

Brandeis University

Steinhardt Social Research Institute

Reconsidering the Size and Characteristics of the American Jewish Population:

New Estimates of a Larger and More Diverse Community

Working Paper Series:

Understanding Contemporary American Jewry

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Although grateful to all of these individuals, we take full responsibility for the content of the present report. The conclusions reflect our judgment about how to use and interpret data about American Jewry and any errors are solely our responsibility.

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Executive Summary

Considerable controversy exists about the size and character of the Jewish population in the United States. Available sources of data about American Jewry are based on complex surveys that have become increasingly difficult to conduct. Accumulating evidence suggests that these surveys provide a misleading portrait. The goal of the present report is to identify key problems with existing socio-demographic data on American Jewry, describe a new paradigm for gathering basic data, and provide initial findings from the application of new methods.

The collection of systematic socio-demographic data about American Jewry has been the focus of a set of specialized national and local studies, funded in virtually all cases by Jewish communal organizations. As part of the present assessment of existing data, this report re-examines the most prominent national study, the National Jewish Population Survey (NJPS) 2000-01, and uses it as the basis for discussing the utility of currently available information about American Jewry. The present focus is not, primarily, on the methodology of NJPS and related studies. Instead, our emphasis is on the accuracy of estimates provided by NJPS and their relationship to other data. NJPS is the most frequently relied upon source of information about the Jewish community in the United States and errors in its interpretation have very serious policy implications for the Jewish community and for those interested in understanding contemporary Jewry.

NJPS 2000-01 estimated the Jewish population at 4.3 million who were Jewish by religion or had no religion and considered themselves to be Jewish, plus 800,000 people of Jewish background, and an additional 100,000 thought to live in institutional settings. These numbers result in a total estimated population of Jews and persons of Jewish background at 5.2 million. This estimate represented a significant reduction in the size of the Jewish population compared to the previous survey (NJPS 1990) and a substantial decline from what was predicted based on natural growth and increases due to Jewish immigration.

Despite the fact that NJPS 2000-2001 has been acknowledged to be methodologically problematic, it

has become the standard reference on the size and character of the Jewish population in the United States. Three illustrations of errors with NJPS estimates are provided: First, age cohorts from NJPS 1990 and 2000-01 are compared and several groups are identified that have been “lost,” most likely because of methodological error. Second, NJPS estimates of day school participation are compared with actual day school census data to illustrate another facet of sample bias. Third, NJPS estimates of young adults are reviewed to document how college students and non-Orthodox individuals appear to have been undercounted.

Age cohort comparison. By applying the same definition of Jewish identity and comparing across NJPS surveys, differences in the growth of cohorts can be examined. In two 10-year cohorts (1956-1965 and 1946-1955), the surveys indicate a substantial decrease in the number of Jews by religion between 1990 and 2000. The decline is most dramatic for those born between 1956 and 1965 (i.e. those aged 25-34 in 1990 and 35-44 in 2000), where the estimate for 2000 is nearly 30 percent (approximately 175,000 individuals) lower than the 1990 estimate.

The decline in the estimated number of individuals in over a decade must either be the product of massive changes in Jewish identification or a result of surveys drawing from different populations. Our analyses find that any “switching” that may have occurred, whether to other religions or to secularism, is not significant enough to account for the reduction in these estimates. It is more likely that NJPS 2000-01 drew from only a limited portion of households that included Jews born from 1946 to 1964. As a result of changes in the telephone system between 1990 and 2000, it became more difficult to reach this population, particularly non-Orthodox Jews.

Day school participation. NJPS undercounted non-Orthodox families, a conclusion buttressed by a second set of comparisons using data regarding Jewish day school participation. According to NJPS 2000-01, 29 percent of Jewish children attend a Jewish day school. Several sources of data suggest that the finding is in error and that significantly fewer than 3 out of 10 children attend day schools.

NJPS school data can be compared to an actual day school census. The AVI CHAI Foundation day school census provides reliable data on day school participation. AVI CHAI estimates that in 2003 the number of children between the ages of 6-17 enrolled in fulltime Jewish day schools was 172,000 and that most schools (nearly 80 percent) are Orthodox. Given that multiple studies indicate that the Jewish population is overwhelmingly non-Orthodox, it is unlikely that the day school population is as large a proportion as suggested by NJPS. More likely, the 2000-01 survey had an easier time reaching Orthodox homes than it did reaching non-Orthodox homes.

NJPS's day school finding can also be compared to results from local Jewish community studies. In every community that has conducted a recent population study, survey results overestimate the number of children enrolled in day schools. That is, a comparison of community studies' estimates of the number of day school students with the actual number (from AVI CHAI's census) indicates that surveys overestimated day school enrollment. Although local studies probably do a better job of sampling than national studies, they are still unable to avoid bias. These data, along with the national comparisons, suggest that the estimates of the number of Jewish children is substantially larger than the number provided by NJPS.

Young adults. A final set of evidence that NJPS underestimated the Jewish population is provided by findings about Jewish young adults (18- to 29-year-olds). Young adults, who are more likely than other groups to be highly mobile and to rely on cellular phones, are a particularly difficult population for telephone survey researchers. An examination of the young adult findings from NJPS reveals several anomalies.

Notably, there is an apparent bulge of young Orthodox adults, compared to the apparent stability in proportion of Orthodox in older cohorts. Along with the apparent over-representation of Orthodox young adults, the UJC also reported that 34.5 percent lived with their mother and/or father. If, as the present analyses suggest, a large number of 18- to 29-year-olds were not properly counted, it has critical implications for the Jewish educational and cultural programs

targeted at this age group (e.g., Taglit-birthright Israel, Hillel) and for projections of the future adult population.

Synthesis

Given the problems associated with estimating the Jewish population, particularly sample bias in telephone surveys, we sought an alternative method that would avoid some of the difficulties associated with surveying a rare population.

The new methodology synthesizes ("meta-analyzes") data from national studies funded by government and private agencies to re-estimate the size and characteristics of the population. The synthesis uses data from in-person, telephone and mail surveys that ask questions about religious and ethnic identity. The initial emphasis is to identify and synthesize state-of-the-art surveys conducted around the time of NJPS. The goal is to verify or correct the estimates provided by NJPS and develop methods that can be used to monitor changes in the American Jewish population. Accurate estimates of the number of U.S. Jews and their characteristics will both provide the denominator for analyses of the effectiveness of programs and policies and enable better trend analysis.

Major data repositories were searched to identify surveys conducted by government agencies, university-affiliated researchers with government or private sources of funding, and private organizations that included questions on religion. Raters coded methodological characteristics of studies, sampling procedures and how religion and/or ethnicity was assessed. Variables and values had to be identical (or made identical) in order for them to be compared.

To examine the demographic composition of the sample or describe differences in the Jewish population by demographics (e.g., age, sex, race, education or geographic location), a common set of codes was developed and applied across all surveys.

From the more than 100 surveys initially identified, a subset of about three dozen which had available data within four years of NJPS 2000-01 (1998-2005) were examined. Analyzing each survey independently

yielded a wide range in estimates of the percentage of the total U.S. population that identified as Jewish by current religion. Estimates ranged from a low of under 1 percent to a high of nearly 3 percent, compared to the NJPS 2000-01 estimate of 1.5 percent.

Analyses were conducted to combine these estimates, taking into account the unique characteristics of the individual studies and the discrepancies between them. The result was an overall estimate of more than 3.5 million of the total population age 18 and over in the United States who identified as Jewish by religion (more than 15 percent higher than the NJPS 2000-01 estimate). This result was obtained after taking into account demographic differences in the samples. Further analysis of the estimates suggested that response rate may be related to the estimates: higher estimates of the size of the Jewish population are observed in studies with higher response rates.

Because of variability across surveys, it is difficult to estimate precisely the size of the adult Jewish population. But the present analyses yield a pattern of results that is consistent with our comparative analyses of NJPS 2000-01. There seems no question that NJPS underestimated the total population, in particular because it failed to count substantial numbers of young and middle-aged individuals.

Overall Population Estimates. Estimating the overall population requires extrapolating data from analyses of adults. Although these extrapolations require a number of assumptions we can offer some estimate ranges and explanations with considerable confidence:

1. The U.S. adult Jewish population, defined in terms of religion, is at least 3.5 million. This estimate is more than 15 percent higher than that indicated by NJPS 2000-01.
2. The total number of Jewish children (under 18) is estimated at 1.1 to 1.7 million. This estimate is based on assumptions about the proportion of children who attend day school (using day school census data as benchmarks), as well as estimates of children whose parents were undercounted by NJPS. These estimates assume that the average number of children per age cohort is at least 61,000 and perhaps, as high as 94,000.
3. The total number of Jews in the United States, using definitions that parallel NJPS' "core Jewish population" is likely greater than 6 million individuals and possibly, as high as 6.4 million. These estimates include those who identify by criteria other than religion. Based on NJPS 2000-01, a conservative estimate of the proportion of Jews of "no religion" is more than 20 percent above the estimate of those who identify religiously. Other studies specifically suggest that this adjustment should be more than 25 percent. In addition, an adjustment needs to be made for individuals in institutional settings – students in dormitories, in hospitals or similar settings, or in the military. We estimate these numbers as between 250,000 and 350,000.
4. Substantial evidence indicates that the population of 35- to 55-year-olds was substantially undercounted by NJPS 2000-01. Evidence from NJPS itself suggests that this resulted in an underestimate of the non-Orthodox population (those who identify as Reform or Conservative). Our conclusion is that the estimated 800,000 to 1,300,000 additional Jewish individuals identified by the present study are disproportionately non-Orthodox and, on average, younger than the NJPS population.
5. An additional group, perhaps 1 million more than the 6 to 6.5 million estimated to be Jewish by NJPS criteria, might be considered Jewish based on their Jewish family backgrounds. In most cases, these individuals are the children of intermarried parents. Including these individuals would bring our estimate to between 7 and 7.5 million individuals. More broadly, the present static analysis does not take account of the dynamic impact of family changes - doing so is a priority.

Estimates of the population size are useful not only as abstract descriptions, but because they aid understanding of the community and suggest directions for policy. Based on the present evidence of a substantial undercount and that certain groups were systematically underestimated, there are several clear policy implications:

1. The needs for education, religious and cultural services, along with philanthropy to support communal work, have been underestimated. A community experiencing growth, rather than decline, presents the challenge of serving an additional 1.3 million individuals. To the extent that the population has been underestimated, we may have also overestimated the success of programs and the degree to which they adequately serve the population.
2. The finding that younger non-Orthodox individuals have been underestimated suggests that American Jewry is more diverse than previously believed. Some communal discussions regarding Jewish education, intermarriage or the role of Israel in the lives of American Jews have concluded that we need to focus on the core versus the periphery. However, the diversity of the community suggests that this discussion is based on a flawed understanding of the community's makeup.
3. A specific implication of the present study is that research analyses of American Jewish attitudes or behavior need to account for the community's composition. Thus, comparative analyses of Jewish individuals using NJPS should adjust for characteristics of respondents' backgrounds using multivariate analyses.
4. Although the present study yields reliable estimates of the Jewish population as defined by religion, it is clear that Jewish identity is more complex than religious affiliation. The present study uses prior research to extrapolate estimates of the total population, including those who identify or are considered Jews by

non-religious criteria. But these extrapolations need to be understood better and new research is needed about Jewish identity. Understanding how American Jews view their connection with Judaism is critical and will provide insights on how to better serve the community.

Our findings, which suggest a different narrative about the current state of American Jewry than has been previously understood by the community, will likely provoke debate. The findings will undoubtedly be interpreted differently by various scholars and communal planners. The present report is intended to summarize our developing efforts to understand the current status of the American Jewish community and to describe application of new methods to the understanding of the size and character of American Jewry.

Perhaps the clearest implication of the present study is that we, as social scientists, need to do a better job of assessing the state of the American Jewish population. Single National RDD (random digit dial telephone) surveys, like NJPS, that may have "worked" in past decades, are no longer a feasible means to assess a "rare" population. The present synthesis paradigm offers an alternative. The next research challenge will be to develop this method more fully and test its use in revising how future population estimates are made.

Although we acknowledge the controversial nature of these findings, we hope that this report will provoke productive discussion and debate. The larger, more diverse character of the population suggests that the conversation about the future of the American Jewish community needs to encompass multiple viewpoints.

Finally, the findings suggest that deterministic views of the impact of birthrates and intermarriage may need to be adjusted. Just as Jewish identity is regarded as fluid, and may change in intensity over a lifetime, the character of the population may also shift as norms about marriage, child-rearing and religious practice evolve. It is an exciting research challenge and an important moment in the history of the Jewish community.

Introduction

We live in an information age in which access to accurate data plays an increasingly central role in decision-making. The American Jewish community, an ethnic and religious minority in the United States, needs accurate socio-demographic information in order to plan its future. In other countries, “official” data about religion are regularly collected; the U.S. Census does not collect information about religion.¹ The Jewish community has, as a result, undertaken its own efforts to collect such data, but this work faces increasing methodological challenges and often produces unclear results.² This report identifies some of the limits of available information about American Jewry and provides a new assessment of the size and characteristics of the American Jewish population. Our revised assessment indicates that the Jewish population in the United States is significantly larger and more diverse than suggested by previous studies.

