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Sampling Strategies in Jewish Community Studies

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Detailed information about the sample designs of Jewish community surveys has been circulated largely by word of mouth or through unpublished statements produced by the sponsoring federation. As a result, Jewish communal researchers (especially those new to the field) have not had the experiences of other researchers readily available to them. Neither have the methodological advances made in the field of Jewish communal research been available to sociologists with similar methodological concerns in other areas of inquiry. The techniques employed by the major Jewish community studies conducted in the 1980s are described and compared in this paper so as to make them accessible to both groups of researchers.

Eight of the nine studies described here (Los Angeles, Chicago, St. Louis, Denver, Phoenix, Milwaukee, Cleveland, and Las Vegas) were conducted in the 1980s, and taken together they represent a new generation of Jewish communal research. (I leave description of the tenth study--New York--to a separate paper in this volume, written by the researchers.) The ninth study, Boston, was originally conducted in 1965 and later replicated in 1975. In many ways this study pioneered new directions, which became models for the other studies discussed. All ten studies represent a new generation of Jewish communal research characterized by methodological innovation and a commitment to including the broadest possible cross-section of the Jewish community. In addition to documenting the current state of the art of Jewish community survey technique, this paper also discusses the rationale for the choice of methodology and the tradeoffs that must be made when developing such a survey.

Sampling is the most problematic area of Jewish communal research. The researcher must choose between a true probability sample in which every Jewish household in the community has a known probability of selection, and some kind of list sample where only Jewish households on some kind of list are sampled. In a pure probability sample, randomly selected households are screened to locate Jewish households. This procedure is called "sampling to locate rare populations" and has been used to locate other rare populations such as unemployed black males (Sudman).

There are two basic kinds of list samples: lists made up from membership rosters and lists of "Distinctive Jewish Names" (DJNs) compiled from telephone directories, motor vehicle registrations, and other sources directly accessible by computer technology. The list sample is less expensive than the screening sample, but has the disadvantage of excluding those Jewish households who for some reason do not appear on the list.

Each of the studies discussed approached the sampling problem differently, but they can be grouped into three generic kinds of sample designs: pure screening samples (Los Angeles, Chicago, Milwaukee, Phoenix, and Denver), modified screening samples (Boston and Cleveland), and nonscreening samples (St. Louis and Las Vegas).

SCREENING SAMPLES

Screening samples are economically feasible only when conducted by telephone, and only recently have adequate methodologies and procedures for telephone surveys become available. During the early 1970s the rising cost of conducting surveys and the increasing reluctance of potential respondents to open their doors to strangers combined to bring about an interest in telephone surveys. A technique called Random Digit Dialing (RDD) was developed to overcome the potential bias introduced by sampling only from telephone directories. An RDD sample combines the three digit telephone prefixes in the community with four other digits generated at random by computer. The resulting sample of seven-digit phone numbers includes both listed and unlisted telephones, as well as commercial, residential, and nonworking numbers.

Two sets of decisions have to be made in an RDD screening sample: what geographic areas of the community to include and how to allocate the sample among the prefixes. The division of the community into specific geographic areas or strata is typically made on the basis of the distribution of the Jewish population in the community. Geographic conventions already widely accepted by the general community are also taken into consideration. The boundaries thus combine definitions based on Jewish population concentrations with geographic boundaries that are meaningful in the larger community. These geographic divisions must then be translated into their corresponding telephone prefixes. This is not necessarily a straightforward procedure since the telephone companies do not usually allocate exchanges according to recognizable geographic boundaries. Incorporated municipalities within metropolitan areas often have unique prefixes, but some prior research on the geographical distribution of prefixes is usually required within the city limits of that metropolitan area in order to properly include urban neighborhoods within the stratification scheme.

Chicago

The Chicago sample used nine strata, based in part on the "community areas" designated by the University of Chicago. The community areas were grouped into Jewish planning areas according to planning needs and the distribution of the Jewish population. Strata containing communities of particular planning interest were oversampled (i.e., the proportion of interviews conducted in those strata was higher than the share of Chicago Jewish households found in them). Other strata in which Jews make up only a small percentage of the population were undersampled in order to reduce the cost of locating Jewish households. Data about the distribution of Chicago Jewry were available from the National Jewish Population Study (conducted in 1970) which included a special sample for Chicago and from update studies conducted during the intervening years.

