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National Jewish Population Survey 2000-2001

Study Review Memo

By

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NJPS 2000-2001 Review Committee

The main objective of the National Jewish Population Survey 2000-2001 (NJPS) was to provide a religious, social and demographic profile of the Jewish population in the United States. Such studies need to be undertaken periodically because the U.S. Census does not ask about religious identification or include Jews as an ethnic category. The NJPS 2000-2001 questionnaire contains a rich array of topics in such areas as household characteristics, religious activities, connection to Judaism, education, mobility, Jewish upbringing, social service needs, intermarriage, and many other topics.

Summary

Criticism of the NJPS prompted the survey's sponsor, United Jewish Communities (UJC) to ask us to conduct a candid post-survey methods review prior to data release. As a result of various concerns and criticisms, the NJPS's methods and data have undergone a high degree of scrutiny, far more than for most surveys.

The questionnaire and study design raise many issues and questions that cannot be fully resolved. Overall, this review suggests that certain study design decisions, such as the composition and placement of the religion screening questions, may have produced an estimate of the Jewish population that is slightly lower than that reported by the standard General Social Survey (GSS) religious battery and other surveys.

The Review Committee also strongly recommends follow-up research to gauge the extent to which the Jewish sample may skew toward Jews who are more religiously identified and who reside in completely Jewish households. Preliminary analysis shows signs of a skew.

These issues will likely have little impact on the analysis of relationships *between* variables in this dataset. Analysis of these relationships will provide valuable insights into the relationships between the varying backgrounds of Jews, their beliefs, religious practice, and the role of religion in family life.

The Committee carefully reviewed the study design and the various problems and issues arising from NJPS. These issues do require that researchers be cautious about non-sampling error sources in the survey's estimates. This concern is not unique to the NJPS. Rather, it applies to all survey data. However, the study design issues and administrative problems reviewed in this report make the NJPS particularly prone to non-sampling error, only some of which can be vetted through further analysis. Here are a few of the key issues:

One major problem which added to the complexity of the weighting schema was the loss of screening data for incompletes (screened, selected for long-form interview, but did not complete full interview) in replicates 1-15 (out of 22 replicates). The loss resulted from data storage errors in the data storage protocols of the computer-assisted telephone interviewing program (CATI) which administered the questionnaire. As a result, several weighting factors needed to be imputed for these incomplete cases. While the current weighting schema does seem reasonable, given the missing data problem, some researchers may wish to develop their Jewish population estimates from just the later replicates, 16-22, which contain the full screening data. These later replicates produce a very slightly higher Jewish household estimate. Other researchers may wish to revisit and revise the full weighting schema of the Jewish and PJB samples to be more sensitive to the likely skew toward being more strongly identified with Judaism.

The survey also received a low response rate overall, 28%. Moreover, only about two-thirds of Jews identified in the screener and eligible for interview actually completed the full interview. Therefore, the response rate for the Jewish and PJB samples are even lower. This raises further issues about how well the sample reflects both the Jewish population and People of Jewish Backgrounds (PJBs), since they were less likely than Jews to complete the full interview after screening. This possible skew reflects practical difficulties with "hand-off" surveys generally. It may also have been heightened by certain procedures used in NJPS.

The multiple categorizations of the Jewish population in NJPS also add to the complexity of the population estimates. The two basic categorizations, Jews and Persons of Jewish Background (PJB), allow researchers flexibility in analyzing population subsets, depending upon their objectives. However, the two categorizations also produce different population estimates, depending upon whether the estimate is of "Jews" only, or of "Jews" and PJBs. A shorter survey, the National Survey of Religion and Ethnicity 2000-01 (NSRE), was also administered to a sample of non-Jews to provide comparative data.

In summary, the Review Committee suggests that researchers be mindful of the various issues raised in this report and continue to vet the data. Again, this survey has undergone a high degree of scrutiny by both UJC and other researchers. UJC researchers associated with the study should be commended

for airing these issues and their efforts to conduct follow-up research about them. The lessons learned here will be invaluable in designing and implementing future Jewish population studies.

Overview of Review Committee Objectives

Jewish population estimates based upon religious background, identification, and practice are fraught with difficulty, even under the best of circumstances, because of (1) lack of consensus over how religious identity should be defined both conceptually and operationally, (2) practical difficulties in sampling a low-incidence "rare" population, particularly with complex sample designs required to increase sample efficiency over simple random samples; (3) the need to employ complex weighting schemes to produce the population estimate from this complex sample design, (4) impact of survey and item non-response, particularly on respondent-sensitive issues such as religion. Dr. Andrew Beveridge, for example, has noted the travails of even the U.S. Census Bureau in attempting to provide estimates based upon race, national origin, ethnicity, and language.[1]

Our role as an outside review committee was to pave the way for the release of the data by:

1. Reviewing and fine-tuning the estimation procedures to improve the quality of the estimates and the documentation.

2. Providing the data user with a description of methodological limitations and cautions.

3. Recommending follow-up research, post-release, that will further clarify the many methodological issues raised and will provide guidance to future Jewish population surveys.

Our report is not the final word on the various issues. Instead, our goal was to see that the estimates are reasonable and that survey users will have sufficient information to understand the survey's limitations beyond "sampling error."