The key source of current information about the socio-demographic characteristics of the American Jewish population is the 2000-01 National Jewish Population Survey (NJPS).³ NJPS is the most frequently consulted source of information about the Jewish community in the United States and, because its data have been made widely available, its accuracy can be compared with other information sources.⁴ Below, a number of the problems and anomalies of NJPS are reviewed. As will be illustrated, NJPS has proved to be a particularly problematic study, resulting in substantive findings that appear to misestimate the size and shape of the Jewish population. To the extent that NJPS is in error, there are serious policy implications for the Jewish community and for those interested in understanding contemporary Jewry.

Some of the methodological problems associated with NJPS are unique to the study’s design and implementation. Others, however, are a function of the more general difficulty of using contemporary survey methodologies, in particular, “random digit dialing” (RDD) telephone techniques, to assess a “rare” population. Many of the technical issues surrounding NJPS have already been identified and widely discussed.⁵ The present report focuses on the ways in which analyses have yielded anomalous findings, and have led to erroneous conclusions and poor or inaccurate policy inferences.

The flaws inherent to NJPS were the impetus for the development of a new paradigm and new methods for socio-demographic analyses of the Jewish population. The new paradigm synthesizes (“meta-analyzes”) data from national studies funded by government and private agencies to re-estimate the size and characteristics of the population. The meta-analysis uses data from in-person, telephone and mail surveys that ask questions about religious and ethnic identity.

Our primary task, reported here, is to identify and synthesize the results of state-of-the art surveys conducted around the time of NJPS 2000-2001 that assess characteristics of the population at large. Our goal is to verify or correct estimates provided by NJPS and develop a methodology that can be used on an on-going basis to monitor changes in the American Jewish population. Because this new approach combines multiple estimates, its results will be more reliable and robust than any one estimate based on a single study. Accurate estimates of the size and characteristics of U.S. Jewry will provide both the denominator for analyses of the effectiveness of programs and policies and allow us to view and better understand trends and patterns in our population.

NJPS 2000-2001

National Jewish Population Surveys have been conducted by the national body of Jewish federations (currently, United Jewish Communities) since 1970 (in 1970-71, 1990, and 2000-01). The 1970-71 survey conducted in-person interviews from a dual-frame sample drawn from Jewish federation lists and random selection of geographic areas down to the block level.⁶ Subsequent decennial surveys (1990 and 2000-01) relied on random digit dialing (RDD) techniques in which telephone numbers were called at random and an adult answered questions about the household. RDD techniques have in recent years, however, become increasingly difficult to execute effectively. Because we lack census data about the country's religious makeup, it is difficult to discern which groups are missed (i.e., who are non-respondents). It is likely, however, that Jews are more difficult to contact than the United States population as a whole. American Jews are socio-economically distinctive, having significantly higher levels of education and income than the general population and more likely to live in dense urban areas. Urban households with higher socio-economic status have been found to be particularly difficult to reach by telephone, suggesting that Jewish populations may be underestimated.⁷

NJPS 2000-01 estimated the Jewish population as 4.3 million people who were Jewish by religion or had no religion and considered themselves to be Jewish, with an additional 800,000 people of Jewish background and 100,000 more thought to live in institutional settings. Thus, according to NJPS, the total population of Jews and persons of Jewish background is approximately 5.2 million.⁸ This estimate is a reduction in the size of the Jewish population compared to the previous survey (NJPS 1990). Furthermore, the estimate represents a significant decline from earlier predictions. Prior to the release of NJPS, demographer Sergio DellaPergola estimated the Jewish population at 5.7 million.⁹ The estimate of 5.2 million individuals from NJPS 2000-01 was at least 10 percent below the anticipated figure. One would have expected increases in the population from the substantial Jewish immigration during the 1990s, including more than

300,000 Jewish immigrants from countries of the Former Soviet Union, as well as immigrants from Israel, South America and Europe.¹⁰

Although described by DellaPergola as the "core Jewish population," the 2000-01 estimate of 5.2 million individuals included people who did not consider themselves Jewish but were Jewish by background.¹¹ This classification was intended to parallel the definition used in NJPS 1990, but the earlier study had asked about Jewish identity in a different way. To explain the decline in the estimate of the Jewish population, it is possible that fewer identified as Jews by religion; however, there is no basis to assume that there was a dramatic decline in individuals' willingness to acknowledge Jewish background. NJPS 2000-01 found major differences in how Jews identified as Jewish by religion and other criteria. The core population was, in fact, estimated to be more than 25 percent higher than the population which identified as Jewish by religion.

As noted above, NJPS 2000-01 has been the subject of widespread criticism.¹² Some of the problems included errors due to poor implementation by the survey contractor (e.g., screening data were lost, key questions were not asked of some eligible households). Other problems, however, were the result of decisions about the survey design. In particular, the decision to conduct full interviews only with those who responded affirmatively to an open-question about being Jewish turned out to limit what could be learned from those of Jewish background.¹³ But, perhaps, the key issue was a joint design-implementation problem: NJPS 2000-01 had a very low response rate - less than 20 percent. In general, low response rates magnify the possibility of sample bias, increasing the likelihood of missing some sectors of the community.

Despite identification of these methodological problems, NJPS, since its release, has become the standard reference on the size and character of the Jewish population in the United States.¹⁴ It is now clear that NJPS' design and implementation issues impact the validity of key inferences from the study. To illustrate some of these problems, the discussion

below highlights three ways in which the findings of NJPS are in error: First, we compare NJPS 1990 and 2000-01 and identify several groups that appear to have been “lost” in 2000-01. Second, we compare NJPS estimates of day school participation with actual day school census data to illustrate another facet of sample bias within NJPS 2000-01. Third, we review NJPS estimates of young adults to document how certain groups seem to have been missed. In each case, NJPS’ findings are markedly discrepant with other sources of information.

Our analyses suggest the ways in which sample bias may have distorted the findings and suggested misleading policy conclusions.

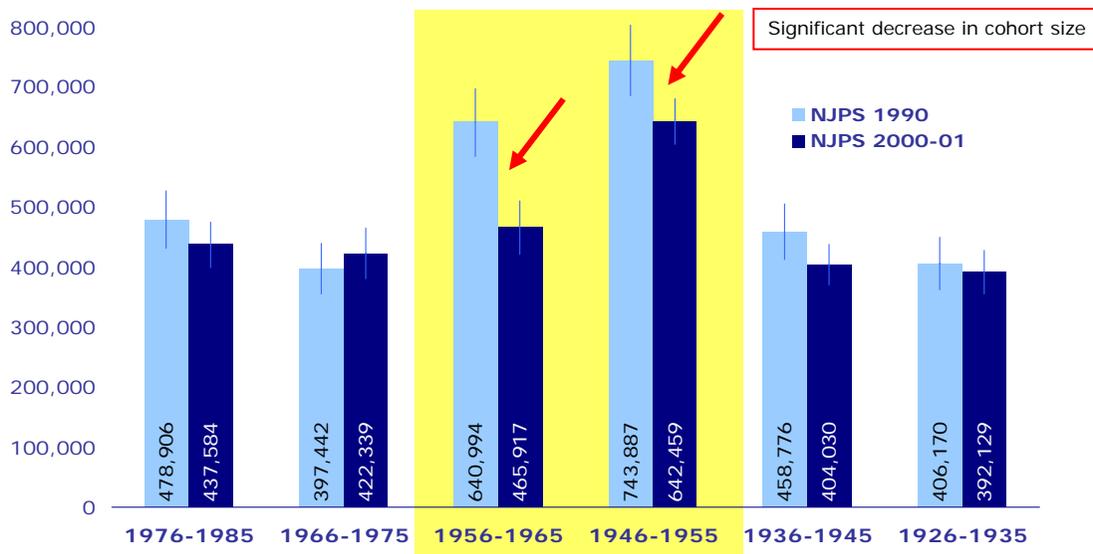
NJPS Missing Cohorts

One way to understand problems with the picture of the American Jewish community presented by NJPS 2000-01 is to compare it to other data sources. In the first case, we compare it to the 1990 survey. Although one might expect changes in other measures, it should be possible to track particular age cohorts over time.¹⁵ Although NJPS 1990 and 2000-01 reported “bottom line” population numbers using different definitions of Jewish identity, we can compare the numbers by

applying the definition (used in both surveys) of people who were exclusively Jewish by religion. By looking at people who were born in the same years, and applying the same definition of Jewish identity, it should be possible to account for the differences in cohort size. Our analyses of NJPS 1990 and 2000-01 by age cohort are presented below.

Figure 1 displays the number of Jews by religion by 10-year cohorts in NJPS 1990 and 2000-01. The youngest group (1985-1995) and the oldest group (those born before 1925) are not shown. The line at the top of each column shows the 95 percent confidence intervals for each estimate (NB: This represents the range of values between which we would expect the true value of the population to fall 95 times out of 100). Where two confidence intervals do not overlap, it suggests that the samples are not drawn from the same population. This occurs in two age cohorts: those born between 1956 and 1965 and those born between 1946 and 1955. These also happen to be the two largest cohorts of the Jewish population. The difference is most dramatic for those born between 1956 and 1965 (that is, those who were between 25 and 34 years of age in 1990 and 35 and 44 years of age in 2000), where the estimate for 2000

Figure 1: Size of Cohorts of Jews by Religion in NJPS 1990 and 2000-01



Note: Steinhardt Institute analyses

is approximately 175,000 people lower than the estimate 10 years previously (a loss of nearly 30 percent).

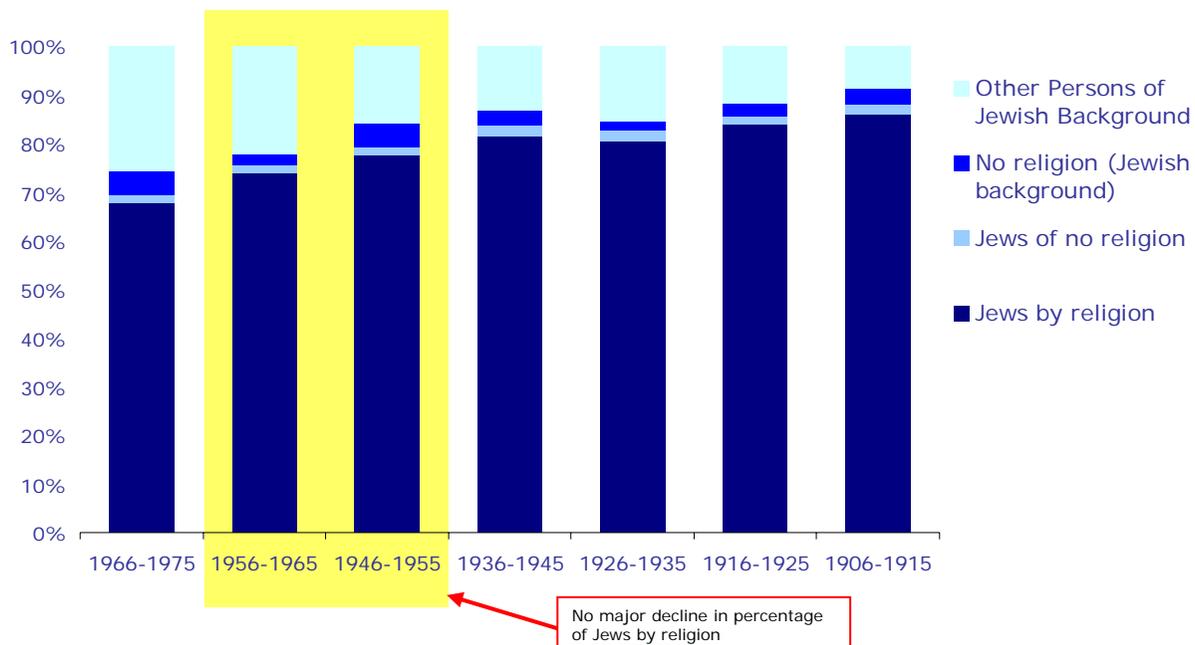
How might such a large group of individuals identified in 1990 be “missing” in 2000? It is unlikely that a quarter of all Jewish baby boomers simply disappeared between 1990 and 2000. Could this generation have been particularly hard hit by disaffection with Judaism? This possibility can be assessed by examining the current religious status of all people who were raised as Jews in 2000-01. If this group converted to other religions or became secular, there should be an observable high rate of switching. As Figure 2 shows, however, this was not the case. The rate of switching for this cohort was no different than the other groups in this analysis.¹⁶

Other alternative explanations also seem unlikely. This level of decline far exceeds mortality. The census estimate of the population born between 1947 and 1966 actually increased by 2.6 percent between 1990 and 2000, compared to the estimated decrease of 20 percent in the Jewish population.¹⁷ It is also possible

that this discrepancy is due to emigration. However, there are no reports of significant numbers of American Jews migrating to Israel or other nations. If anything, there was a considerable gain in net migration during the 1990s as Jews from the former Soviet Union immigrated to the United States in considerable numbers.