The sample was divided into ten <u>replicates</u> or equal-sized groups of randomly generated numbers. Each replicate included all the prefixes used in the study and thus constituted an independent random sample on its own. This made it possible to end the study after any given replicate was exhausted. After reviewing the first three completed replicates the sample was modified by eliminating prefixes that did not fall into one of the geographic strata, eliminating two strata of very low Jewish density where screening costs were considered excessive, and adding further replicates to six strata where it was evident that the original ten replicates would not produce the required number of completed interviews.

Los Angeles

The geographical strata in Los Angeles were determined by a Federation decision to decentralize by creating five regions which would participate directly in planning and allocation decisions. The geography and topography of Los Angeles are the major factors used to define the Federation regions. In Chicago, areas of low Jewish density were undersampled to conserve funds. By contrast, in Los Angeles, the same sorts of areas were oversampled because they required their own separate samples for regionalized planning. Half the budget and a quarter of the 825 completed interviews were allocated to these two low Jewish density areas which together constitute only 14 percent of the Jewish population. This decision had some fortunate scientific fallout, as it turned out that one of these regions had an overrepresentation of both intermarrieds and single-parent families. At the same time, the opportunity to learn more about subareas of the heavily populated San Fernando Valley region was lost, since that sample could not be made large enough for adequate geographic and subsamples.

The sample was further stratified according to the distribution of residential numbers by prefix within each regional stratum (based on the model described by Waksberg). The sample size for each individual prefix was determined using a three-stage process. First, the aggregate Jewish density for each region was computed from prior estimates of Jewish population made using a DJN technique. Next, the total number of residential households needed per region was computed by dividing the desired number of interviews for the region by its Jewish density (i.e., Jewish households as a proportion of all residential households). In the southern region, for example, a 3 percent Jewish density overall meant that 3,333 residential telephone numbers were needed to locate the required 100 Jewish interviews. In the third step, the total sample size was computed by taking into account the volume of nonresidential numbers that could be expected to appear in the sample. Seymour Sudman suggests that a simple random sample of randomly generated telephone numbers is only 20 percent residential, but a sample stratified by prefix proportional to the distribution of residential telephone numbers is closer to 50 percent residential. In the southern region, this meant that 6,666 telephone numbers were needed to produce 3,333 residences.

Information about the distribution of residential numbers (including unlisted numbers) was obtained from the two telephone companies that serve Los Angeles, and each of the five geographical strata was then further stratified by prefixes proportional to the distribution of residential phones. Returning to the southern region example, this means that if 2 percent of all residential numbers in the southern region were located in a

given prefix, then 2 percent of the 6,666 numbers needed should be allocated to that prefix.

Thus, the size of the sample that would be needed was predicted ahead of time, rather than monitored as in other RDD studies described. The predictions were accurate in three out of the five regions. The Jewish density of the metropolitan region (which includes the old Jewish neighborhoods) was found to have been overestimated by the DJN technique. As a result, a new sample (or replicate) had to be generated in order to obtain the required number of interviews. In the eastern region the Jewish density had been underestimated, and too many interviews would have been collected had it not been for a coincidental offsetting error introduced by the telephone company data.

Denver

Unlike Chicago and Los Angeles, no previously existing hard data about the geographic distribution of Jews were available in Denver. Without such hard data, the sample could not be stratified by geographic area as it could be in Chicago and Los Angeles. The sample was instead stratified initially only according to the distribution of residential prefixes (as was the case within the Los Angeles regions) and the first phase of the screening was used to gather data on the distribution of Jewish households throughout Denver. About one month into the study and a third of the way through the original sample, the prefixes were grouped by "hit rate" (Jewish households as a percentage of all telephone numbers in the prefix) into four strata. The cost of locating and interviewing a Jewish household in each of the four strata was then computed. The remaining budget was then compared with the remaining number of interviews needed, and it was decided to discontinue interviewing in the fourth stratum where the cost of completing interviews was far more expensive than in the other three.

