Appendix I: Methodology

SSRS METHODOLOGY

SSRS conducted a survey of Muslims and Jews for the Institute for Social Policy and Understanding from January 4 through January 19, 2017. The study investigated the opinions of Muslims and Jews regarding the 2016 presidential election, the most important issues facing the country, religious discrimination, and domestic violence.

For the survey, SSRS interviewed a total of 1,140 respondents; 800 Muslims and 340 Jews. This report details the methodological components of the study: sample design, questionnaire design, programming, field operations, data processing, and weighting. Most interviews (and all interviews with Jews) were completed by telephone. Three-hundred fifty interviews with Muslim respondents were completed via web panel.

Sample Design

The sampling procedures were designed to efficiently reach the two low-incidence target populations of interest. The procedures are listed below:

1) SSRS prescreened a sample of Muslim households from its weekly national omnibus survey of 1,000 randomly selected respondents over the last four years to recontact for this study.
2) SSRS prescreened a sample of Jewish households from its weekly national omnibus survey in the last two years and recontacted them for this study.
3) SSRS purchased a listed sample of individuals with landline telephones and cell phones from Experian, a sample provider, with specific characteristics flagged for each piece of sample. Experian provided a sample with flags for Muslim households.
4) Finally, to supplement the number of Muslim interviews that we were able to complete in the given time frame and with the amount of available prescreened sample, SSRS employed a web panel and completed the final 350 Muslim interviews via an online survey with sample from a nonprobability panel.

In total, 430 interviews were completed via cell phones, 360 via landline telephones, and 350 via web survey. Table 1 summarizes the total number of interviews by sample type, religious affiliation, and frame.

Table 1

	Muslims	Jews	Total
LL Prescreened Muslim	89	3	92
Cell Prescreened Muslim	243	2	245
LL Prescreened Jewish	3	177	180
Cell Prescreened Jewish	3	141	144
Experian LL	77	11	88
Experian Cell	35	6	41
Web Panel	350	0	350
TOTAL	**800**	**340**	**1,140**

Questionnaire Design

The questionnaire was developed by the Institute for Social Policy and Understanding in consultation with the SSRS project team. Before the field period, SSRS programmed the study into CfMC 8.6 Computer Assisted Telephone Interviewing (CATI) software. Extensive checking of the program was conducted to ensure that skip patterns and sample splits followed the design of the questionnaire. SSRS project directors checked randomly generated data as an additional confirmation of program accuracy.

Field Procedures

Pretesting

Two nights of pretesting for the 2017 American Muslim Poll took place on December 14 and December 15, 2016. A total of six interviews were collected, five with Muslim respondents and one with a Jewish respondent. Overall, the questionnaire flowed smoothly, and respondents provided thoughtful and reasonable responses to the questions. As a result of the pretest, SSRS recommended a few changes to the instrument that were approved and implemented before launch on January 4, 2017. The changes included the following:

1) We requested changing the introduction to provide the respondent with more information about who was sponsoring the survey (the first night of pretesting yielded only one complete survey and the interviewing staff reported high levels of concern from the respondents about the organization sponsoring the survey).
2) In Qs.14 and 15, we recommended bolding the word “race” because the questions sounded similar to a previous question.
3) In Q.23, two of the response options were deleted after it was discovered that it was difficult for the respondents to recall the entire list after it had been read.

Survey Administration

The field period for this study was January 4 through January 19, 2017. Seven hundred ninety interviews were completed using the CATI system. The remainder were completed via Web survey. Both CATI and

Web programs ensured that questions followed logical skip patterns and that complete dispositions of all call attempts were recorded.

CATI interviewers received written materials about the survey instrument and received formal training for this project. The written materials were provided before the beginning of the field period and included an annotated questionnaire that contained information about the goals of the study and detailed explanations of why questions were being asked, the meaning and pronunciation of key terms, potential obstacles to be overcome in getting good answers to questions, respondent problems that could be anticipated ahead of time, and strategies for addressing the potential problems. Because of the sensitive nature of some of the questions, interviewers were given specific instructions on how to cope with respondents who seemed agitated or distressed by the questions.

Interviewer training was conducted immediately before the survey was fielded. Call center supervisors and interviewers reviewed each question from the questionnaire. Interviewers were given instructions to help them maximize response rates and ensure accurate data collection.