If changes in identification, mortality, or emigration were not at work, this leaves only the possibility that the two surveys reached different groups of Jews. Both NJPS surveys had high non-response rates, far higher than is typical of government surveys.¹⁸ However, given the dramatic increase in the difficulty of reaching respondents in the decade between the studies, it is likely that NJPS 2000-01 somehow drew from only a limited portion of all Jews born from 1946 to 1964. Jewish respondents, who are distinctive from the population at large in terms of their high education and income status,¹⁹ are more difficult to contact by telephone than non-Jews; thus, the proportion of Jews identified may be lower than the actual number.

Figure 2: Proportion of Jews by Religion among People Raised as Jews



One underlying question in this analysis was whether sample bias also affected the type of Jewish respondent identified. Differences in terms of educational backgrounds were not significant (within cohorts between the surveys). There was, however, a major difference between the two surveys in terms of denominational identification. Figure 3 shows the denominational identification of Jews by religion born between 1926 and 1965. The youngest cohort examined above is omitted (because some members were children in 1990 and information on denominational identification for children was not

available in NJPS). The results are striking. The proportion that identified as Orthodox doubled in the intervening decade, while substantial losses occurred among Conservative and Reform identifiers. The proportion that identified with some other group also doubled. Is this evidence of a major shift in religious alliances or a methodological artifact?²⁰ Because NJPS asked about the denomination in which people were raised, the possibility that these patterns were the result of changes in Jewish identification can be examined.

Figure 3: Denominational Identification of Jews by Religion Born 1926-1965

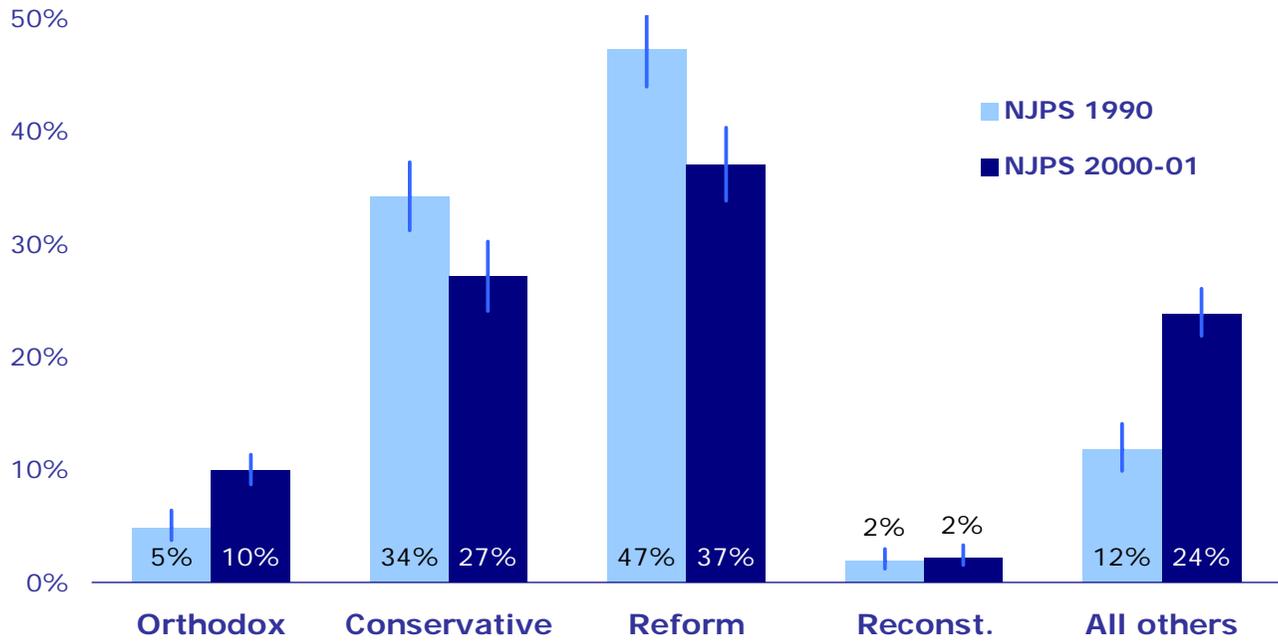


Figure 4 shows the current denominational identification of people raised as Jews and who remained Jewish by religion among Jews by religion born 1926-1965. There is no evidence of a major turn toward Orthodoxy. Only a small proportion of non-Orthodox Jews became Orthodox, while most Jews who were raised Orthodox came to identify with another denomination as adults. Thus, there is no evidence for the increase in Orthodox identification as a result of a marked shift toward traditional observance.²¹

Figure 5 focuses on the Orthodox sub-population of all ages and indicates that nearly all (81 percent) were raised Orthodox. Only a small proportion were raised as Reform or Conservative Jews.

Other alternative explanations seem unlikely. There is no evidence of substantial American Jewish emigration during the 1990s. To the extent that it did occur, it disproportionately reduced the size of the Orthodox population, as Orthodox Jews are overrepresented among (the relatively small number of) American Jewish migrants to Israel. Thus, if anything, the estimates of changes in denominational identification are actually conservative with respect to Orthodox Jews.

Our conclusion is that NJPS 2000-01 had less success reaching non-Orthodox Jews than did NJPS 1990. The growth of the "other" category seen in both Figures 3 and 4 has a different cause. In 2000-01, the NJPS read "Just Jewish" aloud where NJPS 1990 had not, likely leading some people who would have otherwise identified as Conservative or Reform to choose "Just Jewish." Beyond this, the 1990s saw an increase in the number of "alternative" definitions of Jewish identity, mirrored by novel categories like "post-denominational Jew," which may also be reflected in the residual category.²² The 1990s saw an increase in the number of "alternative" definitions of Jewish identity, mirrored by novel categories like "post-denominational Jew." In this instance, the surveys reflect social rather than methodological changes.

The comparisons of NJPS 2000-01 with NJPS 1990 indicate that there was a substantial decline in those aged 35-45 (as of 2000). The only explanation for the decline that fits with the data is that the samples were different. That is, that the 2000 survey "missed" several hundred thousand respondents. Not only do these analyses suggest that the total estimate of the Jewish population was in error, but the findings also raise the possibility that analyses of the characteristics of the Jewish population are inaccurate because of differential response to the survey.

Figure 4: Current Denomination of Jews by Religion Born 1926-1965

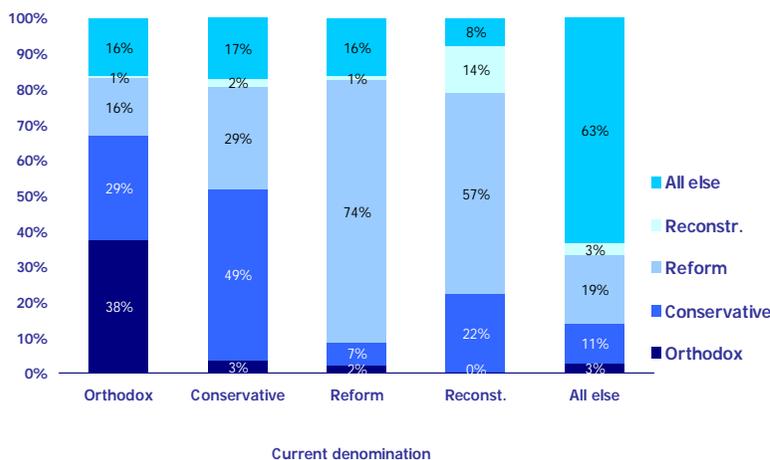
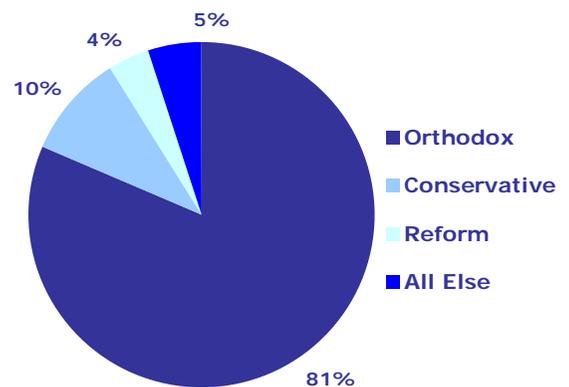


Figure 5: Composition of Current Orthodox Population



Note: Adult current Orthodox Jews of all ages

Note: Born Jews by Religion Born 1926-1965

Day School Participation

Comparing NJPS 1990 and 2000-01 suggests, in particular, that the most recent survey underestimated those who were non-Orthodox and were under the age of 55 as of 2000. That the NJPS estimate undercounted non-Orthodox families is supported by NJPS data regarding day school participation. Analysis of NJPS 2000-01 indicates that 29 percent (nearly 3 out of 10) of Jewish children attended a Jewish day school in 2000-01.²³ Although the proportion of day school students has been used by some to celebrate the growth of intensive Jewish education, our analyses suggest that this conclusion is in error. It is based on an analysis primarily of those who indicated that they were Jewish by religion. Second, and more importantly, it is likely a function of undercounting those who were born after 1945 and were non-Orthodox. Below, two sources of evidence are used to evaluate the accuracy of the NJPS finding. One source is data from a 2003 census of day school enrollment conducted by Marvin Schick for the AVI CHAI Foundation.²⁴ A second source is the findings of recent local Jewish population studies.

Children attending Jewish day schools aged 6-17

Our analysis of NJPS yields an estimate of 163,423 children aged 6-17 attending Jewish day schools in 2000-01.²⁵ This estimate is based on the respondents

who form the 4.3 million Jewish population estimate.²⁶ Based on our calculations of NJPS data, the proportion of Jewish children in Jewish households (N=584,308) attending day schools is 28.0 percent.²⁷

Comparing NJPS findings to census data and local studies

We compared NJPS estimates to actual data about enrollment from the 2003 AVI CHAI census. The AVI CHAI census is considered reliable and includes all Jewish day schools, regardless of orientation.²⁸ The census estimates that 171,000 children between the ages of 6-17 were enrolled in full-time Jewish day schools. As shown in Table 1, the vast majority of the schools are Orthodox (77 percent) and less than 40,000 students attend non-Orthodox schools (including community schools, some of which serve Orthodox populations). Fewer than 20,000 students attend Conservative or Reform day schools.

Although the NJPS estimate and AVI CHAI findings yield similar numbers of day school students, it does not indicate that NJPS is reliable. To the contrary, the likely explanation is that NJPS missed Jewish households with children not attending day school. Given that the overwhelming majority of U.S. Jews are non-Orthodox, and that multiple studies (including NJPS) indicate that the total Orthodox population is no more than 10 percent of the total population, it is highly unlikely that nearly 30 percent of children attend day school.

Table 1: AVI CHAI 2004 Day School Census

Orthodox Day Schools	Number of Children	Percent of total
Grades 1-8	94,001	55%
Grades 9-12	38,691	23%
Total	132,692	78%
Non-Orthodox Day Schools		
Grades 1-8	32,435	19%
Grades 9-12	5,807	3%
Total	38,242	100%

Based on denominational identification, our estimate is that the proportion of the students in day school is no greater than 15 percent. To be sure, non-Orthodox students attend day schools, but there is no evidence that this is a widespread trend. The most likely explanation for the large proportion of day school students is that the 2000-01 survey had a far easier time reaching Orthodox homes with multiple school age children than it did reaching non-Orthodox homes. Not surprisingly, NJPS found that 22 percent of children were Orthodox – a rate far out of bounds with other estimates of the population.