The fourth stratum of phone prefixes was the geographic area called the Boulder Corridor, an area of rapid growth for Denver overall where Jewish growth was also expected. By coincidence, the seventy interviews conducted in this area turned out to be disproportionate within the sample as a whole, which means that the area was probably oversampled from the perspective of sampling efficiency. Still, when the popular assumption of Jewish growth in the Boulder Corridor is taken into consideration, the expense of demonstrating that Jews were in fact not moving in was at least in part justified, although it is clear in retrospect that the first wave of the sample could have been smaller, as these decisions could have been made on the basis of fewer screening calls.

Planning areas were created after the fieldwork was completed. Both the number of completed interviews per zip code and the local conventions of community identification were taken into consideration in combining zip codes to create planning areas.

Milwaukee

No prior geographical stratification was required for Milwaukee, which is both smaller and more concentrated geographically than the other communities discussed. As with Denver, planning areas were created after data collection was complete. The original proposal called for a random

digit sample similar to that used in Chicago. A pilot study (done as a first replicate) showed that the Jewish households were all listed in the directory, making it possible to use a sample of listed residential telephones for the sample frame. Listed numbers were divided into equal replicates in the same way that the random telephone numbers were divided in Chicago. Those prefixes which yielded no Jewish interviews in the early replicates were dropped from the later replicate to reduce study costs.

Phoenix

Information about the distribution of Jews in Phoenix was available from two market studies conducted in Phoenix with a questions on religion, and from a data set that showed the distribution of Distinctive Jewish Names in Phoenix by zip code, originally purchased for fund-raising from a direct-mail database company. The market study data and local convention suggested four planning areas or strata: Central Phoenix, Tri-Cities, Scottsdale-Paradise Valley, and Sun City. The names generated from the direct-mail database indicated a major Jewish concentration in the Glendale-Peoria area, and this was made a fifth stratum. The sample was allocated in proportion to the Jewish population (as based on the market study), with Glendale-Peoria and Sun City being oversampled. The former was oversampled because it was an unexpected population concentration, and the latter because it is primarily a retirement area and thus of special planning interest.

A random digit sample was divided into equal replicates, following the Chicago and Milwaukee models, so that screening would end when the required number of interviews was obtained. It became apparent within a few weeks of screening that the DJN list produced for the Federation by the direct-mail firm had greatly overestimated the Jewish density of Glendale-Peoria. This area was then added to the Phoenix stratum, and its quota of interviews allocated proportionally to the other strata (with the exception of Sun City which was already oversampled).

MODIFIED SCREENING SAMPLES

Two communities chose to reduce the cost of the survey by combining random screening with a list sample. In Boston the list was made up of federation givers and members of organizations and synagogues.   In Cleveland both memberships and DJNs were used to compile the list.

Boston

The methodology used in the 1975 Boston study was originally developed for the 1965 study. Morris Axelrod and Floyd Fowler, who conducted the 1965 study (Fowler alone worked on the 1975 study) were the first Jewish researchers to go beyond lists of known Jews, explaining that "every unit in the population being studied must have a known, non-zero, chance of selection" (Axelrod, Fowler, and Gurin, p. 4).

The Jewish population study was a component in a community-wide health survey conducted for the United Way. Standard demographic data were collected for both Jews and non-Jews, with federation items included for Jewish respondents. The interviews were conducted in person as part of an areal sample covering the Boston SMSA.

