
A Case Study of an Abbreviated Demographic Survey:

The New Haven Jewish Population "Mini-Study" of 1987

By

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TABLE OF CONTENTS

Foreword	Page	i
The author		ii
Background		1
Summary		2
Population Size		3
Population Characteristics		4
Methodology		10
Acknowledgements		15
Appendix - Distinctive Jewish Names		16
Instructions for computing an estimate for the number of Jewish households		17
Questionnaire		19

F O R E W O R D

Information needs that Jewish communities require for rational decision-making are far outpacing the financial resources and numbers of trained research personnel available to these communities. The average federation's bill for a full-scale demographic survey now exceeds \$100,000. The laws of statistical probability and the realities of social research actually work to the detriment of small and medium-sized communities, since the numbers of respondents required for statistically valid results do not vary much by population size. Moreover, contacting random samples of Jews in dispersed residential environments is more costly than in concentrated Jewish areas such as New York City.

This vicious cycle has to be addressed by an appropriate 'intermediate technology'. Dr. Steven Cohen's case study of a 'quick and dirty' method for surveying a community on a restricted number of variables using only limited resources is thus a welcome addition to our collection of research tools available to Jewish federations.

We do not believe this method will supplant the full blown demographic survey at the local federation or national level when there is a real need for a much more scientifically based methodology. However, Dr. Cohen's approach is a practicable and useful research option where only a limited degree of precision, with regard to results, is required and where the human and economic resources just do not exist for a Federation to undertake anything more ambitious.

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T H E A U T H O R

STEVEN MARTIN COHEN is Professor of Sociology at Queens College, CUNY. His books include American Modernity and Jewish Identity (1983) and American Assimilation or Jewish Revival (1988). He has also co-edited Perspectives in Jewish Population Research (1984) and The Jewish Family: Myths and Reality (1986).

Prof. Cohen has been the co-director of the 1981 Greater New York Jewish Population Study and a follow-up study, the 1986 Queens and Long Island Jewish Population Study. He has conducted an annual survey of American Jewish political and social attitudes for the American Jewish Committee. His numerous articles on American Jewish life have appeared in several scholarly journals as well as Moment magazine and the American Jewish Year Book. He has been a visiting professor at Brandeis University, The Hebrew University in Jerusalem, and, most recently, Yale University where he was the Jacob Blaustein Visiting Professor in Judaic Studies.

Prof. Cohen has long been active in Jewish communal life. Currently, he is on the Board of the New Haven Jewish Federation where he chairs its Long Range Planning Committee. He is also on the Boards of the Jewish Telegraphic Agency and the National Foundation for Jewish Culture.

BACKGROUND

In the Spring of 1987, I was asked by the New Haven Jewish Federation to design and supervise a "no-budget" study of the Jewish population in the Federation service area. Federation leaders determined that approximate estimates of the area's Jewish population size and some of its essential characteristics would be helpful in planning and providing services to the Jews of the New Haven region.

Thus, the study was designed to:

(1) Estimate the number of Jewish households and individuals;
and,

(2) Estimate the distributions of the following characteristics:

- a. Household size (number of people living in each household)
- b. Jewish household size (number of Jews living in each Jewish household)
- c. Age distribution (within four broad categories, from children through elderly)
- d. Marital status
- e. Religion raised and religion now of respondent and spouse
- f. Educational attainment
- g. Years lived in New Haven
- h. Denominational identification
- i. Synagogue affiliation
- j. JCC membership
- k. Receipt of the Jewish Ledger

The data on the population characteristics were gathered by way of 397 telephone interviews with New Haven area Jews with Distinctive Jewish Names (see Appendix) listed in the telephone directory. The population size was estimated by combining information from the Federation's list of known Jews with estimates based on listing of Distinctive Jewish Names in the telephone directory.

This report presents and discusses both the findings of the study, as well as the methodology and its limitations. Where possible, the New Haven findings are compared with those from other population studies so as to situate them in the larger context of North American Jewry.

SUMMARY

1. Total number of Jewish households in the New Haven area: about 12,000.
2. Total number of Jewish individuals: about 28,000.
3. Average number of Jews per household: 2.35.
4. Average number of people per Jewish household: 2.59.
5. Average proportion of people in Jewish households who are Jewish: 90%.
6. Age distribution: 18%, 65+; 32%, 35-64; 28%, 18-34; and 22%, 17 and under. (Age distribution similar to that found in Northeastern metropolises.)
7. About 80% of adults were married; about 7% never married; about 10% widowed; about 4% divorced or separated.
8. About 17% of married Jewish men were mixed married (had a currently non-Jewish spouses); and about 23% of marriages involving Jews were mixed marriages.
9. About 20% of born-Gentile women in Jewish households had converted to Judaism.
10. About a quarter of adults possessed graduate degrees, more than most other American Jewish communities.
11. About 80% had been in the New Haven area 10 years or more; only 8% had moved to the area in the last 5 years.
12. Jewish denomination: Conservative (43%); Reform (22%); Orthodox (10%); and non-denominational (25%). More Conservative Jews and fewer Reform Jews than national statistics.
13. Over two thirds (69%) said they receive the Jewish Ledger.
14. Most (55%) households belong to a synagogue.
15. A fifth (21%) belong to the JCC.