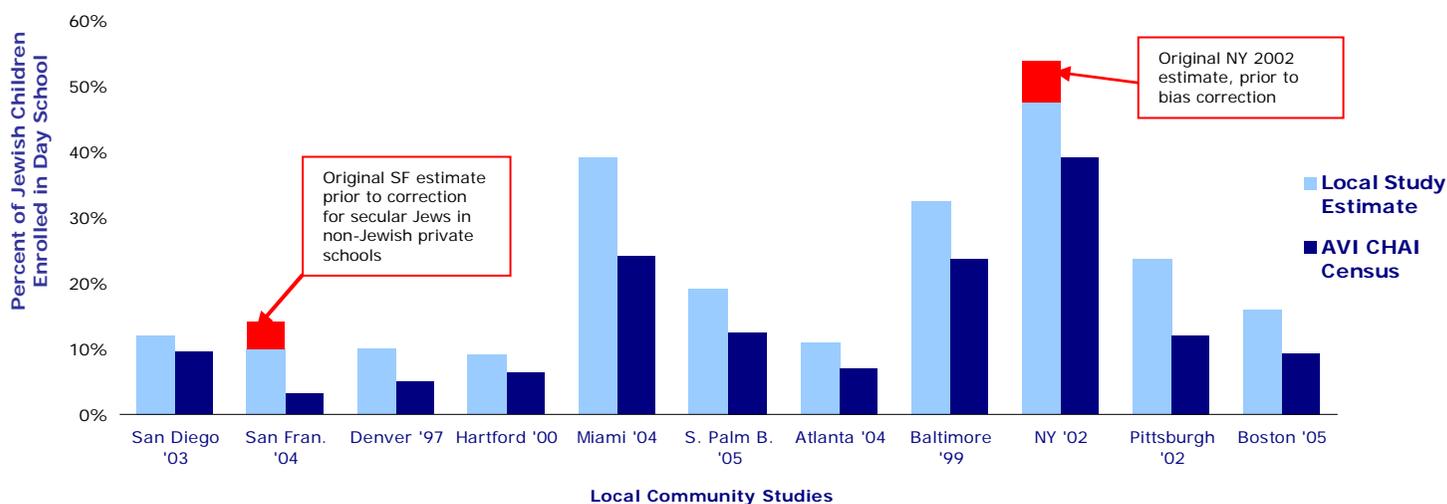
Another comparison of survey and census data is from local Jewish community studies.²⁹ A review of nearly a dozen recent Jewish community studies reveals both substantial variation in the estimated proportion of Jewish children attending day school, but also evidence of bias toward identification of Orthodox households (see Figure 6). Thus, the 2002 New York survey finds that almost 50 percent of Jewish children attend day school. Studies in a few other communities (Boston, Baltimore, Pittsburgh) yield estimates ranging from 15 percent to 30 percent, while other community studies (Atlanta, San Diego, San Francisco, Denver, Hartford) find percentages around 10 percent. However, translating the percentages into estimates of actual students, and comparing these results to the AVI CHAI census, we find that each community study overestimates the proportion of Jewish children currently enrolled in day school.³⁰ In some

community studies, the overestimate is only a few percentage points, while in others it is considerably larger. The substantial New York overestimate is particularly surprising because the finding had previously been adjusted for disproportionate nonresponse to the education questions among non-Orthodox households.

The overestimate of children in day school by local studies adds support to the conclusion that telephone surveys overrepresent Orthodox families. Note that this analysis of local studies is a conservative assessment and is affected by the bias it is trying to detect (i.e., if non-Orthodox households were better counted, the difference between the estimated and actual would be larger). Although the bias in local studies is likely not as severe as in NJPS (perhaps because it is easier to sample small areas), the same problem of response rate sensitivity exists. Families with several school age children, typical of many Orthodox families, have more people available to answer the telephone and may be more likely to be at home. This makes them easier to reach.

These data cannot be used to develop a precise estimate of the number of children, but if we assume that the proportion in day school is no more than 15 percent (based on identification by denomination and patterns of enrollment by non-Orthodox), each age cohort of children is substantially larger than that estimated by NJPS. Some of the implications of larger cohorts are addressed later in the report.

Figure 6: Day School Enrollment Overestimate in Local Jewish Community Studies



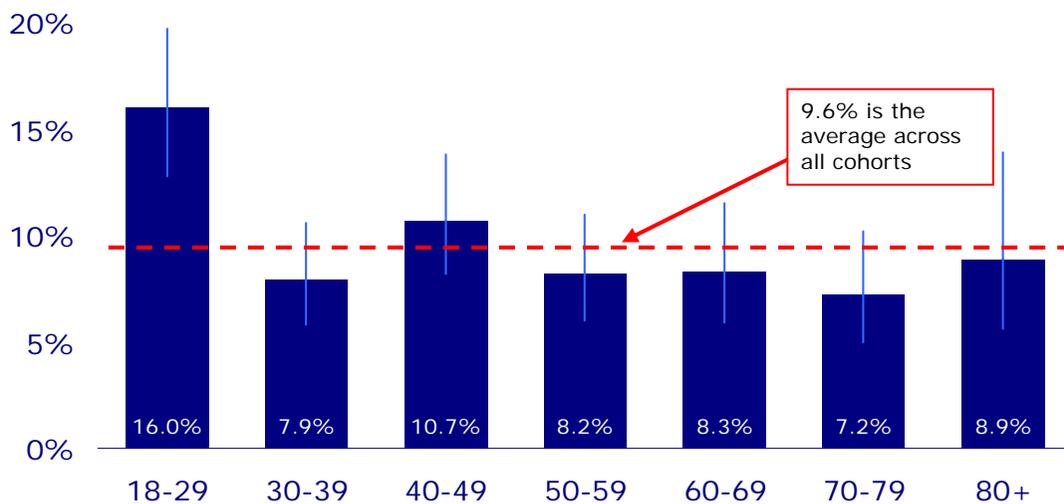
Young Adult Population Estimates

A final set of evidence that supports our conclusion that NJPS underestimated the Jewish population and systematically undercounted certain groups is provided by analyses of its findings about Jewish young adults (18- to 29-year-olds). Young adults are particularly difficult for telephone surveys to reach. An increasingly serious research problem is that these individuals are the most likely to use cellular telephones as their exclusive personal telephone.³¹ Cell phones present several significant challenges to survey researchers. Since 2003, federal regulations have made cell phones off-limits to autodialers, making calls far more expensive and difficult to manage. In addition, mobile phones are often used outside the area with which the number is associated, making it difficult for researchers to connect respondents to geographic location.³² Beyond cell phones, young adults are more likely to refuse to participate in surveys.³³

Finally, young adults living in dormitories, on military bases and in other institutional settings are missed on normal RDD frames.³⁴

It is not surprising, then, that we see problems with the young adult sample in NJPS 2000-01. As Figure 7 shows, NJPS yields an apparent bulge of young Orthodox adults among the Jewish population, compared to the apparent stability in the proportion that is Orthodox among the older cohorts. Again, this is a conservative analysis since we believe that the survey has undercounted non-Orthodox individuals. The pattern suggests that there is something wrong with the sample of young adults. It is likely that non-Orthodox young adults were simply less accessible to NJPS interviewers because they are more likely to attend college away from home and because of a variety of other lifestyle and living arrangement differences.

Figure 7: Percentage Orthodox by Age Group



Source: United Jewish Communities (2003c). Note: Jewish adults.

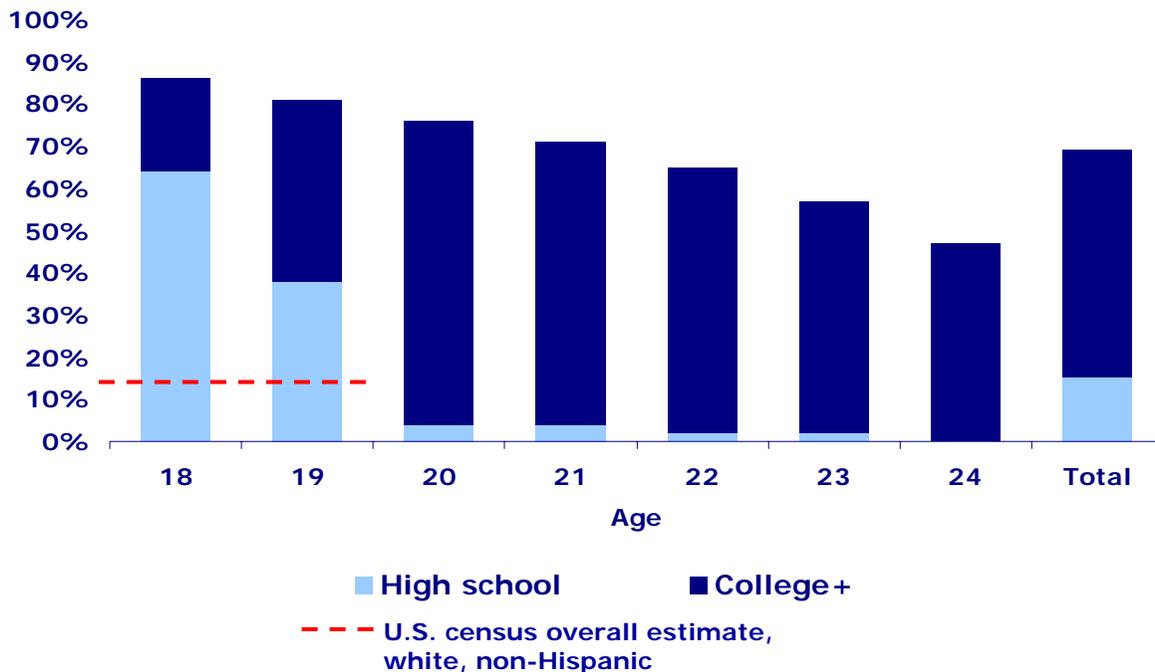
Along with the bulge of Orthodox young adults, analysis of NJPS also indicates that more than one-third of 18- to 29-year-olds (34.5 percent) live with their mother and/or father.³⁵ They are also more likely to live with a spouse: 53.2 percent are married compared to 18.2 percent of non-Orthodox adults in this age group.³⁶ Married households are more likely to have someone at home than unmarried households and are, thus, more easily contacted by survey researchers.

The apparent failure to find non-Orthodox young adults is reflected in estimates of educational participation of those between 18 and 24. According to the UJC, 15 percent of 18- to 24-year-olds are high school students.³⁷ As Figure 8 shows below, analysis of the NJPS data indicates that an estimated 64 percent of

Jewish 18-year-olds and 38 percent of 19-year-olds attend high school.³⁸ These estimates are far too high and exceed estimates for the general population.³⁹ Given that attending high school after reaching 18 years of age is associated with poor academic performance, this number contradicts what we know to be American Jews' track-record of academic success and participation in higher education.⁴⁰

If, as the present analyses suggest, a large number of 18- to 29-year-olds were not properly counted – either because of their lack of landline telephones, their living situation or other factors – there are critical implications for Jewish educational and cultural programs targeted at this demographic group (e.g. Taglit-birthright israel, Hillel). It also has implications for projections of the future adult population.

Figure 8: NJPS: 18- to 24-Year-Olds in School



Synthesis of Independent Studies

Benefits and Challenges of Meta-Analysis

Given the problems associated with estimating the size of the Jewish population, particularly questions of how to sample, an alternative method was sought that would avoid some of the difficulties associated with the present reliance on tailored surveys. Although the U.S. Census does not include a question about religious identity, many existing sources of data – including government surveys – incorporate questions about religious and ethnic identity. Although many of the existing studies are done for purposes that have little to do with religion or measuring the size of religious or ethnic populations, questions on religion and ethnicity are often included with other background questions. For example, a survey on health may include a question on religion in order to examine the possibility that a person's religious beliefs might influence behavioral choices related to health issues. Typically, surveys that are designed to draw inferences about the United States population as a whole collect data from between 1,000 to 3,000 people; some include 10,000 or more participants. The larger the sample, the greater its ability to describe both trends in the population as a whole and trends within subgroups.

If one were to examine any single study, too few participants would identify as Jews to enable one to conclude much about the population. For example, if the percentage of the total population in the United States that identifies as Jewish by religion is approximately two percent, a survey of 3,000 people would, on average, contain only 60 Jews by religion. Analysis of Jewish subgroups is even more difficult. By examining Jewish denominations, or even just education and age, one quickly ends up comparing groups that may be constituted by a single respondent. In order to have a sufficient number of Jewish respondents to be able to describe the population in any kind of detail, one would either need to conduct surveys with very large sample sizes (greater than 150,000 per survey) such as NJPS, or take advantage of methods that allow one to combine the many pre-existing sources of data to maximize the utility of each.

Combining multiple surveys is the basic approach described by Tom W. Smith in his analysis of Jewish distinctiveness.⁴¹ Smith used data from the General Social Surveys (GSS). These surveys are administered every two years to approximately 3,000 adults in the United States. A single year of data contains too few respondents who identify as Jews by religion for analysis and, to get adequate numbers, Smith simply combined multiple years of data. Because the data were from essentially the same survey administered at different time points, a straightforward combination of data across surveys is defensible. It is more complicated, however, to combine sources of data that have been developed using different methods and are carried out by different researchers.

The challenges associated with combining multiple sources of data have been well documented.⁴² If one were simply to combine a large group of surveys, the results might be overly influenced by a single study with a much larger sample size than the others. In order to combine multiple sources of data, one needs to take account of the different properties of the individual datasets, such as the number of cases in each study and how the responses of participants are distributed around an average response. This is done so that the extent to which any one study contributes to the overall result is proportional to the influence it ought to have given its design. This general method is referred to as "meta-analysis."

In many applications of meta-analysis, original sources of data are not available. Researchers must rely on published reports of findings because only summary measures of the data (e.g., mean and variance) are included in the analysis. Analyses based on summary measures can be very useful for drawing broad inferences about whether differences exist across a large number of studies. Such analyses, however, do not enable one to examine characteristics of the individuals who participated in each survey, only the overall finding averaged across all those who participated. When original data is available, it is not necessary to rely on summary measures. Instead, one can conduct more sensitive and rigorous analyses based on the actual responses of the individuals who participated.

