A SYNTHETIC ESTIMATE OF AMERICAN JEWISH POPULATION
MOVEMENT OVER THE LAST THREE DECADES

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In the United States, as is well known, no national census has queried religion[1]. In its stead, those who wish to study population trends among post-World War II American Jewry are dependent upon two major benchmarks: a March 1957 Current Population Survey conducted by the U.S. Bureau of the Census that included a question on religion of persons 14 years of age and over[2] and a national sample survey of the Jewish community sponsored by the Council of Jewish Federations and Welfare Funds in 1970[3]. From these two sources reliable estimates can be readily obtained for two specific points in time.

Reconstructing the movement of population, in terms of the basic components of population change - births, deaths, and migration - is a considerably more difficult task, given also an absence of official statistics by religion in these areas. In this paper an effort will be made to construct annual estimates for each of these growth factors for U.S. Jews over the past three decades, utilizing procedures incorporating a combination of available data. These estimates are here termed synthetic since they are based on a set of assumptions and not on hard data as might an intercensal or postcensal time series. The constructed series of figures will be consistent with the 1957 and 1970 baseline points. The synthetic series of estimates of the components of population change will also be extended backward in time before 1957 to permit the construction of much-needed population estimates for earlier years and projected forward to include years since 1970.

Simulated estimates of the components of Jewish population change for the period since the 1970 survey are important in indicating the direction in which the Jewish population seems to be moving. In the last few years a great deal of attention - among demographers as well as the lay public - has focussed on the marked downward trend of the birth rate of America's Jews and the related question of whether this is leading to a situation of national decline - as has been true for some time in West European countries such as the United Kingdom[4] and the Netherlands[5]. With the U.S. Bureau of the Census pronouncement that

it contemplates no further querying of religion in its Current Population Survey, it would seem that methods such as those suggested here will be necessary for some time to come if estimates of the size of the American Jewish community that are above the level of guesses are desired.

Before presenting the methodology used in the construction of the synthetic estimates, we will provide some details concerning the data available on each of the components of population change. These are discussed at some length because they provide the rationale for the subsequent development of the methodological statement.

Fertility

During the first quarter of the present century fertility among the immigrant women who comprised the bulk of the American Jewish population in the childbearing ages radically shifted from a very high to a very low level. The census of 1940, which provided data on the number of children ever borne by different groups of women, indicated women of Yiddish mother-tongue who were then aged 35-44 had not even half the number of offspring of comparable women aged 65-74 years. The former cohort of Yiddish speaking women, whose childbearing centered on the 1920's, was the first to exhibit lower fertility than non-Jewish American-born women [6].

From the 1920's on, virtually all investigators have concluded American Jewish women have been characterized by lower birth rates than the national average [7,8,9,10,11]. Although in general the same *trends* in fertility rate levels have occurred among Jews as among other Americans (exceptionally low rates during the Depression, higher rates in the two postwar decades, declining rates since the mid-1960's) [12], the level of the former group has consistently been lower.

As in the case of other populations for whom returns of births are lacking, some approximation of the level of the birth rate among Jews can be derived from data available on the age composition of the population, in particular the number of young children. On a national basis such data are available only for two points in time: 1957 and 1970.

The 1957 survey provided no breakdown of the youngest element of the population narrower than the unusually broad category: under 14 years of age. As Table 1 indicates, the proportion of the Jews who were under 14 years of age was only about 78 percent of the corresponding proportion of the national population under 14 years of age. (The figure varies slightly depending on which of two estimates of the number of children under 14 is used. Glick has assumed that half of the children in mixed marriages had the religion of the father [13]; Chenkin estimated a somewhat smaller number [14].)

Table 1. Percentages of Total and Jewish Population Under 14 Years Old,
U.S., 1957

| | Civilian population (Numbers in thousands) | | Percent of total under 14 years | Ratio of Jewish % to U.S.% |
	All ages	Under 14 years		
All religions	168,122	48,789	29.02	--
Jewish,				
per Glick	5,013	1,145	22.84	.787
per Chenkin	5,000	1,132	22.64	.780

Source: Derived from U.S. Bureau of the Census[2], Glick[13], Chenkin[14].

