ESTIMATING THE GEOGRAPHIC DISTRIBUTION OF AMERICA'S JEWISH ELDERLY
A Surname Method

IRA ROSENWAIKE, M.A.
Research Associate, Population Studies Center, University of Pennsylvania, Philadelphia

Since there are no U.S. Census data by religion, it is difficult to determine the characteristics of the national Jewish population and of its subgroups. This article describes a surname method of analysis to estimate the size and geographic distribution of the elderly Jewish population in the United States. It uses data from the Medicare enrollment system, as well as other sources, to analyze demographic patterns, both nationally and locally.

Recent studies of elderly Jewish populations, both worldwide (Schmelz, 1984) and nationally (Kahana & Kahana, 1984; Rosenwaike, 1986; Warach, 1991), have focused attention on the "trend for pronounced 'aging,' i.e., high and rising proportions of elderly" (Schmelz, 1984) among the populations examined. Until the 1960s researchers had little reason to independently investigate the geographic distribution of America's elderly Jewish population, since their residence patterns were generally assumed to be similar to, if not identical to, those of the general Jewish population. Since then, however, increasing numbers of the elderly have begun to migrate from their lifelong residences to other parts of the United States, especially the Sunbelt. As a result, a new pattern of geographic distribution began to emerge.

This changing geographic distribution of the elderly is due to several factors: significant increases in Social Security payments and private pensions; greater savings accumulated from higher lifetime earnings; the development of retirement communities, especially in the Sunbelt; and possibly a loosening of family ties. By 1980, as a result of these various factors, the geographic distribution of the American Jewish elderly no longer corresponded to that of the aggregate Jewish population: much larger proportions of elderly were found in the Sunbelt metropolitan areas favored by retirees. By one estimate, one-fifth of all Jews aged 65 and over were living in Florida, particularly in the state's three southeastern counties known as the "Gold Coast" (Rosenwaike, 1989). This dramatic shift in the residence patterns of America's elderly Jewish population over the last 30 years is a demographic phenomenon that clearly warrants separate study because of its implications for health care and social services planning.

SURNAME ANALYSIS

Since there are no U.S. Census data by religion, it has been difficult to ascertain the characteristics of the national Jewish population and of its subgroups, such as the elderly. However, because of the availability of new data sources, there is now a method that offers at least the means of estimating the size and geographic distribution of the elderly Jewish population in the United States. This article presents a preliminary look at estimates of the geographic distribution of the Jewish population 65 years and over in 1990 using a surname method.

The use of surname analysis to derive representative samples of American Jews

or of other ethnic, racial, or religious subgroups involves three distinct steps. First, surnames unique to the particular subgroup, yet common enough to be found frequently, must be identified. Second, the proportion of the subgroup members with the particular surnames must be determined. Third, any differences between distinctive surname persons and other members of the subgroup must be measured to determine representativeness.

Given both past and current levels of intermarriage and assimilation, it could be argued that no name is truly unique among Jews. The problem facing researchers then is determining what percent of those with common but distinctive surnames are Jews and what proportion are non-Jews. There have been few studies of the percentage of non-Jews with distinctive Jewish surnames, and the percentage can be expected to vary from place to place. A 1975 Boston area study found that 8% of people bearing selected Jewish names were not Jewish. This percentage was used in the 1981 Greater New York Jewish population study to correct for non-Jews in a "distinctive Jewish name" (DJN) list (Ritterband & Cohen, 1984).

Himmelfarb et al. (1983), using data from the National Jewish Population Study (NJPS) of 1970–71, found that persons with 35 DJNs were similar to other Jews in the sample with regard to demographic characteristics and Jewish identification. They concluded that "a random sample of persons with DJNs is likely to produce a fairly representative sample of American Jews." Massarik (1966), a strong advocate of the DJN method, found that it provided "a substantial rational foundation for Jewish population study sample design" and that "for large areas, such secondary methods . . . may serve as approaches to rough Jewish population estimation."

In their study of American Jews drawn from the national sample of 1970–71, Himmelfarb et al. (1983) found that 11% of their subjects held 35 DJNs. Lazerwitz (1986), in another study using the NJPS, found that the DJN percentage varied among populations in various broad geographical regions. Some variation evidently was due to the limitations of the sample size of the survey.

