

Evaluation of Jewish Population Estimates

THERE IS considerable need for fairly reliable and up-to-date statistical information on the size of Jewish populations. These figures are essential, locally and nationally, for the efficient running and planning of communal administration and services, and globally for an assessment of the evolution of the Jewish people.¹ However, the dispersion of the Jews makes the study of Jewish demography a complex task, and difficult to accomplish.

The regrettable insufficiency of trustworthy information on size of Jewish populations is matched by an equal absence of data on demographic composition and dynamics, which determine changes in size. Since World War II the great majority of Jews have been living in countries where no official statistics on Jews as a religious or ethnic group are gathered. Even where such statistics exist, the published data are usually few and very general in nature because the Jews form but a small fraction of the total population. And systematic Jewish-sponsored data collection in the diaspora is only in its initial stage.²

Insufficient demographic documentation has led to the wide use of estimating, not only for updating sound empirical figures, but also as conjecture in the absence of basic data collection.

Since there is practical need for Jewish population figures, estimating can be useful. In particular, the comprehensive lists, by country, of estimates for all sizable Jewish diaspora communities, published annually in the *American Jewish Year Book* (AJYB), are in great demand and widely used. The editors of AJYB deserve gratitude for their constant awareness of the need for these figures. Warm tribute is due to Leon Shapiro and Alvin Chenkin who, for nearly two decades, painstakingly compiled estimates for the Jewish communities throughout the world and in the United States, respectively.³ They have rendered substantial service by regularly providing some current information on an admittedly most difficult subject.

At the invitation of the AJYB editors, an attempt will be made here to evaluate the available estimates. This evaluation, made with the most constructive intentions, has become possible in the light of recent progress in research on the demography of the Jews. Emphasis will be on the broad aspects, viewed on a global scale.

¹ Roberto Bachi, "Buts et problèmes de la démographie juive," in *La vie juive dans l'Europe contemporaine* (Brussels: Institut de Sociologie de l'Université Libre, 1965), pp. 37-46.

² Roberto Bachi, "Recent Progress in Demographic Research on the Jews," *Jewish Journal of Sociology*, December 1966, pp. 142-49; Uziel O. Schmelz, "Guide to Jewish Population Studies," Schmelz and Glikson, eds., *Jewish Population Studies, 1961-68* (in press).

³ These compilations appeared annually as "World Jewish Population" and "Jewish Population in the United States."

In order to substantiate certain points in the evaluation, it is preceded by a short account of population dynamics among the Jews. A number of problems concerning the quality of available estimates are considered next. However, it is only fair to state at the outset that, in the absence of official statistics or other satisfactory data, compiling reliable estimates has been well-nigh impossible. A review of the objective difficulties and a few constructive suggestions follow.

POPULATION DYNAMICS AMONG JEWS

The problems in Jewish population estimates can be understood only in the light of the factors of Jewish population dynamics and their actual operation today.⁴ The universal factors of change in population size are births, deaths, in-migrations, and out-migrations. In a religiously or ethnically defined sub-population, an additional factor of change is the adhesion or withdrawal of individuals, by religious conversion, or in other ways.

Population movements are usually influenced by age composition. A high proportion of old people will tend to result in relatively many deaths; and the relative frequency of births depends on the proportion of women in the reproductive ages, as well as on fertility *per se*.

Nowadays the talk is of the population explosion in the developing countries. There the rather rapid reduction of mortality and the still very high natality resulted in rapid population growth. The developed countries, where mortality is low, also had rather substantial population increase, because of a post-World War II baby boom and a later not inconsiderable birth rate, which, however, was much lower than in the developing countries. By contrast, prospects of Jewish population growth in the diaspora are far less assured.

Jewish Population Growth in Europe and America

The population dynamics of the Jews in Europe, the Americas, South Africa, Australia, and New Zealand should be viewed in the context of their socio-economic position. These Jews have a strong tendency toward urbanization, educational attainment, and concentration in white collar occupations and higher income brackets.

In most of these countries, the relatively small or highly dispersed Jewish communities are strongly affected by environmental influences, secularization and assimilation, and this largely explains the peculiarities of their demographic situation. The present short outline cannot deal with the causes of demographic patterns, only with a simple account of the salient facts.

The keynote is the very low level of Jewish fertility. In all countries for which data are available, including the United States, the fertility of the Jews is below that of the general population. In several countries it has fallen

⁴ See also Schmelz, *op. cit.*

below replacement level.⁵ After a shortlived post-World War II baby boom, Jewish birth figures declined in the 1950s.

