

**Methodological Design and Procedures for the
National Study of Youth and Religion (NSYR)
Longitudinal Telephone Survey (Waves 1, 2, & 3)**
(08-19-08)

The National Study of Youth and Religion (NSYR) is a longitudinal mixed method research project designed to examine the religious lives of American youth from adolescence into young adulthood. Specifically the NSYR, initiated in the fall of 2001 by researchers in the Department of Sociology at the University of North Carolina, is designed to:

- research the shape and influence of religion and spirituality in the lives of American youth;
- identify effective practices in the religious, moral, and social formation of the lives of youth;
- describe the extent and perceived effectiveness of the programs and opportunities that religious communities are offering to their youth;
- and foster an informed national discussion about the influence of religion in youth's lives to encourage sustained reflection about and rethinking of cultural and institutional practices with regard to youth and religion.

To address these research aims, the NSYR has conducted three waves of a telephone surveys with a nationally representative sample of American youth and fielded three waves of in-person semi-structured interviews with a sub-sample of the original survey respondents. This report describes the methods and procedures involved in our survey data collections. For more information on the methods and procedures for the NSYR in-person, semi-structured interviews, see <<http://www.youthandreligion.org/research/docs/PersonalIVmethods.pdf>> for Wave 1 and <http://www.youthandreligion.org/research/docs/w2_iv_guide.pdf> for Wave 2. The interview guide for Wave 3 is forthcoming. Survey data collection for the study began with the first wave (Wave 1) of the project in July 2002. This first phase of data collection was fielded by FGI Research and was completed in April 2003. In 2004, with NSYR funding granted for a second wave, the study became longitudinal. The survey for Wave 2 of the study was fielded by the Howard W. Odum Institute for Research in Social Science, from June, 2005 through November, 2005. Wave 3 was also fielded by the Odum Institute from September 2007 through April 2008.

National Study of Youth and Religion's Telephone Survey—Wave 1

The first wave of NSYR survey data come from a nationally representative telephone survey conducted with 3,290 English and Spanish speaking teenagers between the ages of 13 and 17, and one of their co-resident parents. This sample of survey respondents was designed to be representative of U.S. households in which at least one youth between the ages of 13 and 17 live. For this wave, data collection ran from July 2002 to April 2003. Also surveyed were 80 oversampled Jewish households, which are not nationally representative (described below), bringing the total number of completed NSYR parent-child dyad cases to 3,370. Participants for the study were obtained using a random-digit-dial (RDD) method, employing a sample of randomly generated telephone numbers representative of all household telephones in the 50 United States. The national survey sample was arranged in replicates based on the proportion of working household telephone exchanges nationwide. This random-digit-dial method ensures

equal representation of listed, unlisted, and not-yet-listed household telephone numbers. Eligible households included at least one teenager between the ages of 13-17 living in the household for at least six months of the year.¹ In order to randomize responses within households, and so to better represent age and gender, interviewers asked to conduct the survey with the teenager in the household who had the most recent birthday. Parent interviews were conducted with either a mother or father, as they were available; although the survey asked to speak with mothers first, believing that they may be better qualified to answer questions about their families and teenagers. Step-parents, resident grandparents, resident partners of parents, and other resident parent-like figures were also eligible to complete the parent portion of the survey.

An RDD telephone survey sampling method was chosen for this study because of the advantages it offers compared to other survey sampling methods. Unlike school-based sampling, for example, our RDD telephone method was able to survey not only school-attending youth, but also school dropouts, home-schooled youth, and students frequently absent from school. Using RDD, we were also able to ask numerous religion questions which many school principals and school boards often disallow on surveys administered in school. Explicit informed consent from parents also proved more feasible using RDD than school-based sampling. And the verbal reading of survey questions by trained interviewers facilitated question and answer-category clarifications that increased the validity of answers, compared to paper-and-pencil questionnaires administered *en masse* in school classrooms. In addition, given the relatively low incidence rate (14 percent) of American households with teenagers ages 13-17 years old, the NSYR's RDD telephone survey method was much more cost-effective than an in-home survey, which would have been cost-prohibitive. The NSYR's RDD telephone method also eliminated potential "design effect" problems associated with sampling from a limited number of geographic or school clusters. Furthermore, the greater anonymity of an RDD survey interviewer on the telephone, compared to an in-person interviewer in the home, may have also increased the validity of teenagers' answers to sensitive questions and reduced possible biasing effects of in-person interviewers' sex, race, and age.² No good sampling frames exist with which the NSYR might have conducted a mail survey, which typically garner extremely low cooperation and response rates in any case. Finally, superior Internet-based methods of sampling and surveying were not sufficiently developed and tested by the time of this survey's fielding to have been useful for the NSYR.³

¹ Another survey conducted using similar methods is the 1998-99 Survey of Parents and Youth (SPY, later renamed the Survey of Adults and Youth [SAY]), which was designed by Princeton University's Center for Research on Child Wellbeing in conjunction with the National Evaluation Team for the Urban Health Initiative at the Center for Health and Public Service at New York University's Robert F. Wagner Graduate School, and was funded by the Robert Wood Johnson Foundation. SPY was designed to monitor trends in youths' access to parental and community resources and included interviews with parents and youth. SPY was administered as an RDD telephone survey to a nationally representative sample of youth ages 10-18; and to over-samples of youth in six selected cities (Philadelphia, Baltimore, Detroit, Oakland, Richmond, and Chicago). Parents were screened and then interviewed, after which point the interviewers asked permission to interview the youth. SPY was conducted in English, Spanish, or Chinese, and lasted an average of 30 minutes for youth, and 20 minutes for parents.

² For some teenagers, to be sure, the anonymity of a telephone survey may have increased their level of discomfort with sensitive questions, we cannot know with certainty.

³ See Melinda Lundquist Denton and Christian Smith. 2001. *Methodological Issues and Challenges in the Study of American Youth and Religion*. Project Report. Chapel Hill, NC: National Study of Youth and Religion. One disadvantage of an RDD-sampled survey is it does not include the approximately four percent of U.S. households without telephones at any given time. This concern, however, is somewhat alleviated by the fact that the majority of households without telephone service are not permanently so, but typically fluctuate in and out of having telephone

Wave 1 Pre-Survey Testing and Training

Prior to conducting this survey, the researchers conducted 35 in-depth pilot interviews with teenagers to help inform the construction of the survey instrument. The researchers also conducted additional survey-focused interviews and focus groups with a variety of teenagers to improve question wording and comprehension. Prior to the survey, researchers also conducted modest (N=175) pretests of the survey instrument using both nationally representative and convenience samples. Based on pretest results, the NSYR researchers revised questions and answer categories to enhance survey clarity and validity. The final Wave 1 survey instrument is available by Internet download at the project website: <http://www.youthandreligion.org/publications/docs/survey.pdf>. The survey interview covered many topics in addition to religiosity, including educational history and aspirations, changes in household composition, dating history, family and friendship relationships, exposure to media, morality and ethics, extracurricular activities, and attitudes and behavior.

Wave 1 of the NSYR survey was conducted with members of both English-and-Spanish-speaking households. The English version of the survey was translated into Spanish by a professional translation service. That Spanish translation was then closely reviewed, evaluated, and revised by four separate native Spanish-speaking translation consultants and six Spanish-speaking survey interviewers to ensure the best translation for Spanish-speaking respondents. The final Spanish language version was then programmed into the CATI system for calls to Spanish speaking households. Surveys with Spanish-speaking households were conducted by native Spanish-speaking interviewers who are fluent in both English and Spanish and who had extensive experience conducting the survey in English before conducting the Spanish-speaking household surveys. The parent and teen respondents from households could each choose the language with which to complete the survey, so that a parent might use the Spanish version, for example, while their teen used the English version. Spanish-speaking household numbers are included in the calculations of the national sample cooperation, completion, and response rates below.⁴

All survey interviewers received two days of project-specific training in the significance and purpose of the survey, the meaning of all survey questions and their answer categories, the proper pronunciation of religious terms, and the ethical treatment of human subjects. They also completed an Internet-based “Human Participant Protections Education for Research Teams” course offered by the National Institutes of Health, U.S. Department of Health and Human Services (<http://cme.nci.nih.gov/>). Prior to conducting all surveys, interviewers obtained respondents’ verbal informed consent, and provided respondents information about the confidentiality of their answers and right to refuse to answer questions. Household eligibility was determined using an initial screening question about resident teenagers. Incentives of \$20 to parent respondents and \$20 to teenage respondents were offered to complete the survey, for a total of \$40 to completing households.⁵ Survey respondents were also able to complete the

service over time, thus increasing their chances of inclusion in this survey insofar as it was conducted over seven months; and by the likelihood that households with teenagers in residence are under-represented among households lacking telephone service. Neither does the NSYR represent those households with teenagers ages 13 to 17 in residence whose telephone service consists only of cell phones, of which we would expect there to be very few.

⁴ See Leo Morales. 2001. “Cross-Cultural Adaptation of Survey Instruments.” In *Assessing Patient Experiences with Assessing Healthcare in Multi-Cultural Settings*. Santa Monica, CA: Rand Corporation; R. W. Brislin. 1986. *The Wording and Translation of Research Instruments*. In W. J. Lonner and J. W. Berry (Editors). *Field Methods in Cross-Cultural Research*. Beverly Hills, CA: Sage Publications.

