faster than 10 minutes.
  2. Did not accurately input a “4”, refused or skipped Question Q3\_1/Q3\_2 in the survey which was designed to make sure respondents were paying attention to the survey. (“In order to make sure that your browser is working correctly, please select number 4 from the below list.”).
  3. Refused one or more full battery of 5 attributes or more (Q5, 7, 8, 25, 30, 40, 45, 50, 55, 80, 120, 125, 140, N14B, T15A, 175, 210, 211, 267, 268, 276, and 320).
  4. Respondents who straight lined their responses to a battery of grid questions (Q5, Q7, Q50 or Q55).

### Survey Cooperation Enhancements

As a standard, email reminders to non-responders were sent on day three of the field period.

Beyond the standard email reminder on day three of the field period, the following steps were also taken:

- Participants received a cash-equivalent of \$5 for their participation;

### Data File Deliverables and Descriptions

GfK prepared and delivered a fully formatted SPSS file containing the collected data, GfK demographic profile data, and the appropriate variable and value labels, as described below.

#### Data File Deliverables

Delivery Date	File Type	File Name	File Size	N Records
06/06/2014	SPSS	Chicago Council Biannual Study 2014_Client.sav	600 Kb	2108

In addition, GfK prepared and delivered other deliverables as follows:

- Post-stratification statistical weights
- Cross-tabulations (“banner tables”) of the survey data (2 banners)
- Annotated questionnaire with marginal frequencies
- Open-ended Responses (coded)
- Demographic profile data for all interviewed GfK panelists

Several supplemental variables are provided to assist the principal investigators in identifying cases that could potentially be of interest.

Please also note the following for the survey data file:

- When a respondent refused to answer a question, the code “-1” is used.
- When questions or response choices were randomized, the order of the randomization is provided.
- The missing values have been recoded as the following: "Not asked" responses are recoded as "system missing".

The table below shows the name and description of each of the supplemental, demographic, and other profile variables delivered to the client.

Variable Name	Variable Description
CASEID	Case Identification Number
WEIGHT1	Total respondent weights
WEIGHT2	Weights for the gen pop and augment
PPAGE	Age
PPAGECAT	Age - 7 Categories
PPAGECT4	Age - 4 Categories
PPEDUC	Education (Highest Degree Received)
PPEDUCAT	Education (Categorical)
PPETHM	Race / Ethnicity
PPGENDER	Gender
PPHHHEAD	Household Head
PPHHSIZE	Household Size
PPHOUSE	Housing Type
PPINCIMP	Household Income
PPMARIT	Marital Status
PPMSACAT	MSA Status
PPREG4	Region 4 - Based on State of Residence
PPREG9	Region 9 - Based on State of Residence
PPRENT	Ownership Status of Living Quarters
PPSTATEN	State
PPT01	Presence of Household Members - Children 0 - 2
PPT25	Presence of Household Members - Children 2 - 5
PPT612	Presence of Household Members - Children 6 - 12
PPT1317	Presence of Household Members - Children 13 - 17
PPT18OV	Presence of Household Members - Adults 18+
PPWORK	Current Employment Status
PPNET	Household Internet Access

## GfK Methodology

### Introduction

**The GfK Group (formerly Knowledge Networks)** is passionate about research in marketing, media, health, and social policy. We collaborate closely with client teams throughout the research process, while applying rigor in everything we do. We specialize in innovative online research that consistently gives leaders in business, government, and academia the confidence to make important decisions. GfK delivers affordable, statistically valid online research through KnowledgePanel® and leverages a variety of other assets, such as world-class advanced analytics, an industry-leading physician panel, an innovative platform for measuring online ad effectiveness, and a research-ready behavioral database of frequent supermarket and drug store shoppers.

GfK has recruited the first online research panel that is representative of the entire U.S. population. Panel members are randomly recruited through probability-based sampling, and households are provided with access to the Internet and hardware if needed.

GfK recruits panel members by using address-based sampling methods [formerly GfK relied on random-digit dialing methods]. Once household members are recruited for the panel and assigned to a study sample, they are notified by email for survey taking, or panelists can visit their online member page for survey taking (instead of being contacted by telephone or postal mail). This allows surveys to be fielded very quickly and economically. In addition, this approach reduces the burden placed on respondents, since email notification is less intrusive than telephone calls, and most respondents find answering Web questionnaires more interesting and engaging than being questioned by a telephone interviewer. Furthermore, respondents have the convenience to choose what time of day to complete their assigned survey.