POPULATION SIZE

For purposes of this report, the New Haven area consists of following communities: New Haven, West Haven, Orange, Woodbridge, Bethany, Hamden, North Haven, East Haven, Branford, North Branford, Guilford, Madison, Wallingford, Cheshire, and Milford.

We estimated that there were approximately 12,000 households with at least one self-defined Jew living in them in the New Haven area. By "self-defined" Jew, we exclude those who may be considered Jewish by religious law but do not so regard themselves, and we include those who see themselves as Jewish even though they may not meet the criteria of the Jewish legal tradition. The estimate largely excludes the transitory Yale University student population. (Estimating the number of Jews at Yale would require a separate study. Informed observers generally believe that about one third of Yale's student population is Jewish. If so, then Yale enrolls about 3,000 Jewish students at any one time.)

From the population survey we learned that the average number of Jews living in Jewish household was about 2.35. (Three quarters of the homes had between 2 and 4 Jewish members.)

Since there are about 12,000 Jewish homes, and about 2.35 Jews per home, we can estimate the total Jewish population size at about 28,000.

Prior to this research, Federation leaders had estimated the population at about 22,000 (in semi-official estimates for the American Jewish Year Book) and 24,000 - 26,000 in informal estimates.

Previous experience with Jewish population studies has demonstrated a tendency to "find" more Jews than were informally estimated by community leaders. Sometimes the increases in estimates are quite dramatic, resulting in one major community nearly doubling its estimate of the number of Jews living in their region. One reason for the tendency for leaders to under-estimate the Jewish population of their communities is that dues to the Council of Jewish Federations are partially tied to community size. Moreover, campaign performance is measured in terms of the population base: smaller communities have smaller expectations. Hence, when local federation leaders estimate population size on the basis of impressionistic and anecdotal evidence, they have several incentives for going with their more conservative instincts.

Thus, it comes as no surprise that this more systematic effort (described in the Methodology section) estimated a Jewish population about a quarter larger than leaders had previously imagined.

POPULATION CHARACTERISTICS

Household size: As previously noted, we estimated that, on average, 2.35 Jews live in each Jewish household. The respondents also reported that, on average, their households contained 2.6 individuals, Jews and non-Jews. If so, then about 90% (2.3 out of 2.6) of the individuals in Jewish homes were Jewish.

For certain methodological reasons, we can presume that the proportion of people in Jewish households who are non-Jewish may in fact exceed 10%. (To elaborate, the sampling technique we employed -- calling people with Distinctive Jewish Names -- adequately locates mixed married Jewish men; but it under-samples mixed married Jewish women (many of their telephones would be listed in the directory under their non-Jewish husbands' names. As a result of failing to properly include an adequate number of mixed married Jewish women, we can be sure that, on average, the proportion of people in Jewish households who are Jewish is less than the 90% found in our survey sample.)

Household Size

All Individuals	2.59
Jews only	2.35

Age Distribution: About 18% of the New Haven area Jewish population is 65 or over; 32% is between 35 and 64; 28% is 18-34; and 22% is 17 or under.

We asked respondents how many household members fell within each of these four age categories; as a result, more detailed breakdowns are unavailable. However, we can estimate the number of individuals in each year of age. That is, we assume that there are 28,000 Jewish individuals in the population, and that 22% of them, or about 6,200 are 17 and under. If so, then for each year of age between 0 and 17, there are about 360 young Jews (6,200/17). This is to say that there are approximately (and only very approximately) 360 16-year olds; or by extension, there are about 1800 teen-agers between 13 and 17 years of age.

Using the same method we estimate that there are about 460 individuals for each year of age between 18 and 34; and 300 individuals for each year of age between 35 and 64. All in all, there are about 5,000 individuals age 65 and over (we cannot accurately estimate the number of elderly individuals in each year of age because we cannot assume an equal number of individuals in each year of age).