⁵ Such incentives increase response rates without appearing to distort the quality of responses—see Eleanor Singer.

survey at their convenience by calling a toll-free number that linked to their sample record. Throughout the fielding of the survey, interviewers were monitored using remote technology by project staff to ensure data quality, and the interviewers, monitors, and researchers were routinely debriefed about survey performance. Upon completing the survey, all respondents were given contact information for the researchers, the research firm, and the university Institutional Review Board to use to verify the survey's authenticity or ask any questions about the survey or their rights as respondents. This information was also included in written form in thank-you letters accompanying the mailed incentives.

To help protect the privacy of survey respondents, the NSYR obtained a Federal Certificate of Confidentiality from the National Institutes of Health. With this Certificate, researchers with the NSYR could not be forced to disclose information that might identify respondents, even by a court subpoena, in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings. The Certificate was thus useful for resisting any potential demands for information that would identify respondents (with the following exceptions: a Certificate of Confidentiality does not prevent respondents or members of their families from voluntarily releasing information about themselves or their involvement in the NSYR; if and when an insurer, employer, or other person were to obtain respondent's own voluntary written consent to receive research information, then the NSYR could not use the Certificate to withhold that information; neither does the Certificate of Confidentiality prevent the researchers from disclosing without respondents' consent information that would identify them as a participant in the research project in stated cases of child abuse or intent to hurt self or others; if teen respondents disclosed evidence of neglect or abuse, the NSYR had an obligation to inform the appropriate authorities).

Wave 1 Survey Data Collection

The NSYR Wave 1 survey was conducted over nine months, between the end of July, 2002 and the beginning of April 2003. All randomly generated telephone numbers were dialed a minimum of 20 times over a minimum of five months per number, spread out over varying hours during week days, week nights, and weekends. The calling design included at least two telephone-based attempts to convert refusals. Households refusing to cooperate with the survey yet established by initial screening to have children ages 13 to 17 in residence and with telephone numbers able to be matched to mailing addresses were also sent by mail information about the survey, contact information for researchers, and a request from the principal investigator to cooperate and complete the survey; those records were then called back again for possible refusal conversions.⁶ Most cell phone numbers were screened out of the initial sample through the identification of unique cell phone exchange numbers. All other non-household numbers (business, government, nonprofit, payphones, remaining cell phones, etc.) were screened out of the sample through direct calling dispositions and ascription of contact and non-contact telephone numbers for non-completes based on proportions of household numbers among

2002. "The Use of Incentives to Reduce Nonresponse in Household Surveys." Chapter 11 in Robert Groves, Don Dillman, John Eltinge, and Roderick Little (Editors). *Survey Nonresponse*. New York: John Wiley & Sons—and with the case of our (mean) 82-minute-long survey such incentives seemed particularly important.

⁶ Such extensive and persistent contact efforts are expected significantly to reduce nonresponse bias. See Peter Lynn, Paul Clarke, Jean Martin, and Patrick Sturgis. 2002. "The Effects of Extended Interviewer Efforts on Nonresponse Bias." Chapter 9 in Robert Groves, Don Dillman, John Eltinge, and Roderick Little (Editors). *Survey Nonresponse*. New York: John Wiley & Sons.

working telephone numbers.⁷ Of the sample producing only voice-mail or answering machine, 34 percent were dialed more than 99 separate times; 23 percent of those voice-mail numbers were dialed between 50-99 times, and 43 percent of those voice-mail numbers were dialed between 25-49 times.

The parent portion of the NSYR survey took a mean of 30 minutes to complete and the teen portion of the instrument took 52 minutes to complete, for a mean parent-teen combined survey length of 82 minutes. A total of 3,370 respondent households completed our full survey, 3,290 of which were RDD national sample respondents and 80 of which were Jewish oversample respondents. The overall cooperation rate of our national sample was 81 percent. Ninety-six (96) percent of parent complete households also achieved teen completes. Using the AAPOR RR4 calculator⁸, the final NSYR national sample survey response rate was 57 percent.⁹ For descriptive purposes, a weight was created (“nweight2”) to adjust for number of teenagers in household, number of household phone numbers, census region of residence, and household income.¹⁰

Wave 1 Survey Data Analyses

Diagnostic analyses demonstrate that Wave 1 of the NSYR provides a nationally representative and unbiased sample of U.S. households with resident teenagers ages 13-17. Comparative tests were run for the national representation of or potential sampling biases in the

⁷ See Federal Communications Commission. 2000. *Statistics of Communications Common Carriers*. Washington, D.C.: Federal Communications Commission; Brick, J. Michael, Jill Montaquila, and Fritz Scheuren. 2002. “Estimating Residency Rates for Undetermined Telephone Numbers.” *Public Opinion Quarterly*. 66: 18-39. Survey non-cooperators are also known to have a relatively higher incidence of single-person and elderly households and of households without children in residence—see Robert Groves and Mick Couper. 1998. *Nonresponse in Household Interview Surveys*. New York: John Wiley & Sons. Pp. 119-154.

⁸ AAPOR RR4 is calculated thus: $(I+P)/(I+P)+(R+NC+O)+e(UH+UO)$, where I=completed interview, P=partial interview, R=refusal and break-offs, NC=non-contacts, O=other contacts, e=estimated proportion of cases of unknown eligibility that are eligible, UH=unknown if household occupied, and UO=other unknown; see www.aapor.org under “Survey Methods: Response Rate Calculator.” A ninety percent household rate is ascribed for voice mail, unknown qualification callback, and unknown qualification refusal sample; among households, a four percent teen qualified incidence rate is ascribed for voice mail, unknown qualification callback, and unknown qualification refusal sample. Calculated with no adjustments for teen qualification incidence rates (e), thus more conservatively, the response rate is 48 percent.

⁹ Comparative studies show an annual negative trend in survey response rates across Western nations, due to increased difficulties with respondent contact and cooperation—see Edith de Leeuw and Wim de Heer. 2002. “Trends in Household Survey Nonresponse: A Longitudinal and International Comparison.” Chapter 3 in Robert Groves, Don Dillman, John Eltinge, and Roderick Little (Editors). *Survey Nonresponse*. New York: John Wiley & Sons. While a higher response rate is always desirable, the NSYR’s final response rate represents among the highest possible given the methodology employed and prevailing social conditions and available technologies. Findings of extensive comparative analyses of the data (described in the next paragraph) document the NSYR’s lack of sampling bias and national representation of U.S. teenagers ages 13-17, significantly mitigating response rate concerns.

¹⁰ See Jelke Bethlehem. 2002. “Weighting Nonresponse Adjustments Based on Auxiliary Information.” Chapter 18 in Robert Groves, Don Dillman, John Eltinge, and Roderick Little (Editors). *Survey Nonresponse*. New York: John Wiley & Sons; See Judith Lessler and William Kalsbeek. 1992. *Nonsampling Error in Surveys*. New York: John Wiley & Sons. Pp. 183-193; C. H. Fuller. 1974. “Weighting to Adjust for Survey Nonresponse.” *Public Opinion Quarterly*. 38: 239-246. The six percent of cases with missing data on income—a much lower number than typical of survey income data—were imputed using these variables in the following order of assigned importance: resident father’s and mother’s education, parental marital status, family home ownership status, and family race.

NSYR sample employing known population characteristics on key variables from 2002 U.S. Census data. Table 1 shows that the NSYR provides a nearly perfectly representative sample of 13-17 year-olds living in U.S. households by the comparable variables of gender, age, race/ethnicity, and household-type. The region and household income variables also demonstrate a very close representation by NSYR data of the known national population, which is nearly entirely corrected for when weights are applied.¹¹

Comparisons are also made in Table 2 between weighted NSYR data and 1999 National Household Education Survey (NHES) data, 1996 Monitoring the Future survey data, 1994 National Longitudinal Survey of Adolescent Health (Add Health) data, and 1999 Survey of Adults and Youth data on key comparable variables. Table 2 reveals only minor differences between the NSYR and other samples on these variables. The percentage in the NSYR sample who never drink alcohol, never used marijuana, and who smoke cigarettes regularly is similar to the percentages found in the Monitoring the Future and Add Health surveys. Based on these inter-dataset analyses, we can say with some confidence that findings from the NSYR appear to offer a reasonably unbiased representation of the sampled population and so—particularly when region and income are weighted—might be assumed to accurately describe the population of U.S. teenagers ages 13-17 and their parents living in residential households.