Review Committee members were Tom W. Smith, Ph.D., National Opinion Research Center (NORC), Eugene Ericksen, Ph.D., Temple University, and Stanley Presser, Ph.D., University of Maryland. UJC and members of the study's National Technical Advisory Committee were very helpful. We wish to thank, in particular, Lorraine Blass and Laurence Kotler-Berkowitz, Ph.D., of UJC, David Marker, Ph.D. of Westat and a member of the National Technical Advisory Committee (NTAC), Chintan Turakhia and Michael Bucuvalas of SRBI, and Len Saxe and Charles Kadushin, Ph.D, Brandeis University. Mark Schulman is responsible for the final report.

[1] Andrew Beveridge, "The Vanishing Jew, *Gotham Gazette*, July 2003.

1. Definitional and Screener Issues

The NJPS 2000-2001 screening method may have played a role in producing a lower estimate of the non-institutional national Jewish population compared to other surveys of religious identity that use more straight-forward measures of religious identity, such as the NORC General Social Survey (GSS). The GSS is generally regarded as the benchmark survey of national religious identity. The NJPS estimate of adults who say that their religion is Jewish, including missing values in the base, is 1.6% of the total adult U.S. population, compared to the GSS estimate of 1.8%. (See Appendices 3 and 4)

The complex screener developed by the NJPS Technical Advisory Committee (NTAC) was motivated, no doubt, by the challenge of operationally identifying "who's Jewish?" in all of its complexity. Being "Jewish" can be defined in many ways. There are "degrees" of being Jewish based upon parents' religion, upbringing and religious training, degree of ritual observance, cultural links, and self-identification. In a strict sense, Judaism is matrilineal as well. All Jewish population surveys struggle with this issue of "who's Jewish?" NJPS provides researchers with options for designating which population segment they may wish to study.

The NJPS screener asked all respondents an open-ended question, "What is your religion, if any?" (Q.1) Follow-up questions were dependent on the response to Q.1. These follow-up classification items ask about the religion of other household residents (Q.4), whether mother/father of respondent/other adults were Jewish (Q.5), whether respondent/other adults were "raised" Jewish (Q.6), and whether respondent/other adults considered themselves Jewish for any reason.

The screener resulted in 19 different Sample Allocation Codes (SACs), that were then collapsed into three: Jews, People of Jewish Background (PJB), and non-Jews, as shown in Appendix I. Persons initially classified as "Jewish" were administered the entire long-form questionnaire. Those initially classified as "PJBs" were administered a short-form questionnaire which eliminated questions the NTAC believed would not be relevant to them.

The screening questions used in NJPS 2000-2001 differ from those used in other surveys, including the 1990 National Jewish Population Survey. Hence, estimates for the 2000-2001 survey cannot exactly be compared with prior or other current estimates. The key screening issues are as follows:

First, the NJPS religious preference question differs from the highly regarded General Social Survey, which utilizes an initial closed-ended question, rather than an open-end, about religious preference:

"What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion.?" (GSS)

Future researchers may wish to examine whether an initial *closed*-ended religious preference question would produce a higher estimate of the Jewish population versus the initial open-end used by NJPS and others.

Second, the NJPS initial religious preference open-end, Q.1, is placed at the beginning of the questionnaire screener, most likely to minimize screening costs, since over 177,000 households were screened for the survey. However, sensitive questions, such as religious preference, are often preceded by some rapport-building questions to reassure respondents of the validity of the study. The GSS asks its religious preference question well into the instrument, not up front. The absence of rapport-building questions in NJPS *may* have had impact on the estimate as well. These are issues that should be examined before further studies are conducted.

Users should also be aware of two further issues concerning the estimates:

- The sample was based upon non-institutional telephone households. The data were weighted based upon total national population. This is true of most estimates based upon telephone surveys. Researchers may wish to develop more refined estimates based upon total population, institutional and non-institutional.

- The estimates do not include imputation of missing values for those persons who refused to respond to the religion items. The current estimate makes the most conservative assumption possible - that there are no Jews among the missing data cases. While such an estimate should be reported, it is unlikely to be the best estimate. Such estimates should be made for each who-is-Jewish definition. One of the procedures is just to assume that Jews are the same percentage of the missing cases as of all cases. A more advanced procedure would take what we know about the cases and model the data. Thus, researchers might come up with separate estimates of the religion of children with missing data with no Jewish parents, one Jewish parent, two Jewish parents, etc. and then add up these estimates.

Finally, another reason for caution in comparing estimates from NJPS to previous Jewish population surveys, in addition to the use of different screening methods, is that the previous surveys very likely exhibit skews that influence *their* population estimations.

2. Response Rate Issues

One important measure of survey quality is response rate. It is often used as an indicator of possible nonresponse error, that is, the magnitude of the bias caused if non-respondents differ from respondents. If, for example, observant Jews were more likely to complete a questionnaire than non-observant ones, then the survey's estimates of observance might be higher than in the actual Jewish population because of differential response rates between observant and non-observant Jews.

The overall response rate for this survey, utilizing criteria established by the American Association for Public Opinion Research (AAPOR) in its *Standard Definitions,* is approximately 28% for AAPOR Response Rate Calculation #3. AAPOR Response Rate #3 is one of the more conservative formulae because it takes into account not just refusals and terminations but also noncontacts of households. This formula does contain an "e" factor, which estimates the proportion of refusal/termination/noncontact cases of unknown eligibility that are likely eligible. The full response disposition and formulae will be found in Appendix 2.

Complicating the low overall response rate is that full interviews were completed with only about two-thirds of households in which the screener identified the presence of a Jew. Therefore, the response rate for the Jewish and PJB samples are below 20%, based upon sample disposition data from replicates 16-22.