In summary then, to estimate the size of the aged American Jewish population, both nationally and by geographic subdivision by means of surname analysis, the following are required:

1. a computerized list of the American elderly by surname
2. empirical data on the percentage of elderly Jewish persons with selected common, yet distinct, surnames, nationally and by major geographic subdivision
3. empirical data on the non-Jewish proportion of persons with the above surnames

MATERIALS AND METHODS

It is fortunate that there are data sets at hand that meet the critical requirements for surname analysis. The first of these, the Medicare files, has been available since the mid-1960s when the Medicare program was established. Medicare statistics generally are assumed to be the most reliable source of population data on the elderly (Wilkin, 1981). Although not all elderly persons are enrolled in the Medicare program, it is believed that about 96% of persons over age 65 are included (Fisher et al., 1990). Medicare records contain information on age, sex, race and geographic area of residence. For the purpose of this study, summary counts for persons with selected surnames were provided for the first quarter of 1990 (the quarter closest to the date of the 1990 census). These special tabulations of Medicare enrollees were prepared by the Health Care Financing Administration.

In 1982, well over one million Americans, including more than 50,000 Jews, were interviewed by American Cancer Society (ACS) volunteers in a major nationwide prospective study (Stellman & Garfinkel, 1986). A recent study used data from this large national survey to determine the dis-

tinctiveness of particular common surnames. A total of 22 surnames were selected as common—yet distinctive—surnames among the interviewed Jews; these names were held by about 8% of all Jews 65 years and over (Table 1). Among all interviewed persons 65 years and over with one of these surnames, 87.3% reported their religion as Jewish (Rosenwaike, 1990). In the remainder of this article, for purposes of the present study, Medicare enrollees with these 22 names are considered.

To corroborate the ACS data findings, data from another valuable source—the files of the New York City Department of Health, which show each decedent's place of burial (religious auspices) and surname—were examined. Data on burials in Jewish cemeteries in the years 1979–1981 (a period when over one-fifth of the U.S. Jewish population lived in New York City) provide only minimal estimates of known Jewish decedents since some undoubtedly were classified among out-of-area burials or among those cremated. Thus, the major use of these statistics is not to ascertain the proportion of Jews or non-Jews with selected common surnames, but rather to derive a percentage from among all *known* Jewish decedents of those with the selected surnames.

Table 1
DISTINCTIVE JEWISH SURNAMES

Bernstein	Levin
Cohen	Levine
Feldman	Levy
Friedman	Rosen
Goldberg	Rosenberg
Goldman	Rosenthal
Goldstein	Rubin
Greenberg	Shapiro
Grossman	Siegel
Kaplan	Silverman
Katz	Weiner

Since both the ACS survey and the New York City death records include a number of demographic variables, their use permits a determination of how representative the 22 selected names are among population groups with various characteristics. In Table 2, the proportion of persons among all those identified as Jewish in the ACS survey with the selected names is shown for various age-sex groups. It shows some differences between the percentage of men with a distinctive common surname (8.4) and the percentage of women (7.9). Differences also occur by age: distinctive names are slightly more common among those aged 65 years and over (8.4%) than among those 45–64 years of age (8.1%). Table 3 provides corresponding information for Jewish decedents with the 22 selected names based on the New York City data files. In addition, data by nativity are shown.

The Jews sampled in the ACS survey were predominantly under 65 years of age, and only about one-tenth were foreign

Table 2
PERCENT OF JEWS WITH 22 SELECTED NAMES IN ACS SURVEY, UNITED STATES, 1982[a]

Characteristic	Total Number	With 22 Selected Names	
		Number	Percent
Total	47,851	3,915	8.2
Male	22,537	1,904	8.4
Female	25,334	2,011	7.9
Age 45–64, total	32,496	2,626	8.1
Male	14,966	1,267	8.5
Female	17,530	1,359	7.8
Age 65+, total	15,375	1,289	8.4
Male	7,571	637	8.4
Female	7,804	652	8.4

[a] Exclusive of persons under 45 years of age.