A plausible assumption from Table 1, other things being equal, is that the average birth rate of American Jews during the fourteen years preceding the survey was at a level corresponding to 78 percent of that of the national rate. "Other" factors may not have been entirely equal. It may be that Jewish infant mortality, as has been suggested in a number of studies was lower than other groups[15]; thus Jewish newborns may have been more likely to survive to the survey date. Migration may have differed in the Jewish community from the general average and thereby affected the proportion under 14 years of age. There may have been some Jewish loss (or gain) due to intermarriage as well as to conversion. These factors undoubtedly were of some importance, but the scanty data available are not adequate to permit even rough adjustments. Furthermore, the 1957 survey data was based on a small sample (probably no more than 1,000 Jewish households) and the figures themselves can be subject to some error due to sampling. Thus since sampling error alone might exceed any possible 'correction' it seems futile to expend serious effort in attempting to construct a more 'refined' measure.

Additional information available from the 1957 survey corroborates the estimate of the lower fertility rate among American Jewish women in relation to all U.S. women. Data compiled on the number of children ever born for women of childbearing age as well as for women who had completed their childbearing indicate that among both age groups the Jewish women had only about 79 percent of the children shown for the national average. (See Table 2.)

At the 1970 National Jewish Population Survey, where a larger sample of American Jews was involved, data were tabulated for five-year age groups (the published age data relate to all persons in "Jewish" households, of whom about 7 percent were non-Jews). However, for comparability with the 1957 survey (as well as to strengthen the reliability of the data by combining small groups into large categories), the aggregate group under 15 years of age will be compared with the distribution for the total U.S. population from the 1970 decennial census. Once again, the relatively small number of Jewish persons under 15 years of age is

Table 2. Cumulative Fertility Rate of Total and Jewish Population,
U.S., 1957

	Cumulative fertility rate (Number of children ever born per 1,000 ever married women)	
	Women 15 to 44 years old	Women 45 years old and over
All religions	2,218	2,798
Jewish	1,749	2,218
	Ratio of Jewish rate to U.S. rate	
	.789	.793

Source: Derived from U.S. Bureau of the Census[16].

indicative of lower birth rates among American Jews than among non-Jews.
The Jewish youth/total population ratio was only 76.8 percent that of the
national. In other terms, while 22.5 percent of the surveyed Jews were
under 15 years of age, 29.3 percent of the comparable U.S. population was
in this category[3,17]. (Since the NJPS excluded group quarters, the
comparable U.S. population was that in private households only.)

     Numerous local Jewish community surveys conducted from the forties
onward provide us with an additional measure of comparison. More speci-
fic fertility ratios, of children under five years of age to women in
the childbearing age, show considerable variation during this time period.
In general the fertility ratios observed increased sharply between the
1940's and 1950's, then declined during the 1960's. (Table 3.)

     Just how representative of American Jewry is the figure for any
individual community (other than New York with two-fifths of the U.S.
Jewish population) may be open to question. To minimize the presence
of and overweighting by potentially unrepresentative (small) communities,
surveys of places in which less than five thousand Jews were resident
have been excluded from consideration here. The various surveys were
conducted by a variety of organizations, with inevitable differences in
methodology and quality; often the results were based on a sample, sub-
ject to sampling error. In addition, it can be expected that communi-
ties will differ in some measure from each other.

     By relating ratios from surveys taken at different times to a com-
mon standard - a fertility ratio for the U.S. population at the same
point in time - all of the separate surveys can be appropriately compared
to U.S. fertility. Table 3 shows fertility ratios for the U.S. popula-
tion each year in which a survey was taken, the equivalent fertility
ratio for the particular Jewish community, and the ratio between the two.

It will be noted that in *every* case fertility was lower in the
Jewish population than among the comparable U.S. population. The ratios
for the communities ranged from about 67 percent of the national ratio
to about 88 percent. For the 24 surveys on average the Jewish ratio was
only about 75.9 percent of the U.S. level. The change over the years
has been slight. When broken down by time we see for those surveys from
1942 thru 1948 (five surveys) the percentage was 74.9; for 1949 to 1957
(ten surveys) the percentage was 76.4; and from 1958 to 1972 (nine sur-
veys) the percentage was 75.9.

The annual number of births per 1,000 population, the crude birth
rate, would not necessarily be in the vicinity of 76 percent of the
national rate among Jews unless females in the childbearing ages com-
prised corresponding proportions of the total in the two populations.
If proportionately fewer women in the Jewish population were able to
have children the crude birth rate would have been even lower; if pro-
portionately more were in the fertile ages, then it would have been
higher. The evidence we have (for 1957 and 1970) would seem to indicate
that the proportions for both groups did not differ to any large extent.
The Current Population Survey of 1957 found 16.9 percent of all Jews were
females between 20 and 44 years of age; the comparable figure for the
U.S. total population was 17.4 percent[2]. In the 1970 survey women
aged 20-44 years comprised 16.1 percent of persons in Jewish households;
this compared with 16.3 percent for similarly aged women in the 1970
census population living in households in the United States[3,17]. While
the correspondence in the age composition is not exact, it is quite
close, and it thus seems appropriate to conclude the differences in fer-
tility ratios between Jews and the national population closely reflect
similar differences in crude birth rates.