This 28% response rate (AAPOR Formula #3) is considered at the low end for public policy and population studies and does raise at least a "yellow flag" of caution in interpreting the results. While many government contracts specify 65% - 70% response rates, a recent study of response rates in public policy surveys found that the mean response rates were approximately 46% using the same AAPOR response rate formula. Response rates ranged from 28% to 70% in this category. [2] Surveys on sensitive topics, such as personal finance and religion, often experience lower response rates than surveys on more general topics. Moreover, refusal rates in the New York metropolitan area, where NJPS over-sampled, tend to be higher than refusal rates elsewhere.

The low response rate and the large number of incompletes in the Jewish and PJB segments do raise issues of how responders might differ from non-responders. Researchers should examine this issue in greater detail to gain further insights into how response rate issues may have skewed the final

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[2] Allyson Holbrook, Alison Pfent, and Jon Krosnick, "Response Rates in Recent Surveys Conducted by Non-Profits and Commercial Survey Agencies and the Media," Presented to the 2003 Annual Conference, American Association for Public Opinion Research, Nashville TN, May 16, 2003.

samples. For example, when Len Saxe sorted the completes and incompletes in replicates 16-22 by the household status (Jew, PJB, NSRE), he found that the respondents in the Jewish completes are much more likely to identify as Jewish by religion than are the Jewish incomplete households (81% vs. 56%), potentially skewing the Jewish sample. Again, the incompletes were successfully screened and selected for the long form questionnaire, but did not complete the long form questionnaire.

Saxe suggests that persons more religiously identified as Jews may have been more likely to complete the long form. He hypothesizes that, because the Jewish sponsorship of the survey was disclosed in the follow-up interview, cooperators at this stage are likely to be more highly identified Jews. He also hypothesizes that completes are more likely to be Jews married to Jews or in all-Jewish households, all of which would foster a stronger Jewish religious identity sense. In "all Jewish" households, the hand-off problem from the initial respondent to the randomly selected Jewish respondent is also much reduced, since the initial respondent might have been the designated long-form respondent. In a mixed household, the probability of the initial respondent being the designated respondent would be lower, contributing to a higher rate of incompletes. If these hypotheses are correct, the Jewish sample, for example, might undercount those in "mixed" marriages, between Jews and non-Jews or in mixed households.

Importantly, we cannot assume that low response rates on their face necessarily tarnish the data or make them unusable. Recent national studies have shown that low response rates do not necessarily lead to serious nonresponse error. For example, Keeter, et. al, tested the claim that methodological shortcuts taken to collect timely public opinion data bias the results. They used identical questionnaires but fielded the questionnaire by telephone in two different ways: a "standard" survey conducted over a 5-day period using an "at home" sample, and a "rigorous" field design. Even though the standard 5-day design achieved a 36% response rate and the rigorous design achieved a 60% response rate, the two surveys produced largely similar results on all items except some demographics. In fact, the less rigorous approach produced an unweighted sample a bit closer to Census estimates.[3] Even the less rigorous "short-cut" approach in the Keeter study achieved a response rate higher than the NJPS.

a. Follow-Up UJC/NTAC Studies

UJC and NTAC did conduct several follow-up tests to gauge the extent to which responders might differ from non-responders. Each test had methodological limitations, so they are far from definitive. The Review Committee did not

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[3] Scott Keeter, et al.. 2000. "Consequences of Telephone Survey Nonresponse." *Public Opinion Quarterly* 64: 125-148.

participate in or oversee these studies. However, these two tests suggest that Jews, at least persons with "Distinctive Jewish Surnames" (DJNs) may be less likely to respond to a survey, resulting perhaps in a low estimate of the Jewish population. However, a second test suggests that Orthodox Jews are at least as willing, if not more willing to participate than are other Jews. Full documentation on these tests is available from UJC.

Here is a brief summary of two of the tests.

1. Distinctive Jewish Name Test: Do Jews cooperate less with surveys? If so, the overall screening estimate would undercount the Jewish population. To test this hypothesis, UJC asked a direct marketing firm to conduct an analysis of the Distinctive Jewish Names of survey cooperators and non-cooperators. The marketing firm was provided with the telephone numbers of all cooperators and non-cooperators, a total of about 750,000 usable phone numbers. The firm then matched the phone numbers against a database of approximately 77 million available household phone numbers and accompanying surnames that the firm maintains. This process resulted in a total of over 287,000 phone number matches, or 38% of the NJPS database. The surnames of successfully matched phone numbers were then analyzed to see if they were one of 31 Distinctive Jewish Names (DJNs).

The percentage of cooperators with one of the 31 DJNs was .16%, while the percentage of refusers with DJNs was .37%, a difference which appears to be significant. Numerous methodological questions remain, including the extent to which DJNs are representative of all Jews, the limits of DJN testing in a population with relatively high intermarriage rates, and the absence of information on whether people with DJNs currently consider themselves to be Jewish.

With these limitations noted above, the results from this test appear to suggest that a greater proportion of non-cooperators than cooperators had DJNs. In practical terms, this test suggests that the estimated number of Jews in NJPS 2000-01 may be lower than the actual number in the U.S. population if the overall Jewish population is less likely to participate in surveys compared to the rest of the population. However, the size of any possible undercount of Jews cannot be determined by this DJN test. As already discussed, the screener methodology, using an open-ended religious question, may have contributed to a Jewish undercount as well.