To maximize survey responses, SSRS enacted the following procedures during the field period:

- An average of four follow-up attempts were made to contact nonresponsive telephone numbers (e.g., no answer, busy, answering machine).
- Each nonresponsive telephone number was contacted multiple times, varying the times of day and days of the week that call-backs were placed using a programmed differential call rule.
- Interviewers explained the purpose of the study and, when asked, stated as accurately as possible the expected length of the interview (approximately 15 minutes).
- Respondents were offered the option of scheduling a call-back at their convenience.
- Specially trained interviewers contacted respondents who had initially refused to participate in the survey, and attempted to convert them into completed interviews.

Screening Procedures

The target population of the survey was specified as people who identify their religion as either Muslim or Jewish. For landline respondents, if the person who answered the telephone was neither Muslim nor Jewish, we asked whether anyone in the household considered himself or herself to be a different religion than the respondent and, if so, what religion that would be. If another household member was Jewish or Muslim, we then asked to speak with that person. If no person in the household fit the religion criteria, we terminated the interview. Any cell phone respondent who was not a Muslim or Jew was immediately screened out of the survey because cell phone respondents are considered individual households for the purposes of the selection process.

Response Rate

The response rate for the ISPU survey was calculated using AAPOR's Response Rate 3 formula. This percentage divides the number of completed interviews in each sampling frame by the estimated number of eligible telephone numbers in the frame. The response rate for the prescreened landline sample is 33.8%. The response rate for the prescreened cell phone sample is 30.3%. The response rate on the SSRS Omnibus poll, in which a sample was prescreened, is typically 8 to 10%. Finally, the combined response rate for the entire listed sample was 8.2%. The Web panel response rate was 8.6%.

Data Processing and Deliverables

At the end of the field period SSRS delivered two banners of cross-tabulations, including combination tables for multiple related questions, and a fully labeled STATA dataset. The final deliverables also included a report of methods that were used.

Weighting Procedures

The data from this project are weighted to provide reflections of nationally representative estimates of the adult Jewish and/or Muslim population 18 years of age and older. The weighting process for those from the telephone takes into account the disproportionate probabilities of household and respondent selection due to the number of separate telephone landlines and cell phones answered by respondents and their households, as well as the probability associated with the random selection of an individual household member. Specific steps for those collected via telephone are provided below:

Probability of Selection (phone number): The probability of a telephone number being selected depends on the number of telephone numbers selected out of the total sample frame. Thus, for each landline number, this is calculated as total landline numbers dialed divided by total numbers in the landline frame, and conversely, for the cell phone numbers, this is calculated as total cell phone numbers divided by total numbers in the cell phone frame.

Probability of Contact: The probability that the sampling unit (households with landlines or respondents with cell phone) will be reached is a product of the number of telephones (by type) a respondent, or their household answer.

Probability of Respondent Selection: In households reached by landline, a single respondent is selected. Thus, the probability of selection within a household is inversely related to the number of adults in the household.

Total Probability of Selection: This is calculated as the probability of a telephone number being selected (by frame), multiplied by the number of devices of each type the respondent answers, and for landlines, divided by the number of adults in the household. The sample weights derived at this stage are calculated as the inverse of the probability of selection.

The final base-weight is fully calculated for those from the telephone portion of this study. Because we are unable to calculate probability of selection for those from the Web survey, those respondents were given a base-weight of 1.

Following application of the above base-weight, the full sample is poststratified and balanced separately by key demographics such as age, race, sex, region, education, marital status, number of adults in the household, voter registration, and political party identification within the Jewish and Muslim portions of this study. The sample also reflects the distribution of telephone usage of the Jewish and/or Muslim population, meaning the proportion of those who were contacted by cell phone only, landline only, and mixed users.

Poststratification Iterative Proportional Fitting ("raking"): With the base-weight applied, the sample will undergo the process of iterative proportional fitting (IPF), in which the sample will be balanced to match estimates of the Jewish and/or Muslim populations determined from 3 years of data collected through our SSRS Omnibus as well as PEW Research Center estimates. This process of weighting will repeat until the root mean square error for the differences between the sample and the population parameters is 0 or near zero.

The population parameters used for poststratification are as follows: age (18–29; 30–49; 50–64; 65+), gender, Census region (Northeast, North-Central, South, West), education (less than high school, high school graduate, some college, four-year college or more); race/ethnicity (white non-Hispanic or Other non-Hispanic, Black non-Hispanic, Hispanic); marital status (single, married, other), registered voter (Yes/No), political affiliation (Republican, Democrat, Independent/Other), number of adults (1/2/3 or more), and telephone usage (cell phone only, landline only, both).