Mortality

Fertility data, as has been seen, can be approximated in the ab-
sence of a vital statistics system from census or survey data of the
living population. By virtue of this circumstance there seems almost
to be a plethora of figures on Jewish fertility compared with available
data on Jewish mortality. In the case of mortality data, one cannot get
around the requirement of the existence of some vital statistics. In
view of the limited number of studies of American Jewish mortality it is
necessary to utilize all of the available data for those communities that
have been examined and assume, unless there is strong evidence to the
contrary, their crude death rates are applicable as well to the total
Jewish population of the United States.

Until the 1960's virtually all data derived from death records re-
lated to the New York Jewish community. Such information could be se-
cured for the nation's largest city because the New York City Health
Department, alone among death registration areas, coded deaths according
to the religious auspices of the cemetery of burial[25,26]. In the 1960's
demographers began painstakingly to develop current mortality data for
Jews in a few other cities[15]. This was fortuitous, for while New York

City in the 1940's and early 1950's may well have been representative of American Jewry (with two-fifth of the total within its boundaries), by the 1960's this no longer was so.

To properly utilize the data collected by New York City's Health Department - which are statistics of deaths occurring in New York City rather than of deaths of residents of New York - some reasonable assumptions must be made that will assist in transforming the figures into a series consistent with the usual reporting of vital statistics rates for a geographic area (on a residence basis). The first assumption we make is that the percentage of Jewish burials among all deaths occurring in New York City (regardless of place of residence) approximates the percentages of Jewish deaths among city residents (regardless of place of occurrence of death). Second, in acknowledging that not every single Jew is buried in a Jewish cemetery, we have assumed that the proportion of deaths attributed to this category should be increased by an additional four percent to account for other forms of interment. This is slightly more conservative than Liberson's estimate that about six percent of all Jews were interred in City Cemetery, non-sectarian cemeteries, and crematories(25).

The mortality figures calculated pursuant to these assumptions yield estimated crude death rates for the Jewish population resident in New York City of 9.4 per 1,000 in 1940, 9.9 about 1950 and 12.0 in 1960 (see Table 4). A moderate increase in the rate in the 1940's was thus followed by a substantial rise in the 1950's.

In view of the large share of American Jewry resident in New York City and the probability that characteristics of the city's Jewish population were not very different from those elsewhere, it seems reasonable to assume that the crude death rates calculated for New York City's Jews for 1940 and 1950 were representative also of the national total. Beginning with the early 1950's, however, the continuing exodus to the suburbs began to bring dramatic changes. Not only did the total Jewish population sharply decline by 1960 (Table 4) but the age composition, too, underwent particularly great distortions due to the selective nature of the departure from the city. Although we lack firm data, it is clear that as a result of the strong suburbanward tide of families with young children the city came to have an over-representation of the aged and infirm. As one consequence of this rapid aging the crude death rate mounted sharply. Since by 1960 the age composition of New York City's Jewish population no longer appeared representative of national Jewry the ensuing crude death rates could not reasonably be considered as indicative of the national level.

Fortunately, in the early 1960's a group of community investigations collected data on Jewish mortality as well as total population estimates. Data assembled by Fauman and Mayer(15) showed crude death rate averages for the years 1961-65 for Jews in Detroit and Milwaukee respectively, of 10.9 and 12.7 per 1,000 population, and an average crude death rate during 1962-64 of 10.1 per 1,000 population among Providence's Jews (based on the data collected by Goldstein). For the three communities combined the average death rate was 11.2 per 1,000 population. This figure appears to give a more acceptable measure of Jewish mortality in the United States in the 1960's than the crude death

Table 3. Jewish Fertility Ratios in Community Surveys Compared With
          Ratios for Total U.S. Population