Table 3
PERCENT OF DECEDENTS WITH 22 SELECTED NAMES BURIED IN JEWISH CEMETERIES, NEW YORK, 1979–1981

Characteristic	Total Number of Decedents	With 22 Selected Names	
		Number	Percent
All ages, total[a]	43,065	4,165	9.7
Male	20,226	1,980	9.8
Female	22,839	2,185	9.6
Age 45–64, total	5,471	496	9.1
Male	3,038	261	8.6
Female	2,433	235	9.7
Age 65 + , total	36,406	3,570	9.8
Male	16,468	1,652	10.0
Female	19,938	1,918	9.6
U.S. born, total	18,858	2,045	10.8
Male	9,345	1,056	11.3
Female	9,513	989	10.4
Foreign born, total[b]	24,207	2,120	8.8
Male	10,881	924	8.5
Female	13,326	1,196	9.0

[a] Includes persons under 45 years of age.
[b] Includes birthplace not reported (301 decedents).

born. The small numbers do not permit detailed analysis. On the other hand, a majority of the New York decedents, drawn heavily from the oldest old, were foreign born. Despite the very different age structures, there were similarities in the patterns for the prevalence of the selected names between the ACS group and the New York City decedents. As in the national sample, New York City men were more likely than women to have one of the selected names (9.8% versus 9.6%), and those 65 and over were more likely than those 45–64 years of age to have one of the selected names (9.8% versus 9.1%).

In Table 4, the demographic characteristics of *all* persons in the ACS survey with the 22 common surnames are presented. Men with these names are more likely to identify as Jewish (89.6%) than are women (83.4%). Older persons, those 65 years of age and over, were more likely to be classified as Jews (87.3%) than were persons 45–64 years of age (85.9%), but the difference was minor.

In comparing the percentage of persons with the most common distinctive surnames among those identified as Jews in different data bases, such as the ACS file and the New York City decedent file, the divergent age structure of the two groups must be considered. When analyses are limited to persons 65 years and older, those classified as Jewish among New York City decedents had a higher percentage with one of the 22 selected surnames (9.8%) than did respondents in the national ACS survey (8.4%). The relative excess was true of all age-sex groups. The differences in surname distribution could reflect either real differences in geographic patterns or artifactual differences derived from the ACS sample selection.

For purposes of estimation, in this article the ratio of Jewish decedents 65 years and over with distinctive common surnames found in the New York data base is assumed to represent that in the total Jewish population age 65 and over. (This is a conservative approach.) In support of this

Table 4
PERCENT OF ALL PERSONS WITH 22 SELECTED NAMES REPORTED TO BE JEWISH IN ACS SURVEY, UNITED STATES, 1982[a]

Characteristic	Total Number	Jewish	
		Number	Percent
Total	4,534	3,915	86.3
Male	2,124	1,904	89.6
Female	2,410	2,011	83.4
Age 45–64, total	3,058	2,626	85.9
Male	1,423	1,267	89.0
Female	1,635	1,359	83.1
Age 65 +, total	1,476	1,289	87.3
Male	701	637	90.9
Female	775	652	84.1

[a] Excludes persons under 45 years of age.

assumption it may be noted that a calculation based on the New York City (1979–81) death records indicated persons with 35 selected DJNs accounted for 10.9% of all decedents among those buried in Jewish cemeteries. This compares closely with a figure of 10.7% having these 35 DJNs among the weighted total of "Jewish households" in the 1970–71 NJPS (Massarik, 1984). Because of the broad geographic base of the ACS survey, however, a second assumption is that the proportion of all persons 65 and over with these 22 surnames who are Jewish corresponds to that found in the ACS sample. Thus, if a national figure for men 65 years and over with these surnames were available (from a source, such as a census or population registration), it would first be multiplied by a factor of 10.0 (that is 100/10.0), the New York 22 common surname/all Jews ratio, and then by .909 (the proportion Jewish in the ACS sample) in order to exclude non-Jews with these common surnames. Similarly, a national figure for women with these surnames would be multiplied by a factor of 10.4 (100/9.6) and a factor of .841. In the remainder of this article this approach is demonstrated using counts of persons with the distinctive common surnames obtained from Medicare enrollment files.

Since, as noted earlier, Medicare enrollment statistics fall slightly short of accounting for the entire population 65 years and over, some adjustment is desirable. A recent study (Fisher et al., 1990) had as one of its objectives determining the degree of correspondence between a count of Medicare enrollees and the Census Bureau estimate of the U.S. elderly population. The study found that overall, the Medicare figure, as estimated from a 5% sample in 1985, was 96% of the Census Bureau estimate. The proportion of the elderly population estimated to be enrolled in Medicare varied by age; generally, the older the age, the higher the coverage. Since population and Medicare estimates for subgroups by age and sex are subject to both sampling and measurement error, detailed adjustment for the limitations of the Medicare file has not been attempted. However, a simple "correction" of the Medicare surname data has been made by multiplying all figures for 1990 by a factor of 1.031, an estimate derived from the Fisher study.