2. Denominational Test: Some researchers have hypothesized that Orthodox Jews are less likely to participate in surveys than are non-orthodox Jews and non-Jews. If this were so, the Jewish population estimate would be too low and the survey would underestimate Orthodox Jews vs. other Jews. To conduct this test, approximately 500 telephone numbers from each of three samples (Orthodox, Conservative/Reform and Unaffiliated) were dialed by Roper ASW

between July 5, 2001 and September 12, 2001. The samples of Orthodox, Conservative/Reform and Unaffiliated were generated by synagogue membership lists and Jewish Federation lists. Each of the three groups was divided into New York versus non-New York samples. A screener nearly identical to the NJPS 2000-01 screener (without financial incentive) was administered, as were 11 additional NJPS questions, and respondents were classified as either Jewish, PJB or non-Jewish.

Of the 502 households classified as Orthodox for whom there was a final disposition, 149—30% of the total—completed an interview. This was a slightly higher percentage than either the households classified as Conservative/Reform (119/496, or 24%) or the households classified as Unaffiliated (90/496, or 18%). The Orthodox refusal rate was 50% (249/502), whereas for the Conservative/ Reform sample it was 53% (264/496) and for the Unaffiliated sample it was 44% (218/496).

Therefore, this nonrandom, nonrepresentative sample of American Jews finds no reason to suggest that Orthodox Jews have substantially lower rates of response or cooperation than Jews of other denominations. From this test alone, there is no evidence that the Orthodox Jewish population is underestimated in NJPS 2000-01.

b. Future Efforts

For future efforts, a number of steps should be implemented to improve response rates:

1. Sensitive religious identity screening questions should be placed after some non-threatening items to allow the interviewer to develop rapport and "comfort level" with the respondent. NJPS placed the sensitive screening questions upfront, prior to rapport-development measures, likely increasing refusals and item non-response.

2. A full 15-call design, specified in the original proposal, should have been implemented to reduce the number of no-answer non-contacts. The design was reduced to 8 call attempts during sample replicate six to increase productivity. While only marginal gains are generally made in attempts 9-15, these later attempts do sometimes reach difficult-to-reach households that might reduce non-response bias.

3. Response rates should be monitored on an on-going basis so that remedial steps can be taken <u>early</u> in the process. It appears that major response rate-enhancing measures occurred only after 13 of the 22 replicates were fielded. Response rate enhancing measures include ongoing evaluation of individual interviewer response rates, advance letters, retraining and/or weeding out interviewers from this study, and

identifying interviewers who can specialize in refusal conversion efforts. Once refusal conversion did begin in December 2001, about 12% of initial refusals were converted.

4. Errors in the CATI program, which manages the computer-assisted telephone questionnaire order and flow, persisted throughout the lengthy field period. The CATI system also failed to store valuable screening information for incompletes in the first 15 replicates, an issue addressed later in this report. The CATI program for this questionnaire was quite complex. However, this magnitude of CATI problems is unusual. There were clearly serious lapses in procedure here. Standard operating procedure requires that CATI programmers conduct programming tests with randomly generated data prior to survey administration to identify such problems before fielding. Standard operating procedure also requires that the project director review marginals early in the field period as a further check on the program's accuracy. The persistence of CATI problems throughout the filed period indicates that such checks were either not undertaken or were not carefully conducted.

5. Various monetary incentives were also eventually employed to boost response rates, including a $25 incentive for respondents qualifying for the long-form questionnaire. This incentive level is quite high compared to many surveys. The incentive also added greatly to the survey's cost. A separate study should be undertaken to determine the cost-effectiveness of this incentive level and to determine if the incentive created biases or differing response patterns. This can be accomplished through an experimental design comparing respondents offered different incentive levels and no incentives.

6. Low incidence studies on sensitive topics require very long field periods. Longer field periods at a practical level allow an interviewing facility to dedicate only its most effective interviewers to the project. While the ultimate field period for NJPS was about 12 months, the first thirteen sample replicates were fielded in an initial four-month period, August 21, December 6, 2001. Also, interviewing facilities in the future should be provided incidence estimates based upon very conservative assumptions. For example, a survey incidence which falls from an expected 2% to 1% *doubles* the number of telephone screening hours needed. Surveys which consume more interviewing time than planned will likely run up against practical resource limits of the interviewing facility, including limited numbers of interviewers who can achieve high response rates on sensitive projects.

7. Hand-offs from one respondent to another, a procedure used in NJPS, typically result in lower response rates because the respondent completing the screener may not be the person randomly selected to

conduct the long-form interview. The hand-off to the randomly selected respondent often requires a callback to the household and a re-introduction of the survey. Even multiple callback attempts may still fail to locate the selected respondent or may result in a refusal, even though the original, screened respondent cooperated. The issue of random selection in household is a thorny, trade-off issue. Random selection of adults within household is most desirable in theory to preserve randomness and projectability. In practice, it does increase the drop-off rate between qualifying households and completed follow-up long-form interviews. About a third of qualifying households did not complete the long-form. The main issue here is the following: is this more a study of Jewish households, which would allow a qualifying household informant to provide information on the entire household, or is this more a study of individual Jews, which requires random selection.