Cleveland

Random Digit Dialing was employed in the eight "core communities" of Cleveland (Cleveland Heights, Shaker Heights, South Euclid, University Heights, Beachwood, Lyndhurst, Mayfield Heights, and Pepper Pike) where Jewish density is higher. In the noncore areas Jewish organizational lists were combined with Distinctive Jewish Names. The telephone exchanges associated with the eight core communities extended slightly beyond their geographic boundaries, and a "core exchange area" was created by adding to the core community the 4 percent of the households with core exchanges who live outside the core communities. The average Jewish density of the core communities is 31 percent. Adding the very low Jewish density noncore households with core exchanges reduced the overall Jewish density of the core exchange area to 22.5 percent. The core exchange area, with 85 percent of the Jewish population, was undersampled in order to oversample the noncore areas, which contain an estimated 15 percent of the Jewish population. The noncore Jews were found to have a higher proportion of households that had recently moved to Cleveland and a lower proportion of organizational members than the core areas, which suggests that an RDD sample would have turned up an even higher percentage of these two unlisted populations (they were probably included in the sample because they have distinctive Jewish surnames). Nevertheless, the use of multiple lists and cross-checks convinced Federation personnel that the sample was adequately representative, and that the potential refinement of an RDD sample did not warrant its additional cost.

NONSCREENING STUDIES

Two communities chose to use a list methodology exclusively, but for opposite reasons. Las Vegas is a very new Jewish community with a federation organized only a few years prior to the study by its one professional staff member, the executive director. With limited accumulated resources and funds and no previous experience in planning, undertaking even a small demographic study represented a major commitment. St. Louis, by contrast, can trace its Jewish roots well back into the nineteenth century, and the federation had greater professional and financial resources to invest in the study. These resources facilitated not only list sampling, but the conduct of very comprehensive in-person interviews.

Las Vegas

As part of its outreach efforts, the Las Vegas Federation had begun contacting unaffiliated Jewish households by using volunteers to contact all Jewish-sounding names in the Las Vegas directory. Because of the rapid growth of this Sunbelt community, updated new directories with more new Jewish names would appear every few months. The volunteers would call and inquire whether the household would like to receive the Federation's Jewish newspaper. The majority said yes; some indicated that they were Jewish but did not want the paper; and others stated that they were not Jewish. (A number of Mormon households with Jewish-sounding surnames--such as Levine --were contacted in this process.) The first two groups were added to the Federation list to create a DJN sample frame.

In New York, the DJN sample was weighted against the screening sample to eliminate a possible bias introduced by the DJN method (see the next article in this volume). Las Vegas could not afford even a small RDD study, and the Denver study was used instead to approximate a true probability sample of Las Vegas. The Las Vegas sample was reconstructed in Denver by computer. The Denver interviews were constructed by selecting all cases with a listed DJN (all 800 phone numbers were researched in a cross-listed directory) and all federation contributors. A series of tables was run comparing the Las Vegas subsample with the Denver total RDD sample as a whole on key variables such as age, family structure, intermarriage, and length of time in the community. In recreating the Las Vegas sample within the Denver data, the question was posed: How would the Denver study have been different if it had been conducted using the Las Vegas methodology? Weights were then computed for each of the dependent variables to answer the opposite question: How would the Las Vegas sample have looked if it had been conducted using RDD?

The validity of this approach depends on the degree to which Las Vegas resembles Denver, and without an RDD sample in Las Vegas, this is not known. However, the bias introduced by using a weighting scheme developed in Denver is certainly less than the bias introduced by leaving the sample in its pure DJN form.

St. Louis

The St. Louis study was built from organizational lists. Unlike other studies that have used lists, St. Louis sought to maximize coverage by compiling and merging all available lists and adding to them known Jews from other sources. While some smaller organizations did not cooperate, over 150 lists were ultimately merged. These included temples and synagogues, the St. Louis Jewish paper, agencies, organization chapters, boards of directors, elderly persons living in retirement housing, resettled Soviet immigrants, and day school families.

Efforts were also made to include Jewish households not appearing on any of these lists. Old lists going back to 1965 were compiled from synagogues, the Jewish Community Centers Association, and agencies. Records of marriages performed by local rabbis were also collected from the synagogues, along with lists of confirmands and nonmembers who had purchased high holiday tickets. Distinctive Jewish Names from the telephone directory were also included in the frame, along with a "snowball" sample of Jews known to key informants. All the lists were then merged and duplications eliminated. This last step sounds deceptively simple. Variant spellings of names, address changes, and marital dissolutions were but a few of the factors that had to be considered in the process of "merging and purging" the lists.