RESULTS

Medicare enrollment data employed to estimate the geographic area of residence of the elderly Jewish population were drawn from routine quarterly processing of the enrollment file as of March 31, 1990, a date chosen to coincide with the April 1, 1990 census. Tabulations obtained from

the Health Care and Financing Administration (HCFA), the agency responsible for the Medicare program, included information by sex and by state and county of residence. HCFA uses the reported zip code of residence to assign each of the millions of persons in its files to a county.

The total number of persons 65 years and over with the 22 selected names appearing on the Medicare files in 1990 was 125,221 (51,534 men and 73,687 women). As stated earlier, 90.9% of men and 84.1% of women are assumed to be Jewish, or 108,815 persons (46,844 men and 61,971 women). Figures for men and women were then multiplied by 10.0 and 10.4, respectively, to convert the sample of selected Jewish persons to all Jewish persons. The result is an estimate of 1,112,900 (468,400 men and 644,500 women). Finally, this figure was adjusted by multiplying by a factor of 1.031 (derived from the Fisher study), yielding an estimate of 1,147,400 Jews 65 years of age and older.

Estimates of the elderly Jewish population in those states with large Jewish populations are presented in Table 5. Since these estimates are based on surname assumptions that were developed for the Jewish population at the national level, to the extent that smaller geographic areas differ from the national pattern, estimates for states are subject to greater error than the national estimate.

Three states—New York, Florida, and California—account for 56% of the Jewish elderly. Using figures appearing in the *American Jewish Year Book* (Kosmin & Scheckner, 1990) as a rough guide to the geographic distribution of the total Jewish population, it is seen that for most states the estimated percentage of elderly is lower than or fairly close to the estimated percent of the total population as calculated from this source (Table 5). The striking exception is Florida, which, according to the *Year Book,* is the residence of 9.9% of the total Jewish population but accounts for fully 20.1% of the elderly.

Another way of looking at this very large disparity is to calculate the estimated percentage of the total Jewish population that is 65 years and over in each state. Again, the most recent *American Jewish Year Book* estimates for the total Jewish population are used as the best available source of geographic data, although the reliability of the estimate unquestionably varies from

Table 5

GEOGRAPHIC DISTRIBUTION OF ESTIMATED JEWISH POPULATION 65 YEARS AND OVER, 1990, AND OF TOTAL JEWISH POPULATION IN THE UNITED STATES, 1989 (IN THOUSANDS)

	Medicare-Based Estimate 65 Years and Over		Total Jewish Population, All Ages		
State	Number	Percent	Number	Percent	Estimated % of Jews 65 +
Total U.S.	1,147.4	100.0	5,941.0	100.0	19.3
New York	290.0	25.3	1,844.0	31.0	15.7
Florida	231.0	20.1	585.3	9.9	39.5
California	125.1	10.9	909.0	15.3	13.8
New Jersey	72.0	6.3	411.0	6.9	17.5
Pennsylvania	70.7	6.2	345.8	5.8	20.4
Illinois	51.6	4.5	258.0	4.3	20.0
Massachusetts	47.4	4.1	276.0	4.6	17.2
Maryland	33.7	2.9	209.6	3.5	16.1
Ohio	25.7	2.2	130.9	2.2	19.6
Connecticut	20.3	1.8	115.0	1.9	17.6
Cumulative total	967.5	84.3	5,084.6	85.6	19.0
Other areas	179.9	15.7	856.4	14.4	21.0

area to area. This approach perhaps most cogently puts in perspective the marked difference in age composition of the Jewish population in Florida from that in the rest of the nation. The results indicate that 39.5% of the estimated Jewish population in Florida is 65 years of age or older compared with an estimate of 17.1% for the Jewish population in the balance of the nation.

The data in Table 5 support the reports of social scientists who have pointed out the importance of the mass migration of elderly Jews to Southeast Florida in accounting for much of the recent dramatic growth in the Jewish population in this area (Moore, 1988; Rosenwaike, 1989). The southward migration of many Jews subsequent to retirement has produced unprecedented age structures in many of the recipient Jewish communities.