Documentation regarding KnowledgePanel sampling, data collection procedures, weighting, and IRB-bearing issues are available at the below online resources.

- <http://www.knowledgenetworks.com/ganp/reviewer-info.html>
- <http://www.knowledgenetworks.com/knpanel/index.html>
- <http://www.knowledgenetworks.com/ganp/irbsupport/>

### The GfK Group

The GfK Group has a strong tradition in working with sophisticated academic, government, and commercial researchers to provide high quality research, samples, and analyses. The larger GfK Group offers the fundamental knowledge for governmental agencies, academics, industries, industry, retailers, services companies and the media need to provide exceptional quality in research to make effective decisions. It delivers a comprehensive range of information and consultancy services. GfK is one of the leading survey research organizations worldwide, operating in more than 100 countries with over 12,000 research staff. In 2012, the GfK Group's sales amounted to EUR 1.51 billion.

For further information, visit our website: [www.gfk.com](http://www.gfk.com).

### **KnowledgePanel Methodology Information**

Complete and current information about KnowledgePanel sampling and recruitment methodology and design is available at [http://marketing.gfkamerica.com/knowledgenetworks/knpanel/docs/KnowledgePanel\(R\)-Design-Summary-Description.pdf](http://marketing.gfkamerica.com/knowledgenetworks/knpanel/docs/KnowledgePanel(R)-Design-Summary-Description.pdf)

KnowledgePanel's probability-based recruitment was originally based exclusively on a national RDD frame. In April 2009, in response to the growing number of cellphone-only households that are outside of the RDD frame, GfK migrated to using an ABS frame for selecting panel members. This probability-based methodology improves population coverage. Currently, approximately 40% of panel members were recruited through RDD, while 60% were recruited using ABS. For both ABS and RDD recruitment, households without an Internet connection were provided with a web-enabled device and free Internet service. After initially accepting the invitation to join the panel, participants are asked to complete a short demographic survey (the initial profile survey); answers to these questions allow efficient panel sampling and weighting for surveys. Completion of the profile survey allows participants to become panel members. These procedures were established for the RDD-recruited panel members and continued with ABS recruited panel members. Respondents sampled from the RDD and ABS frames are provided the same privacy terms and confidentiality protections.

### **ABS Recruitment.**

ABS involves probability-based sampling of addresses from the U.S. Postal Service's Delivery Sequence File. The key advantage of the ABS sample frame is that it allows sampling of almost all U.S. households. An estimated 97% of households are "covered" in sampling nomenclature. Regardless of household telephone status, those households can be reached and contacted through postal mail. In late 2009 the ABS sample began incorporating a geographic stratification design. Census blocks with high density minority communities were oversampled (Stratum 1), and the balance of the census blocks (Stratum 2) were relatively under-sampled. The definition of high density and minority community and the relative proportion between strata differed among specific ABS samples. In 2010, the two strata were redefined to target high density Hispanic areas in Stratum 1 and all else in Stratum 2. In 2011, pre-identified ancillary information, rather than census block data, were used to construct and target four strata as follows: Hispanic ages 18-24, non-Hispanic ages 18-24, Hispanic ages 25+, and non-Hispanic ages 25+. Also in 2011, a separate sample targeting only persons ages 18-24 was fielded across the year, again using predictive ancillary information. Combined with the four-stratum sample, the base weight adjustment compensates for cases from this unique young adult oversample. In 2012, a similar four-stratum design was implemented, with the ages changed to 18-29 and 30+ for both the Hispanic and non-Hispanic strata. For every survey sample, an appropriate base weight adjustment is applied to each relevant sample to correct for these stratified designs.

Randomly sampled addresses are invited to join KnowledgePanel through a series of mailings, including an initial invitation letter, a reminder postcard, and a subsequent follow-up letter. Approximately 45% of the physical addresses selected for the sample can be matched to a corresponding valid telephone number. About 5 weeks after the initial mailing, telephone refusal-conversion calls are made to households for whom a telephone number was matched to the sampled address. Invited households can join the panel by:

- Completing and mailing back a paper form in a postage-paid envelope
- Calling a toll-free hotline phone number maintained by GfK
- Going to a designated GfK website and completing the recruitment form at the website

### **RDD Recruitment.**

For panel members who were recruited using RDD-based sampling (pre-April 2009), list-assisted RDD sampling techniques were used on the sample frame consisting of the entire U.S. residential telephone population. Only banks of telephone numbers (each consisting of 100 telephone numbers) that had zero or one directory-listed phone numbers were excluded. Two strata were defined using 2000 Census Decennial Census data which were appended to all telephone exchanges. The first stratum had a higher concentration of Black and Hispanic households, and the second stratum had a lower concentration of these groups relative to the national estimates. Telephone numbers were selected with equal probability of selection for each number within each of the two strata, with the higher concentration Black and Hispanic stratum being sampled at approximately twice the rate of the other stratum. The sampling was done without replacement to ensure that numbers already fielded would not be fielded again.