These between-dataset comparisons were supplemented with analyses within the NSYR dataset comparing key demographic and behavioral traits of respondents who initially cooperated (90 percent of the sample) with respondents who were initial refusals but subsequently cooperated after successful attempts at refusal conversion (10 percent of the final sample).¹² Results, displayed in Table 3, reveal that the refusal-conversion respondents in the sample are disproportionately somewhat more Midwestern (and less Southern), involve more male parent and teen respondents, involve more 15 and 16 year old teen respondents (and less 13 and 14 year old respondents), are white (and not black), represent more married parent households, represent higher income families, and represent more regular religious service attending parents. Most of these differences are quite modest, however, typically representing less than ten percentage point spreads. Nevertheless, most of these differences remain statistically significant when considered together in logistic regression analyses predicting refusal-conversion versus initial-cooperator survey respondents (results not shown). These modest differences suggest that, when conceptualizing a survey respondent continuum from easy cooperators to serious non-cooperators—and differences between potential respondents who lie on that continuum—successful researcher efforts to convert initial refusals for inclusion in the final dataset increase the full representation of different types of respondents in the final sample, reducing possible sampling biases that would be found in surveys with less rigorous refusal-conversion methods. Because the NSYR successfully employed multiple, extensive, sustained measures to convert initial refusals into cooperators—who represent fully 10 percent of the final sample—it significantly reduced possible biases affecting measured variables potentially associated with respondents' propensity to cooperate with surveys, rendering its sample data more accurately

¹¹ The South was over-represented and the Northeast under-represented by 5 and 2 percentage points, respectively; incomes greater than \$100,000 were under-represented by 6 percent.

¹² Here we follow a similar procedure employed with success by the Survey of American Attitudes and Friendships; see Michael O. Emerson. 2000. "Report on the Lilly Survey of American Attitudes and Friendships." Department of Sociology. Rice University. Houston, TX; also see Michael O. Emerson, George Yancey, and Karen J. Chai. 2001. "Does Race Matter in Residential Segregation?: Exploring the Preferences of White Americans." *American Sociological Review*. 66 (6): 922-935.

representative. This assurance, together with the between-dataset analyses presented above, corroborates this methodological report's general conclusion that the NSYR provides a satisfactorily unbiased, nationally-representative sample of the target population of U.S. teenagers ages 13-17 living in households.

Jewish Oversample

In addition to a main national sample of 3,290 cases, the NSYR also conducted surveys with a modest oversample of Jewish households—80 Jewish oversample completes in all—in order to help obtain a large enough number of cases with which to conduct meaningful statistical analyses of Jewish youth. A national RDD sampling method screening out all but eligible Jewish households with teenagers would, theoretically, have been ideal, insofar as it would have provided a true probability sample yielding a genuinely nationally representative oversample of Jewish teenagers in proportion to their actual geographical and social locations in the U.S. However, since Jewish households with resident teenagers ages 13-17 represent only about 1 in every 400 U.S. households (approximately 0.25 percent of all households), this method would have been unreasonably time consuming and cost-prohibitive. As a more efficient alternative, the NSYR employed another standard survey method for obtaining a Jewish oversample, by calling a set of telephone numbers listed with one of 200 “Jewish” surnames agreed upon by the National Jewish Technical Advisory Committee and selected from White pages listings throughout the U.S. in on a population-proportional basis. These numbers were obtained from the survey sampling firm Genysis, Inc. and screened in calling for eligible households with resident 13-17 year old teenagers. Compared to yet a third, alternative oversampling method—namely, the high-density Jewish sampling frame method of RDD calling of replicates of telephone numbers within geographic areas containing defined minimum Jewish residency rates, which, by definition, samples areas with higher concentrations of Jewish inhabitants, schools, synagogues, and other Jewish institutions and produces all of the associated sampling biases—the listed Jewish surname method employed by the NSYR has the distinct advantage of sampling Jewish youth from all social and geographical locations in the country. Nevertheless, the listed surnames sample method employed is by no means a nationally representative probability sample, because it systematically excludes both Jewish households with unlisted telephone numbers and Jewish households with surnames not considered by the survey sampling firm to be “Jewish sounding.”

In order to estimate any possible sampling bias involved in this non-probability oversampling method, analyses compared key characteristics of the Jewish cases drawn from the nationally representative sample to those drawn from the Jewish oversample on a variety of key demographic and religious measures. Cross-tabular comparisons of the unweighted Jewish national sample and oversample cases reveal no statistically significant differences with regard to the following variables: teen gender, age, race, religious service attendance, religious youth group participation, belief in God, importance of religious faith, type of school attending, household income, family debt or savings, family home ownership, parental marital status, parental religious service attendance, parental importance of faith, and father's education.¹³ The two differently sampled groups, then, are remarkably similar along important dimensions of analysis. Therefore, it is unnecessary to construct or use special weights to compensate for any religious or demographic differences generated by the non-probability oversampling method used here.

¹³ On only two measures tested were the two groups different: (1) the parent respondent for the oversample cases was six percent more likely to be a mother than a father; and (2) the educational attainment of the mothers of the oversample respondents was greater (only five percent of them had not attended any college, compared to 14 percent of the national Jewish sample mothers).

In handling the oversample in data analysis, researchers using simple descriptive statistics to make national claims must exclude the Jewish oversample cases, so that they do not distort proper proportions. Researchers using simple descriptive statistics to make claims about characteristics (but not the size) of the Jewish population may include the Jewish oversample cases in analyses but should use the simple probability of selection weight (rweight1) available in the dataset to correct for number of teenagers in the household.¹⁴ Researchers using multivariate statistics with religious category variables (including “Jewish”) do not need to use the national weight (rweight2) if they control for region and family income, which rweight2 adjusts for, but they should use the simple selection probability weight (rweight1) and should include in their models the Jewish oversample dummy variable (oversamp) in order to statistically remove any possible unidentified effect of sampling bias inherent in those cases net of the other independent variables the models control for; or they may simply exclude the Jewish oversample cases from analysis and work with a significantly lower number of Jewish cases.

Wave 1 Survey Overview

Wave 1 of the National Study of Youth and Religion’s telephone survey may be taken as providing a nationally representative RDD telephone survey of 3,290 English-and-Spanish-speaking teenagers between the ages of 13 and 17 and their parents living in households in all 50 U.S. states in the years 2002 and 2003. The survey also includes 80 oversampled Jewish households (not nationally representative) bringing the total number of completed NSYR cases to 3,370. Multiple diagnostic analyses demonstrate that the NSYR appears to provide a reasonably unbiased representative sample of its target population and so—when weights are applied—can be taken to accurately describe the population of U.S. teenagers ages 13-17 and their parents living in residential households.

National Study of Youth and Religion’s Telephone Survey—Wave 2

The second wave of the NSYR longitudinal telephone survey was designed to be a re-interview of all Wave 1 youth survey respondents. Parents of the youth respondents were not re-interviewed. At the time of this second survey the respondents were between the ages of 16-21. Like the Wave 1 survey, the Wave 2 survey was conducted by telephone using a Computer Assisted Telephone Interviewing (CATI) system. The survey was conducted from June 9, 2005 to November 24, 2005.

For this second wave of the survey, we only conducted interviews in English. Four youth respondents did not participate in the Wave 2 interview due to not being able to understand or speak English. We did translate our pre-survey mailing to Spanish for respondents we knew to have Spanish-speaking parents or guardians. Additionally, a call center staff member was available to conduct the verbal parental consent in Spanish.

The Wave 2 telephone survey questionnaire covers many of the same topics as the Wave 1 questionnaire. Many of the questions are identical so that change can be measured precisely. However, the Wave 2 questionnaire was re-designed to take into account changes in the lives of the respondents as they began to enter young adulthood. The Wave 2 survey includes new

¹⁴ “Rweight1” adjusts for number of teenagers in household and number of household phone numbers for the national sample, but only for number of teenagers in household for the Jewish oversample, since oversampling relied not on a random digit dialing design or a sample drawn from some list that would include all phones numbers for a household, but on specific lists of known telephone numbers.

questions pertaining to behaviors occurring during the transition to adulthood, such as non-marital cohabitation, educational and career aspirations, pregnancy and marriage.

Wave 2 Pre-Survey Testing and Training

To test the Wave 2 survey instrument, and to give interviewers the opportunity to practice interviewing, a pretest was conducted with 78 respondents, 7 of whom were also pretest respondents in Wave 1. The remaining 71 were recruited by calling from a list of telephone numbers provided by a national sampling group, Survey Sampling International. A targeted-age sample was obtained, which allowed us to limit the calling to numbers that included a household member in a particular age bracket (16-21 years). A call script was developed, which included text for obtaining verbal consent from the potential respondent and a parent or guardian if needed. This consent and call script was reviewed and approved by the University's Internal Review Board. Pretest callers were recruited from a group of experienced telephone interviewers. Each interviewer spent several hours receiving training from the Project Manager before being given the list of numbers to begin calling. Once a pretest respondent (and his/her parent or guardian, if applicable) had consented her/his name and the phone number s/he wished to be called were confirmed. Each respondent was given the option of choosing the general day and time s/he would prefer to be contacted to conduct the 45 minute survey. If any parent or teen refused participation they were given further explanation of the study and its importance, and if they continued to refuse they were not re-contacted. The pretest respondents' full names, phone numbers, preferred calling days and times, and any relevant notes were given to the survey programmer to be preloaded into the survey instrument. After approximately one month of calling, project staff were able to successfully recruit and consent 109 pretest respondents. Of those, 71 completed the survey. Each pretest respondent was paid a modest incentive for survey completion. Based on the pretest results and interviewer feedback, final revisions were made to the survey instrument. The final Wave 2 survey questionnaire is available for downloading on the Internet at:

http://www.youthandreligion.org/research/docs/final_w2_survey_gen_public.pdf.