TRADEOFFS

Each of the surveys utilized a different methodology in response to different needs, budgets, and settings. One goal of the Brandeis University conference in November 1982 was to standardize community studies. However, as we have seen, hopes of progress toward this goal need to be tempered by recognizing differences in size, history, and composition among different Jewish communities. All these factors must be taken into account when constructing a sampling plan.

Nonscreening Samples

Coverage and accuracy are the classical problems associated with list samples. The extent to which certain groups in the population are excluded from the lists detracts from the ability of the sample to accurately represent the population. Lists can get out of date, and certain groups (such as recent movers or single women who have married) are more likely to disappear from lists. The exclusion of Jewish households not on the federation lists was the reason all the communities rejected this traditional model outright.

St. Louis sought to overcome the problem of coverage by expanding the list to cover all organizations, previous members of organizations, and individuals who ordinarily would not appear on federation lists. The St. Louis report on methods acknowledges this problem. Recent movers who are difficult to trace in the directories were less likely to be included in the sample; and, according to the report, Jews who "have never had an affiliation with any Jewish organization, even as children, will be excluded." These were not considered to be major problems for the study, however, because "there is no evidence...that recent migrants as a group have lower affiliation rates than longer-term residents." The unaffiliated households not included are considered "the most marginal people in terms of the study purposes" (Tobin, p. 80). The proportion of recent migrants and unaffiliated in St. Louis, which is an old, stable, midwestern city, is considerably lower than in the rapidly growing Jewish communities of the West.

The process of compiling, comparing, and merging lists was expensive: two years and over $15,000 (not including computer time) were spent in putting together the master sampling list. This cost is probably somewhat less than a comparable RDD sample, but does not take into consideration the cost in federation staff time necessary for contacting and working with the other organizations involved. The St. Louis study, then, accepted the failure to cover some small number of unaffiliated Jews in order to (1) conduct a longer, in-person interview; (2) gather comprehensive data about patterns of organizational cross-membership; and (3) obtain information about the number of previously affiliated households that have left St. Louis.

The Las Vegas sample was the least costly, and probably also the weakest of the studies discussed here. Ideally, the sample would have mixed RDD and DJN sampling within the same community, but costs even for this refinement were prohibitive. The availability of a better sample in a presumably comparable community (Denver) allowed this newly emerging community to begin its planning on the basis of some data. Careful attention was given to explicating the limitations of the sample design.

True Probability Screening by Telephone

The random selection of general households screened by telephone to find Jewish households is the most popular methodology. Chicago, Los Angeles, Denver, and Phoenix used RDD to generate the sample. Milwaukee found it could use directory listings instead of randomly generated numbers. The interest of Jewish researchers in this methodology reflects the increasing interest of survey researchers in general. Recent experiments with RDD have found no bias introduced as a result of the telephone interview. However, the general literature reports some evidence that elderly households are less likely to have telephone service. This issue, especially as it pertains to surveys of Jews, needs to be investigated further.

The major drawback in random screening is its higher cost. Most data collection costs, in fact, are typically expended just on locating the Jewish households to be interviewed. On the other hand, two substantial advantages are purchased by the higher cost of a RDD study. The first is coverage: several subpopulations were included in the Los Angeles, Denver, and Phoenix samples that would have been underrepresented in either an organizational list sample or a DJN sample, such as intermarrieds, recent movers, and young singles. The second is credibility: it is more difficult to take issue with controversial findings when the sample design has taken no short cuts and made no compromises.

Modified Screening

A compromise solution between screening and list sampling may be the direction of the future. The Boston study was the first to attempt this by integrating randomly selected Jewish households with federation lists. The great majority of the interviews were from the list sample, which creates a problem. Even though the randomly selected households were weighted, the relatively small number of interviews conducted at random introduced some additional sampling variation and limited the extent to which detailed analysis of the unaffiliated (appearing only in the random sample) could be performed.