A valid postal address was recovered for about 60%-70% of all telephone numbers in the selected samples. The telephone numbers for which an address was recovered were selected with certainty. Until May 2007, between one-half and one-third of the remainder was subsampled randomly, depending on the recruitment period. From May 2007 to March 2009, subsampling was done at a rate of 75% for those households without a physical address. The households for which there was an address-matched telephone number received an advance mailing, typically 7 to 9 days before the recruitment telephone call. The letter informed them that they had been selected to participate in KnowledgePanel®.

Following the advance letter, the telephone recruitment process began for all sampled phone numbers. Cases sent to telephone interviewers were dialed for up to 90 days, with at least 10 dial attempts when no one answered the phone and when phone numbers were known to be associated with households. Extensive refusal conversion was also performed. Experienced interviewers conducted all recruitment interviews. The recruitment interview, which typically required about 10 minutes, began with the interviewer informing the household member that they had been selected to join KnowledgePanel.

### KnowledgePanel Latino<sup>SM</sup> Recruitment.

In 2008, KnowledgePanel Latino<sup>SM</sup> was developed to provide researchers with the capability to conduct representative online surveys with U.S. Hispanics. With the advent of KnowledgePanel Latino, the first U.S. online panel representative of Hispanics, including those without Internet access and those who speak only Spanish, was established. The sample for KnowledgePanel Latino is recruited using a hybrid telephone recruitment design, based on a dual-frame RDD methodology sampling U.S. Latinos and households with Hispanic-surnames. This geographically-balanced sample covers areas that, when aggregated, encompass approximately 93% of the nation's 45.5 million Latinos.

KnowledgePanel Latino samples Latinos residing in 70 DMAs (Designated Market Area) having Latino populations. The DMA-sampling approach was dedicated to recruiting Spanish-language-dominant adults who have been categorized as “unassimilated” on the basis of frequency of viewing Spanish-language television and use of Spanish as their primary spoken language at home. The 70 DMAs are grouped into five regions (Northeast, West, Midwest, Southeast, and Southwest). Each region is further divided into two groupings of census tracts: those with a “high-density” Latino population and the remaining tracts with a “low-density” Latino population. The threshold percentage for “high density” varies by region. The five regions, each divided into the two density groups, constitute 10 unique sample frames (5 x 2).

Using a geographic targeting approach, an RDD landline sample was generated to cover the high-density census tracts within each region. Due to the inaccuracy of telephone exchange coverage, there is always some spillage outside these tracts and a smaller degree of non-coverage within these tracts. About 32% of the Latino population across these five regions is covered theoretically by this targeted RDD landline sample. All the numbers generated were screened to locate a Latino, Spanish-speaking household.

The remaining 68% of the Latinos in these five regions were identified through a listed-surname sample. Listed surnames included only those households where the telephone subscriber had a surname that was pre-identified as likely to be a Latino surname. It is important to note that excluded from this low-density listed sample frame are: (a) the mixed Latino/non-Latino households where the subscriber does not have a Latino surname and (b) all the unlisted landline Latino households. The percent of listed vs. unlisted varies at the DMA level. The use of the listed surname was intended to utilize cost-effective screening to locate Latino households in these low-density areas since the rate of finding Latino households on this list, although not with 100% certainty, was still very high.

In 2011, the above described hybrid design was replaced with national RDD samples targeting telephone exchanges associated with census blocks that have a 45% or greater Latino population density (this density level covers just over 50% of the U.S. Hispanic population). Households are screened in the Spanish language to recruit only those homes where Spanish is spoken at least half the time. In 2012, the census block Hispanic density was raised to 65% to improve the eligibility efficiency of this RDD approach.



This all probability-based RDD Spanish-language sample supplements the Latino households (English and Spanish) that are now recruited through the KnowledgePanel's general ABS recruitment sample.