This latter method is, in fact, required when the summary measure in which one is interested is not publicly reported. This is true of many of the surveys that include religious identification as a background variable. Thus, in order to analyze religion, it is necessary to obtain a version of the original data that includes all of the responses of the individuals who participated and then conduct secondary analyses of these data to obtain the summary measures of interest. Once the individual-level data are available, it makes sense to use fully the available data. This is the approach adopted here.

Overview of Method

Searches of major data repositories were conducted to identify a sample of surveys conducted by government agencies, university-affiliated researchers with government or private sources of funding, or private organizations, that included questions on religion. Independent raters reviewed study documentation to code methodological characteristics of the surveys related to data quality. Separately, analysts reviewed survey data files, coded the methods used to identify respondents as Jewish, estimated the size of the Jewish population in each survey, and then combined the individual surveys into one main analysis file. (See Technical Appendix for a more detailed description of method and analysis.)

In order to combine the multiple sources of data, elements of each survey were standardized. Each survey has a unique method for recording the religious or ethnic identity of any particular participant. Thus, while one survey might identify responses to a question about religious identification with a variable they call "religion" and record anyone who identifies as Jewish with a value of "3," another survey might identify responses to the question with a name such as "rpref" for religious preference and identify Jewish cases with values of 100-124 to identify different categories or denominations within Judaism. Variables and values must be identical (or made identical) in all surveys in order for them to be combined and compared. Such standardization is required not just for questions pertaining to the assessment of Jewish identity, but for every data element to be included in the analysis. If one wishes to examine the

demographic composition of the sample or describe differences in the Jewish population by demographics, such as by age, sex, race, education, or geographic location, a common set of codes must be identified that can be applied across all surveys that are entered into the analysis.

Findings

The results presented here focus on a subset of 37 surveys and nearly 122,000 cases that have been standardized and combined. The list of surveys and basic properties of each are displayed in the Technical Appendix (Table TA1). For the present analyses we limited the inclusion of surveys and cases to only those that had involved the random selection of adults aged 18 and over in the United States so that the samples were nationally representative.⁴³ This yields a total of 34 surveys and nearly 84,000 cases.

Nearly 30 percent of the surveys were conducted in 2002. Another third (34 percent) were conducted between 2000 and 2002, a quarter were conducted after 2002 and 10 percent prior to 2000. The issues covered in these surveys were diverse. Only 26 percent of the surveys were designed to directly assess issues related to religion. The remaining surveys were concerned with topics such as political attitudes (32 percent), social attitudes and social life (35 percent) and health and aging (6 percent). Approximately 20 percent received primary funding from a federal agency. The remaining surveys were privately funded.⁴⁴

There were a few standard formats for how questions about religious identity were asked across the surveys. Many of the surveys used the same format as the General Social Survey (GSS): "What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?" Surveys often differed in what options were provided to respondents; but, overall, 26 of the 37 surveys used this format. Four surveys included an open-ended format, which consisted of simply asking "What is your religion?" or "What is your religious preference?" and recording all responses. Other forms of the question included: "Is your religious preference Protestant, Catholic, Jewish, or something else?"; "Do you consider yourself to be

Catholic, Protestant, Jewish or something else?"; and the simple "Are you Protestant, Catholic, Jewish, or something else?"

All of these questions allow assessment of the same construct: Does the person identify as Jewish by current religious affiliation? The small changes in question wording and format can potentially influence the likelihood of someone responding in the affirmative, particularly those who do not strongly identify as Jewish, or who identify, but not religiously. A general contrast such as "Do you consider yourself ..." could be endorsed just as easily by someone who identified culturally or ethnically as one who identified religiously. For consistency in comparing across surveys, if opportunities for multiple responses were available, we coded the first religion mentioned so that there would be a single response option per respondent. This coding could result in an undercount or under-estimate of the size of the population, although it is hard to determine its impact *a priori*.

In many of the surveys, questions about religious identity were included along with items that assessed background and other demographic characteristics, often at the end of the survey. Six of the surveys included the question in sections that were clearly focused on assessment of religious beliefs. The remaining surveys embedded the question within the survey in no particular section devoted to background or religion. None of the surveys used religious or ethnic identity as a screener question, as NJPS had. That is, none asked the question as one of the initial questions used to screen the person into or out of the survey. A few of the surveys included additional questions with which respondents could be identified as Jewish, such as religion raised, religion of parents, or whether they identify ethnically as Jewish. For example, the National Election Studies included the question "In addition to being American, what do you consider your main ethnic group or nationality group?" For comparability of estimates across surveys, only questions about current religious affiliation are examined in the present set of analyses.

Most of the surveys consist of RDD telephone interviews (25 of 34 surveys). Five surveys conducted in-person interviews. The remainder were categorized

as mixed method and consisted of a combination of telephone, in-person, or mail methods. The response rates in these surveys varied widely, from a high of 73 percent (General Social Survey) to a low of 10 percent.⁴⁵ Our comparisons of response rates are based on a standardized method for calculation which represents the ratio of completed interviews to all eligible people who were contacted for participation.⁴⁶ Overall, nearly a third of the surveys could be considered as having low response rates (less than 30 percent). The average response rate was 37 percent, with seven surveys (over 20 percent) reporting response rates of over 60 percent.

The surveys were conducted by a wide range of "survey houses" (i.e., organizations that conducted/fielded the survey). Each survey group has its own methods for designing sampling frames, recruiting participants, conducting follow-up contacts, and converting non-respondents. Two surveys were carried out by Harris Interactive (both of which used RDD methods), nine were conducted by Princeton Survey Research Associates, 11 were carried out by university related organizations, and six were conducted by other private survey organizations (see Table 2). There are too few surveys from any one organization to examine if there are any "house" effects, but the range is informative. As the number of surveys in the analysis increases, differences between organizations can be further explored.

Table 2: Distribution of survey organizations

	Number of Surveys
Center for Survey Research, University of Connecticut	4
Harris Interactive	2
Institute for Social Research, University of Michigan	5
Mitofsky International and Edison Media Research	1
National Opinion Research Center (NORC)	4
Princeton Survey Research Associates	9
SRBI Associates (Schulman, Ronca and Bucuvalas, Inc.)	3
Survey Research Center, University of Maryland	1
TNS Intersearch (Taylor Nelson Sofres)	1
Market Facts	1

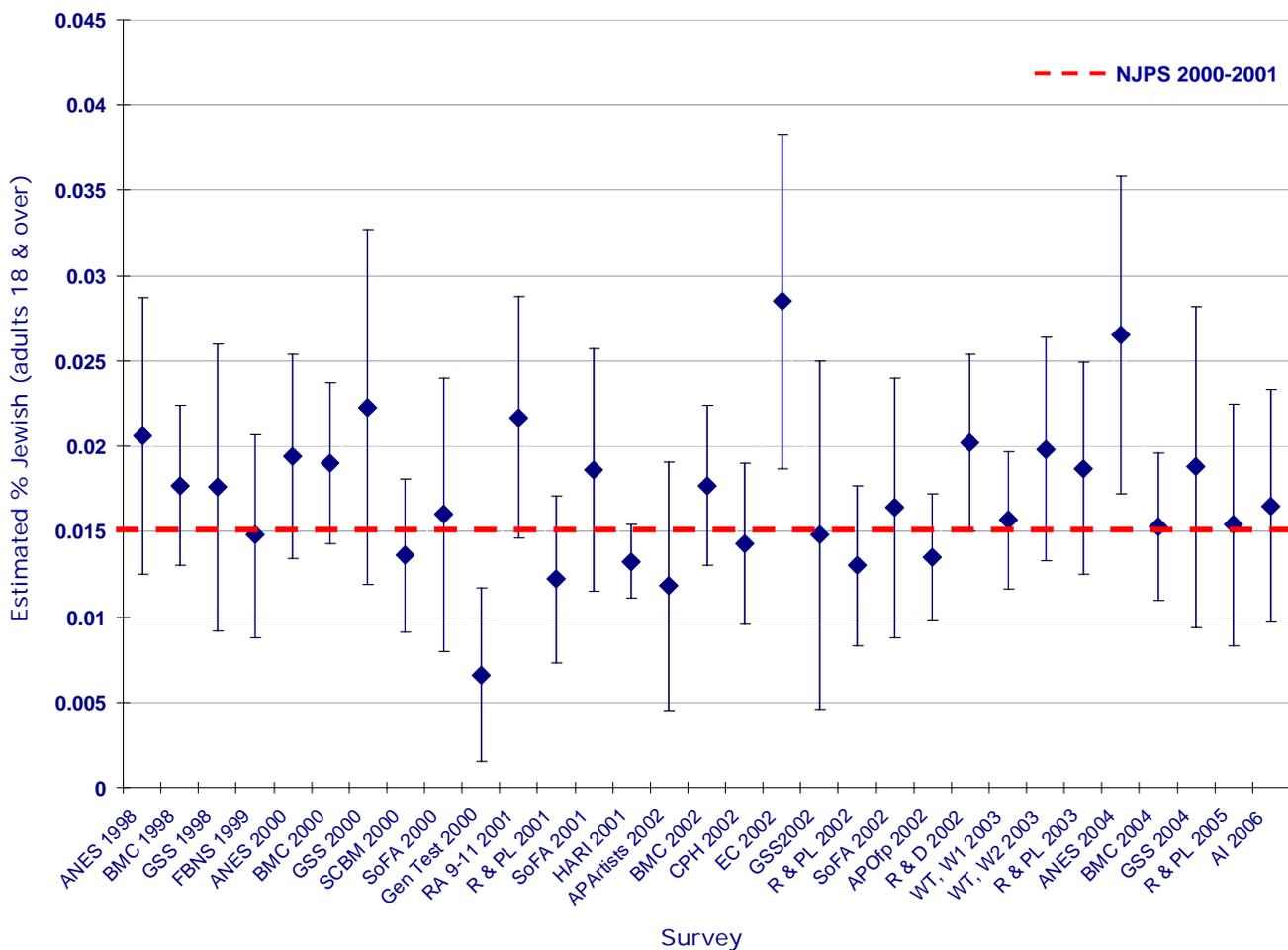
Note: See the analysis section of technical appendix for an explanation of why some surveys were omitted from final analysis.

Estimates Across Studies

Analyzing each survey independently yields a wide range in estimates of the percentage of the total U.S. population that identifies as Jewish by current religion (see Figure 9). Estimates range from a low of under one percent, observed in a survey on attitudes toward genetic testing funded by the Robert Wood Johnson

Foundation, to a high of close to three percent observed in the 2002 survey on citizenship conducted by the Center on Congress at the University of Indiana. In comparison, the 2000-01 National Jewish Population Survey estimated that 1.5 percent of the U.S. population identified as Jewish.

Figure 9: Weighted Estimates of Percent Jewish in Each Independent Survey



Multilevel Models

Given the substantial variability in estimates across surveys, we conducted analyses to examine the sources of variability and to adjust for these when deriving estimates of the Jewish population. (Details of the methods and models employed are described in the Technical Appendix.)

Table 3 displays estimates from three models. In the first model, estimates are post-stratified by sex, four categories of race, six categories of age, and three categories of education. Post-stratification adjustment weighs each case so that the aggregate distribution of cases on post-stratification variables matches the known distribution of these characteristics in the population. To account for possible under- or over-representation of particular geographic areas, census region and census division are added, respectively, into the set of post-stratification variables.

All three models yield similar estimates of the number of adults in the United States who identify as Jewish. The first estimated the number of adults at 3.4 million; the second and third yield estimates of 3.5 million. Each of these estimates is well within the 95 percent confidence intervals of the other. The two models that adjust for geographic representation yield the most similar estimates. The model with census division, however, is based on substantially fewer surveys (29 versus 34) and fewer cases (see Table TA2). Therefore, we focus on the results from the second model, which includes the greatest number of available surveys and cases, while still accounting for geographic differences in the distribution of survey respondents.⁴⁷

Table 3: Estimated number of Jewish adults 18 and over in the United States, post-stratified by sex, race, education, age and either census region or census division

	All Surveys	with Region	with Division
Estimated Number	3,381,191	3,521,184	3,540,961
Standard Deviation	112,202	128,731	173,592
Lower 95% CI	3,160,585	3,229,182	3,204,687
Upper 95% CI	3,600,416	3,733,807	3,885,169

Note: a) Post-stratification to 2002 Current Population Survey March Supplement, 4 categories of race (white non-Hispanic/black non-Hispanic/Hispanic/other non-Hispanic), 3 categories of education (HS grad or lower/Some College/College Grad or greater), and 6 categories of age (18-24 yrs/25-34 yrs/35-44 yrs/35-44 yrs/45-54 yrs/65 yrs & over).

Differences by Age Groups

One question that arose from the analysis of the NJPS (see page 11) was whether the estimated declines within specific age groups accurately reflected fewer people within these age groups who identify as Jewish. Therefore, we examined estimates by age groups (see Table 4).