(As an aside, New Haven has two institutions for the elderly under Jewish auspices: Tower One/Tower East, a residential facility with about 250 Jewish residents; and the Jewish Home for the Aged with about 210 residents. Residents of the former have their own telephones and, therefore, had as good a chance as anyone of entering the survey. We cannot obtain a precise estimate of the number of Jewish elderly in non-sectarian institutions or of how many have their own telephones. However, professionals serving New Haven's Jewish elderly do not believe such numbers are large. Residents of the home do not have private phones. Thus, to be precise, the estimate of the elderly ought to be increased by over 200 individuals.)

Age Distribution

Age Range	Percentage	Approximate Number
17 or under	22%	6,200
18-34	28%	7,800
35-64	32%	9,000
65 +	18%	5,000
	100%	28,000

Comment: In comparison with several other large communities which have conducted Jewish population studies in recent years, the New Haven age distribution is not particularly extraordinary. The proportion elderly is far less than that found in Miami, greater than that in Sunbelt communities (like Phoenix), and even greater than Long Island. Instead, the fraction who are 65 and over resembles that found in studies of the New York area, and other veteran areas of Jewish settlement. Similarly, the proportion of Jews under 18 in New Haven young people also resembles those found in the larger Northeastern metropolitan areas.

Marital Status: About two thirds of the adult respondents were married and only 10% were never married; over one in eight (13%) were widowed; and 7% were divorced or currently separated.

However, in actuality, somewhat more than two thirds of New Haven area Jewish adults are married. In other words, there is a discrepancy between the survey results for respondents (reported in the table below) and the real distribution of marital status in the adult population. Since married respondents, in effect, represent two individuals (them and their spouses), the proportion married among all adult Jews in New Haven (and not just the respondents) is, in fact, somewhat higher. If we add in an estimate of the Jewish spouses of the married respondents (equivalent to 85% of those married), then we can estimate that approximately 80% of New Haven Jewish adults were married (with commensurate small reductions in

the estimates of proportion single (about 7%), widowed (about 10%), and divorced/separated (about 4%).

Comment: Several Jewish population studies report proportions married in the "high 60s," but these often refer to respondents only, rather than all adults. In a recent study of the Jews of Queens and Long Island, about 72% of the adults were married. It seems reasonable to assume that New Haven's population contains a somewhat higher proportion of married couples than the rest of Jewish America.

At the same time, the proportion widowed in the other studies (with the exception of Miami) tend to fall below the 13% respondents reported here for New Haven. For example in Queens/Long Island, only 6% of adults were widowed (although the rate climbs to 11% for Queens alone).

While New Haven may be home to larger proportions of married and widowed, there are apparently relatively fewer never-marrieds than in most other Jewish population studies. In the New York area (1981), for example, about 15% of adults were never married; and almost all other communities reported higher rates. Meanwhile, New Haven's rate of divorced and separated is well within the range reported elsewhere.

Marital Status

(Respondents)

Married	68%
Never married	10%
Widowed	13%
Divorced	6%
Separated	1%

100%

Intermarriage: We have no direct evidence on the rate of intermarriage, but the survey did collect some information which gives a rough picture of the intermarriage rate in New Haven. We asked whether the man and the woman of the house was born Jewish and whether they were Jewish now (at the time of the survey).

Almost all (about 95%) of the men were raised Jewish and were Jewish now. But this was to be expected, since the phone calls were made to people with Distinctive Jewish Names. This sampling technique which generally misses the non-Jewish husband of a Jewish wife because couples tend to list their phone numbers under the name of the man of the house. However, interviewers did manage to reach a small number of mixed married women; obviously some such women were listed in the telephone books under their maiden (Distinctive Jew-

ish) names.

However, we did find a substantial number of non-Jewish wives. (There is no reason why the DJN sampling technique should fail to find nearly the correct proportion of intermarried men.) Of all women in the sample (married and unmarried), 83% were raised as Jews and 86% were Jews now. While 60 women in the sample were raised as non-Jews, only 48 were said to be Jews now. This suggests that, over the years, about 20% of the originally non-Jewish wives have converted to Judaism (or changed their religious identities without conversion). Other studies of conversion frequencies find the rates for women average around 20-25%.

The proportion of Jewish men who are mixed married can be estimated (very approximately). There were 277 married respondents (both men and women). There were 304 Jewish women and 48 non-Jewish women reported in the sample (some were respondents; some were wives of male respondents). We can assume that all 48 non-Jewish wives were married to (and reported by) Jewish husbands. If so, then they represent 17% of the 277 marriages by Jewish husbands. In other words, about 17% of the currently married Jewish men in New Haven are mixed married. (A mixed marriage is defined as the marriage of someone who says he or she is Jewish to someone who is reported to "now" be non-Jewish.)