To handle missing data among some of the demographic variables, we employed a technique called hot decking. Hot deck imputation randomly replaces the missing values of a respondent with another similar respondent without missing data. These are further determined by variables predictive of nonresponses that are present in the entire file. We used an SPSS macro detailed in "Goodbye, Listwise Deletion: Presenting Hot Deck Imputation as an Easy and Effective Tool for Handing Missing Data" (Myers, 2011).

Weight truncation ("trimming"): the weights will undergo truncation (or trimming) so that they do not exceed 4.1 or fall below under 0.25.

The overall design effect of the trimmed weights for the Jewish portion of this study is 1.52, and the design effect of the trimmed weights for the Muslim portion is 2.17.

Margin of Sampling Error

Weighting procedures increase the variance in the data. Complex survey designs and post data-collection statistical adjustments increase variance estimates and, as a result, the error terms applied in statistical testing. The margins of error for the two groups of interest appear in Table 2.

Table 2: Design Effect and Margin of Sampling Error

	Number of Interviews	Margin of Error with Design Effect	Design Effect
Muslims	800	+/-5.1%	2.17
Jews	340	+/-6.5%	1.52

TRITON POLLING METHODOLOGY

ISPU Survey of U.S. General Public

The Institute for Social Policy and Understanding commissioned Triton to conduct a poll of the general American public between January 4 and January 23, 2017. From this overall sample, researchers examined the views of self-identified Protestants, Catholics, and those who are nonaffiliated with a faith. Triton conducted a total of 1,249 interviews with respondents via live telephone calls to land lines and cell phones. The margin of error for this data set is a 95% confidence level ±2.8%. Weights were applied to the data on the basis of gender, age, region, and race.

Triton Polling live interview telephone surveys are conducted by interviewers in an in-house, state-of-the-art call center located near Bend, Oregon. Triton's automated surveys are carried out by its proprietary, automated telephone survey system. All surveys incorporate standard statistical methods to select a representative sample of the target population.

Lists

Lists used to conduct Triton surveys are obtained from various sources, often the client, list vendors, government entities, and other sources. The type of list will vary by the nature of the survey, most often lists are of registered voters, random digit sampling, or consumer lists. Three attempts are made per contact to maximize participation from each contact in the sample.

Cell Phones

Triton uses numerous list vendors who are apt to supply high-quality cell phone lists. This is increasingly important because more than one-third of the nation now uses cell phones exclusively, and young people are much more likely than older people to use cell phones only.

Interviewing

Triton live interview surveys are conducted by Triton employees in its call center near Bend, Oregon. Triton's interviewers are among the most experienced in the industry in all aspects of polling and survey research. Typically, calls are placed from 5 pm to 9 pm local time during the week. Saturday calls are made from 11 am to 6 pm local time, and Sunday calls are made from 1 pm to 8 pm local time. Triton's call center uses a custom developed Computer Assisted Telephone Interviewing system built upon Microsoft SQL Server.

Triton automated telephone surveys require that questions be digitally recorded and then loaded into a proprietary automated calling program. Respondents use the keypad on the phone to answer questions.

Data Integrity, Weighting, and Analysis

Data integrity and proper application of statistical methods are essential to gaining a true understanding of the survey audience. Specific methods exist for cleaning, randomizing, and matching that must be adhered to ensure statistically significant results. Triton employs enterprise-grade software tools, including Microsoft SQL Enterprise Server 2012 and IBM SPSS, along with rigorous data handling procedures.

Upon completion of calling, the raw survey data are weighted using industry standard statistical procedures to ensure the sample reflects the overall population, typically in terms of age, gender, ethnicity, political party affiliation, geography, etc. This processing step is essential because different segments of the population answer the telephone in different ways. For example, women answer the telephone more often than men, older citizens are home more and participate more often than younger people, and rural residents typically answer the telephone more frequently than urban residents. Without a proper weighting model, in most cases survey samples are heavily skewed one direction or another and are not representative of the target population.

Although reporting can vary depending on customer requirements and budget, standard service usually includes full statistical analysis in comprehensive cross-tabs and graphical summary report. Turnaround time is generally five days or less. Multiple reports with different weightings or crosstab arrangements are available after the survey for little or no additional cost.