Table 4: Estimated number of Jewish adults by age group

	All Ages	18 - 24	25 -34	35 - 44	45 - 54	55 - 64	65 +
Estimated #	3,521,184	399,721	489,602	626,501	774,420	504,946	725,995
Standard Dev.	128,731	14,865	18,255	23,138	28,277	19,194	25,002
Lower 95% CI	3,229,182	368,128	449,889	572,126	707,846	482,183	629,754
Upper 95% CI	3,733,807	426,400	521,447	662,828	818,693	557,423	727,761

Note: Estimates post-stratified by sex, age, race, education and region.

A clear pattern emerges when the results of the synthesis (estimates by age group, pooled across multiple independent samples) are compared to NJPS 1990 and NJPS 2000-2001. Table 5 displays the estimated counts per age group for the three age cohorts, defined by birth year, that overlap in the 1990 to 2000 comparison. These age cohorts are those born between 1956 and 1965 (aged 25-34 in 1990 and 35-44 in 2000), those born between 1946 and 1955 (aged 35-44 in 1990 and aged 45-54 in 2000), and those born between 1936 and 1945 (aged 45-54 in 1990 and aged 55-64 in 2000). As compared to NJPS 2000-2001, the pooled estimates are larger across all groups, but particularly for two cohorts - those 35 to 44 and 45 to 54-years-old. As was shown earlier in the direct comparison of the two NJPS surveys, there appears to have been a substantial undercount for these cohorts by NJPS 2000-01. The pooled estimates are far more similar to the estimates from NJPS 1990 than to NJPS 2000-01, although slightly larger overall.

Table 5: Estimates of current religion Jewish by age cohorts

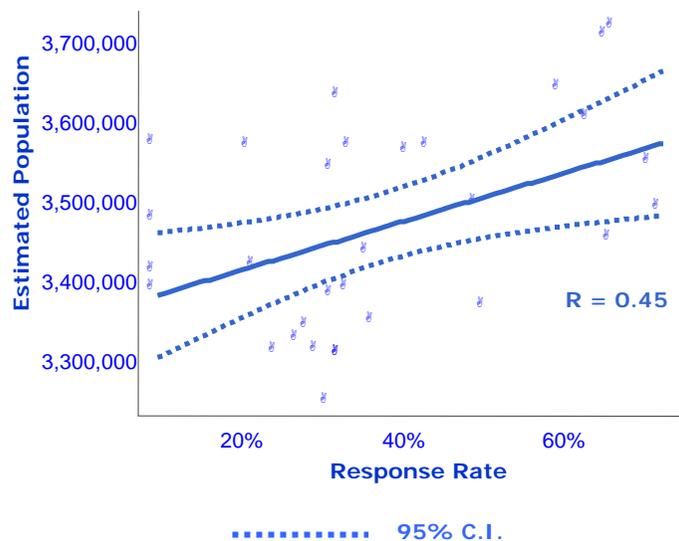
Birth Year	NJPS 1990	NJPS 2000-2001	Synthesis
1956 - 1965	640,994	465,916	626,501
1946 - 1955	743,887	642,459	774,420
1936 - 1945	458,775	404,031	504,946

Possible Explanations for Differences Across Surveys

Differences in the estimated number of Jewish respondents across surveys are likely a result of multiple factors. A key issue is the response rate (i.e., the proportion of respondents contacted who consent to an interview). Although we suspect that the response rate is critical, the rate may be associated with other factors, such as the quality of the survey, the purposes of the survey, the kind of “house” conducting the survey, whether the survey was face-to-face, telephone, or both. The present model does not include such factors, but we have attempted to describe the possible impact.

Our description of the relationship of the response rate to the estimate of the Jewish population is summarized in Figure 10, which graphs the response rate and the estimated size of the Jewish population by survey.⁴⁸ Inspection of Figure 10 reveals that surveys with higher response rates tend to estimate a higher proportion of Jewish adults. This relationship can be represented by the correlation between response rate and the total estimated Jewish population from the HLM analyses. This yields a correlation of .45 (R Square = .2).

Figure 10: Estimated Population by Response Rate



Summary

Our synthesis of nearly three dozen independent surveys that included questions about religious identity yields an estimate of 3.5 million American Jewish adults. The results support the finding from our reanalyses of NJPS 2000-01 that the size of the Jewish population has been underestimated. Comparing the identification of Jewish adults by one standard criterion that could be compared across all data sources - the number of people who identify by current religion as Jewish - the NJPS 2000-01 estimate of 3 million is significantly below the 95 percent confidence intervals of our baseline estimate.

Although the specific reason why the surveys in our sample found 15 percent more Jews than NJPS is difficult to identify, we suspect that it has to do with the quality of the surveys. One measure of quality is a survey’s response rate and, in line with our expectation, there was a general trend for higher response rate surveys to identify more Jewish respondents. This fits with our earlier conclusion that non-Orthodox Jews may be more difficult to reach than non-Jews (particularly for telephone surveys) because of their socio-economic distinctiveness. It should be noted that surveys included in the synthesis are of household populations. Institutionalized populations, including students living in dormitories are not represented. A number of surveys of college populations could be used to supplement these analyses in the future.

Future analyses will test alternative explanations for differences across surveys and will enable us to examine issues related to geographic variables involved in sampling. In addition, further methodological work is underway to determine the best methods for combining data so that this work can be generalized and applied to comparative analyses of other small populations in the United States, like the Jewish population, who are not represented in traditional Census data collections

At the same time, more surveys are being coded and added to the database. The inclusion of additional surveys will make it possible to develop more precise population estimates and will enable us to assess

trends over time. As we continue this work, a particular challenge will be to compare data on religion and ethnicity. Identification of American Jews needs to take account of both.

Efforts to extend the present work notwithstanding, based on present synthesis of available data, we are confident that the size of the Jewish population is substantially larger and likely more diverse than has been previously believed. In the following section, we summarize our understanding of the findings and extrapolate our findings about religious identity to total estimates of the American Jewish population.

Overall Population Estimates

The present study reports a comparative reanalysis of NJPS 2000-01 and a synthesis of independent national studies that included measures of religious and ethnic identity. The reanalysis and synthesis are complementary and yield estimates of the size of the adult Jewish population in the United States, along with extrapolations of the total number of Jews in the United States. As detailed below, the Jewish population is estimated (as of 2002), as between 6 and 6.4 million individuals. This estimate is based on assumptions that parallel those used by NJPS 2000-01 of the “core Jewish population” and represent an estimate that is 17 to 20 percent higher than that indicated by NJPS. Specifically:

1. The U.S. adult Jewish population, defined in terms of religion, is at least 3.5 million (based on our pooled average estimate). This estimate is approximately 17 percent higher than was indicated by NJPS 2000-01. Although the association between high response rates and higher estimates of the Jewish by religion population suggest that the population may in fact be larger still, we do not have sufficient evidence at this stage to incorporate this finding into population estimates.
2. The total number of Jewish children (ages 0-17) is estimated as 1.1 to 1.7 million based on assumptions about the proportion of children who attend day school (using day school census data as benchmarks), as well as estimates of children whose parents were undercounted by NJPS. Projecting the number of children of the unenumerated population based on the observed population in NJPS yields estimates of the number of Jewish children around 1.1 million.⁴⁹ These estimates assume that the average age cohorts are at least 61,000 and may be as high as 94,000.
3. The total number of Jews in the United States, using definitions that parallel NJPS’s “core Jewish population” is likely at least 6 million individuals and possibly, as high as 6.4 million.⁵⁰ These estimates include those who identify by criteria other than religion.⁵¹ Based on NJPS 2000-01, a conservative estimate of the proportion of Jews of “no religion” is more than 20 percent above the estimate of those who identify religiously. Other studies suggest this adjustment should be more than 25 percent.⁵² In addition, an adjustment needs to be made for individuals in institutional settings – students in dormitories, as well as those in hospitals or other settings or in the military. We estimate these numbers as between 250,000 and 350,000.
4. The non-Orthodox population (in particular, those who identify as Reform or Conservative) was undercounted by NJPS 2000-01. The present estimates, which represent an increase of 800,000 to 1,300,000 Jewish individuals are virtually all non-Orthodox and suggest that the proportion of Orthodox is substantially lower than reported by NJPS 2000-01. In addition, the present analyses suggest that the population is younger (“less gray”) than previously indicated.
5. Our estimate is that the Jewish population is 6 to 6.4 million, but it is also clear that substantially more Americans have Jewish parents and, potentially, may identify as Jews or should be considered part of the Jewish population. Thus, for example, Phillips claims that NJPS identified more than 1 million offspring of intermarried parents who should be included in the Jewish population.⁵³ Including these individuals would bring our estimate to between 7 and 7.4 million individuals. More broadly, the present static analysis does not take account of the dynamic impact of intermarriage. One needs to understand the cumulative effect of intermarriage, as well as to track changes in the Jewish engagement of intermarried families. There is increasing evidence, for example, that more intermarried families are choosing to raise children Jewishly.⁵⁴ If that trend continues, it portends an increase in the Jewish population. As the present program of research broadens the sample of studies that are part of the synthesis, it may be possible to assess such trends.

Conclusions and Policy Implications

The analyses reported here are useful not only for the abstract purpose of providing Jewish population estimates, but because they aid understanding of the contemporary Jewish community and suggest directions for policy. Based on the evidence described here of a substantial undercount by previous studies, and the parallel finding that certain groups were systematically underestimated, there are a host of implications for our understanding of American Jewry, for communal policy, and for research. Several of these implications are presented below:

1. The needs for education, religious and cultural services, along with philanthropy to support communal work, have been underestimated. A community that is larger than commonly believed presents the challenge of serving an additional 1.3 million individuals. To the extent that the population has been underestimated, we may have also overestimated the success of programs and the degree to which they adequately serve the population.
2. The finding that younger, non-Orthodox individuals have been underestimated suggests that American Jewry is more diverse than previously believed. Communal discussions regarding Jewish education, intermarriage or the role of Israel in the lives of American Jews, have traditionally concluded that we need to focus on the core versus the periphery. However, the diversity of the community suggests that this discussion is based on a flawed understanding of the community make-up.
3. A specific implication of the present study is that research analyses of American Jewish attitudes and behavior need to account for the composition of samples. To the extent that estimates of population sub-groups are inaccurate, comparative analyses of Jewish individuals using studies such as NJPS should adjust for respondent characteristics. Thus, multivariate, rather than bivariate, analyses should be the norm.
4. Although the present study yields reliable estimates of the Jewish population as defined by religion, it is clear that Jewish identity is more complex than religious affiliation. The present study uses prior research to extrapolate estimates of the total population, including those who identify or are considered Jews by non-religious criteria. But these extrapolations need to be understood better and new research is needed about Jewish identity. Understanding how American Jews view their connection with Judaism is critical and will provide insights on how to better serve the community.

Our findings, which suggest a different narrative about the current state of American Jewry than has been previously understood by the community, will likely provoke debate. The findings will undoubtedly be interpreted and used differently by various scholars and communal planners. The present report is intended to summarize our efforts to understand the current status of the American Jewish community and to apply new methods to this assessment.

It should be noted that our conclusions, particularly regarding the size of the American Jewish community, parallel those of Sheskin and Dashefsky.⁵⁵ In their recent review of the American Jewish population, they summarize an effort to compile a national population estimate based on the results of local demographic studies. Although their effort resembles our synthesis, they added together surveys which sample and ask Jewish identity questions differently. In some cases, the estimates are not based on surveys, but on expert judgments about the size of the population. Although it is, perhaps, reassuring that their estimate of the total population is 6.4 million and close to our estimate, we believe that their methodological assumptions are not tenable and that this approach cannot generate reliable population estimates.

Perhaps the clearest implication of the present study is that we, as social scientists, need to do a better job of assessing the state of the American Jewish population. Single national RDD (random digit dial telephone) surveys, like NJPS 2000-01 may have “worked” in past

decades but are no longer feasible means to assess the size and characteristics of a “rare” population. The present synthesis paradigm offers a possible solution. The next research challenge will be to develop this method more fully and test its use in revising how we might estimate the Jewish population if there is to be an NJPS 2010.