Most individuals or agencies desiring data on the Jewish elderly probably are more interested in figures for individual places (counties, cities, neighborhoods) than for areas as large as states. As noted earlier, identifying information in Medicare files also permits the preparation of detailed data for these smaller geographic units. Figures at the local level probably are of most interest for those engaged in service programs for the elderly.

Table 6 shows surname-derived estimates of the number of persons 65 years and over for the metropolitan complexes with the three largest Jewish populations, broken out by county. These three major metropolitan centers—New York, Los Angeles, and Southeast Florida (the three "Gold Coast" counties)—are estimated to contain almost half (46%) of the elderly Jewish population in the United States. The eight metropolitan New York counties have an elderly Jewish population estimated at 257,000, accounting for 89% of the estimated Jewish elderly in the Empire State. Similarly, the Jewish population in Florida also is highly concentrated, with the three Gold Coast counties estimated to contain about 87% of the elderly in the state. By far, the largest number, about 89,000, reside in Broward County. This figure exceeds that of any other U.S. county. Metropolitan Los Angeles contains the third largest Jewish elderly population in the nation. However, the estimated number of Jews 65 years and over is only about 40% that in Southeast Florida.

Table 6
ESTIMATED JEWISH POPULATION 65 YEARS AND OVER IN THREE MAJOR METROPOLITAN AREAS, 1990 (IN THOUSANDS)

Area and County	Number
Metropolitan New York	257.4
Bronx	24.6
Kings	74.1
Nassau	36.3
New York	38.4
Queens	56.9
Richmond	2.5
Suffolk	8.9
Westchester	15.7
Southeast Florida	200.2
Broward	89.2
Dade	48.3
Palm Beach	62.7
Metropolitan Los Angeles	75.5
Los Angeles	65.3
Orange	10.2

DISCUSSION

The data developed by the surname procedure illustrated here are designed to produce workable geographic estimates of the Jewish population 65 years and over. However, some potential limitations of these estimates must be pointed out. For example, the true percentage of Jewish persons with the distinctive surnames may differ from the ACS-derived estimates. In addition, the ratio of all Jewish persons to those with the 22 names may differ from that estimated here, especially for individual geographic areas. Further, the adjustment factor used to convert Medicare enrollees to a complete count of elderly persons,

based on results of a 1985 survey, may differ from one that might have been constructed for 1990.

It has been noted that the ratio of distinctive Jewish names in a population will vary over time in a given area. The ratio will also vary with the age of the population and by generation (Waterman & Kosmin, 1986). For women, surname may not be a as reliable an indicator of ethnic background as for men, since surname usually changes at marriage. If intermarriage occurs, the new surname will not reflect the woman's family of origin.

In order to determine whether the estimates produced are reasonable, it is instructive to look at some alternative data sources. As observed above, a procedure that measures the *American Jewish Year Book* estimates of total Jewish population in tandem with the surname-derived estimates indicates that 39.5% of all Jews in Florida in 1990 were 65 years of age or older. By way of comparison, a survey of the Jewish population in Miami (Dade County) in 1982 found 36% of the Jewish population was 65 and over (Schmelz, 1984). A 1987 survey covering much of Palm Beach County found 58% of that booming area's Jewish population was 65 and over (Jewish Federation of Palm Beach County, 1987).

The findings for proportions of Jews 65 years and over in Ohio, Maryland, and Connecticut also can be compared with recent survey data for large cities in these states. The Table 5 estimate for Ohio is that 19.6% are aged 65 and over, which compares with an estimate for Cleveland of 18.9% in that metropolitan area's 1987 survey (Jewish Community Federation of Cleveland, 1988). The estimate for Maryland of 16.1% aged 65 and over compares with a Baltimore survey in 1985, that yielded a figure of 17% (Associated Jewish Charities and Welfare Fund, 1986). Lastly, the estimate here of 17.6% 65 years and over in Connecticut compares closely with a 1987 survey in New Haven, which found the proportion to be 18% (Cohen, 1988). These three comparisons indicate that estimates derived from the surname procedure appear useful for planning purposes in widely disparate areas. However, it must be kept in mind that all estimates are subject to error and cannot be considered the equivalent of a census.

Glicksman (1991), in a valuable discussion of research needs, indicates that it is important to continue demographic studies, as well as psychological, ethnographic, and other methodologies, to complete the current picture of the American Jewish elderly. This article illustrates that, if appropriately used (with acknowledgment of their limitations), data from the Medicare enrollment system can provide a valuable resource in the study of demographic patterns, both nationally and locally.

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