From other population studies we know that the rate of mixed marriage among Jewish women has been lower than that among men, although the rates have converged in recent years. Nevertheless, in the aggregate (for the entire population), fewer Jewish women are mixed married than are men. The differences reported are such that we can estimate that about 13% of the Jewish women in New Haven are mixed married (although, given all the estimates that led up to this educated guess, a deviation from this figure of five or six percentage points would not be all that surprising). If so, then, we can say that -- very roughly -- about 15% of the married Jews in the New Haven area are mixed married; and, therefore, about 23% of the marriages involving Jews are mixed marriages.

We should realize that the rate of mixed marriage for the entire population of all ages figures to be far smaller than the rate for those marrying today. Since fewer older Jews intermarried in the past (that is, fewer than the overall average of roughly 15%), more younger Jews intermarried quite recently (that is, more than roughly 15%). Again, the data do not allow for a direct assessment of recent rates of mixed marriages, but a range of 25-35% seems plausible.

Educational Attainment American Jews are known to have the highest rates of educational attainment of all major American ethnic groups. Since New Haven is home to Yale University, it would not be surprising to find that the proportion highly education even exceeds that found elsewhere.

Indeed, over a quarter (28%) of the men possessed a graduate degree as did 23% of the women. These figures are generally higher than that reported elsewhere (where proportions range from 15% to 27% for men and women combined, except for Washington D.C. where nearly half reported a graduate degree).

Almost two thirds of the Jewish men in New Haven (63%) and a majority of the Jewish women (52%) possessed at least a bachelor's degree. The remainder -- 37% of the men and 48% of the women -- never completed college. These figures are not much different from those reported elsewhere. In Queens/Long Island (1986) for example, 34% of the men and 46% of the women had no college degree.

Educational Attainment of Men and Women

	Men	Women
Graduate Degree	28%	23%
B.A.	34%	29%
No B.A.	37%	48%
	----	----
	100%	100%

Years in New Haven: We asked the respondents, "How many years have you lived in New Haven?" The vast majority (80%) had been in the area 10 years or more; 11% were resident 6-10 years; and only 8% had moved in during the last 5 years. By contrast, other communities generally report more mobile populations.

Denomination: More Jews regard themselves as Conservative than any other Jewish denomination. Conservative households (43%) are almost twice as plentiful as Reform household (22%) which in turn are twice as numerous as Orthodox families (10%). A quarter (25%) said they were "Just Jewish," preferring none of the major denominational choices.

Denomination

Orthodox	10%
Conservative	43%
Reform	22%
Just Jewish	25%

	100%

Relative to the rest of the country, New Haven is home to about the same proportion of Orthodox and non-denominational Jews as elsewhere a somewhat higher proportion of Conservative families, and a significantly lower proportions of Reform households.

These results suggest that New Haven is a "Conservative town." Indeed, the distribution of synagogues and the size of their memberships confirm this finding. One Conservative synagogue boasts the largest membership in the area with nearly 1,000 families. Altogether there are five Conservative synagogues with a combined membership of about 2,400 families. In comparison, there are four Orthodox synagogue with a combined membership of about 1,200 families. There are also four Reform synagogues with a total membership of 1,500 families. (We should note that two of these Reform synagogues are in outlying areas where they are the only available religious institution. As a result, local observers report that many so-called Reform congregants identify as Conservative.) In other words, both the survey and the synagogue membership rosters suggest a preponderance of Conservative Jews, followed by Reform, and followed in turn by the Orthodox.

(Of course, the actual numbers of Orthodox, Conservative, and Reform Jews in the wider population are larger than the numbers affiliated with each denomination's congregations. Thus, the figures for denominational synagogue members cited above need to be expanded by different factors to yield the appropriate estimates for Orthodox, Conservative and Reform families in the community at large.)

Jewish Affiliation: We asked three questions about Jewish affiliation. Over two thirds (69%) received the Jewish Ledger; most (55%) belonged to a synagogue; and 21% said they belonged to the JCC. All of these rates are consistent with those reported in intermediate-size Jewish communities (the largest communities tend to report lower rates of Jewish affiliation.)

METHODOLOGY

The data collection for this study consisted of two parts: the random sample survey (to learn about the characteristics of the population); and the estimate of Jewish population size using the Federation list and counts of those with Distinctive Jewish Names listed in the telephone directories. (For a complete list of these 109 names, see the Appendix.)

One prime virtue of this methodology was that it involved no significant expenditures to the New Haven Jewish Federation, aside from telephone costs, some professional and clerical staff time, and copying. The telephone interviewers and the social scientist who directed the study volunteered their time.

The Sample Survey: The survey questionnaire included the maximum number of questions which could fit on one page (see Appendix). We provided for a very limited pre-coded answer categories (e.g., age: under 17, 18-34, etc.) so as to allow for tabulation by hand.