The procedures by which the New York study combined RDD with DJNs are discussed in the next article. The subsequent weighting is cumbersome, because of the number of different weights necessary to take into account regional sampling units, listed versus nonlisted households, and DJN and RDD cases. Another issue here is the uncertain degree to which DJNs differ from RDD samples. The evidence from two studies which made such an investigation is contradictory. An independent DJN sample (N = approximately 1,800) in New York was compared with the main RDD sample (N = approximately 1,800) with only three statistically significant differences: Israelis, recent Russian immigrants, and intermarrieds were underrepresented in the DJN sample (because Jewish women married to non-Jewish men will not have a distinctive Jewish name). In Denver, however, a subsample of DJNs was created by researching all 825 sample phone numbers in a reverse directory (only 6 percent or about forty-eight cases had a listed DJN). This small subsample was then compared with the total RDD sample. A number of statistically significant differences resulted. It is not known to what extent these differences result from different DJN lists used (New York had a larger list), from different methodologies (New York had a large, independent sample of DJNs, while in Denver the DJN sample was small and created post-hoc), or from actual differences in communities. Further and more rigorous experiments in this area are needed. But the modified screening sample (where the telephone prefixes with very few Jews are dropped from the sample) is clearly a promising survey method. It combines the statistical surety of a probability sample with the relative economy of list sample.

WEIGHTING AND JEWISH POPULATION ESTIMATES

A good sample provides an accurate representation of the population at the smallest reasonable cost. Sampling efficiency is the ability to

preserve representativeness, controlling sampling variation (a statistical concept) while finding a less expensive way to create the sample. Stratified sampling is the most common procedure for making a sample more efficient. Stratification means that proportionally more households in one group (or stratum) are contacted than in other groups (or strata). When the strata are geographical areas, stratified sampling makes it possible to include numerically smaller communities about which information is needed. Most of the samples discussed here employed either prefix stratification or geographical stratification or both. The following discussion of weighting could have been included with the description of each community's methods, but those descriptions were already fairly complicated; and, as weighting is a more technical issue, it is discussed separately here.

Los Angeles and Denver

The Los Angeles sample was stratified in a two-step process. Five geographical strata (two of which were oversampled) were created in the first step and the prefixes associated with them were identified. Fortunately, the telephone companies and the Federation both divide the county up in the same way; each of the Federation regions corresponds to a separate bank of prefixes and even has its own telephone directory. Next, the sample was distributed according to the distribution of residential prefixes within each region, introducing a second set of prefix strata.

The Denver sample was initially stratified by the distribution of residential prefixes, with one community (Boulder) oversampled. Later in the study, some forty prefixes with low Jewish density were dropped.

Both geographical and prefix biases were introduced. The geographical bias was created by oversampling certain areas (the Southern and Eastern region in Los Angeles, and Boulder in Denver). The prefixes were similarly oversampled since prefixes with more residences had a greater chance of inclusion in the sample. Both biases were corrected simultaneously by adapting a weighting scheme suggested by Joseph Waksberg, one of the original innovators of Random Digit Dialing (1978). Each interview was assigned a weight according to its prefixes, using the following formula:

$$W_i = \frac{K}{(pfx_i)(hh_i)}$$

where:

W_i =   the individual prefix weight;

pfx_i =   the number of phone numbers generated for that particular prefix;

hh_i =   the number of different residential phone numbers in the household;

K =   the largest number of phone numbers generated for any given prefix (so that the smallest prefix weight is 1).

Because the range of phone numbers generated for the different prefixes is so great, the weighting scheme causes the computer (using the

WEIGHT command in SPSS) to count over 5,000 cases which can introduce artificially high levels of statistical significance. To avoid this problem all tables originally were run twice: weighted and unweighted. During the analysis of the Denver data a second, simpler solution was introduced: W_i above was divided by a second constant which lowered the count of cases to within about 20 of the actual number.

Chicago

The Chicago study was stratified by stratum and the number of different telephone numbers in the household. After first correcting for the prefix overlap among the strata (procedures not described here), a stratum weight was computed as follows:

$$W_i = \frac{\text{number of Jewish households in stratum}}{\text{sample size in stratum}}.$$

This fraction was in turn corrected for nonresponse by multiplying it by another:

$$\frac{\text{number of Jewish households in stratum}}{\text{number of interviews in stratum}}.$$

Because the replicates for each of the geographical strata in Chicago contained equal sample sizes for each prefix, there was no need to correct for the prefix bias as was the case in both Denver and Los Angeles.