8. Another consequence of the hand-off is that screener respondents in completely Jewish households or single-member Jewish households are more likely to be chosen for the full interview, since they are less likely to need to be handed-off. The lowered likelihood of hand-off increases the likelihood of a long-form complete after screening. By contrast, the original respondent in a *mixed* household may be the non-Jewish household member, requiring a hand-off to the Jewish household member. Each needed hand-off reduces the likelihood of completing the full interview. The practical consequence is that the achieved long-form sample may be more strongly "Jewish-identified" or more likely to be in a completely Jewish household than the total screened Jewish population. Again, this issue should be evaluated for future studies.

9. Interviewers working on longer-term projects generally should be rotated in and out of such projects on occasion so that we do not risk their becoming fatigued or even "burned out" with the project. As a rule, interviewer retraining on long-term projects should be undertaken every few months to correct for deficiencies that occur when working repeatedly on one project.

10. UJC should consider using two different interviewing houses to conduct this low incidence survey to increase the probability that better interviewers are utilized. Even though different facilities may produce "house effects," the two facilities would serve as a quality check on each other and create a somewhat "competitive" situation with regard to response rates and other quality indicators. Often facilities use the same CATI programs, so it is likely that the programming will need to be done only once.

11. Post survey analysis suggests that the Jewish completes appear to be more strongly identified than are the Jewish incompletes, skewing the

sample toward more hard-core Jewish respondents. Even under optimal circumstances, the completes would likely have skewed more "Jewish" based upon Jews' likely heightened interest in the survey topics. However, this skewing may have been more pronounced here because UJC was identified to Jews as the sponsor when the long-form was administered. This may have resulted in an even higher response rate for more strongly identified Jews compared to others. This issue should be examined before undertaking future studies.

3. Missing Screener Data and Weighting Issues

Two major problems in the data collection and questionnaire design resulted in missing data on key weighting items, requiring data imputation measures to weight the sample.

1. Data storage problems by the interviewing contractor resulted in the loss of several weighting criteria items collected in the screener from households in cases called "incompletes" in sample replicates 1-15, out of 22 total replicates. "Incompletes" are households in which the screening interview successfully identified the presence of a qualified adult but a full interview with the randomly selected respondent was never completed. In many of these cases, the randomly selected respondent for the full interview was a different person than the original screening contact. To weight the sample, weighting criteria missing from these incompletes were imputed based on similar screening cases that were collected and retained in replicates 16-22.

2. Incompletes in all replicates also lacked information on number of household voice telephone lines. This occurred because, in households selected for the main interview, the telephone line question was deferred in the screener and asked later in the long-form interview. In the case of incompletes, the full interview was never successfully completed, so information on telephone lines was missing. These data were imputed based on data from similar households. In households successfully screened but not selected for a full interview, information on telephone lines was collected during the screening interview.

We examined the weighted Jewish screening percentages of Jewish adults who said their religion was Judaism in each group of replicate sets to determine if they were relatively consistent *after* imputation of the missing data from incompletes.* Again, we do have full screening data for replicates 16-22.

Here are the findings*:

Replicates 0-8 = 1.6%
Replicates 9-15 = 1.5%
Replicates 0-15 = 1.6%
Reps 16-22 = 1.7% ➔ Full Screening Data
All replicates = 1.6%

* Data tabulated by UJC

Though these differences are small, the large sample sizes make them statistically significant at the 95% confidence level or higher, depending upon how the data are aggregated by replicate.

We therefore felt reasonably comfortable in recommending that the Jewish population estimate be based upon the entire data set and that the imputed weights be used. See Section 4 below for a discussion of the full weighting schema.

4. Sample Design and Weighting Issues

a. Sample Design/Stratification

To improve the efficiency of the RDD sample used in the NJPS, higher incidence areas were oversampled. To facilitate this disproportionate sampling, the sample was divided into seven geographic strata, based upon reported metropolitan area Jewish population counts from the 1998 *American Jewish Year Book*. Six strata were based upon these counts, with the seventh strata designated as "rest of country." The population counts in this *Year Book* are very approximate and not of uniform quality by metropolitan area. Disproportionate sampling allowed the study to concentrate its resources in areas where Jews were most likely to be found.

b. Weighting Issues

The use of disproportionate sampling means that the data user generating marginals or other descriptive statistics and estimates must use the various weighting adjustments assigned in the dataset. The weighting schema required for this data set is particularly complex because of the disproportionate sampling, the differing universes being covered (total population, household), the manner in which PJBs were selected for interview, and a problem of missing screener data caused by CATI programming errors. Household weights and individual population weights were also calculated so that the data may be analyzed at both levels. Section II-B of the *NJPS/NSRE 2000-01 Study Documentation* should be carefully read to understand the complex weighting schema. The NJPS/NSRE 2000-01 Datafile User Guide, which accompanies the electronic datafiles, provides details on how to employ the weights. NJPS data users should be cautious about analyzing the data at the regional or metropolitan area because of small sample sizes and large confidence intervals. Importantly, the extensive use of weighting will bring about increases in sampling variances.

Tom Smith worked with David Marker (NTAC) and Laurence Kotler-Berkowitz (UJC) to review and refine the original weighting schema. A full description of the final weighting will be found in Section II-B of the Survey Documentation.

The weighting is multistaged not just because of the sample design, but because programming errors resulted in the loss of screening data for the incompletes in the first 15 replicates. The screening data were retained for the last 7 replicates (replicates 16-22). These errors are described in Section 3 of this report. To generate weights for the incompletes in replicates 1-15 by type of household (or subsample: Jewish/PJB/non-Jewish) and stratum, the estimates of incompletes for the earlier replicates were computed by applying the ratios of completes to incompletes found in the later replicates. This was done separately by number of adults in the households (1, 2, 3+) within stratum and within subsample. Section II-B of the Survey Documentation contains a full description of the procedures used.