The interviews were conducted weekday afternoons and evenings by groups of interviewers who were given a half-hour training session prior to their performing the interviews. The interviewers, though generally inexperienced, were quite capable. One group consisted of Yale University undergraduates with strong Jewish backgrounds; others were members (almost always women) of local Jewish organizations.

The sample consisted of residential listings in the telephone directory of people with Distinctive Jewish Names (DJNs). Quite simply, interviewers were given copies of pages of the phone book with blocks of DJNs circled. They were instructed to call all the names in the blocks, making sure not to call individuals from the same household, in the event of duplicate listing. (In a city the size of New Haven, the number of entries within a single DJN generally did not exceed 30 or 40, so that it was relatively easy to avoid calling a husband and wife, or parent and teen-ager, living at the same address. When mistakes did occur, they took place on the same evening so that interviewer or interviewee were immediately aware of the duplication.)

The volunteer interviewers conversed with 502 potential and eligible respondents (people who were home and said they were Jewish). Of these, 391, or 78% agreed to be interviewed. The 78% response rate compares very favorably with that obtained by paid "experienced" interviewers. (We note that the so-called "trained, experienced" telephone interviewers who work for many telephone survey companies are often not all that highly educated or motivated.)

Population Estimate: The estimate of the number of Jewish individuals is the product of two factors: the number of Jews per household, and the number of Jewish households. We estimated the former from the survey at 2.35. We estimated the number of house-

holds at 12,000 through a fairly complex technique elaborated below.

We began with two sorts of divisions between Jewish households: (1) some are found on Federation's master file, and some are not; and (2) some have Distinctive Jewish Names and are listed with those names in the telephone directory, and some are not. In other words, there are four types of Jewish households:

Four Types of Jewish Households

	In the Federation File?	A DJN & in the Telephone Directory?	Estimate in New Haven
Line 1.	YES	YES	1,183
Line 2.	YES	NO	5,906
Line 3.	NO	YES	813
Line 4.	NO	NO	4,059
		Total	<u>11,961</u>

The total number of Jewish households is simply the sum of these four lines, the first two of which can be determined with great accuracy, and the last two (not on File, DJN; not on File, not DJN) require some estimation.

There were 7,090 households on Federation's file (there were 9,634 listings, but over 5,000 were husbands and wives.) Of the more than 7,000 names, 1,287 were on the list of Distinctive Jewish Names; of the 1,287 DJNs, 1,183 were in the New Haven area phone directories. In other words, referring back to the population categories listed above, we determined that we had 1,184 in Line 1, and 5,906 (i.e., 7,089 - 1,183) in Line 2. The problem, of course, was to estimate lines 3 and 4 (the people not on Federation's file, whether they have a DJN in the phone book, or not).

The researchers counted the total number of residential, non-duplicated DJNs in the New Haven area directories. In other words, they made sure not to count names with a professional or business address or number, and not to count several people at the same address (sometimes, teen-agers and spouses are listed separately). In all, there were 2,359 such listings.

Now, not all of the 2,359 households could be presumed to be Jewish. In fact, the telephone surveyors -- who called many of these people (the whole telephone survey sample consisted of listed DJNs) found that only 85% of those who responded said their house was home to at least one Jew. In other words, about 15% of listed DJN households may be presumed to be non-Jewish households. (We cannot exclude the possibility that some of the 15% who claimed to be non-Jews were in fact Jews who wanted an easy excuse not to respond to the survey. To the extent that our survey produced "false non-Jews," this method under-estimated the New Haven area Jewish

population.) Given that we have no reason to believe otherwise, we accept the respondents' claims at face value and assume that then only 85% of 2,359 or 1,996 listed DJN households are Jewish. Of these, 1,183 were on the Federation file and the rest -- 813 -- were not. Thus, we estimate the number of households in Line 3 at 813; these are DJN households found in the telephone directory, but not on the Federation file.

The last estimate (Line 4: Jews without listed DJNs and not on Federation's files) is derived by assuming that the ratio of Line 4 to Line 3 (which we have to estimate) is identical to the ratio of Line 2 to Line 1 (which we know exactly). In other words, we assume that listed DJNs comprise the same fraction of Jews who are not on the Federation file as they do of Jews on the Federation file.

Among the Federation file households, for every DJN family listed in the phone books, there were almost 5 (4.99) of the other sort (either they were non-DJN or were not in the phone book). By extending this ratio to the non-Federation households, we find that there are an estimated 4,059 households who are non-listed DJN and non-Federation file families ($4.99 \times 813 = 4,872$). Summing the estimates for all four lines yields a total of almost 12,000 (11,961 to be exact).

(As an aside, these calculations suggest that Federation has on its files almost 60% of all Jewish households in the New Haven area. From a strictly impressionistic perspective, such an assumption would not be at all unreasonable.)

