# Appendix 4:
# Survey Methodology

The U.S. Religious Landscape Survey completed telephone interviews with a nationally representative sample of 35,556 adults living in continental United States telephone households. The survey was conducted by Princeton Survey Research Associates International (PSRAI). Interviews were done in English and Spanish by Princeton Data Source, LLC (PDS), and Schulman, Ronca and Bucuvalas, Inc. (SRBI), from May 8 to Aug. 13, 2007. Statistical results are weighted to correct known demographic discrepancies.

The vast majority of the interviews (n=35,009) came from standard list-assisted random digit dialing (RDD) sample. This sample was provided by Survey Sampling International, LLC, according to PSRAI specifications. *Active blocks* of telephone numbers (area code + exchange + two-digit block number) that contained three or more residential directory listings were equally likely to be selected; after selection, two more digits were added randomly to complete the number. This method guaranteed coverage of every assigned phone number regardless of whether that number was directory listed, purposely unlisted or too new to be listed. After selection, the numbers were compared against business directories and matching numbers were purged.

To supplement the RDD interviews, an additional 547 interviews were completed from households that were initially contacted and screened out during data collection for the Pew Research Center's survey of Muslim Americans that was released in May 2007. Specifically, households that were identified as being Hindu, Buddhist or Orthodox Christian were recontacted. This helped boost the sample size of these low-incidence groups. All of the callback interviewing was conducted at PDS.

Finally, in addition to the RDD and recontact samples, interviews were completed with 500 "cell-phone only" respondents (i.e., individuals who have and use a cellular telephone and who do not have a landline telephone in their household). An analysis of the data revealed no significant differences in the religious makeup of the sample that included cell-only respondents and the full sample based solely on respondents from landline households. As a result, cell-only respondents were excluded from the analyses that appear in this report.

As many as 10 attempts were made to contact every sampled telephone number. Calls were staggered over times of day and days of the week to maximize the chance of making contact with potential respondents. Each household received at least one daytime call in an attempt to find someone at home. Calling procedures and sample management were kept as consistent as possible between two phone rooms.

In each contacted household, interviewers asked to speak with the youngest adult male currently at home. If no male was available, interviewers asked to speak with the youngest adult female at home. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and gender.

For each contacted household in the callback sample, interviewers first identified the person who was previously contacted when he or she was screened out of the Muslim American survey sample. Then the respondent was asked screening questions to verify his or her religious affiliation. Once the respondent's religion was confirmed as Buddhist, Hindu or Orthodox Christian, the full interview was administered, including an abbreviated battery of religious affiliation questions.

Weighting is generally used in survey analysis to adjust for effects of the sample design and to compensate for patterns of nonresponse that might bias results. The weighting for the Landscape Survey was accomplished in two stages. The first stage of weighting corrected for two disproportionate sample elements. First, it corrected for the fact that the original sample used for the Pew Muslim American survey, from which the callback sample was pulled, overrepresented some parts of the country and underrepresented other parts. Second, it corrected for the fact that we were oversampling Buddhists, Hindus and Orthodox Christians.

After the first stage of weighting, the sample demographics were balanced to match national population parameters for sex, age, education, race, Hispanic origin, region, country of birth (for Latinos) and population density. These parameters came from a special analysis of the U.S. Census Bureau's 2006 Annual Social and Economic Supplement, which included all households in the continental United States that had a telephone.

The second stage of 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 compares weighted and unweighted sample distributions to population parameters.

## Table 1: Sample Demographics

| Parameter | Unweighted | Weighted |
|---|---|---|
| | % | % | % |
| **Gender** | | | |
| Male | 48.2 | 45.8 | 48.2 |
| Female | 51.8 | 54.2 | 51.8 |
| **Age** | | | |
| 18-24 | 12.4 | 7.0 | 12.0 |
| 25-34 | 17.6 | 11.8 | 17.5 |
| 35-44 | 19.7 | 17.0 | 19.7 |
| 45-54 | 19.7 | 21.8 | 20.0 |
| 55-64 | 14.3 | 18.9 | 14.4 |
| 65+ | 16.3 | 23.5 | 16.5 |
| **Education** | | | |
| Less than High School Grad. | 14.5 | 8.7 | 13.9 |
| High School Grad. | 35.7 | 31.1 | 35.8 |
| Some College | 23.6 | 23.6 | 23.4 |
| College Grad. | 26.2 | 36.6 | 26.9 |
| **Region** | | | |
| Northeast | 18.6 | 18.4 | 18.7 |
| Midwest | 23.3 | 25.5 | 23.5 |
| South | 36.2 | 35.6 | 36.1 |
| West | 21.9 | 20.5 | 21.7 |
| **Race/Ethnicity** | | | |
| White/not Hispanic | 70.8 | 77.8 | 71.3 |
| Black/not Hispanic | 10.9 | 8.8 | 10.9 |
| Hispanic | 12.4 | 9.0 | 12.1 |
| Other/not Hispanic | 5.9 | 4.4 | 5.6 |
| **Population Density** | | | |
| 1 - Lowest | 20.1 | 23.8 | 20.4 |
| 2 | 20.0 | 22.4 | 20.2 |
| 3 | 20.1 | 21.1 | 20.2 |
| 4 | 20.2 | 17.7 | 20.1 |
| 5 - Highest | 19.6 | 15.1 | 19.0 |

The survey's *margin of error* is the largest 95% confidence interval for any estimated proportion based on the total sample – the one around 50%. For example, the margin of error for the entire sample is ± 0.6 percentage points. This means that in 95 out every 100 samples drawn using the same methodology, estimated proportions based on the entire sample will be no more than 0.6 percentage points away from their true values in the population. It is important to remember that sampling fluctuations are only one possible source of error in a survey estimate. Other sources, such as respondent selection bias, questionnaire wording and reporting inaccuracy, may contribute additional error of greater or lesser magnitude. The margins of error for analyses based on respondents from particular religious traditions are shown below.