Place	Year	Fertility ratios (Children 0-4 years per 1,000 women 20-44 years)		Jewish fertility ratios as a percentage of U.S. fertility ratios
		Jews	Total U.S. population	
Worcester, Mass.	1942	330	425	77.6
Toledo, Ohio	1944	359	461	77.9
Portland, Ore.	1947	388	513	75.6
Camden, N.J.	1948	355	526	67.5
Indianapolis, Ind.	1948	400	526	76.0
Miami, Fla.	1949	380	544	69.9
Passaic, N.J.	1949	363	544	66.7
Trenton, N.J.	1949	413	544	75.9
Los Angeles, Cal.	1950	450	565	79.6
New York, N.Y.	1952	460	591	78.3
New Orleans, La.	1953	496	602	82.4
Pittsburgh, Pa.	1953	438	602	72.8
Lynn, Mass.	1955	528	633	83.4
Washington, D.C.	1956	491	647	75.9
Worcester, Mass.	1957	525	663	79.2
New Orleans, La.	1958	510	676	75.4
Los Angeles, Cal.	1959	560	685	81.8
Rochester, N.Y.	1961	489	692	70.7
Providence, R.I.	1963	450	674	66.8
Camden, N.J.	1964	480	662	72.5
Springfield, Mass.	1966	418	622	67.2
Columbus, Ohio	1969	444	533	83.3
Dallas, Tex.	1972	379	493	76.9
Minneapolis, Minn.	1972	436	493	88.4

Source: Derived from Seligman[8,18], Seligman and Antonovsky[19],
         Chenkin[20,21], Goldstein[22], U.S. Bureau of the Census[23,24].

Table 4. Estimated Crude Death Rates for Jews Resident in New York City, 1940-1960

	Period		
	1940	1949-51 (av.)	1960
White deaths recorded in New York City(a):			
A) Total, all cemeteries	67,139	67,617	75,454
B) Jewish cemeteries	16,884	18,164	20,791
C) Percent in Jewish cemeteries	25.1	26.9	27.6
D) Estimated percent Jewish(b) (C x 1.04)	26.1	28.0	28.7
White deaths of all residents of New York City (occurring in city and elsewhere):			
E) Total	70,208	74,460	77,771
F) Estimated number Jewish (D x E)	18,300	20,800	22,300
Estimate of Jewish crude rate:			
G) Jewish population estimate	1,954,000	2,100,000	1,860,000
H) Crude death rate (per 1,000 population) (F/G x 1,000)	9.4	9.9	12.0

(a) Residents of city only in 1940 and 1949-51 (av.).

(b) Assumes an additional 4 percent of Jewish decedents in non-Jewish cemeteries.

Source: Seidman, Garfinkel and Craig[26], Seidman[27], New York City Department of Health[28], Rosenwaike[29], Chenkin[30].

rates for New York (where the rate had reached 12.0 in 1960).

Differences in the crude death rate in modern society, with its
low levels of mortality at young ages, are very considerably affected
by the proportion of elderly persons. In particular, the proportion of
the total population at ages 65 and over can strongly influence the
level of the crude rate. A generation or two ago the Jewish population
was younger than the American average - this was due both to high fer-
tility and a high proportion of immigrants (who tended to be young).
As a consequence of the fall in fertility and the reduction in immigra-
tion, a slow but steady "ageing" of the Jewish population relative to
the U.S. aggregate has been continuing over the decades.

The 1957 Current Population Survey provided clear evidence of this,
indicating that whereas 8.7 percent of the U.S. total was 65 years of
age or over, the share among Jews was 10.0 percent[13]. Although the
proportion of elderly had mounted for both groups by 1970, the differen-
tial increased (9.6 versus 11.1 percent)[3,17]. (For the sake of com-
parability both of the 1970 figures are based on persons living in
households.) Furthermore, since 0.9 percent of all Jews in the National
Jewish Population Survey (NJPS) were returned as of unknown age, the
percentage of Jews in the older ages was undoubtedly higher. (For exam-
ple, if one-third of the "unknown" actually were 65 or over the percent-
age rises to 11.4.) The relatively high proportion of Jews at the older
ages is consistent with the assumption of a higher crude death rate among
Jews in the 1960's - an annual average of 11.2 per 1,000 population -
than among the total population - which averaged 9.5 per 1,000 between
1960 and 1970[31].

Migration

Migration has historically been an important source of Jewish popu-
lation growth in the United States. Until 1943 official governmental
data collected by the U.S. Immigration and Naturalization Service in-
cluded the classification 'Hebrew' among the ethnic rubrics. With the
abandonment of this method of categorization rough annual statistics
developed by Jewish immigrant aid organizations became the source of
knowledge concerning this component of population increase. Such stat-
istics, like the official tallies they replaced, have been reported on
the basis of fiscal years ending on June 30. Dijour has assembled an-
nual data for the years from 1944 through 1961 and Diamond has carried
on the series[32,33,34,35].