Of course, it is the estimate of Line 4 which is the most problematic, indeed, the most imprecise. We assumed that the ratio of non-DJN/listed Jews to DJN/listed Jews among those not in the Federation file was the same as that for the Federation file (about five -- 4.99 -- to one). However, in reality, the ratio may be different. If anything, DJN Jews may be more Jewishly identified than non-DJN Jews (although, to be sure, the little research we have on this point suggests very slight differences between those with and those without a Distinctive Jewish Names). If they are indeed more Jewishly inclined, then they are more likely to affiliate with the Jewish community and will comprise a larger proportion of the Federation file and a smaller proportion of the non-Federation file Jews. If so, then this method may have under-estimated the number of Line 4 households, and the overall Jewish population as well.

Similarly, one could argue that the more established, wealthier, and less transitory households who are more likely to affiliate with a Federation, synagogue or other Jewish institution are also more likely to be found in the phone directory than are those who are not on the Federation file. If so, then the method we employed also would under-estimate the number of Line 4 households.

In short, for those Jews without a Distinctive Jewish Name who are unknown to Federation, this method may be particularly imprecise. And insofar as it is inaccurate, we are probably under-estimating the Jewish population. On the other hand, the error -- whatever its dimension -- is largely limited to Line 4 households;

these, in all likelihood, comprise less than 40% of the entire population. Thus, if we have erred in estimating this sub-population (Line 4) by a factor of 20% in either direction, then we have erred in the total population estimate by only 8% or so (i.e., $40\% \times 20\% = 8\%$). In other words, a big error in one segment of the population translates into a smaller error for the entire population.

Triangulation with Institutional Affiliation Figures: One way to check on the accuracy of these figures is to compare them with the reports of local Jewish institutions. We noted earlier that rough parallels may be found between the sample survey's denominational distribution and those of synagogue members. The survey also asked about other measures of Jewish affiliation: reading the Jewish Ledger, belonging to a synagogue, and belonging to the Jewish Community Center.

Unfortunately, it is not so easy to directly compare survey results with actual membership information. A sparse literature suggests that respondents over-report their participation in socially approved activities such as, in our case, Jewish affiliation. One study of Los Angeles Jewry showed that one third of those claiming to make a Federation contribution had not in fact done so. In another study, about a fifth of respondents who had earlier claimed to be members of synagogues said that they had not paid dues. The 1981 New York Jewish Population Study demonstrated that many respondents report belonging to a "YMHA" (the local word for JCC) when, in fact, they may be users of "Y" services.

With this noted, we would expect the total numbers of Jews actually affiliated with New Haven area Jewish institutions to fall short of those numbers implied by the population study (i.e., a certain percentage of the 12,000 estimated Jewish households), particularly synagogues and the JCC. In fact, the study would suggest 6,600 synagogue-affiliated families, and the synagogues report about 5,100; the study suggest roughly 2,400 JCC-affiliated households as against under 1,600 on the JCC membership roster; the study also suggest about 8,200 households who receive the Jewish Ledger and almost as many (8,100) households are on the Ledger's New Haven area mailing list.

The actual number of JCC and synagogue members indicate that either of two numbers are too high: the percentage of the population who is affiliated with these institutions (as reported by the survey respondents), or the estimated total number of Jewish households (12,000). For reasons noted above, we believe the latter -- the population figure -- is reasonably accurate, while the percentage affiliated reported by the respondents is exaggerated. In support of this inference, we note that the actual and estimated Jewish Ledger readership figures are more closely aligned than are the comparable synagogue and JCC figures. Apparently, receiving the Jewish Ledger is not something respondents tend to exaggerate. Unlike synagogue membership, it is not an action with high social approval; and unlike JCC or synagogue membership, where use may imply membership, receipt of the Ledger is not subject to alternate interpretations on the part of the respondent. (In addition, some

younger respondents may have claimed synagogue membership on the basis of their parents' memberships.)

In short, while the institutional affiliation data cannot prove the accuracy of the population estimate, they do lend some support to the validity of the estimate.

Comparison with Other Estimation Procedures: The virtues or shortcomings of this estimating procedure need to be seen in the context of Jewish population studies generally. Most such studies rely on simple extrapolation from Random Digit Dialing (RDD) telephone screener interviews. In a study of Jews in a large metropolitan area, callers may reach 30,000 households of which 25,000 might answer questions sufficiently to be categorized as Jewish or not. If, say, 1,000 claim to be Jewish, then researchers would assume that 1/25 of the total number of households in the area, as reported by the U.S. Census, are Jewish. This number is then multiplied by the average number of Jews per household, as determined by the sample survey, to arrive at the estimate for the total number of Jews in the area.