### **Household Member Recruitment.**

For all recruitment efforts, during the initial recruitment survey, all household members are enumerated. Following enumeration, attempts are made to recruit every household member who is at least 13 years old to participate in KnowledgePanel surveys. For household members aged 13 to 17, consent is collected from the parents or the legal guardian during the initial recruitment interview (detailed in section below - Procedures for Obtaining Consent for Surveys with Minors). If no consent is given, no further direct communication with the teenagers is attempted.

### **Survey Sampling from KnowledgePanel**

Once panel members are recruited and profiled, they become eligible for selection for client surveys. In most cases, the specific survey sample represents a simple random sample from the panel, for example, a general population survey. Customized stratified random sampling based on profile data can also be conducted as required by the study design.

The general sampling rule is to assign no more than one survey per week to individual members. Allowing for rare exceptions during some weeks, this limits a member's total assignments per month to four or six surveys. In certain cases, a survey sample calls for pre-screening, that is, members are drawn from a subsample of the panel (such as females, Republicans, grocery shoppers, etc.). In such cases, care is taken to ensure that all subsequent survey samples drawn that week are selected in such a way as to result in a sample that remains representative of the panel distributions.

For this survey, a nationally representative sample of U.S. adults (18 and older) was selected. An additional sample representative of Hispanic U.S. adults was also selected.

### **Survey Administration**

Once assigned to a survey, members receive a notification email letting them know there is a new survey available for them to take. This email notification contains a link that sends them to the survey questionnaire. No login name or password is required. The field period depends on the client's needs and can range anywhere from a few hours to several weeks.

After three days, automatic email reminders are sent to all non-responding panel members in the sample. If email reminders do not generate a sufficient response, an automated telephone reminder call can be initiated. The usual protocol is to wait at least three to four days after the email reminder before calling. To assist panel members with their survey taking, each individual has a personalized "home page" that lists all the surveys that were assigned to that member and have yet to be completed.

GfK also operates an ongoing modest incentive program to encourage participation and create member loyalty. Members can enter special raffles or can be entered into special sweepstakes with both cash rewards and other prizes to be won.

The typical survey commitment for panel members is one survey per week or four per month with duration of 10 to 15 minutes per survey. In the case of longer surveys, an additional incentive is typically provided.

### Sample Weighting

The design for KnowledgePanel<sup>®</sup> recruitment begins as an equal probability sample with several enhancements incorporated to improve efficiency. Since any alteration in the selection process is a deviation from a pure equal probability sample design, statistical weighting adjustments are made to the data to offset known selection deviations. These adjustments are incorporated in the sample's **base weight**.

There are also several sources of survey error that are an inherent part of any survey process, such as non-coverage and non-response due to panel recruitment methods and to inevitable panel attrition. We address these sources of sampling and non-sampling error by using a **panel demographic post-stratification weight** as an additional adjustment.

Prior to this adjustment, Spanish-speaking Latinos are separately weighted before they are merged and re-weighted with the overall panel. This ethnic group is augmented with an independent, geographically targeted, dual frame sample screened for Spanish-language-dominant households. A **Spanish-language base weight** incorporating selection and language usage adjustments will be described in more detail below. The overall panel demographic post-stratification weight, when calculated for all panel members, proportionally adjusts for the Spanish-speaking U.S. population.

All the above weighting is done before the study sample is drawn. Once a study sample is finalized (all data collected and a final data set made), a set of **study-specific post-stratification weights** are constructed so that the study data can be adjusted for the study's sample design and for survey non-response.

A description of these types of weights follows.

### The Base Weight

In a KnowledgePanel sample there are eight known sources of deviation from an equal probability of selection design. These are corrected in the Base Weight and are described below.

1. Under-sampling of telephone numbers unmatched to a valid mailing address

An address match is attempted on all the Random Digit Dial (RDD)-generated telephone numbers in the sample after the sample has been purged of business and institutional numbers and screened for non-working numbers. The success rate for address matching is in the 60 to 70% range. Households having telephone numbers with valid addresses are sent an advance letter, notifying them that they will be contacted by phone to join KnowledgePanel. The remaining, unmatched numbers are under-sampled as a recruitment efficiency strategy. Advance letters improve recruitment success rates. Under-sampling was suspended between July 2005 and April 2007. It was resumed in May 2007, using a sampling rate of 0.75. RDD recruitment ended in July 2009.