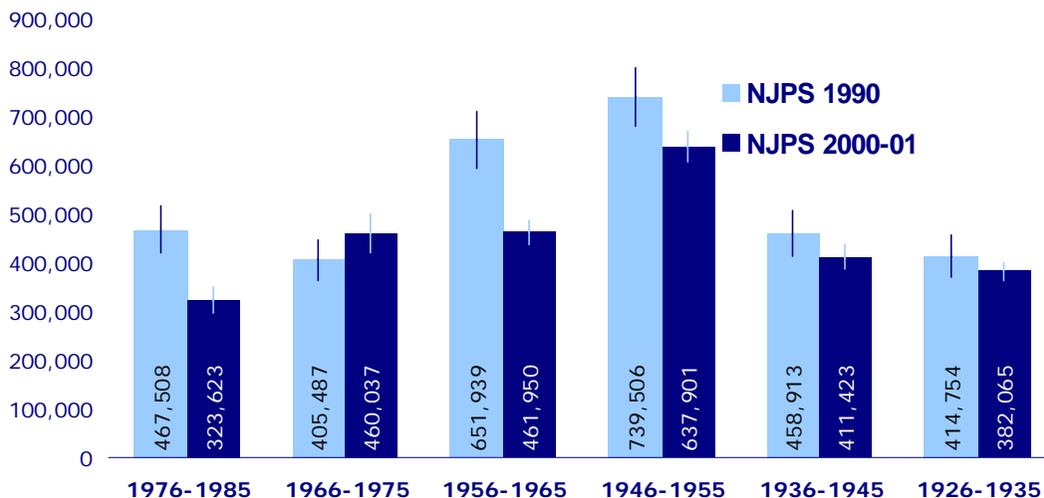
Acknowledging the controversial nature of the present findings, we hope that this report will provoke productive discourse. The larger, more diverse, character of the population suggests that debate about the future of the Jewish community in America needs to encompass multiple viewpoints that address the concerns of the different groups making up the overall community. It suggests, as well, a broadened set of discussions with other Jewish communities around the world, in particular, Israel.

Finally, the specifics of population estimates notwithstanding, the findings indicate that Jewish identity is more robust – that deterministic views of the impact of birthrates and intermarriage may need to be adjusted. Just as Jewish identity is regarded as fluid and may change in intensity over the lifespan,⁵⁶ the character of the population, too, may shift as norms about marriage, child-rearing and religious practice evolve. It is both an exciting research challenge to measure these oscillations and an important moment in the history of Jewish life to be part of the debate about the future.

Notes

1. Cf. Paul Ritterband, Barry A. Kosmin, and Jeffrey Scheckner, "Counting Jewish Populations: Methods and Problems," in *American Jewish Year Book*, vol. 88, edited by D. Singer (New York: American Jewish Committee, 1988) 204-211.
2. Cf. Charles Kadushin, Benjamin Phillips, and Leonard Saxe, "National Jewish Population Survey 2000-01: A Guide for the Perplexed," *Contemporary Jewry* 25 (2005): 1-32; Barry Kosmin, "The Need for a Systematic Comparative Approach to National Population Surveys of Jews," *Contemporary Jewry* 25 (2005): 33-47.
3. National Jewish Population Survey, 2000-01 [Electronic data file]. (2003). New York, NY: United Jewish Communities [Producer]. Storrs, CT: North American Jewish Data Bank [Distributor]; see also Sergio DellaPergola, "World Jewish Population, 2001," in *American Jewish Year Book*, edited by D. Singer and L. Grossman (New York: American Jewish Committee, 2001) 532-569.
4. Benjamin Phillips, "Numbering the Jews: Evaluating and Improving Surveys of American Jews" (Ph.D. dissertation, Departments of Near Eastern and Judaic Studies and Sociology, Brandeis University, Waltham, MA, 2006); Leonard Saxe, Benjamin Phillips, Charles Kadushin, Graham Wright, and Daniel Parmer, "The 2005 Boston Community Survey: Preliminary Findings," (Waltham, MA: Steinhardt Social Research Institute for Combined Jewish Philanthropies, 2006); Ukeles Associates, "The Jewish Community Study of North Metro Atlanta: 2004," (Atlanta, GA: Jewish Federation of Greater Atlanta, 2004); see also, the more than two dozen reports on NJPS developed by the United Jewish Communities (www.UJC.org/NJPS)
5. See, in particular, Kadushin et al., "National Jewish Population" and Phillips, "Numbering the Jews." See also, Kosmin, B., "The Need for a Systematic Comparative Approach."
6. Cf. Fred Massarik and Alvin Chenkin, "United States National Jewish Population Survey," in *American Jewish Year Book*, vol. 74, edited by M. Fine and M. Himmelfarb (New York: American Jewish Committee, 1973) 264-306.
7. On the association between higher levels of education and difficulty of contact, see Curtin, Richard, Eleanor Singer, and Stanley Presser. 2006. "Incentives in Telephone Surveys: A Replication and Extension." Presented at the Second International Conference on Telephone Survey Methodology, January, Miami, FL and Keeter, Scott, Carolyn Miller, Andrew Kohut, Robert M. Groves, and Stanley Presser. 2000. "Consequences of Reducing Nonresponse in a National Telephone Survey." *Public Opinion Quarterly* 49: 125-148. Curtin, Richard, Stanley Presser, and Eleanor Singer. 2000. "The Effects of Response Rate Changes on the Index of Consumer Sentiment." *Public Opinion Quarterly* 49: 413-428 come to similar conclusions regarding income. Evidence on refusals is more equivocal. While Curtin et al. (2000) found the most highly educated the most likely to refuse, Currivan, Douglas B. 2005. "The Impact of Providing Incentives to Initial Telephone Survey Refusers on Sample Composition and Data Quality." Presented at the annual conference of the American Association for Public Opinion Research, May 15, Miami Beach, FL reached the opposite conclusion. Multiple studies of income have found no connection between income and refusals (Currivan 2005; Curtin et al. 2005; Curtin et al. 2006). Likewise, areas with higher rents and property values have lower response rates (Battaglia, Michael P., Meena Khare, Martin R. Frankel, Mary Cay Murray, Paul Buckley, and Saralyn Peritz. 2006. "Response Rates: How Have They Changed and Where Are They Headed?" Presented at the Second International Conference on Telephone Survey Methodology, Miami, FL). Given that American Jews are well-educated and have high incomes, the association between these characteristics and lower response rates would lead to underestimates of Jewish population size. While poststratification weights would normally ameliorate this bias, NJPS 2000-01 did not include an item on education in the screener that would have allowed weighting adjustments. As a consequence, any differential nonresponse associated with socioeconomic status would not have been controlled for, leading to underestimates of the Jewish population. If anything, the relationship between socioeconomic status and response may have been underestimated by the studies cited above as none controlled for associations between explanatory variables. Groups with low socioeconomic status (e.g., African-Americans, Hispanic-Americans) that are difficult to contact would have partially masked the direct effect of education and income.
8. The 4.3 million population figure represents individuals who are currently Jewish by religion or have a Jewish parent or were raised Jewish and who currently identify with no religion, and consider themselves to be Jewish. The additional 900,000 are individuals who have a Jewish parent or were raised Jewish, and either identify with no religion and do not consider themselves to be Jewish or identify with a religion other than Judaism, Christianity, or Islam and currently consider themselves to be Jewish, or who were living in institutional settings. (Kadushin et. al, 2005; Laurence Kotler-Berkowitz, Steven M. Cohen, Jonathon Ament, Vivian Klaff, Frank Mott and Danyelle Peckerman-Neuman, "The National Jewish Population Survey 2000-01: Strength, Challenge and Diversity in the American Jewish Population" [rev. ed.] (New York: United Jewish Communities, 2004); Mark Schulman, "National Jewish Population Survey 2000-01: Study Review Memo" (New York: United Jewish Communities, 2003); United Jewish Communities, 2003a, 2003b.
9. Sergio DellaPergola, "World Jewish Population, 2001," in *American Jewish Year Book*, vol. 101, (New York: The American Jewish Committee, 2001), 532-569; Sergio DellaPergola, "World Jewish Population, 2002," in *American Jewish Year Book*, vol. 102, (New York: The American Jewish Committee, 2002), 601-642 and Sergio DellaPergola, Uzi Rebhun, and Mark Tolts, "Prospecting the Jewish Population Projections, 2000-2080," in *American Jewish Year Book*, vol. 100, (New York: The American Jewish Committee, 2000), 103-146.

10. See Mark Toltz, "Demographic Trends Among the Jews of the FSU," paper presented at the International Conference in Honor of Professor Mordechai Altshuler on Soviet and Post-Soviet Jewry, Jerusalem, December 2003. In addition, we estimate the number of Israelis (those "born in Israel") who immigrated to the United States between 1990 and 2000 at 59,500. See the Dept. of Justice and Dept. of Homeland Security's "1996 Statistical Yearbook of the Immigration and Naturalization Service" and the "2005 Yearbook of Immigration Statistics" for source data (<http://www.dhs.gov/ximgtn/statistics/publications/archive.shtm> and <http://www.dhs.gov/ximgtn/statistics/publications/yearbook.shtm>). Ninety percent of all Israelis who immigrate to the United States were considered Jewish; the remaining ten percent Arab Israeli, Christian and others.
11. Sergio DellaPergola, "World Jewish Population, 2006," in *American Jewish Year Book 2006*, ed. David Singer and Lawrence Grossman (New York: American Jewish Committee, 2006), 567 following Barry Kosmin, Sidney Goldstein, Joseph Waksberg, Nava Lerer, Ariela Keysar and Jeffrey Scheckner, "Highlights of the CJF 1990 National Jewish Population Survey" (New York: Council of Jewish Federations, 1991). The 4.3 million population consisted of individuals who were exclusively Jewish by religion or had no religion, were raised Jewish or had a Jewish parent, identified as Jews or said their religion was Jewish and other and identified as Jews. The 5.2 million population added people who had a Jewish parent or were raised Jewish and identified with no religion and did not identify as a Jew or identified with a "theologically compatible" religion (i.e. non-monotheistic) or gave their religion as Jewish and other and did not identify as a Jew.
12. Kadushin, Phillips, and Saxe (2005) provide a detailed analysis of the problems faced by NJPS 2000-01. For press coverage on NJPS 2000-01, see Phillips (2007: Chapter 1).
13. The decision to ask a subset of questions to "persons of Jewish background" misfired because the survey adopted a definition of Jewish identity that placed inordinate emphasis on whether a respondent currently considered her- or himself to be a Jew. Matters were made worse by questions on Jewish background that ought to have been asked of anyone who was raised as a Jew but were excluded from the "persons of Jewish background" subset. Further complicating the situation, the classification of Jews and "persons of Jewish background" differed from the scheme used in NJPS 1990. Beyond making direct comparisons more difficult, this led to the confusing situation where certain estimates were marked with asterisks (and referred to the smaller population that would have been considered Jewish in NJPS and received the full set of questions) while others were not (in cases where everyone who would have been counted as a Jew by NJPS 1990 was asked the question).
14. See, for example, the more than two dozen reports on NJPS developed by the United Jewish Communities (www.UJC.org/NJPS).
15. Cf. Sergio DellaPergola, "Was it Demography?: A Reassessment of U.S. Jewish Population Estimates, 1945-2001," *Contemporary Jewry* 25 (2005): 85-131.
16. As an additional check, we calculated similar estimates using the population raised Jewish by religion. Due to the way the question was in NJPS 2000-01, not all respondents were asked the religion in which they were raised. Accordingly, we assigned anyone who reported being raised Jewish, half-Jewish, or Jewish (other) as being raised Jewish by religion and counted all those who reported being raised in Judaism and another religion as being raised as Jews. Despite these steps which undoubtedly produced overestimates of the size of the raised Jewish by religion population, the same dip can be seen for people born 1946-1955 (see figure below).



17. The years of birth for the U.S. Census do not exactly match with those provided for Jews due to differences in age categories reported. The 1990 estimate of 80,754,835 was derived from Census 1990 SF-1 Table P011 Age—Universe: persons. The 2000 estimate of 82,826,479 came from Census 2000 SF-1 Table P12 Sex by Age.
18. See discussion of response rates, p. 17.
19. See Barry Kosmin and Ariela Keysar, *Religion in the Marketplace* (Ithaca, NY: Paramount Books, 2004).
20. Some commentators argued that NJPS 1990 underestimated the size of the Orthodox population because the omnibus market research survey used for sampling made calls on the Sabbath and Jewish holidays. While this is a potential source of bias, it is mitigated somewhat by the fact that a number of callbacks were made to households that could not be contacted. It is not clear how much bias was introduced by this procedure. We believe that this is insufficient to explain the putative increase in the size of the Orthodox reported in NJPS 2000-01.
21. The table below shows numeric estimates of denominational switching for cohorts born 1925-1965.

Current denomination	Denomination Raised					Total
	Orthodox	Conserv.	Reform	Recon.	All else	
Orthodox	120,179	21,969	9,748	0	7,951	159,846
Conserv.	93,351	325,277	28,888	1,348	34,264	483,128
Reform	52,205	192,398	327,571	3,459	57,748	633,382
Recon.	2,407	16,030	5,442	832	9,895	34,606
All else	51,748	114,783	71,763	472	189,924	428,689
Total	319,889	670,456	443,411	6,112	299,782	1,739,651

22. Not all respondents give replies that neatly fit into the usual four denomination typology (e.g., “Israelite/Hebrew,” “Orthodox and Reform”). In order to maximize comparability between the surveys, all responses other than the denominations themselves were placed in the residual category. However, in NJPS 2000-01, the categories “Hasidic/Lubavitch/Satmar” and “Haredi (Ultra-Orthodox)” were included as Orthodox Jews.
23. The National Jewish Population Survey 2000-01: Strength, Challenge and Diversity in the American Jewish Population [rev. ed.] New York: United Jewish Communities, 2004, p. 15.
24. Marvin Schick, *A census of Jewish day schools in the United States, 2003-2004* (New York: AVI CHAI Foundation, 2003). According To Schick, the Census of Day Schools is considered highly reliable both by the AVI CHAI Foundation and other knowledgeable observers of American Jewish education.
25. National Jewish Population Survey, 2000-01 [Electronic data file]. (2003). New York, NY: United Jewish Communities [Producer]. Storrs, CT: North American Jewish Data Bank [Distributor].
26. The J-code or standard of Jewishness for the NJPS report divided people into two categories: Jewish (Jewish by religion or no religion and identifies as a Jew) and Jewish-connected (more or less nonmonotheistic religion and Jewish background or no religion and Jewish background and doesn't identify as a Jew). The J-code syntax for children was more difficult to decipher but appears to be quite broad.