It should be clear that the RDD method, even though it is the most frequently utilized technique to estimate the local Jewish population, is also subject to considerable error; except here the error is applied to the total Jewish population, and not just a part of it. In the RDD method, researchers must assume that those who refuse to cooperate in any way include as many Jews as those who do agree to answer the screener's questions. Any errors (be they sampling or interviewers' errors) which affect the fraction of household presumed to be Jewish by a small amount are substantially magnified when that fraction is multiplied by the sum total of households in the area. In the example above, 4% or .04 of the population is thought to be Jewish. Obviously, an error amounting to 1% in either direction would result in an error of 25% in the eventual estimate of the total Jewish population size. (Although, to be fair, with as many as 25,000 cases, sampling error is likely to be small, amounting to about 6% of the total Jewish population estimate.)

The conclusion one may draw from this discussion is not that the method used to estimate the New Haven Jewish population is highly accurate and precise (which it is not). Rather, we ought to understand that more sophisticated (and expensive) methods now used by larger communities may be only marginally superior.

ACKNOWLEDGMENTS

Linda E. Ritt Kupfer, planning associate at the New Haven Jewish Federation managed several aspects of the data collection for this study.

APPENDIX

DISTINCTIVE JEWISH NAMES

(Alternate spellings should not be substituted for those below.)

Abramovitz	Gottlieb	Rosenbaum
Abrams	Greenbaum	Rosenberg
Abramson	Greenberg	Rosenblatt
Adler	Gross	Rosenbloom
Altman	Grossman	Rosenblum
Bercovitz	Halperin	Rosenfeld
Berkowitz	Halpern	Rosenstein
Berman	Halprin	Rosenthal
Bernstein	Horowitz	Rothman
Birnbaum	Horwitz	Rothschild
Blumberg	Hurwitz	Rothstein
Blumenthal	Hyman	Ruben
Brodsky	Jacobs	Rubenstein
Brody	Jaffe	Rubin
Cahn	Kahn	Schneider
Caplan	Kaplan	Schulman
Cohen	Katz	Schwartz
Cohn	Katzman	Segal
Eisenberg	Kaufman	Shapiro
Epstein	Klein	Shulman
Fein	Kohn	Siegel
Feinberg	Lefkowitz	Silverman
Feingold	Levi	Silverstein
Feinstein	Levin	Solomon
Feldman	Levine	Stein
Fink	Levinson	Steinberg
Finkelstein	Levitt	Stern
Freedman	Levy	Straus
Friedman	Lieberman	Strauss
Ginsberg	Margolin	Weinberg
Ginsburg	Margolis	Weiner
Gold	Markowitz	Weinstein
Goldberg	Moscowitz	Weintraub
Goldfarb	Rabinowitz	Weiss
Goldman	Rappaport	Zeitlin
Goldstein	Rosen	Zuckerman

Note: These names were among the most common found on a list of over 100,000 contributors to the United Jewish Appeal. Since some of these names are common with German-Americans as well as Jews, use of such names in areas of the country with large German stock population will identify many non-Jews as well as Jews.

In New Haven, of 7,090 known Jews, 1,287 (or 18%) possessed these names.

INSTRUCTIONS FOR COMPUTING AN ESTIMATE FOR THE NUMBER OF JEWISH HOUSEHOLDS

The following instructions, provided for other communities who may wish to replicate the method utilized here, ought to be read in conjunction with the New Haven Jewish Population "Mini-Study," in particular, its methodology section.

The total number of Jews in a region is the product of the number of Jews per household and the number of Jewish households in the region. The number of Jews per household is best obtained by a Random Digit Dial survey or, with far less accuracy, with a survey of listed telephones of households with Distinctive Jewish Names. In New Haven, using the latter method, we found 2.35 Jews per household. Almost all Jewish population studies conducted since 1979 in major metropolitan areas have found Jewish household size to range from 2.2 to 2.6.

To obtain the total number of Jewish households in a region (i.e., the number of households with at least one person who says he or she is Jewish -- admittedly a "sociological," rather than a "halachic" definition of who is a Jew), we need to estimate the number of four types of households:

1. Those on the Federation file bearing Distinctive Jewish Names (see list, attached page) who also appear in the phone directory.
2. All other households on the Federation file. (These are people without DJNs, or with DJNs who are unlisted in the telephone directory.)
3. Those not on the Federation file with a DJN who appear in the phone directory.
4. Other Jewish households. All of these are not on the Federation file and they are not directory-listed DJNs.

To estimate the Federation file numbers (items #1 and #2), we need a Federation file purged of double entries (generally husbands and wives). With a clean file, we may then divide the DJNs from the others, and then look up the DJNs in the telephone directory.