2. RDD selection proportional to the number of telephone landlines reaching the household

As part of the field data collection operation, information is collected on the number of separate telephone landlines in each selected household. The probability of selecting a multiple-line household is down-weighted by the inverse of the number of landlines. RDD recruitment ended in July 2009.

3. Some minor oversampling of Chicago and Los Angeles in early pilot surveys

Two pilot surveys carried out in Chicago and Los Angeles when the panel was initially being built increased the relative size of the sample from these two cities. With natural attrition and growth in size of the overall panel, that impact has declined over time. It remains part of our base adjustment weighting because of a small number of extant panel members from that initial panel cohort.

4. Early oversampling the four largest states and central region states

At the time when the panel was first being built, survey demand in the four largest states (California, New York, Florida, and Texas) necessitated oversampling during January–October 2000. Similarly, the central region states were oversampled for a brief period of time. These now diminishing effects still remain in the panel membership and thus weighting adjustments are required for these geographic areas.

5. Under-sampling of households not covered by the MSN<sup>®</sup> TV service network

Certain small areas of the U.S. are not serviced by MSN<sup>®</sup>, thus the MSN<sup>®</sup> TV units (Web-TV) distributed to non-Internet households prior to January 2009 could not be used for those recruited non-Internet households. Overall, the result is a small residual under-sample in those geographic areas which requires a minor weighting adjustment for those locations. Since January 2010, laptop computers with dial-up access are being distributed to non-Internet households, thus eliminating this under-coverage component.

## 6. RDD oversampling of African American and Hispanic telephone exchanges

As of October 2001, oversampling of telephone exchanges with a higher density of minority households (specifically, African American and Hispanic) was implemented to increase panel membership for those groups. These exchanges were oversampled at approximately twice the rate of other exchanges. This oversampling is corrected in the base weight. RDD recruitment ended in July 2009.

## 7. Address-based sample phone match adjustment

Toward the end of 2008, GfK began recruiting panel members by using an address-based sample (ABS) frame in addition to RDD recruitment. Once recruitment through the mail, including follow-up mailings to ABS non-respondents was completed, telephone recruitment was added. Non-responding ABS households where a landline telephone number could be matched to an address were subsequently called and telephone recruitment was initiated. This effort resulted in a slight overall disproportionate number of landline households being recruited in a given ABS sample. A base weight adjustment is applied to return the ABS recruitment panel members to the sample's correct national proportion of phone-match and no phone-match households.

## 8. ABS oversample stratification adjustment

In late 2009 the ABS sample began incorporating a geographic stratification design. Census blocks with high density minority communities were oversampled (Stratum 1) and the balance of the census blocks (Stratum 2) were relatively under-sampled. The definition of high density and minority community and the relative proportion between strata differed among specific ABS samples. In 2010, the two strata were redefined to target high density Hispanic areas in Stratum 1 and all else in Stratum 2. In 2011, pre-identified ancillary information and not census block data were used to construct and target four strata as follows: Hispanic ages 18-24, Non-Hispanic ages 18-24, Hispanic ages 25+ and Non-Hispanic ages 25+. An appropriate base weight adjustment is applied to each relevant sample to correct for these stratified designs. Also in 2011, a separate sample targeting only persons ages 18-24 was fielded across the year also using predictive ancillary information. Combined with the four-stratum sample, the base weight adjustment compensates for cases from this unique young adult over-sample. In 2012, a similar four-stratum design is used but the ages have been changed to 18-29 and 30+ for both the Hispanic and Non-Hispanic strata.

## **The Spanish Language Base Weight**

From 2008 through 2010, as an augmentation to KnowledgePanel, Spanish language-specific panel members were recruited through a geographically targeted dual frame sample that was

screened for Spanish-language dominant households. Generally, these are households in which members speak Spanish and completed the recruitment interview in Spanish. Eleven geographic regions covering approximately 95% of the national Latino population was screened. Each region had both high and low density Hispanic population areas. High density areas were screened by using RDD methods, whereas low density areas were screened by using Hispanic surname listed samples. Two adjustments are incorporated in the Spanish language base weight.

1. Selection proportional to the number of telephone landlines reaching the household  
As part of the field data collection operation, information was collected on the number of separate telephone landlines in each eligible (Spanish-speaking) household. A multiple-line household's selection probability is down-weighted by the inverse of its number of landlines.

2. Geographic frame balancing for RDD and listed surname samples  
The recruitment sample frame has a given proportional distribution across 11 regions, each consisting of both a high and low Hispanic population density area (ranging from 0.3% density to 13.9%; average = 4.6%). This adjustment factor returns the recruited households by area to their correct relative proportion across the 22 geographic density areas.