The annual series indicates that Jewish immigration rose from a
wartime low of 2,400 in the fiscal year ending in 1944 to a post-war
high of 41,200 in fiscal year 1949. During the 1950's and 1960's the
annual influx averaged about 8,000 per year. (Annual figures are shown
in Table 5 and Table 6.)

By no means do all Jewish immigrants to the United States seek the
assistance of the helping agencies; hence estimates of the total influx
of newcomers - the unassisted as well as the assisted - are rather approx-

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imate. This is particularly true in the case of arrivals from within
the Western Hemisphere (very largely from Canada and Cuba in the 1960's).
Some observers believe the estimate prepared for this area may well
understate the actual movement[34].

Beginning with the 1950's Israel became the principal single source
of Jewish immigrants to the United States. An excellent indicator of the
strength of this flow has been the U.S. Immigration and Naturalization
Service statistics of immigrant aliens classified by country of last
residence. It is commonly assumed that all but a very small fraction of
the Israeli immigrants are Jews[34].

The official statistics define immigrants narrowly, excluding
foreign students and their dependents as well as others admitted on a
temporary basis. Some of these "non-immigrant" aliens later adjust their
status to permanent resident but those who do so do not show up in the
immigration category until the date of the change of their legal
status[50].

A problem that is complementary to the possible underestimate of
Jewish immigrants from Western countries is the total lack of any count
of Jewish emigrants from the United States. Only two countries receive
numbers of such migrants to any important degree: Israel and Canada.
The movement to Israel is of very recent origin; it did not really get
under way until the late 1960's. As recently as May 1961 the Israeli
census found only 3,550 Jews born in the United States in residence[36].
Official Israeli statistics indicate that while just 4,168 American-born
Jews arrived for settlement between 1961 and 1968, the number soared to
25,848 (including potential immigrants) over the six-year period from
1969 through 1974[37]. A considerable share of the emigrants from the
United States have not stayed in Israel permanently. One study found
that 21 percent of the North American settlers in 1969 returned home
within the first year of their arrival[38].

Censuses of Canada have indicated that a substantial increase in
the number of natives of the United States who were reported of Jewish
ethnic origin occurred between 1951 and 1971. The figures rose during
the twenty-year period from 4,501 to 11,785[39,40]. Considering the
surge in the movement to both Israel and Canada, it seems desirable that
attention be given in the future to the loss due to emigration as well
as to the gain attributed to immigration.

Surveys of the Jewish Population in 1957 and 1970

Since the figures from each of the two benchmark estimates were
obtained from scientific sample surveys, they are subject to sampling
variability. The fact that they differ to some extent from statistics
that would have been obtained from a complete census must be kept in
mind. In order to measure the extent to which the 1957 survey estimates
might vary from the results of a complete count the Bureau of the Census
computed a series of standard errors. It was calculated chances were
19 out of 20 (the criterion of two standard errors) that the sample

estimate of 3,868,000 Jews aged 14 and over differed from a complete enumeration by no more than 17⁻,000[14].

Despite the definitive nature of the 1957 Census Bureau survey and the 1970 NJPS, neither provided an estimate of the *total* Jewish population resident in the U.S. at the time. Modifications to each are necessary in order to arrive at such a figure. In the case of the 1957 survey, military personnel on base were specifically excluded and children under 14 were categorized only by religion of father or religion of mother (which could differ). The civilian total thus could vary depending on the assumption about religion made for offspring of mixed marriages. Chenkin[14] arrived at an estimate of 5,000,000 for this population and Glick[13] one of 5,013,000. Chenkin also assumed about 30,000 Jews were in the armed forces, giving a grand total of 5,030,000.

The 1970 survey excluded persons living outside of households. However, members of surveyed families temporarily away - for example, at college - were included "if they were then living in some form of group quarters or an institutional setting". But family members identified as "living in group quarters or institutional settings for a lengthy or indefinite period" were regarded as outside the scope of the survey. By definition "those Jews in homes for the aged, prisons, or custodial care in mental hospitals and other equivalent settings" were excluded from survey coverage[51]. An estimate of the dimension of the population not in households exclusive of those considered as only "temporarily" away from families is needed in order to reach a total comparable to that for 1957.