Survey interviewers were hired by the Howard W. Odum Institute for Research in Social Science at the University of North Carolina at Chapel Hill, the survey organization contracted by NSYR to field the survey in Wave 2. Survey interviewers participated in four days of project-specific and general interviewing skills training. Training topics included obtaining cooperation, understanding bias, using probing methods, using the CATI system, and resolving respondent questions. A variety of methods were used in training, including written exercises, role playing, and practice with the CATI system. For part of their training, project interviewers were required to take part in a "Human Participant Protections Education" session and received a certificate verifying their understanding of the ethical issues involved with human subjects research. Throughout the entire survey data collection period, interviewers were monitored remotely by Odum supervisors and by project staff for quality control. The interviewers were also routinely evaluated on their performance.

Wave 2 Survey Data Collection

Wave 2 of the NSYR telephone survey was fielded from June 9, 2005 through November 24, 2005. Telephone calls to respondents were spread out over varying days, and times, including weekends. Every effort was made to contact and survey all original NSYR respondents, including those out of the country, in the military, or on religious missions. In addition,

respondents were able to initiate the completion of their survey interview at their convenience by calling a toll-free number provided in the mailings and in occasional voice mail messages left by interviewers.

The work proceeded quickly for the first 3 months of data collection. Approximately 2,179 surveys were completed in June, July and August. The table below offers a breakdown of the number of surveys completed each month.

Number of Interviews Completed by Month		
Month	Number of Interviews	Sum Total
Jun	675	675
Jul	970	1645
Aug	534	2179
Sept	294	2473
Oct	106	2579
4-Nov	32	2611*

*This number differs from the final number of completed cases because it includes the 30 cases that were later determined to be ineligible due to outlier birth dates.

A review of the progress in mid-July identified a need for additional interviewers. A second interviewer training session was held in order to maintain productivity.

Since survey interviewing began in the summer months most respondents were not in school at the time they were interviewed. However, in the later months of data collection many respondents were beginning the 2005-2006 school year. With this in mind, the survey instrument was designed so that questions regarding education were asked in regard to specific time-periods, “In Spring 2005...”, for example. In addition, interviewers were trained to remind respondents that they should be responding to the specific time-frame asked about in the wording of the questions.

On average, 14 phone calls were made to each respondent (including those that completed the survey). Of the cases where no contact with a human was ever made 65 calls were made to the household on average. Of the cases where contact was established with the household but the survey was not completed, on average there were 46 attempts to reach the respondent by telephone. A total of 2,604 respondents participated in the survey for a final NSYR Wave 2 overall non-weighted response rate of 78.6 percent.

Prior to conducting all Wave 2 survey interviews, each respondent’s verbal consent was obtained. In addition, for all respondents under age 18, parental consent was obtained through the return of a signed form before the start of the survey or verbally, on the phone, with a survey interviewer. The respondent’s identity was confirmed using name and date of birth. If a respondent was unable to correctly answer one or all of the screening questions a call-center supervisor was notified. The supervisor then attempted to identify whether the answer discrepancy was due to a keying error made in the Wave 1 survey (if the birth date was off by one day, for example) or whether it was, in fact, questionable that the interviewer was speaking with the correct respondent. If the supervisor had any question about the identity of the person on the phone the interviewer broke off the survey and notified the respondent that s/he would have to call her/him back at a later time. The supervisor then recorded the details of the situation and informed project researchers. The NSYR researchers made the final determination of whether the survey interview should be completed with the respondent.

NSYR Wave 2 Respondent Tracing

Successful tracking of the original Wave 1 survey respondents is critical to the longitudinal design of this study. Maintaining contact or re-locating teenager and young adult respondents can be challenging. Many of the study participants are in or entering transitional life phases that include frequent changes in contact information. They are moving away from home to enter the workforce or attend college. Most have not yet established the paper trail that would assist project researchers in re-locating them if they move. With this in mind, the NSYR project staff was aggressive in attempting to maintain contact with as many survey respondents as possible in the three years between survey data collections. A total of 73 percent of the original teen study sample were traced and located to a current phone number and address by the start of the Wave 2 data collection period. In preparation for Wave 2 of the project, the following three main methods of tracking were employed to maintain contact with the original teen respondents:

- 1.) Mailings were sent out regularly to maintain correspondence with those who had provided us with contact information upon completion of the Wave 1 survey, including birthday cards, postcards and letters soliciting address and phone number updates. In the mailings, respondents were made aware of a project website that they could visit to update their contact information electronically. There was also the option to email study personnel or call a toll-free telephone number with updates.
- 2.) The second phase of respondent tracking was focused on attempting to locate the 27 percent of respondents for whom phone numbers were no longer correct. Some of the resources used to trace these respondents were public records, internet searches, directory assistance, and LexisNexis.
- 3.) For the last phase of tracking the Research Triangle Institute (RTI) was contracted to locate the most difficult to reach respondents (19 percent of the sample). RTI was able to locate approximately half of these difficult-to-reach respondents.

In total, NSYR tracking methods were successful in locating approximately 90 percent of the original survey respondents.

The overall goal for tracking prior to 2005 was to maintain as good an address for each respondent as possible, thereby improving the chances of finding the current phone number when Wave 2 data collection started. The USPS was used to assist in this effort to keep up with the addresses of our respondents.

In an effort to improve the quality of addresses for our respondents, the entire list was processed by a vendor with the National Change of Address Service in 2004. This service standardized all addresses to meet the USPS format. This service also provided any change-of-address information that was on file. It provided the forwarding address and the dates of that move. This information was helpful to have before the large mailings were undertaken, because it reduced the amount of returned and undeliverable mail. It also provided the +4 zip code which ensured more accurate and timely delivery.

A contact history for each respondent was maintained in an Access database so that the success of each type of contact attempt could be monitored. All of the letters and information sent to respondents were marked “return service requested” to ensure that the postal service would provide the most recent address information they had on file for respondents. This way the project staff was notified as soon as possible of any changes in the respondents’ addresses. If a letter was returned with a new address, the address was added to the respondent’s contact log and another letter with revised information was mailed. If any mail piece was returned as

undeliverable with a reason given for non-delivery, this was also noted in the tracking file.

When respondents could not be located by phone or mail, their names were given to a group of project staff trained in tracking methods. Each tracker, as well as all project staff, was required to sign a data use confidentiality agreement before gaining access to respondents' names. Initial searching methods included directory assistance, internet searches, and public records searches. Additionally, the project obtained a temporary subscription to LexisNexis, a tracking search engine, to aid in tracking efforts. If the above methods were unsuccessful in locating new contact information for a respondent, tracking staff attempted to locate the respondent by contacting family members or friends. In many cases, these names had been supplied to the project staff by the respondent or his/her parent in previous mailings or contacts as someone who would know how to reach him/her. All possible new numbers were called and confirmed before being entered into the database as "new". A number was "confirmed" only if the tracking staff spoke with a household member who verified that the respondent currently lived at the residence and that the age of that household resident matched the age on file for the survey respondent. Only once this information was verified would a new number be sent on to the survey call center to attempt to complete a survey interview.

When all of the methods noted above had been exhausted and no new contact information could be found for a respondent, the case was sent on to RTI to be interactively traced. RTI International's Tracing Operations provides a product to achieve the highest success rates possible. They combine customized processes; proprietary databases and custom made software to identify, collect and store locating information for sample members. They have access to all major credit bureaus, an arsenal of public and proprietary databases, numerous batch tracing capabilities, specialized internet searching, VoIP Phone Systems, and multilingual tracers. Highly-skilled tracing analysts review the client provided data, identify the most successful course of action, and then conduct the appropriate search for the case. When RTI successfully located new contact information for a respondent, it was sent on to project staff to review, via secure correspondence. Once the data had been verified and entered into the respondent's contact log, it was sent on to Odum's call center.

Wave 2 Survey Retention and Response Rates

As noted in the description of tracking efforts, in Wave 2 every attempt was made to re-survey 3,364 (the original 3,370 respondents minus 6 respondents whose contact information was not collected) original teen respondents, including those that were out of the country or serving in the military. The entire survey was completed in Wave 2 by 2,581 respondents, for a full retention rate of 77.9 percent (2,581 of the 3,312 eligible respondents). The overall retention rate is 78.6 percent, which includes the 23 respondents that partially completed the survey. Therefore, the total attrition in Wave 2 was 766 respondents. The predominant source of attrition was non-located respondents (see Table 5). The overall combined response rate for Waves 1 and 2 of the NSYR telephone survey, calculated by multiplying the W1 and W2 response rates, is 44.8 percent. Of the original 80 Jewish oversample, 74 completed the W2 survey (92.5 percent).