In 2011, the above telephone recruitment method was replaced with a pure probability-based RDD sample targeting telephone exchanges that covered Hispanic population areas of 45% or greater density based on census block data. In 2012, the density level was raised to 65%. The Spanish-language base weight compensates for this RDD sample approach when combined with other Hispanic panel.

### **The Panel Demographic Post-stratification Weight**

To reduce the effects of any non-response and non-coverage bias in the overall panel membership (before the study sample is drawn), a post-stratification adjustment is applied based on demographic distributions from the most recent (March 2013) data from the Current Population Survey (CPS). Spanish language usage, however, is based on the 2012 Pew Hispanic Center Survey (most recently available published data at this time). Language usage adjustments allow for the correct proportional fitting of Spanish-speaking members relative to other English-speaking Hispanic and non-Hispanic panel members within Census regions. The benchmark distributions for Internet access among the U.S. population of adults are obtained from the most recent special CPS supplemental survey measuring Internet access (October 2012).

The overall panel post-stratification variables include:

- Gender (Male/Female)
- Age (18–29, 30–44, 45–59, and 60+)

- Race/Hispanic ethnicity (White/Non-Hispanic, Black/Non-Hispanic, Other/Non-Hispanic, 2+ Races/Non-Hispanic, Hispanic)
- Education (Less than High School, High School, Some College, Bachelor and beyond)
- Census Region (Northeast, Midwest, South, West)
- Household income (under \$10k, \$10K to <\$25k, \$25K to <\$50k, \$50K to <\$75k, \$75K to <\$100k, \$100K+)
- Home ownership status (Own, Rent/Other)
- Metropolitan Area (Yes, No)
- Internet Access (Yes, No)
- Member-level Primary Language by Census Region (Non-Hispanic, Hispanic English Proficient, Hispanic Bilingual, Hispanic Spanish Proficient)

The Panel Demographic Post-stratification weight is applied prior to a probability proportional to size (PPS) selection of a study sample from KnowledgePanel. This weight is designed for sample selection purposes.

### **Study-Specific Post-Stratification Weights**

Once the sample has been selected and fielded, and all the study data are collected and made final, a post-stratification weight is computed to adjust for any survey non-response as well as any non-coverage or under- and over-sampling resulting from the study-specific sample design. Demographic and geographic distributions for the non-institutionalized, civilian population ages 18+ from the most recent CPS are used as benchmarks in this adjustment. The Spanish language proficiency distributions are from the most currently available Pew Hispanic Center Survey (2007).

The following benchmark distributions are utilized for this post-stratification adjustment:

- Gender (Male/Female)
- Age (18–29, 30–44, 45–59, and 60+)
- Race/Hispanic ethnicity (White/Non-Hispanic, Black/Non-Hispanic, Other/Non-Hispanic, 2+ Races/Non-Hispanic, Hispanic)
- Hispanic Ethnicity (Non-Hispanic, Mexican/Mexican-American/Chicano, Puerto Rican, Cuban, Other Spanish/Hispanic/Latino)
- Education (Less than High School, High School, Some College, Bachelors and higher)
- Household income (under <\$25k, \$25K to <\$50k, \$50K to <\$75k, \$75K+)
- Census Region (Northeast, Midwest, South, West)
- Metropolitan Area (Yes, No)
- Internet Access (Yes, No)
- Primary Language (Non-Hispanic, Hispanic English Proficient, Hispanic Bilingual, Hispanic Spanish Proficient)

All respondents (Main + Augment, N - 2801) were weighted to look like the ages 18+ US population by controlling demographics within Non-Hispanics and Hispanics on the standard

weighting variables (include primary language and Hispanic ethnicity). Since study sample sizes are typically too small to accommodate a complete cross-tabulation of all the survey variables with the benchmark variables, a raking procedure is used for the post-stratification weighting adjustment. Using the base weight as the starting weight, this procedure adjusts the sample data back to the selected benchmark proportions. Through an iterative convergence process, the weighted sample data are optimally fitted to the marginal distributions.

After this final post-stratification adjustment, the distribution of the calculated weights are examined to identify and, if necessary, trim outliers at the extreme upper and lower tails of the weight distribution. The post-stratified and trimmed weights are then scaled to the sum of the total sample size of all eligible respondents (weight1) and by Non-Hispanic/Hispanic (weight2).