For the U.S. population as a whole 0.9 percent were living in college dormitories and 2.0 percent in all other group quarters in 1970[17]. In the absence of NJPS data providing more details, the latter group may be considered as approximately representing those persons unaccounted for in the survey. It may be assumed, also in the interest of a simple approach, that the proportion of Jews in group quarters (except college dormitories) paralleled that of the general population.

This yields an estimate of 110,000 persons in group quarters to be added to the 5,370,000 reported as living in households[41], resulting in a total figure of about 5,480,000.

Methodology

Estimates were prepared of the number of births, deaths and immigrants each year, following the 1957 base date forward to 1970, and preceding the base date backward to 1940.

The base date was selected as July 1, 1957 and all annual vital and migration statistics refer to years extending from July 1 through June 30. Cumulating the net change for each such year (adding births, subtracting deaths, adding migrants) permitted the construction of the estimate for the beginning (July 1) of the succeeding (or preceding) year.

Population base: The estimate chosen for the base date - July 1, 1957, the first mid-year point following the date of the Census Bureau's survey of March 1957 - was the round figure of 5,050,000. This is consistent with the Glick and Chenkin estimates based on this survey and allows for growth in the months intervening.

Births: For the years preceding July 1, 1957 the crude Jewish birth rate is assumed to be 78 percent of the corresponding annual U.S. birth rate. For the years from July 1, 1957 forward, the calculation is based on 77 percent of the annual U.S. birth rates. The rationale for the selection of these ratios was presented earlier under "Fertility". Annual birth rates for the total U.S. population, as calculated by the Census Bureau, are shown in Tables 5 and 6.

Deaths: The death rate of American Jews is assumed to be 9.4 per 1,000 population in the year beginning July 1, 1940, 9.9 in the three years beginning in mid-1949, and 11.2 for the five years beginning in mid-1961. The derivation of these rates was given earlier under "Mortality". For the years beginning in 1941 through 1948 the rates are estimated by linear interpolation between the first two points; for the years beginning in 1952 through 1960 they are estimated by interpolation between the last two points. The post-1965 rates are uniformly estimated at 11.2 per 1,000 population.

Migrants: Figures on the number of Jewish immigrants during fiscal years 1941 through 1943 (years ending June 30) are from the U.S. Immigration and Naturalization Service. Figures for 1944 through 1961 are taken from estimates prepared by Dijour; those since 1962 have been summarized by Diamond, and are largely from statistics of the United HIAS Service.

Table 5 shows the annual estimates of the U.S. Jewish population between 1957 and 1970 that are derived from the synthetic estimates of vital rates. Similar data for the period between 1940 and 1957 are detailed in Table 6.

A check on the accuracy of the synthetic estimates derived by the foregoing methodology can come from a comparison of the 1970 population estimate with data from the NJPS. The correspondence is remarkably close; the estimate of 5,512,000 (Table 5) for mid-year 1970 is within a fraction of one percent of the most likely figure based on the NJPS (about 5,480,000).

Analysis

The synthetic estimates indicate that the Jewish population increased substantially during the 1940-57 period (21.3 percent), much more rapidly than during the period one year longer in length extending from 1957 to 1975 (10.5 percent). The growth rate among Jews, however, was considerably smaller than that for the American population as a whole (29.7 for 1940-57, 24.2 for 1957-75). In consequence the Jewish proportion of the total population has diminished from 3.1 percent in

Table 5. Annual Estimates of the Jewish Population in the United States
         and of the Components of Population Change, 1957 to 1975.

(Numbers in thousands)

Year (beginning July 1)	Population at beginning of year	Rate per 1,000 midyear population				Population change during year	
		U.S. total births	Estimates for Jews			Natural Increase	Migration
			Births (.77 x U.S. total)	Deaths	Natural Increase		
1957	5.050	24.9	19.2	10.6	8.6	44	7
1958	5,101	24.4	18.8	10.7	8.1	42	8
1959	5,151	23.9	18.4	10.8	7.6	39	7
1960	5,197	23.9	18.4	10.9	7.5	39	7
1961	5,243	23.0	17.7	11.2	6.5	34	9
1962	5,286	22.3	17.2	11.2	6.0	32	11
1963	5,329	21.6	16.6	11.2	5.4	29	9
1964	5,367	20.4	15.7	11.2	4.5	24	8
1965	5,399	19.0	14.6	11.2	3.4	18	8
1966	5,425	18.2	14.0	11.2	2.8	15	7
1967	5,447	17.6	13.6	11.2	2.4	13	8
1968	5,468	17.7	13.6	11.2	2.4	13	9
1969	5,490	17.9	13.8	11.2	2.6	14	8
1970	5,512	18.0	13.9	11.2	2.7	15	6
1971	5,533	16.3	12.6	11.2	1.4	8	6
1972	5,547	15.2	11.7	11.2	0.5	3	7
1973	5,557	14.8	11.4	11.2	0.2	1	9
1974	5,567	15.0	11.6	11.2	0.4	2	12
1975	5,581						

Source: See text for details of estimation procedure. U.S. birth rates
         from U.S. Bureau of the Census[31,42].