The Wave 2 cooperation rate was 89.9 percent. This was calculated by dividing the number of completed cases (including partials) by the number of respondents who were successfully contacted (N = 2,895). The categories making up the non-contacted cases (N = 505) are: No human contact (38), non-located military or jobcorps (15), non-located out of the country (4), other non-locates (390), and ineligible (58). The ineligible group consists of deceased respondents (5), respondents who were institutionalized throughout the entire data collection period (16), respondents with language barriers (4), cases where the identity of the respondent was too questionable to proceed with the survey (2), and one case where the

respondent was incapable of completing the survey. In addition to those referenced above are 30 cases that were taken out of the Wave 2 data after the survey had been fielded when it was discovered that the dates of birth reported by these respondents in the second wave put them outside of the age criteria for the study. When a situation like this arose, where the DOB reported in Wave 1 and Wave 2 differed, the birthdate was checked with the respondent several times by the survey interviewers. Additionally, for these 30 respondents, before taking them out of the data, the study project manager contacted the respondents to confirm the dates of birth one last time. A list of these date of birth (DOB) outlier cases is provided in Table 6. Each data user can decide whether or not to use these respondents in Wave 1 data analyses. To see a break-down of all final W2 status categories please see Table 4.

The refusal rate for Wave 2, calculated as the number of eligible respondents (N = 3,312) that refused to take part in the survey, was 4.0 percent. For each initial respondent refusal some attempt was made to persuade survey participation. The reason(s) for the refusal was clearly noted and any conversion attempts were specific to the respondent's (or guardian's) concerns. When appropriate, a project staff member would contact a respondent directly to give more detailed information about the project. Letters were drafted to address concerns about data security, sensitive questions, and confidentiality as well as to persuade those respondents that reported being "too busy" or "not interested". Each respondent was reminded that his/her participation was important to the success of the project and every attempt was made to address each particular respondent's questions. Of the 132 refusals 45 were indirect, meaning that the refusal was given by a parent, guardian, or other adult household member, not the respondent. In situations where the person giving the refusal was not a legal guardian of an underage respondent, the cases were treated as "blocked". All efforts were made to contact the respondents directly in these situations, and when those attempts were unsuccessful, project staff tried their best to persuade the "blocking" adult to allow us to communicate with the respondent.

Wave 2 Comparisons on Key Variables

Comparisons on the key variables: Never drink alcohol, never use marijuana, and regular smoking of cigarettes reveal only minor differences between W1 and W2 responders (see Table 7). Only minor differences exist in the percentage of those W1 and W2 responders that attend religious services weekly or more and those that never attend religious services. However, when analyses were run comparing the W2 responders and W2 non-respondents it was found that non-respondents are more likely to never attend religious service and are less likely to attend religious services weekly or more than responders. This is consistent with findings from other social science research that indicate that more religious study participants are more likely to cooperate with research studies than non-religious participants¹⁵. On key demographic characteristics, only small differences between W1 and W2 respondents were found (see Table 8).

Wave 2 Survey Longitudinal Weights

The longitudinal weights, "rweight_w2" and "nweight_w2" have been calculated for use when analyzing data from both waves of the NSYR survey data (excluding data from the Jewish oversample). The longitudinal raw weight is "rweight_w2". The normalized version of

¹⁵ See Brennan, Kathleen M. and Andrew S. London. 2001. "Are Religious People Nice People? Religiosity, Race, Interview Dynamics and Perceived Cooperativeness." *Sociological Inquiry* 71: 129-44.; Ellison, Christopher. 1992. "Are religious people nice people? Evidence from the National Survey of Black Americans." *Social Forces* 71: 411-430.; and Morgan, S. Philip. 1983. "A research note on religion and morality: Are religious people nice people?" *Social Forces* 61:683-692.

“rweight_w2” is “nweight_w2”. We recommend the use of raw weights when software developed for analysis of survey data, e.g., Stata or SAS, is used for estimation. The only exception to this is when software documentation specifically requests that users normalize the weights before estimation. It is the data user’s responsibility to determine whether raw or normalized weights should be used in an analysis.

National Study of Youth and Religion’s Telephone Survey—Wave 3

In Wave 3 every attempt was made to re-interview all English-speaking Wave 1 youth survey respondents. At the time of this third survey the respondents were between the ages of 18-24. The survey was conducted from September 24, 2007 through April 21, 2008 using a Computer Assisted Telephone Interviewing (CATI) system programmed using Blaise software. The Howard W. Odum Institute for Research in Social Sciences at the University of North Carolina at Chapel Hill (Odum Institute) was hired to field the Wave 3 survey. Telephone calls were spread out over varying days and times, including nights and weekends. Every effort was made to re-contact and re-survey all original NSYR respondents (whether they completed the Wave 2 telephone survey or not), including those out of the country, in the military, and on religious missions. There were more difficulties in contacting and completing the survey with respondents who were in the military during Wave 3 because some of them were serving on active duty and were unable to be reached. Even their families were often unaware of their specific locations and did not have any knowledge of phone numbers or addresses where they could be reached.

The Wave 3 Survey instrument replicated many of the questions asked in waves 1 and 2 with some changes made to better capture the respondents’ lives as they grew older. For example, there were fewer questions on parental monitoring and more on post-High School educational aspirations.

Wave 3 Pre-Survey Testing and Training

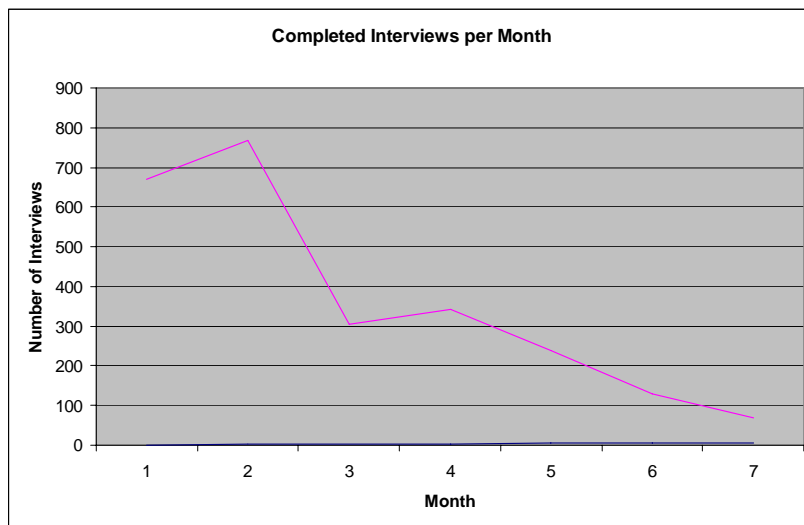
The Odum Institute conducted a pretest with 60 respondents, some of whom were pretests in previous waves and some who were newly recruited using a targeted-age sample (18-24 years) obtained from Survey Sampling International (SSI)¹⁶. The pretest cases were recruited by the survey interviewers to give them practice on the phone. Before conducting the pretest surveys the interviewers, who were hired by the Odum Institute, participated in a four-day project specific training session led by the call center director, supervisors, and the NSYR project staff. Many of the survey interviewers had previous experience working for the NSYR or had worked as interviewers on other projects at the Odum Institute. All NSYR survey interviewers were required to take part in Human Subjects Research Certification verifying that they understood the importance of participant confidentiality and the rights of research participants. As in Wave 2, survey interviewers were routinely monitored remotely by both Odum supervisors and the NSYR staff.

Wave 3 Survey Data Collection

As in previous waves, a large portion of the surveys were completed in the first couple months of calling, between late September and late November. Due to the extended holidays between the end of November and the first of the year, the number of completed interviews dropped significantly during these months. In the fifth, sixth, and seventh months of survey data

¹⁶ See more information about SSI on their website at <http://www.surveysampling.com/>

collection the number of completes steadily decreased, while the amount of interviewer labor effort for each completed survey increased. At the start of the survey the average number of interviewer labor hours for each completed survey was 2.8. By the end of survey data collection 45.5 interviewer labor hours, on average, were required for each completed survey. See the chart below for a graphic representation of the number of completed cases per month of survey fielding.



As in previous waves, prior to beginning the telephone survey each respondent’s verbal consent was obtained. As all respondents were over the age of 18 at the time of the third wave survey, parental consent was no longer required. In Wave 3, respondent identity was confirmed using name, date of birth, and the name of the city and state where he or she had completed the first wave survey.

Wave 3 Respondent Tracing

In between waves 2 and 3 NSYR project staff maintained all in-between survey respondent tracking efforts (explained in more detail on pages 22-23 of this report). Going into the Wave 3 telephone survey the project staff had viable respondent addresses for over 92 percent of the original survey respondents and viable phone numbers for almost 80 percent. Of course, some of the phone numbers that were valid at the start of the survey had been changed or disconnected during the period of time the survey was being fielded.

In Wave 3 the Odum Institute was contracted to conduct during-survey respondent tracking so that when new phone numbers were identified they could immediately be transferred to the call center to be attempted and verified. Their tracking efforts included calling and tracing all contact numbers available for each “lost” respondent, using all available public records to search for new respondent phone numbers, and contracting with an outside vendor, LexisNexis. Names of lost respondents, along with available contact information, were sent to and returned from LexisNexis in batches. When new phone numbers were identified they were first entered into the NSYR master contact database, and then the new phone numbers were tried in the call center. During the survey all contact with respondents was carefully documented and recorded in the NSYR contact database. This detailed record-keeping is critical so that in future waves it is known what has been tried and worked (or not worked) previously to keep in touch with the respondents.