To take a concrete example, suppose there were 10,000 separate households (not accounts, but households) on the Federation file. Of these, suppose that 1,800 were DJNs (a reasonable assumption given the experience in New Haven). Of these, suppose 1,500 were found in the area telephone directory(-ies). At this point we would have two of the four required estimates: Item #1 (=1,500), and Item #2 (=8,500). The remaining problem is to estimate Items #3 and #4.

We proceed to Item #3 first, that is, the number of Distinctive Jewish Name families who are: Jewish, not on the Federation file, and in the telephone directory.

Suppose we counted 3,000 listed DJNs in the telephone directory. Of these 1,500 were on the Federation file, leaving 1,500 who are not on the Federation file. Now, not all of these 1,500 can be presumed to be Jewish (many may be children of Jewish fathers or grandfathers who intermarried in previous generations). To ascertain just how many of the 3,000 are Jewish, one would need to call a goodly number of them. In New Haven, we spoke with about 600 listed DJNs and learned that 85% of them said they was a Jew in the household, and 15% did not. Assuming the same results for our example, this would imply that 85% of the 3,000 listed DJNs are Jewish households or that 2,550 would be Jewish. Since 1,500 are already on the Federation file, that leaves 1,050 households for Item #3.

Last, to estimate Item #4 (those not on the Federation file, and not a directory-listed DJN), we assume the same ratio between directory-listed DJNs and others as we found on the Federation file. There we learned that for 1,500 listed DJN households there were 8,500 of the other variety. These figures yield a ratio of 5.66 to 1. Applying the same ratio to the 1,050 Item #3 households, we would estimate 5,950 Item #4 households (i.e., $5.66 \times 1,050 = 5,950$). In other words, as against 10,000 Federation file households in this hypothetical community, we have 7,000 non-Federation file household (the sum of 1,050 and 5,950) for a grand total of 17,000 Jewish households.

These results are summarized in the chart below:

FOUR COMPONENTS TO JEWISH POPULATION ESTIMATES
(WITH HYPOTHETICAL FIGURES INSERTED)

Federation file?		YES	NO	Non-Jewish DJNs in phone book	DJNs in phone book
A DJN & in phone book?	YES	Item #1 (1,500)	Item #3 (1,050)	(450)	(3,000)
	NO	Item #2 (8,500)	Item #4 (5,950)		
Sub-totals		----- 10,000	----- + 7,000		
Grand Total					= 17,000

Phone # _____ Town _____

Hello, is this (telephone number)? I'm
(your name) from the New Haven Jewish
Federation. We're doing a population
study and would like to ask you a few
questions.

_____ Did not answer
_____ Answering machine
_____ Recording, new number (Do not call)
_____ Wrong number
_____ Wrong person (non Jew)

(Please circle your answer)

- | | | | | | | |
|---|---------|------|----------|-----|----------|----|
| (1) How many people live in your household? | 1 | 2 | 3 | 4 | 5 | 6+ |
| (2) How many are Jewish? | 1 | 2 | 3 | 4 | 5 | 6+ |
| (3) How many are 17 or under? | 1 | 2 | 3 | 4 | 5 | 6+ |
| How many are 18 - 34? | 1 | 2 | 3 | 4 | 5 | 6+ |
| How many are 35 - 64? | 1 | 2 | 3 | 4 | 5 | 6+ |
| How many are 65 +? | 1 | 2 | 3 | 4 | 5 | 6+ |
| (3 a) Are you: Married Never Married Widowed
Divorced or Separated? | Mar | NM | Wid | Div | Sep | |
| (4) Was the man of the house born Jewish? | Yes | No | No Man | | | |
| Is he Jewish now? | Yes | No | No Man | | | |
| Does he have a B.A. or graduate degree? | Neither | | B.A. | | Graduate | |
| (5) Was the woman of the house born Jewish? | Yes | No | No Woman | | | |
| Is she Jewish now? | Yes | No | No Woman | | | |
| Does she have a B.A. or graduate degree? | Neither | | B.A. | | Graduate | |
| (6) Do you receive the Ledger, New Haven's
Jewish newspaper? | Yes | No | Not sure | | | |
| (7) Do you belong to a synagogue? | Yes | No | | | | |
| Do you or anyone in your household belong
to the Jewish Community Center? | Yes | No | | | | |
| (8) Do you consider yourself Orthodox,
Conservative, Reform or just Jewish? | O | C | R | JJ | | |
| (9) How many years have you lived in the
New Haven area? | 0-5 | 6-10 | 10+ | | | |
| (10) Do you have any concerns or comments about
Jewish life in New Haven that we at the
Federation should know about? | | | | | | |

(Please answer on the reverse side)