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1940, to 2.9 percent in 1957 and again to 2.6 percent in 1975. The steady decline in the proportion seems assured.

The rise and subsequent fall in the fertility level have been responsible for the fluctuation in the natural increase of American Jews. During the decade of the 1940's the average annual excess of births over deaths came to 36,000; it rose to 44,000 in the 1950's but dropped nearly in half to 23,000 during the 1960's. Migration to the United States, on the other hand, was at a peak during the decade of the 1940's (averaging 16,000 per year), then dwindled and stayed at approximately half the level (8,000 per year) in both the 1950's and 1960's.

The higher fertility of the 1950's compensated for the reduced migration of the same decade so that the total annual increase remained at the roughly 52,000 per year of the previous ten year period. However, in the sixties the total annual increase was a much diminished 32,000.

The most recent decline in fertility has brought the crude birth rate in the 1970's to very nearly the level of the crude death rate, which means the rate of natural increase has become virtually nil. A very small change in either rate may now tilt the balance to produce either positive natural increase or natural decrease. In view of the very small differences involved, the need to acquire a better estimate of the Jewish crude death rate than continued use of figures based on 1961-65 mortality seems of high priority. Despite the gradual aging of the total U.S. population the crude death rate has declined from 9.4 per 1,000 in 1965 to a record low of 8.9 in 1975 as a result of reductions in age-specific mortality[43]. This suggests that levels among Jews may also have dropped during the period. Perhaps data that is expected to be available from the NJPS, as well as new community surveys, will provide us with the much-needed means to update the estimated level of the Jewish death rate.

At this point we may also consider the agreement (or lack of it) of the synthetic estimates with published estimates for the time period prior to 1957. The preparation of a series of population estimates of American Jewry for the years prior to the Census Bureau benchmark that realistically fit the known trend patterns for the components of population growth is an important need that has long been unmet. The estimates in wide circulation, particularly those prepared for the decennial Census of Religious Bodies and for the American Jewish Year Book have with full justification been regarded by well-informed critics as unscientific. Robison described the data relating to the Jews published in the Census of Religious Bodies of 1936-37 (the last such venture) as "a set of estimates that gave neither synagogue membership nor the total population with any accuracy". She demonstrated that "in many instances the 1936-37 estimates were exaggerated"[44]; obviously then the total for the United States also was exaggerated - by the sum of the individual overstatements for each locality. Morris R. Cohen remarked that the estimate of "4,770,647 Jews, even though it be embodied in an official publication of the United States, is not justified by adequate evidence and is indeed offensive to any one with a logical or statistical sense"[45].

A study reported by the American Jewish Year Book based on returns

Table 6. Annual Estimates of the Jewish Population in the United States and of the Components of Population Change, 1940 to 1957.

(Numbers in thousands)

Year (beginning July 1)	Population at beginning of year	Rate per 1,000 midyear population				Population change during year	
		U.S. total births	Estimates for Jews			Natural Increase	Migra-tion
			Births (.78 x U.S. total)	Deaths	Natural Increase		
1957	5,050						
1956	4,993	25.3	19.7	10.5	9.2	46	11
1955	4,941	24.9	19.4	10.4	9.0	45	7
1954	4,893	25.0	19.5	10.3	9.2	45	3
1953	4,844	25.0	19.5	10.2	9.3	45	4
1952	4,794	24.9	19.4	10.1	9.3	45	5
1951	4,741	24.7	19.3	9.9	9.4	45	8
1950	4,680	24.5	19.1	9.9	9.2	43	18
1949	4,626	24.1	18.8	9.9	8.9	41	13
1948	4,542	24.6	19.2	9.8	9.4	43	41
1947	4,480	25.0	19.5	9.8	9.7	44	18
1946	4,399	27.5	21.4	9.7	11.7	52	29
1945	4,359	20.3	15.8	9.7	6.1	27	13
1944	4,325	21.0	16.4	9.6	6.8	30	4
1943	4,292	21.6	16.8	9.6	7.2	31	2
1942	4,250	23.2	18.1	9.5	8.6	37	5
1941	4,211	20.7	16.1	9.5	6.6	28	11
1940	4,162	19.7	15.4	9.4	6.0	25	24