Some new respondent tracing challenges were encountered in Wave 3. More of the respondents, than in previous waves, used cell phones exclusively, having moved away from

their family homes most had not set up land phone lines. Cell phones are largely unpublished and therefore it proved somewhat difficult for the staff to come up with ways to try to reach these respondents. This meant that staff relied heavily on the mailing addresses that were known to be correct and on getting messages to the respondents through their family members and contacts.

Another challenge was persuading respondents to call back in to the call center. It is very common for young adults of this age range to screen their cell phone calls. It was quite rare for a respondent to answer on the first call. Also a challenge was trying to get the respondents to conduct the interview when they did finally answer their phones. There seemed to be a tendency among the respondents to procrastinate and put off doing the survey for as long as they could. It was not that they did not want to do the survey, just that they did not want to do it right at the moment they were called. Many would schedule and re-schedule the survey over and over, right up until the date the survey fielding was finishing. In these cases, the only thing that persuaded them to do the survey, in the end, was that their time had run out to procrastinate any further!

Some of the tracking techniques that the NSYR staff employed to deal with the new challenges presented in Wave 3 included: 1) leaving detailed messages on cell phone voicemails stating the purpose of the call, the monetary incentive that would be received upon completion of the survey, and a *clear deadline* for when they would need to complete the survey, 2) emailing respondents whenever an email address was known, 3) sending out mailings to respondents who we were unable to reach by phone both via regular mail *and* through express mail services, and 4) text messaging respondents who it was known were using cell phones. The last two of these tracking methods proved to be the most successful at reaching the respondents who were the most difficult to locate and contact. By sending letters to respondents via DHL express mail the staff was able to verify that the addresses on file were correct and that the respondents had received the mail (since they had to be signed for). In addition, the importance of the letter indicated by the express mail seemed to impress upon the respondents the value in completing the survey. It was known, from talking with people of the same ages as the respondents, that text messaging was a popular way for young adults to communicate with each other, so this was tried as a way to reach those respondents who seemed to be interested in conducting the survey, but were procrastinating or screening their calls. Of those who were text messaged, almost 45 percent of them called in to complete the survey within two weeks.

Wave 3 Survey Retention and Response Rates

Of the total 3,328 (the 3,364 original sample minus those found to be date of birth outliers in Wave 2, see Table 6, and those who were discovered to have passed away before the fielding of the Wave 3 survey) original respondents who in Wave 3 all attempts were made to re-survey, 36 were found to be ineligible to participate (the breakdown of these ineligible cases is shown in the table below).

Ineligible Case Breakdown	N
Active military duty serving overseas	10
Respondent incapable	1
Respondent institutionalized	11
Respondent language barrier	5
Respondent deceased	9
Total	36

The following are the Wave 3 survey rates that data users will find important to note:

- 1) **W3 OVERALL RETENTION RATE** - Of the remaining eligible 3,282 Wave 1 respondents, 2,532 participated in the Wave 3 survey (including 13 partial cases¹⁷), for a Wave 3 completion rate of **77.1%**.
- 2) **W2/W3 RETENTION RATE** – Of the respondents who completed the Wave 2 survey **86.3%** completed the Wave 3 survey.
- 3) **W1/W2/W3 RETENTION RATE** – Of the original eligible respondents, **68.4%** completed both the Wave 2 and the Wave 3 survey. Note that 274 respondents who did not complete the W2 survey did complete the W3 survey.
- 4) **W1/W3 COMBINED RESPONSE RATE** – Calculated by multiplying the W1 and W3 response rates, is **43.9%**.
- 5) **W3 ATTRITION RATE** – Of the total original eligible respondents, **22.9%** did not complete the Wave 3 survey. Table 9 illustrates the sources of Wave 3 sample attrition.
- 6) **W3 REFUSAL RATE** – Of the total original eligible respondents, **6%** refused to participate in the Wave 3 survey.
- 7) **W3 CONTACT RATE** – Of the total original eligible respondents, **87.7%** were successfully contacted (whether they completed the survey or not).

Wave 3 Comparisons on Key Variables

On the key variables, never drink alcohol, never use marijuana, and regular smoking of cigarettes reveal very minor differences between W1 and W3 responders and even smaller differences between W2 and W3 responders (see Table 10). Similar to what was found in Wave 2, when analyses are run comparing W3 responders to non-responders we see that non-responders are slightly more likely to never attend religious services. As stated in the Wave 2 methods section, this finding is consistent with other social science research (see page 24 of this report). On key demographic variables, again, only very minor differences were found between W1 and W3 responders and even smaller differences between the W2 and W3 responders (see Table 11).

Wave 3 Longitudinal Weights

Longitudinal weights (rweight2_w3 & nweight2_w3) have been calculated for use when analyzing data from Wave 3 with *either* Wave 1 or Wave 2 of the NSYR survey data (excluding data from the Jewish oversample). To develop the new raw weight, rweight2_w3, a simple correction factor was applied within each region-income stratum (defined by the four census regions and five income levels at Wave 1) to adjust the weight for each individual. This accounts for the change in the distribution of the respondents of the NSYR by census regions and income groups resulting from Wave 3 sample attrition. Nweight2_w3 is the normalized version of rweight2_w3. A new weight (panel_weight) is included for analyses involving all three waves of data. It is similar to rweight2_w3, except it makes the correction based on the individuals that participate in all 3 waves. Again, we recommend the use of raw weights when using software developed for analysis of survey data, e.g., Stata or SAS, especially when using commands designed for survey analysis such as "svymean" or "svyregress" in Stata. The only exception to this is when software documentation specifically requests that users normalize the weights before estimation. It is the user's responsibility to determine whether raw or normalized weights should be used in an analysis.

Summary

¹⁷ Cases were only counted as partials if they had completed up through the first religion section of the survey.

In sum, the National Survey of Youth and Religion may be taken as providing a nationally representative RDD telephone survey of 3,290 English-and-Spanish-speaking teenagers between the ages of 13 and 17 and their parents living in households in all 50 U.S. states in the years 2002 and 2003. The survey also includes 80 oversampled Jewish households (not nationally representative) bringing the total number of completed NSYR cases in Wave 1 to 3,370. A second wave (in 2005) and a third wave (in 2007-2008) of the NSYR telephone survey was conducted with the English-speaking respondents (who were between the ages of 16-21 and 18-24 at the time of survey fielding respectively) with 78.6 percent and 77.1 percent respectively of the original respondents participating. Every effort was made in the NSYR project design, instrument construction, interviewer training, and survey fielding to produce the best possible results.

Christian Smith, Professor of Sociology and Director, Center for the Study of Religion and Society, in the Department of Sociology at the University of Notre Dame and Lisa D. Pearce, Associate Professor in the Department of Sociology at the University of North Carolina at Chapel Hill are the Principal Investigators of the NSYR; Melinda Lundquist Denton, who is now an Assistant Professor at Clemson University, was the NYSR's W1 Project Manager and is now a NSYR Co-Investigator, and Terri Kay Clark was the W2 and W3 Project Manager. W3 was additionally supported by the staff at the University of Notre Dame, particularly Patricia Snell and Katie Spencer. The NSYR's Internet website is located at www.youthandreligion.org.

Table 1: Demographic Characteristics Comparing the Unweighted and Weighted NSYR Samples and the 2002 U.S. Census Population, Households with 13-17 Year Olds in Residence, 2002-03 (percents)

Census Region	NSYR (unweighted)	2002 Census	NSYR (weighted)
Northeast	15	17	17
Midwest	23	22	22
South	42	37	37
West	20	24	24
Gender			
Male	50	51	50
Female	50	49	50
Age			
13	19	20	19
14	19	20	20
15	21	20	21
16	20	20	21
17	20	20	20
Teen Race/Ethnicity			
White/Hispanic	77	78	78
Black	17	16	16
Asian/Pacific Islander/ American Indian/Mixed/Other	5	7	5
Household Type			
Married Couple Household	67	68	70
Income			
Less than \$10K	4	6	5
\$10K-20K	7	9	10
\$20K-30K	13	10	10
\$30K-\$40K	14	11	11
\$40K-50K	14	11	11
\$50K-60K	12	8	8
\$60K-\$70K	8	8	9
\$70K-\$80K	7	7	8
\$80K-\$90K	5	6	6
\$90K-\$100K	4	5	5
More than \$100K	13	19	19

Note: Percents may not add to 100 due to rounding.

Table 2: Comparison of Weighted NSYR Results with Parallel National Survey Results on Selected Lifestyle Variables, U.S. Adolescents Ages 13-17 (percents, unless otherwise noted)

	NSYR (N=3,290) (2002-03)	Monitoring the Future (N=45,173) (1996)	Add Health (N=15,084) (1996)	Survey of Adults and Youth (N=874) (1999)	NHES (N=6,569) (1996)
Never drinks alcohol	63	62	61	-----	-----
Never used marijuana	75	64	74	-----	-----
Smokes cigarettes regularly	7	9 ^a	9	-----	-----
Nights per week eats dinner with one parent (mean)	5	-----	5	5	-----
School Type Attending					
Public	87	-----	-----	-----	90
Private Religious	7	-----	-----	-----	7
Private Secular	2	-----	-----	-----	2
Home Schooled	2	-----	-----	-----	2
Attends religious services weekly or more	41	33	39	45	47
Never attends religious services	18	15	14	11	13

Notes: ^a=data from 2002 Monitoring the Future (N=43,700); Percents may not add to 100 due to rounding.