In our reanalysis of the NJPS data, we used a “Jewish household” variable that was based on the UJC J-codes. Jewish households had one or more Jewish (per J-code) adults, and Jewish-connected households had one or more Jewish-connected adults but no Jewish adults.

27. We were unable to reproduce exactly the reported NJPS results. Based on “raised Jewish” standard (this imputes children raised as Jewish+Other by religion as being raised Jewish):

		j_hh j_hh HH Jewish Status - UJC Definition (JDB Syntax)			Total
		1.00 Jewish	2.00 Jewish- connected	3.00 Non- Jewish	
raisjew	1.00 Yes	550,054	4,764	17,228	572,046
Child being raised Jewish	2.00 Yes, raised half/partially Jewish and something else	12,237	5,120	4,347	21,704
	3.00 Yes, other	1,000	0	2,115	3,115
	4.00 No	117,193	170,423	281,168	568,784
Total		680,484	180,307	304,858	1,165,649

Based on J-codes:

		j_hh j_hh HH Jewish Status - UJC Definition (JDB Syntax)			Total
		1.00 Jewish	2.00 Jewish- connected	3.00 Non- Jewish	
j_ch	UJC child Jewish status				
1.00	Jewish	584,308	4,108	14,720	603,136
2.00	Jewish connected	42,881	4,577	3,513	50,971
3.00	Non-Jewish	67,866	177,810	342,798	588,474
Total		695,055	186,495	361,031	1,242,581

Adding Jewish connected children in Jewish households (N=627,189) drops the proportion slightly to 27.8 percent. If we open up the definition even more to include Jewish and Jewish connected children in Jewish and Jewish connected households, analogous to the 5.2 million population (N=635,874), the proportion moves to 25.7 percent. If we expand the definition further again, to encompass Jewish and Jewish connected children in non-Jewish households (N=654,107), it drops again to 25.0 percent. In other words, no matter how we calculate the NJPS data, the proportion of Jewish children attending Jewish day schools stubbornly remains above what our experience tells us is true.

28. See Schick, “A census of Jewish day schools.”
29. Cf. Ira Sheskin, “Comparisons Between Local Jewish Community Studies and the 2000-01 National Jewish Population Survey,” *Contemporary Jewry* 25 (2005): 158-192. It is possible that some of the discrepancy between Day School Census and community study estimates may be due to response error—respondents who thought supplementary Jewish schools were day schools and therefore misreported their children’s attendance. It seems unlikely, however, that this can be the major reason for the discrepant estimates as the questions asked in Jewish surveys are typically unambiguous, e.g. “does your child attend a full-time Jewish day school,” especially when this option is given immediately after “a part time supplemental school that meets once a week” and “a part time supplemental school that meets more than once a week”.

30. Community data were graciously provided by Marvin Schick. Local comparison data were derived from reports available at www.Jewishdatabank.org. Where available, we compared local census and survey data, but for the sake of standardized comparisons, used Schick's census data in our analyses. More current data can be obtained from some of the recent local studies.
31. See Stephen Blumberg, Julian Luke, and Marcie Cynamon, "Has Cord-Cutting Cut into Random-Digit-Dialed Health Surveys? The Prevalence and Impact of Wireless Substitution," in *Eighth Conference on Health Survey Research Methods*, edited by S.B. Cohen and J.M. Lepkowski; Blumberg, Lake, and Cynamon, "Telephone Coverage and Health Survey Estimates: Evaluating the Need for Concern About Wireless Substitution," *American Journal of Public Health* 96 (2006): 926-931; Anna Fleeman and Dan Estersohn, "Geographic Controls in a Cell Phone Sample" (paper annual conference of the American Association for Public Opinion Research, Montreal, Canada, May 20, 2006); E. Deborah Jay and Mark DiCamillo, "Identifying Recent Cell Phone-Only Households" (paper, annual conference of American Association for Public Opinion Research, Montreal, Canada, May 19, 2006); Jay and DiCamillo, "Improving the Representative of RDD Telephone Surveys by Accounting For 'Recent Cell Phone-Only Households'" (paper Second International Conference on Telephone Survey Methodology, Miami, FL, January 12, 2006; Pew Research Center for The People & The Press, *National Polls Not Undermined by Growing Cell-Only Population: The Cell Phone Challenge to Survey Research*, (Washington, DC: Pew Center for the People & the Press, 2006); and Peter Tuckel and Harry O'Neill "Ownership and Usage Patterns of Telephones, 2000-2005" (paper Second International Conference on Telephone Survey Methodology, Miami, FL, January 13, 2006).
32. On cellular rate centers, see Fleeman and Estersohn. On cell phone usage, see Vesa Kuusela, Vasja Vehovar, and Mario Callegaro, "Mobile Phones' Influence on Telephone Surveys" (paper Second International Conference on Telephone Survey Methodology, Miami, FL, January 2006) and Pew Research Center for The People & The Press.
33. See Paul Biemer and Michael Link, "Evaluating and Modeling Early Cooperator Bias in RDD Surveys" (paper Second International Conference on Telephone Survey Methodology, Miami, FL, January 2006) and Douglas Currivan, "The Impact of Providing Incentives to Initial Telephone Survey Refusers on Sample Composition and Data Quality" (paper, annual conference of the American Association for Public Opinion Research, Miami Beach, FL, May 15, 2005), although Richard Curtin, Eleanor Singer and Stanley Presser, "Incentives in Telephone Surveys: A Replication and Extension" (paper, Second International Conference on Telephone Survey Methodology, Miami, FL, January, 2006) and Tuckel and O'Neill come to the opposite conclusion.
34. In order to minimize the number of calls to inactive numbers, the overwhelming majority of random digit dialing surveys use "list-assisted" methods. This approach minimizes wasted calls by calling only 100 blocks (i.e. XXX-XXX-XXNN) with a threshold of numbers that are listed in telephone directories. As dormitory phones are not listed in regular telephone directories they will not be sampled by list-assisted methods.
35. Cf. United Jewish Communities, "National Jewish Population Survey 2000-01: Jewish College Students" (New York: United Jewish Communities, 2004).
36. 95 percent confidence intervals are 41.6 percent to 64.5 percent for Orthodox young adults and 14.5 percent to 22.8 percent for non-Orthodox young adults. This difference is significant at the .001 level.
37. United Jewish Communities, *Jewish Adults Ages 18-29*, (presentation of findings to the Jewish Education Leadership Summit, February 8, 2004).
38. See National Jewish Population Survey, 2000-01 [Electronic data file]. (2003).
39. U.S. Census Bureau, "Table 1, Enrollment Status of the Population 3 Years Old and Over, by Sex, Age, Race, Hispanic Origin, Foreign Born, and Foreign-Born Parentage: October 2004;" <<http://www.census.gov/population/socdemo/school/cps2004/tab01-03.xls>>.
40. Ariela Keysar, Barry Kosmin and Jeffrey Scheckner, *The Next Generation: Jewish Children and Adolescents* (New York: State University of New York Press, 2000).
41. Tom W. Smith, *Jewish Distinctiveness in America: A Statistical Portrait* (New York: American Jewish Committee, 2005).
42. Harris Cooper and Larry Hedges, *The Handbook of Research Synthesis* (Ithaca, NY: Russell Sage Foundation, 1993).
43. See Technical Appendix for description of which surveys and cases are included in these analyses.
44. See Technical Appendix Table TA1 for list of major funding sources.
45. For a few surveys, no information about response rates was available. Several of these surveys were conducted by Harris Interactive. Absent information on the response rates, we assumed a rate based on their report to stockholders (Harris, 2004) in which they reported that response rates were currently at a low of 10 percent. It is possible this under-estimates the response rate, though rates of 10-11 percent are typical of these sort of polls (Peter Tuckel and Harry O'Neill, "The Vanishing Respondent in Telephone Surveys," *Journal of Advertising Research*, 42 (2002): 26-48. In addition to the surveys conducted by Harris, response rate information was not available for the survey of Religion After 9/11 conducted in 2001 by Princeton Survey Research Associates for the Pew Research Center. For this survey, we averaged the response rates of the other surveys in our sample that were conducted by PSRA in 2001.

46. Standard definitions provided by the American Association of Public Opinion Researchers (AAPOR, 2005). Response rate calculation used for all surveys was AAPOR RR3, which is the number of complete interviews divided by the number of interviews (complete plus partial) plus the number of non-interviews (refusal and break-off plus non-contacts plus others) plus all cases of unknown eligibility (unknown if housing unit, plus unknown, other), including an estimate of what proportion of cases of unknown eligibility is actually eligible (AAPOR, 2005, pp. 28-29).
47. Sensitivity analyses are currently underway to examine differences between surveys that have different levels of geographic information on respondents, including census region and division as well as states, counties, and metropolitan statistical areas.
48. Based on 31 surveys in an HLM analysis with sex, age, race, education and census region controlled as post-stratification variables. In particular, high quality surveys such as the GSS and ANES tend to the highest estimates of the Jewish population. The size of the R Square suggests, however, there is much more to analyze than response rate.
49. An alternative, and very conservative, way to estimate the population of Jewish children is to assume that the unenumerated population has identical characteristics to the population that was estimated by NJPS 2000-01. Thus the "missing" 500,000 cases are scaled up in proportion to the ratio of Jews and Jewish-connected children and adults to Jewish adults by religion in the survey itself. The population of Jewish and Jewish-connected children of Jews by religion is estimated to be approximately 970,000. The population of Jewish and Jewish-connected children of Jewish and Jewish-connected adults is estimated to be approximately 1.1 million. The figure of 1.7 million Jewish children is based on extrapolations from the AVI CHAI day school census. The census estimates 171,000 children between the ages of 6 to 17 in Jewish day schools. Based on the assumption that 15% of Jewish children attend day schools (which is 50% higher than the commonly accepted figure of 10%) we estimate a cohort size of 95,000 which in turn gives us an overall estimate of 1,700,000 Jewish children.
50. See footnote 8 for a description of this population. In NJPS 2000-01, the number of Jews and Jewish-connected adults is 32% larger the population of Jews by religion.
51. The low estimate assumes a Jewish child population of 1.1 million, an adult Jewish by religion population of 3.5 million (plus 920,000 adults not Jewish by religion) and an institutionalized/group quarters population of 250,000. The high estimate assumes a Jewish child population of 1.7 million, a Jewish by religion population of 3.5 million (plus 920,000 adults not Jewish by religion) and an institutionalized/group quarters population of 350,000.
52. See Mayer et al., "American Jewish Identity Survey 2001: AJIS Report;" Gary Tobin and Sid Groeneman, "Surveying the Jewish Population in the United States," (Institute for Jewish & Community Research, San Francisco 2003).
53. See Bruce Phillips, "Assimilation, Transformation, and the Long Range Impact of Inter-marriage" in *Contemporary Jewry*, 25 (2005): 50-84; and Bruce Phillips, "American Judaism in the twenty-first century," in *The Cambridge Companion to American Judaism*, edited by Dana Evan Kaplan (New York: Cambridge University Press, 2005).
54. See Benjamin Phillips and Fern Chertok, "Jewish Identity among the Adult Children of Inter-marriage: Event Horizon or Navigable Horizon?" (Presentation to 36th Annual Conference of the Association for Jewish Studies, December 2004).
55. Ira M. Sheskin and Arnold Dashefsky, "Jewish Population in the United States, 2006" in *American Jewish Yearbook*, vol. 106 (New York: American Jewish Committee, 2006), 133-193.
56. Bethamie Horowitz, "Connections and Journeys: Assessing Critical Opportunities for Enhancing Jewish Identity," (New York: UJA-Federation of Jewish Philanthropies of New York, 2003).

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The Steinhardt Social Research Institute was founded in 2005 to collect, analyze, and disseminate unbiased data about the Jewish community, religion, and ethnicity in United States. SSRI is developing new methods to understand the American Jewish community and conducts policy analyses of issues relevant to the Jewish future. Along with the Cohen Center for Modern Jewish Studies and the Fisher-Bernstein Institute for Jewish Philanthropy and Leadership, it forms the contemporary research arm of the Lown School at Brandeis University.

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