The Review Committee was particularly concerned with how the weighting schema corrected for the strata oversampling (sampling disproportionately in the various strata) and for differential response rates in the various strata. For example, response rates in the New York metropolitan area were lower than response rates elsewhere. The oversampling and differential response rates were adjusted through the post-stratification weighting/raking. Since the control totals are at the stratum level, the oversampling is automatically incorporated when households are weighted up to the control totals. The Review Committee found this procedure reasonable. Future researchers may find reason to refine the weighting schema further as they explore the data.

Lastly, analysts should note that the weight labeled "adjwgt" adjusts the complete screening interviews to the total number of complete plus incomplete (or partial) screening interviews by three factors: subsample (Jewish, PJB or NSRE), stratum, and number of adults in the household. Other than subsample, screener incompletes were not accounted for in screener completes by a more specific measure of the religion of household members. In all three subsamples, religions could vary: Jewish households can contain Jews whose religion is Judaism, Jews with no religion, and people with other religions. PJB households can contain adults with a non-Jewish religion or no-religion. NSRE households can contain adults with many different kinds of non-Jewish religions or no religion. To the extent, then, that adults in screener partials have different religions than adults in the completed interviews - even within the same subsample - biases may emerge in the data of the completed interview datafiles.

This problem is particularly relevant to the Jewish and PJB completed interviews because the screener incompletes represent a sizeable minority of all known Jewish and PJB households contacted in the screening phase. Researchers at the North American Jewish Data Bank will continue to review this issue and, if

appropriate, will publicize their findings and suggestions for changes in the weights.

5. Standard Errors

Every sample survey is subject to random error, that is, the likely differences between the random sample and the universe from which the sample is drawn. This error is generally reported as a range, +/-, associated with a certain probability, usually either 95% (19 surveys out of 20) or 99% (99 surveys out of 100). So-called "sampling error" refers only to random error. Standard errors do not take into account non-random error that might result from low response rates, interviewer and CATI errors in administration, issues with question wording and question form, and other design issues.

Appendix 5 presents the Coefficients of Variation (CV) for various population cells in this survey. The CV is the standard error divided by the estimate. Thus, a CV of 5% means that the standard error is 5% of the estimate, and a 95% confidence interval is of width plus or minus 10%. Gene Erickson reviewed the standard errors and found them to be correct and competently done. Again, standard errors provide estimates only of random error.

6. Missing Data Items

There are three types of missing data in NJPS 2000-01. First, there are missing data resulting from "skip pattern" and other recording errors in the Computer-Assisted Telephone Interviewing program. Computer-Assisted Telephone Interviewing (CATI) is the computer system that research firms use to conduct interviews. Examples of these errors are cited below. The NJPS 2000-01 Datafile User Guide contains a full listing of these programming errors. Second, there are missing screener data resulting from incorrect programming instructions for retaining data in the CATI program, Quancept, for data storage and processing. Missing screener data issues are discussed in Section 4 of this memo.

Third, respondents classified as "persons of Jewish background" (PJB) were administered a shorter version of the full questionnaire. In addition to "missing data" issues noted above, users will find that many questions were administered only to "Jews" and not the PJBs because the National Technical Advisory Committee felt they were not relevant to PJBs. Note that base sizes will differ depending upon the whether the item was asked of both Jews and PJBs or just Jews.

Here are some examples of questions mistakenly not asked of certain respondents or other members of their households who qualified for the questions. These include the following:

1. Questions on Jewish education, day camp attendance and visits to Israel asked about a randomly selected Jewish child in each household where such a child exists.
2. Questions on respondents' partners (i.e., fiancée/fiancé, boyfriends/girlfriends, and partners). These questions, which are scattered throughout the full questionnaire, address Jewish religious service attendance, country of birth, state of birth, U.S. citizenship, and philanthropic decision-making.
3. A single question on the likelihood of making provisions for a Jewish charity or cause in respondents' wills.

Again, the full listing of missing items resulting from CATI programming errors appears in the NJPS 2000-01 Datafile User Guide.

7. Other Issues Beyond our Charge

Survey critics have raised numerous other issues which we can't address here. Some have challenged the estimates on the number of Jews from the former Soviet Union, Israelis in the U.S., Jews in the western U.S. and so on. Others have questioned whether Orthodox Jews or other groups were more/less likely to complete the survey. Some tests have been undertaken to analyze these issues. Questions have been raised about differential Jewish "denial" in surveys. These separate studies are available from UJC.

In Summary

The NJPS 2000-01 will provide researchers with a broad profile of the Jewish population of the United States. The questionnaire and study design reflect the complexity of this undertaking and raise many research issues and questions which cannot be fully resolved at this time. UJC is to be commended for the several careful methodological follow-up studies cited above. Certain aspects of the study design, programming errors, and the low response rate mean that users must be cautious about the extent of non-sampling error. However, this caution applies to all surveys and is not unique to NJPS.

In summary, the Review Committee believes that:

1. certain study design decisions, such as the composition and placement of the religion screening questions, may have produced an estimate of the Jewish population that is slightly lower than that reported by the standard General Social Survey (GSS) religious battery and other surveys.

2. analysis should be undertaken to determine the extent to which the Jewish sample may skew toward Jews who are more religiously identified and who reside in completely Jewish households.