Table 3: Comparison of Weighted NSYR Initially-Cooperating and Refusal-Conversion Respondents (percents)

	Initial Cooperators (N=3,030)	Refusal Conversions (N=340)
Census Region		
Northeast	17	17
Midwest	21	28
South	38	32
West	24	23
Male Parent	18	26
Male Teen	50	54
Teen Age		
13	19	15
14	20	16
15	21	23
16	20	26
17	20	20
Race/Ethnicity		
White/Hispanic	78	81
Black	16	13
Asian/Pacific Islander/ American Indian/Mixed/Other	6	7
Household Type		
Married Couple Household	69	77
Income		
Less than \$10K	5	3
\$10K-20K	10	4
\$20K-30K	9	8
\$30K-\$40K	11	9
\$40K-50K	10	9
\$50K-60K	8	7
\$60K-\$70K	9	9
\$70K-\$80K	7	6
\$80K-\$90K	5	7
\$90K-\$100K	4	7
More than \$100K	16	27
Parental Religious Service Attendance		
Parent Attends Weekly or More	44	50
Parent Attends Never	15	13

Note: Percents may not add to 100 due to rounding.

Table 4: NSYR W2 Status Codes

Status	Description	Total #
Completed	INCLUDES: Full Completes (N = 2581) & Partial Completes (N = 23)	2604
Contacted - Incomplete	INCLUDES: Callbacks (N = 129)	129
No Contact - Incomplete	INCLUDES: No Human Contact (N = 38), Military (N = 13), Jobcorps (N = 2), Out of Country (N = 4), & Other Non-Locates (N = 390)	447
Contacted - Refusals	INCLUDES: Indirect Refusals (N = 45) & Direct Refusals (N = 87)	132
Ineligible	INCLUDES: Respondent Incapable (N = 1), Institutionalized Throughout Data Collection Period (Incarcerated (N = 14) & Group Homes (N = 2)), Language Barrier (N = 4), Deceased (N = 5), Outlier DOB Discovered (N=30), & Questionable Respondents (N = 2)	58
TOTAL =		3370

Table 5: Sources of Attrition in Wave 2

	N	%
Total Possible Respondents in Wave 2	3370	100.00
Total # Respondents Participating in Wave 2 Survey	2604	78.6
Attrition in Wave 2	766	22.7
Sources of Attrition	N	of 766
respondents not located	390	50.9
no human contact	38	5.0
military or jobcorps	15	2.0
out of country	4	0.5
respondent incapable	1	0.1
institutionalized	16	2.0
respondent language barrier	4	0.5
respondent deceased	5	0.7
questionable respondent eligibility	2	0.3
successfully contacted incomplete	129	16.9
refusals	132	17.2
discovered to be DOB outliers	30	3.9
	766	

Table 6: List of DOB Outlier Cases – (not included in W2 data, but in W1 distributed datasets)

IDs	W1 Age Based on DOB Reported at W2
02618	12.1971
03286	19.4798
03536	18.8282
03624	12.1752
03746	12.7064
03786	12.0465
04424	12.8186
04684	19.1595
05056	12.1862
05180	11.6277
05190	12.0712
05538	12.6571
06212	12.1725
06293	12.0027
07251	12.6872
10274	11.1869
10613	12.5284
10706	12.5722
10747	19.5318
11550	12.4901
12153	19.3566
12169	19.4579
12221	12.4463
12367	12.6982
12730	11.7426
13406	11.707
13615	11.8795
13761	19.9644
14403	12.7748
14410	11.3648

Table 7: Comparison of W1 Respondents, W2 Respondents, and W2 Non-respondents on Key Lifestyle Characteristics

	W1 Respondents	W2 Respondents	W2 Nonrespondents			
			No Contact	Contacted, No Refusal	Contacted, Refusal	Total
Wave 1:						
Never Drinks Alcohol	62	62	60	55	70	61
Never Used Marijuana	74	77	61	68	73	65
Smokes Cigarettes Regularly	8	7	14	9	8	12
Nights per Week Eats Dinner with One Parent (mean)	5	5	5	5	5	5
School Type Attending						
Public	87	87	86	86	89	86
Private Religious	7	7	4	6	8	5
Private Secular	2	2	2	2	0	2
Home Schooled	2	2	3	1	1	2
Missing	3	2	5	5	2	5
Attends Religious Services Weekly or More	39	41	32	31	31	32
Never Attends Religious Services	18	17	24	13	25	22
N	3,260	2530*	438	127	132	697

Note: Numbers represent percents. Percents may not add to 100 due to rounding.

* N does not include the Jewish oversample cases (N=74).

Table 8: Comparison of W1 and W2 Respondents on Key Demographic Characteristics

	W1 Respondents	W2 Respondents	W2 Nonrespondents			
			No Contact	Contacted, No Refusal	Contacted, Refusal	Total
Wave 1:						
Census Region						
Northeast	15	15	15	17	14	15
Midwest	23	24	17	17	27	19
South	42	41	46	39	40	43
West	20	20	22	27	18	22
Gender						
Male	51	50	51	51	63	54
Female	49	50	49	49	37	46
Age						
13	19	19	17	15	17	17
14	20	20	17	20	18	18
15	21	22	21	13	27	20
16	20	20	20	28	17	21
17	20	19	26	23	21	24
Teen Race/Ethnicity						
White	65	69	48	50	74	54
Black	17	16	23	20	15	21
Hispanic	12	10	22	23	5	19
Asian/Pacific Islander/American						
Indian/Mixed/Other	5	5	6	7	5	6
Missing	1	1	1	0	0	0
Family Structure						
Lives with Two Biological/Adoptive Parents	50	55	27	34	50	33
Income						
Less than \$10K	3	3	7	5	3	6
\$10K-20K	7	6	11	14	4	10
\$20K-30K	12	11	19	17	8	16
\$30K-40K	13	12	16	18	21	18
\$40K-50K	13	14	13	7	14	12
\$50K-60K	11	11	8	13	11	10
\$60K-70K	7	8	5	2	4	4
\$70K-80K	6	7	4	7	6	5
\$80K-90K	5	6	1	1	6	2
\$90K-100K	4	4	3	4	5	3
More than \$100K	11	12	6	9	13	8
Missing	6	6	7	4	6	6
N	3,260	2530*	438	127	132	697

Note: Numbers represent percents. Percents may not add to 100 due to rounding.

* N does not include the Jewish oversample cases (N=74).

Table 9: Sources of Attrition in Wave 3

	N	%
Total Possible Respondents in Wave 3	3282	100.00
Total # Respondents Participating in Wave 3 Survey	2532	77.1
Attrition in Wave 3	750	22.9
Sources of Attrition	N	of 750
respondents not located	403	53.7
successfully contacted incomplete	150	20.0
refusals	197	26.3
	750	100.0

Table 10: Comparison of W1 Respondents, W2 Respondents, W3 Respondents and W3 Non-respondents on Key Demographic Characteristics [Unweighted]

	W1 Respondents	W2 Respondents	W3 Respondents	W3 Non Respondents ^b
Wave 1:				
Census Region				
Northeast	15	15	15	15
Midwest	23	24	25	17
South	42	41	41	45
West	20	20	19	23
Gender				
Male	51	50	49	56
Female	49	50	51	44
Age				
13	19	19	19	18
14	20	20	20	18
15	21	22	22	20
16	20	20	20	20
17	20	19	19	25
Teen Race/Ethnicity				
White	65	69	69	55
Black	17	16	16	22
Hispanic	12	10	10	17
Asian/Pacific Islander/American Indian/Mixed/Other	5	5	5	6
Missing	1	1	1	1
Family Structure^c				
Lives with Two Biological/Adoptive Parents	51	56	55	38
Income				
Less than \$10K	3	3	3	6
\$10K-20K	7	6	6	10
\$20K-30K	12	11	11	17
\$30K-40K	13	12	12	17
\$40K-50K	13	14	14	12
\$50K-60K	11	11	11	9
\$60K-70K	7	8	8	6
\$70K-80K	6	7	7	3
\$80K-90K	5	6	6	3
\$90K-100K	4	4	4	3
More than \$100K	11	12	13	7
Missing	6	6	6	6
N^a	3,259	2,530	2,458	782

Note: Numbers represent percents. Percents may not add to 100 due to rounding

^aN does not include the Jewish oversample cases (N=80 for Wave 1; N=74 for Wave 2; N=78 for Wave 3). N also does not include “ineligibles” (N = 31). ^bNon Respondents do not include deceased or “ineligibles.” At Wave 3 the N = 782 or 24% of the original 3,259 respondents. ^cFamily Structure contains some missing data. The appropriate N by wave is Wave 1 = 3,227; Wave 2 = 2,510; Wave 3 = 2,433

Table 11: Comparison of W1 Respondents, W2 Respondents, W3 Respondents and W3 Non-respondents on Key Lifestyle Characteristics [Unweighted]

	W1 Respondents	W2 Respondents	W3 Respondents	W3 Non Respondents ^b
Wave 1:				
Never Drinks Alcohol	62	62	62	61
Never Used Marijuana	74	77	76	67
Smokes Cigarettes Regularly	8	7	7	11
Nights per Week Eats Dinner with One Parent (<i>mean</i> ^c)	5	5	5	7
School Type Attending				
Public	87	87	86	87
Private Religious	7	7	8	4
Private Secular	2	2	2	2
Home Schooled	2	2	2	2
Other	2	2	2	4
Missing	0	0	0	1
Attends Religious Services Weekly or More	39	41	42	29
Never Attends Religious Services	18	17	17	24
N^a	3,259	2,530	2,458	786

Note: Numbers represent percents. Percents may not add to 100 due to rounding

^aN does not include the Jewish oversample cases (N=74 for Wave 2; N=78 for Wave 3). Total Wave 2 N = 2,604; Total Wave 3 N = 2,532.). ^bNon Respondents do not include deceased or “ineligibles.” At Wave 3 the N = 782 or 24% of the original 3,259 respondents. ^cOf non-missing data.