Source: See text for details of estimation procedure. U.S. birth rates from U.S. Bureau of the Census[31].

from a poll taken in the spring of 1948 of over 200 community organiza-
tions affiliated with the Council of Jewish Federations and Welfare
Funds, supplemented by local surveys of other Jewish organizations, pro-
duced a rough estimate of 4,500,000 American Jews[46]. Keen students
of demography such as Robison welcomed this figure, despite its limita-
tions, as based on "more systematically and carefully compiled" data
than the results of earlier investigations[44]. But less informed ob-
servers, rather than hailing this breakthrough toward a more plausible
estimate, criticized its 'low' total, with the sad result that later
volumes of the American Jewish Year Book ignored the estimate (in favor
of a nice, even, five million). (A summary and critique of the Year
Book estimates has been made by Schmelz[47]. Diamond[35] has recently
reviewed every estimate.) Seligman, one of those responsible for the
1948 study, instead of receiving deserved praise for his accomplishment,
was forced to defend his conclusions against critics:

> They contended that a decline in the number of American Jews
> was inconceivable. In an absolute sense, this of course was
> quite true, since both the Jewish and the general population
> had been exhibiting increases for several decades. Yet it
> is not impossible that estimates of the Jewish population in
> the United States made prior to 1948 were overstated, thereby
> accounting for what appeared to be a drop in the number of
> American Jews[48].

The data in Table 6 support Seligman's conclusion; his figure of
4.5 million early in 1948 is precisely in accord with the estimates de-
rived for mid-1947 and mid-1948. Unfortunately, it must be remarked
that continued reliance on the defective pre-1957 estimates, with the
resultant yield of unrealistic trends, has distracted from the high
quality of a number of otherwise excellent demographic studies.

Concluding Observations

Estimates of total Jewish population stemming from the 1957 survey
data have been carried backward to 1940 and forward to 1970 and beyond.
The close agreement of the figure calculated for 1970 with the estimate
based on the NJPS serves to validate the synthetic series for this time
period and the technique employed in its construction. The correspon-
dence of the two 1970 estimates suggests that it might be equally plaus-
ible to derive a set of estimates utilizing the NJPS estimate as the
point of origin. While, in the interest of space, such a series in its
entirety has not been developed, it does seem appropriate to consider
data produced utilizing the NJPS estimate (as the base point) as accu-
rate as that estimated from the preceding survey. In particular, for
the post-1970 period, such a set may be the preferred one since it would
derive from a more recent investigation. Consequently, estimates of the
total Jewish population (in thousands) for 1970 to 1975 (mid-year), util-
izing the same methodology shown in Table 5, have been prepared and are
here presented:

1970	5,480
1971	5,501
1972	5,515
1973	5,525
1974	5,535
1975	5,549

The absolute gain between 1970 and 1975 - 69,000 - is identical with that in Table 5; however at any point in time the aggregate Jewish population is always somewhat smaller.

The term "accurate" must always be considered a relative one; in the foregoing discussion all population figures are considered as synthetic estimates, not as precise measures of the absolute size of the Jewish community. It will again be observed that demographic gain or loss brought about by intermarriage and conversion is not considered in the estimation procedure discussed here. Schmelz is not alone in feeling that "in all probability, they mean, on balance, demographic loss for the Jewish group"[47]. Nevertheless, he prudently states "the statistical documentation is as yet insufficient for an assessment"[49]. Without such a statistical framework it is not possible to measure the importance of these factors. In a recent review of the literature on the topic, Rosenbloom reported estimates made in the mid-1960's ranging "between 2,000 - 3,000 annual converts to Judaism up to 7,000, nearly all because of marriage to a Jews"[52] Losses as a result of intermarriage and withdrawal are even less well known; accordingly data for reckoning the change due to movement into or out of the Jewish religious community seem too poor to utilize.

Despite the absence of reliable data regarding the magnitude of change brought about by intermarriage and conversion, our projected population total for 1970 based on the 1957 survey so closely approximated the 1970 survey total that only minor adjustment was implied. Therefore, it appears that with appropriate adaptations (utilizing fertility ratios based on local surveys of the 1970's, securing a new estimate of the crude death rate in the 1970's) the simple method described here may give reliable results in projecting the 1970 benchmark into the early 1980's.

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