However, these issues will likely have little impact on the analysis of relationships *between* variables in this dataset. Analysis of these relationships will provide valuable insights into the relationships between the varying backgrounds of Jews, their beliefs, religious practice, and the role of religion in family life.

Appendix 1 (Revised)

NJPS/NSRE Sample Allocation Codes, Coding Scheme, Interview Type and UJC Jewishness Classification

Sample Allocation Codes (ISAC, RSAC)	*Current Religion (sq01,q010)*	*Jewish mother and/or father (sq05, q011a, and q011b*	*Raised Jewish (sq06, q012a)*	*Consider Self Jewish (sq07, q015)*	*Interview Type (SOURCE)*	*UJC Jewishness Classification (J1 through J6)*	*Unweighted N*
1	Jewish	-	-	-	Jewish	Jewish	3,767
2	Jewish + other	Y	-	Y	Jewish	Jewish	14
3	Jewish + other	Y	-	N	PJB	Jewish-connected	5
4	Jewish + other	N	Y	Y	Jewish	Jewish	1
5	Jewish + other	N	Y	N	PJB	Jewish-connected	0
6	Jewish + other	N	N	Y	Jewish	Jewish	2
7	Jewish + other	N	N	N	PJB	Non-Jewish	20
8a	Other: theologically compatible	Y	-	Y	Jewish	Jewish-connected	72
8b	Other: not theologically compatible	Y	-	Y	Jewish	Non-Jewish	253
9a	Other: theologically compatible	Y	-	N	PJB	Jewish-connected	66
9b	Other: not theologically compatible	Y	-	N	PJB	Non-Jewish	319
10a	Other: theologically compatible	N	Y	Y	Jewish	Jewish-connected	1
10b	Other: not theologically compatible	N	Y	Y	Jewish	Non-Jewish	11
11a	Other: theologically compatible	N	Y	N	PJB	Jewish-connected	2
11b	Other: not theologically compatible	N	Y	N	PJB	Non-Jewish	22
12	Other	N	N	Y	NSRE	Non-Jewish	36
13	Other	N	N	N	NSRE	Non-Jewish	3,404
14	None	Y	-	Y	Jewish	Jewish	360
15	None	Y	-	N	PJB	Jewish-connected	220
16	None	N	Y	Y	Jewish	Jewish	3
17	None	N	Y	N	PJB	Jewish-connected	10
18	None	N	N	Y	NSRE	Non-Jewish	2
19	None	N	N	N	NSRE	Non-Jewish	585
Total							9,175

Note that the SAC pair's labeled 8a & 8b, 9a & 9b, 10a & 10b, 11a & 11b were not originally distinct sampling allocation codes. Each pair was split into "a" and "b" components subsequent to sampling and data collection phases as part of UJC's effort to develop a measure of Jewishness comparable to the definition used in NJPS 1990.

The Appendix 1 labels and this explanatory footnote have been revised in consultation with Dr. Schulman by the North American Jewish Data Bank (when it was based at Brandeis University and at its current locus: the University of Connecticut) from the version originally presented in the Study Review Memo. The revisions reflect the final UJC Jewishness classification schema of Jewish, Jewish-connected, and non-Jewish, which were used for the estimates presented in the NJPS 2000-01 reports..

APPENDIX 2:
NJPS 2000-2001 Sample Disposition

Code	CASRO/AAPOR Category		Number	%
I	**COMPLETED CONTACTS**		**174660**	**13.22%**
	Completed Interviews	**9175**		
	Not selected for Interview-PJB	**1321**		
	Not selected for Interview-Non-Jewish	**164164**		
P	**PARTIAL INTERVIEWS**		**352**	**0.03%**
	Qualified Callbacks	**352**		
R	**TOTAL REFUSALS**		**257083**	**19.46%**
	Household-level	256520		
	Known respondent	0		
	Interview terminated/break-off	563		
NC	**NON-CONTACTS**		**36062**	**2.73%**
	Respondent never available/away dura.	0		
	Household answering machine	36062		
O	**OTHER NON-INTERVIEW**		**36839**	**2.79%**
	Inability to communicate	1950		
	Language barrier	34889		
UH	**UNKNOWN IF HOUSING UNIT**		**191904**	**14.52%**
	Busy	37303		
	Technical phone problems			
	(e.g.Call blocking)			
	Always no answer	154601		
UO	**HOUSING UNIT/UNKNOWN IF ELIG. RESP.**		**53171**	**4.02%**
	Refused Screener			
	Initial contact/Callback mode	53171		
NE	**NOT ELIGIBLE**		**185796**	**14.06%**
	Fax/data line	76259		
	Not a housing unit/e.g business	109537		
	No one 18 or older in HH	0		
	Out of sample area/quota filled	0		

NW	**NOT WORKING**		**385419**	**29.17%**
	Dialed non-working/disconnected #	385419		
	Pre-screened non-working number			
	TOTAL NUMBERS DIALED		**1321286**	**100.00%**
e	Estimated proportion of cases of unknown eligibility that are eligible (I+P+R+NC+O)/(I+P+R+NC+O+NE+NW)		0.469235122	

Response Rate (RR3)=(I)/((I + P)+ (R+NC+O)+e(UH+UO))	28.17%
Response Rate (RR4)=(I + P)/((I + P)+ (R+NC+O)+e(UH+UO))	28.23%
Cooperation Rate (COOP3)=(I)/(I+P+R)	40.42%
Refusal Rate (REF3)=(R)/(I+P+R+NC+O)	50.91%
Contact Rate (CON3)=(I+ P+ R+O)/(I+P+R+NC+O)	92.86%

Source:The American Association for Public Opinion Research. 2000.
Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys.
Ann Arbor, Michigan: AAPOR.