Table 12: Comparison of W1 Respondents, W2 Respondents, W3 Respondents and W3 Non-respondents on Key Demographic Characteristics [WEIGHTED^a]

	W1 Respondents	W2 Respondents	W3 Respondents
Wave 1:			
Census Region			
Northeast	17	17	17
Midwest	22	23	22
South	37	36	37
West	24	24	24
Gender			
Male	51	49	48
Female	49	51	52
Age			
13	18	19	18
14	20	20	20
15	21	21	21
16	21	21	21
17	20	19	19
Teen Race/Ethnicity			
White	66	69	68
Black	16	14	15
Hispanic	12	10	11
Asian/Pacific Islander/American Indian/Mixed/Other	5	6	5
Missing	1	1	1
Family Structure^c			
Lives with Two Biological/Adoptive Parents	55	59	57
Income			
Less than \$10K	5	3	4
\$10K-20K	9	8	10
\$20K-30K	9	8	9
\$30K-40K	10	9	10
\$40K-50K	10	10	10
\$50K-60K	8	8	8
\$60K-70K	9	10	8
\$70K-80K	7	8	7
\$80K-90K	5	6	5
\$90K-100K	4	5	4
More than \$100K	18	18	17
Missing	6	6	6
N^b	3,259	2,530	2,458

Note: Numbers represent percents. Percents may not add to 100 due to rounding

^a Wave specific weights used. ^b N does not include the Jewish oversample cases (N=74 for Wave 2;

N=78 for Wave 3). Total Wave 2 N = 2,604; Total Wave 3 N = 2,532. ^cFamily Structure contains some missing data. The appropriate N by wave is Wave 1 = 3,227; Wave 2 = 2,510; Wave 3 = 2,433

Table 13: Comparison of W1 Respondents, W2 Respondents, W3 Respondents and W3 Non-respondents on Key Lifestyle Characteristics [WEIGHTED ^a]

	W1 Respondents	W2 Respondents	W3 Respondents
Wave 1:			
Never Drinks Alcohol	63	63	63
Never Used Marijuana	75	78	78
Smokes Cigarettes Regularly	7	6	7
Nights per Week Eats Dinner with One Parent (<i>mean</i> ^c)	5	5	5
School Type Attending			
Public	87	87	87
Private Religious	7	8	8
Private Secular	2	2	2
Home Schooled	2	2	2
Other	2	1	1
Missing	0	0	0
Attends Religious Services Weekly or More	41	43	43
Never Attends Religious Services	18	17	17
N^b	3,260	2,530	2,454

Note: Numbers represent percents. Percents may not add to 100 due to rounding

^a Wave specific weights used. ^b N does not include the Jewish oversample cases (N=74 for Wave 2; N=78 for Wave 3). Total Wave 2 N = 2,604; Total Wave 3 N = 2,532. ^cOf non-missing data.

**STANDARD METHODS INFORMATION
RECOMMENDED FOR USE IN JOURNAL ARTICLES**

**Authors should reword, edit, and add information as necessary for their own particular analyses
(08-19-08)**

The National Study of Youth and Religion (NSYR)'s longitudinal telephone survey began as a nationally representative telephone survey of 3,290 English and Spanish speaking teenagers between the ages of 13 and 17. The baseline survey was conducted, with the teen respondents and one of their parents, between July 2002 and April 2003 by researchers at the University of North Carolina at Chapel Hill. A random-digit dial (RDD) telephone method was employed to generate numbers representative of all household telephones in the 50 United States. Also included were 80 oversampled Jewish households, not nationally representative (described below), bringing the total number of completed cases in the first wave of NSYR to 3,370. The second wave and third waves of the NSYR are re-surveys of the Wave 1 English-speaking teen respondents. All waves of the survey were conducted by telephone using a Computer Assisted Telephone Interviewing (CATI) system. The Wave 2 survey was conducted from June 2005 through November 2005 when the respondents were between the ages of 16 and 21. Wave 3 of the survey was fielded from September 2007 through April 2008 when the respondents were between 18 and 24 years old. Every effort was made to contact and survey *all* original NSYR respondents, whether they completed the Wave 2 survey or not, including those out of the country and in the military. Of the original respondents, 2,604 participated in the second wave of the survey resulting in an overall retention rate of 78.6 percent. The predominant source of attrition in the second wave was non-located respondents. The Wave 2 cooperation rate was 89.9 percent. The refusal rate for Wave 2, calculated as the number of eligible respondents (N = 3,312) that refused to take part in the survey, was 4.0 percent. In Wave 3 2,532 original youth respondents participated in the survey for an overall Wave 1 to Wave 3 retention rate of 77.1 percent. The main source of attrition in the third wave was again non-located respondents (although not necessarily the same as those not located in Wave 2). The Wave 3 refusal rate, calculated as the number of eligible respondents (3,282) who refused, was 6 percent. The percentage of respondents who completed all three waves of the survey was 68.4 percent.

Diagnostic analyses comparing NSYR data with U.S. Census data on comparable households and with comparable adolescent surveys---such as Monitoring the Future, the National Household Education Survey, and the National Longitudinal Study of Adolescent Health---confirm that the NSYR provides a nationally representative sample without identifiable sampling and nonresponse biases of U.S. teenagers ages 13-17 and their parents living in households (for details, see Smith and Denton 2003). For descriptive purposes, a weight was created to adjust for number of teenagers in household, number of household telephone numbers, census region of residence, and household income. A separate weight is used in multivariate analyses that control for census region and household income, which adjusts only for number of teenagers in household and number of household telephone numbers.

(Depending on article, add to the end: The 80 Jewish oversample cases are omitted from this analysis.)

Reference:

Smith, Christian and Melinda Lundquist Denton. 2003. "Methodological Design and Procedures for the National Survey of Youth and Religion (NSYR)." Chapel Hill, NC: The National Study of Youth and Religion.

Introduction to the National Study of Youth and Religion Survey Instruments Version 3 (08-19-08)

National Study of Youth and Religion
www.youthandreligion.org
youthandreligion@unc.edu
1-800-434-8441

Following this document are the survey instruments used in the National Study of Youth and Religion (NSYR) telephone surveys. The Wave 1 survey was conducted with one parent and one youth between the ages of 13 and 17 from each participating household. The Wave 2 and Wave 3 surveys were conducted with the original youth respondents when they were between the ages of 16 to 21 and 18 to 24 respectively. Please keep in mind:

1. **For the Wave 1 survey the parent survey was conducted first, followed by the survey with the teen.** Answers provided by the parent are used to determine eligibility for some of the questions in the teen survey.
2. **In the Wave 1 survey instrument questions from the parent survey are preceded by “P.” All questions from the teen survey are preceded by “Y.”**
3. **Not all questions were asked of every respondent.** Whether or not a respondent was asked a particular question was dependent on the skip pattern that precedes each question. There are many questions for which there are multiple versions of the same question worded slightly differently for different groups of respondents.
4. **Skip patterns that determine eligibility for a specific question are above the question or group of questions.** The mathematical code provided is the most accurate reflection of the skip patterns. However, the written versions of the skip patterns are provided for clarity.
5. **In the Wave 1 parent survey, skip patterns that reference the teen are based on parent reports.** The parent survey was completed first and included many questions about the participating teen. Any question in the parent survey that is based on information about the teen is information gathered from the parent respondent earlier in the survey. Information provided by parents about the teen and information provided by the teen directly does not always match.
6. **Placeholders for variable terms that were inserted by the computer program during the administration of the survey appear in [ALL CAPS].** The explanations of these placeholders, along with the inserted terms and programming codes are provided in the Appendices.
7. **DON’T KNOW and REFUSED responses appear in the codebook with their original value labels.** However, in the data, all **DON’T KNOW** responses have a value of **777** and all **REFUSED** responses have a value of **888**.
8. **We welcome replication of the questions found in these survey instruments.** The NSYR office would appreciate being notified when others replicate any of these questions on future surveys.
9. **When a question is in CAPS in the survey instrument it indicates instructions to the interviewer that were not read to the respondent.**