Milwaukee and St. Louis

The Milwaukee sample was not stratified, and thus required no weighting. Similarly, the St. Louis study, because it worked from lists, needed no stratification. Every element in the sample was given an equal probability of selection by removing all duplicate households from the master list.

Las Vegas

The Las Vegas sample was weighted using the Denver data. A Las Vegas subsample was created in the Denver database by collecting all cases which either were federation givers or which were found to have a listed DJN (all 800 phone numbers were checked against a criss-cross directory for this purpose). This subsample was than compared with the Denver sample as a whole on a number of dependent variables to produce a correction weight. The computation of the weight for synagogue membership is demonstrated in Table 7.1.

Using the WEIGHT program in SPSS, the case was weighted according to whether the household was currently a member, previously a member, or never a member. These weights were used whenever synagogue membership was the dependent variable. Weights were constructed in this way for all the dependent variables used in the analysis.

TABLE 7.1
Computation of Weight for Synagogue Membership

Synagogue membership status	A Las Vegas subsample in Denver	B Denver RDD sample	Correction factor [B / A]
Currently a member	65.8 %	39.1 %	.59
Previously a member	11.4	15.6	1.37
Never a member	22.8	45.3	1.99
TOTAL	100.0 %	100.0 %	

Population Estimates from Screening Samples

Estimating the Jewish population of a community is at its best an inexact science, and at its worst pure speculation. The problem with Jewish population estimation methods is that there is rarely an accurate count of Jewish households available against which to test the estimation method. Next to the census, the ideal situation would be a survey conducted in the community including a question on religion. In New York, for example, the researchers could check their estimates against results from pure RDD telephone surveys conducted for local newspapers by major polling organizations. The sample of general households contacted in a screening study to find the Jewish households can also be used in this way. The Los Angeles, Denver, and Phoenix surveys used the large number of screening calls made as an independent survey of the community with one question only: Is the household Jewish? The result is an estimate of Jewish households as a percentage of the larger number of households in the community. This is in turn multiplied by the total number of households in the community to arrive at an estimate of the Jewish households.

Population estimates at lower levels of geographic specification than the community itself create a problem, since they have to be constructed from the Jewish sample itself. Since the number of interviews in any given zip code tends to be small, the statistical basis for making a zip code level estimate is weak. In Los Angeles an independent estimate of the number of Jewish households on a zip code basis was purchased from a statistical database company (created using a computed DJN technique). The estimate of the number of Jewish households in each region from the screening calls was compared with the regional estimates from the database company. It was consistently found that the database company had identified about half the number of Jews in each region. It was then assumed that this fraction was consistent across all zip codes within the region, and the zip code estimates provided by the database company were adjusted accordingly. In Denver and Phoenix the estimate of Jewish households was limited to planning areas by dividing the estimated number of households by the planning area distribution of the sample itself.

SUMMARY AND CONCLUSION

All of the surveys discussed faced the same basic choice: how to balance the statistical confidence of a probability sample against its greater cost. Even when rejecting a true probability sample, each survey director paid careful attention to the potential introduction of sample bias and took great pains to demonstrate that such a possible bias had either been eliminated or controlled.

One of the purposes of the Workshop in Jewish Population Studies at Brandeis University's Center for Modern Jewish Studies was to standardize local Jewish population studies so that they can be compared. However, the variety among the nine studies described here suggests that different situations inevitably call for different solutions to common sampling problems. If we want local Jewish community studies to be more comparable to each other, we must first have a better understanding of the effects of different sampling methodologies. But no single community can be expected to take on the task of funding such rigorous methodological experiments. Some central body such as the Council of Jewish Federations or the Center for Modern Jewish Studies itself might consider such a role as other communities conduct local surveys.

A Jewish community's understanding of itself depends in part on a comparison with other communities. It is important that our comparisons and conclusions not be distorted by methodological differences.

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