APPENDIX 3
Estimates of Number of Jews in the United States
Adults

Survey Organization	Dates	Mode	Sample Size	Estimates Missing Values Included	Estimates Missing Values Excluded
Gallup	1997-2001	T	13,714	---	1.8%
ANES/ISR	1998-2000	T/P	3,049-3,088	2.0%	2.0%
GSS	1998-2002	P	8,353-8,414	1.8%	1.8%
ARIS	2001	T	47,525-50,238[a]	1.3-1.4%	1.4%

Question Wording:

Gallup -
What is your religious preference -- is it Protestant, Roman Catholic, Jewish, or an Orthodox religion such as the Greek or Russian Orthodox Church?

ANES/ISR -
IF ATTENDS RELIGIOUS SERVICES: Do you mostly attend a place of worship that is Protestant, Roman Catholic, Jewish, or what?
IF R DOESN'T ATTEND RELIGIOUS SERVICES: Regardless of whether you now attend religious services do you ever think of yourself as part of a particular church or denominations? IF YES: Do you consider yourself Protestant, Roman Catholic, Jewish, or what?

General Social Survey (GSS) -
What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?

ARIS -
What is your religion, if any?

T=telephone
P=in person/face-to-face
[a]ARIS reports 1.3% in Exhibit 1, but using numbers also reported in Exhibit 1 a level of 1.4% is obtained. The number of cases with missing data excluded is estimated based on percentages reported in Exhibit 1.

Appendix 4
Estimates of Number of Jews in the United States for Adults and Total Population using Various Definitions

	Adults	Total Population[a]
GSS:		
Religious Preference	1.8	1.7
Rel. Pref + Religious Upbringing	2.1	1.9
Current or Raised Jewish	2.2	2.0
ARIS/AJIS[b]		
Religious Preference	1.2-1.3	---
Rel. Pref. + Parentage	2.3-2.4	---
Rel. Pref. + Par. + Upbringing + Considers Self Jewish	2.4-2.6	---
Core Jewish Population	1.9	1.9

[a]Total population estimate for the GSS assumes that all members of a household (adults and children) are the same religion as the randomly selected adult respondent.

[b]While the ARIS and AJIS are essentially the same survey, estimates from separate reports differ for reasons that are not clear. Two figures under adults are based respectively on number of cases divided by total number of respondents and estimated total number of adults that this represents divided by total number of adults according to Census.

GSS -
Religious Preferences = Jewish on following question "What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?"
Religious Preference + Religious Upbringing = Jewish on religious preference item above + "no religion" on religious preference item and Jewish on item "In what religion were you raised?"
Current or Raised Jewish = Jewish on either current religious preference or religion raised in

ARIS/AJIS -
Religious Preference = Jewish on the following question "What is your religion, if any?"
Religious Preference + Parentage = Jewish on religious preference item above + had Jewish parent ("Do you or does anyone else in your household have a Jewish mother or a Jewish father? IF "Yes" or "Partly/half Jewish": Is it you, yourself, someone else in your household, or both you and someone else in the household that has a Jewish mother or father?")
Religious Preference + Parentage + Upbringing + Considers Self Jewish = Jewish on religious preference or parentage or upbringing (Were you, or anyone in your household raised as Jewish? IF "Yes" or "Partly/half Jewish": Is it you, yourself, or someone else in your household, or both you and someone else in your household that was raised Jewish?) or other self-identification ("Do you, or anyone else in your household consider himself/herself to be Jewish? IF "Yes": Is it just you yourself, someone else in your household, or both you and someone else in your household that considers himself/herself to be Jewish?").
Core Jewish Population = Religious preference is Jewish or has Jewish parent and no current religious preference or the minor, co-residing child of such a person.

APPENDIX 5

COEFFICIENTS OF VARIATION AND CONFIDENCE INTERVALS

Table 1. Jewish individuals

	Estimate	95% Confidence Interval Lower	95% Confidence Interval Upper	Coefficient of Variation (CV)*
In all households:				
Total Jews	5,086,418	4,946,970	5,225,865	1.4
Jewish Adults	4,093,519	4,008,536	4,178,502	1.0
Jewish Children	992,898	888,772	1,097,025	5.3
In "Jewish" households:				
Total Jews	4,429,641	4,309,307	4,549,975	1.4
Jewish Adults	3,449,668	3,397,310	3,502,026	0.8
Jewish Children	979,973	877,296	1,082,649	5.3
In "PJB" households:				
Total Jews	656,777	593,435	720,118	4.9
Jewish Adults	643,851	580,349	707,353	5.0
Jewish Children	12,926	3,359	22,492	37.3

Table 2. Jewish households

	Estimate	95% Confidence Interval Lower	95% Confidence Interval Upper	Coefficient of Variation (CV)*
All Jewish households	2,893,367	2,831,221	2,955,513	1.1
In "Jewish" households	2,274,813	2,245,704	2,303,921	0.6
In "PJB" households	618,554	562,923	674,186	4.5

*The CV is the standard error divided by the estimate. Thus a CV of 5% means that the standard error is 5% of the estimate, and a 95% confidence interval is of width plus or minus 10%.