## Table 2: Total Sample and Subgroup Margins of Sampling Error

| | N | Approximate Margin of Error |
|---|---|---|
| Total Sample | 35,556 | ± 0.6 percentage points |
| | | |
| Members of Evangelical Protestant Churches | 9,472 | ± 1.5 percentage points |
| Members of Mainline Protestant Churches | 7,470 | ± 1.5 percentage points |
| Members of Historically Black Protestant Churches | 1,995 | ± 2.5 percentage points |
| Catholics | 8,054 | ± 1.5 percentage points |
| Mormons | 581 | ± 4.5 percentage points |
| Orthodox | 363 | ± 6.5 percentage points |
| Jehovah's Witnesses | 215 | ± 7.5 percentage points |
| Other Christians | 129 | ± 9.5 percentage points |
| Jews | 682 | ± 4.5 percentage points |
| Muslims* | 116 | ± 10.5 percentage points |
| Buddhists | 411 | ± 6.5 percentage points |
| Hindus | 257 | ± 7.5 percentage points |
| Unaffiliated | 5,048 | ± 2.0 percentage points |

* Note: In 2007, the Pew Research Center conducted a survey among a national probability sample of 1,050 Muslims in the U.S that had a margin of error of ± 5 percentage points. That survey contained many of the same questions included in the Landscape Survey. Whenever possible, the results reported here for Muslims draw on the 2007 Pew survey of Muslim Americans (and are noted as such). For questions that did not appear on both surveys, the results for Muslims are based on the 116 Muslims interviewed in the Landscape Survey.

Table 3 reports the disposition of all sampled telephone numbers dialed from the main RDD sample. The response rate estimates the fraction of all eligible respondents in the sample that were ultimately interviewed. PSRAI calculated it by taking the product of three component rates:[1]

- Contact rate – the proportion of working numbers where a request for interview was made – of 80 percent[2]
- Cooperation rate – the proportion of contacted numbers where a consent for interview was at least initially obtained, versus those refused – of 35 percent
- Completion rate – the proportion of initially cooperating and eligible interviews that were completed – of 86 percent

Thus the response rate for this survey was 24 percent.

[1] These disposition codes and reporting are consistent with the American Association for Public Opinion Research standards.

[2] This assumes that 75 percent of cases that result in a constant disposition of "No answer" or "Busy" are actually not working numbers.

## Table 3: RDD Sample Disposition

| Total | PDS | SRBI | PSRAI Sample Disposition |
|---|---|---|---|
| 429,726 | 214,816 | 214,910 | Total Numbers Dialed |
| | | | |
| 31,304 | 15,892 | 15,412 | Business / Government |
| 23,256 | 12,600 | 10,656 | Computer / Fax |
| 505 | 188 | 317 | Cell Phone |
| 191,310 | 95,312 | 95,998 | Other Not Working |
| 24,713 | 10,895 | 13,818 | Additional Projected Not Working |
| 158,638 | 79,929 | 78,709 | Working Numbers |
| **36.9%** | **37.2%** | **36.6%** | **Working Rate** |
| | | | |
| 7,371 | 3,080 | 4,291 | No Answer |
| 866 | 551 | 315 | Busy |
| 17,691 | 9,682 | 8,009 | Answering Machine |
| 5,899 | 2,528 | 3,371 | Other Non-Contacts |
| 126,811 | 64,088 | 62,723 | Contacted Numbers |
| **79.9%** | **80.2%** | **79.7%** | **Contact Rate** |
| | | | |
| 14,145 | 2,837 | 11,308 | Callbacks |
| 68,701 | 39,614 | 29,087 | Refusal 1 - Refusal before eligibility status known - HUDI |
| 43,965 | 21,637 | 22,328 | Cooperating Numbers |
| **34.7%** | **33.8%** | **35.6%** | **Cooperation Rate** |
| | | | |
| 767 | 479 | 288 | No Adult in HH |
| 2,413 | 978 | 1,435 | Language Barrier |
| 40,785 | 20,180 | 20,605 | Eligible Numbers |
| **92.8%** | **93.3%** | **92.3%** | **Eligibility Rate** |
| | | | |
| 5,776 | 2,671 | 3,105 | Refusal 2 - Refusal after case determined eligible |
| 35,009 | 17,509 | 17,500 | Completes |
| **85.8%** | **86.8%** | **84.9%** | **Completion Rate** |
| | | | |
| **23.8%** | **23.5%** | **24.1%** | **Response Rate** |