Out-marriage leads to demographic losses if the Jewish marriage partner accepts the religion of the spouse, or the children are not reared as Jews. Out-marriages have been increasing among diaspora Jews, accounting for a substantial proportion of marriages in the European countries and for a not inconsiderable, and apparently rising number of marriages also in the United States, Canada, and Australia.

Presumably, changes of religion often have an adverse effect on the size of Jewish populations. But of greater practical importance are the individuals who, in effect, have severed all ties with the Jewish group without adopting another religion, and the marginal Jews who, while less extreme in position, are drifting away because of indifference and often ignorance. Marginal persons now constitute a major problem in demographic data collection on Jews. Out-marriage is a potent factor in marginality and withdrawals,⁶ both in the first and second generation.

In all diaspora Jewish communities for which we have data, the proportion of elderly and old people is greater than in the surrounding general population. This is basically due to low fertility over the last few decades, which produced a comparatively small progeny to replace the generation now of advanced age. Contributory factors may be the differential impact of withdrawals and a recent negative migration balance, involving particularly younger adults. Among European Jews, aging is much aggravated by the aftereffects of the Holocaust which led to a particularly heavy loss of children who would have become today's younger adults. As a result, more than half of some European Jewish populations are above the age of 40.

In Europe and America the aging of the Jewish populations has led to an exaggerated proportion of persons no longer participating in reproduction while being subject to the comparatively high age-specific mortality of the elderly. This reduces the crude birth rate and increases the crude death rate,⁷ and affects unfavorably the balance of births and deaths.

Disregarding for the moment the migratory factor, Jewish populations can increase only if births are more numerous than (1) deaths and (2) the probable excess of withdrawals over adhesions. Such an increase is hampered by the low fertility and the adverse effects of aging among Jews.

Migration also plays a role in Jewish population dynamics, but its effect is not uniform and therefore does not permit generalization. A negative migration balance makes more difficult the preservation of Jewish population size.

⁵ In the long-range view and broadly speaking, fertility is not high enough to offset mortality; cf. note 25.

⁶ We shall hereafter call withdrawals the aggregate of: (1) conversions of Jews to another religion and (2) all other cases of breaking ties with Judaism or with organized Jewish life, whether formally (by declaring to be "without religion," as can be done in some countries) or informally. In practice, the dividing line between advanced marginality and informal withdrawal is blurred.

⁷ Per 1,000 in the population, irrespective of sex and age.

A positive migration balance, on the other hand, may improve an otherwise precarious demographic situation.

Asian and African Jews

The characteristics of Jews in the Asian and African countries were high fertility and considerable, though declining, mortality. The largest segment of this very fertile branch of the Jewish people moved to Israel, France and other countries in Europe, and America. As can be seen in Israel, their demographic patterns change rather rapidly in the new surroundings. There, reduction of mortality at first leads to greater natural increase, soon followed by a fertility decline.

Israel

The composite nature of Israel's Jewish population, about half of which is of Asian and African origin, leads to a substantial natural increase for the entire group. A look at each of the two main components of this population shows the following development: The fertility of the Jews of European origin has gone down, after a baby boom around 1950, to little above replacement level. This compares favorably with the lower fertility, insufficient for replacement, which the post-1948 immigrants had had in Europe prior to their immigration to Israel. But it makes possible only slow growth. As for the Jews from Asia and Africa, their fertility, though declining rather rapidly with the length of stay in Israel, remains for the time being very considerable.

PROBLEMS OF JEWISH POPULATION ESTIMATES AND RESULTANT MISCONCEPTIONS

The examples below were taken from AJYB, but could easily be matched with analogous material from other compilations of annual Jewish population estimates.⁸

Invariance of Figures and Sudden Jumps

In 1950 the estimated number of Jews in the United Kingdom rose from 345,000 to 450,000, and has stood at this figure ever since. The 450,000 estimate of AJYB conforms to that of the London *Jewish Year Book*.⁹

The estimates for Argentinian Jews from 1949 to 1967, a period of relatively low immigration, were as follows:

⁸ E.g. *Jewish Year Book* (London), and *Zionist Year Book* (London).

⁹ A recent estimate using the death-ratio method, arrived at 410,000. See S. J. Prais and Marlana Schmool, "The Size and Structure of the Anglo-Jewish Population, 1960-1965," *Jewish Journal of Sociology*, June 1968, pp. 5-34.

<i>Years</i> ¹⁰	<i>Estimate</i>
1949-1957	360,000
1958-1961	400,000
1962-1967	450,000

Similar instances of prolonged repetition of yearly estimates and abrupt changes can be cited for various other countries. Basically, all are evidence of the crudeness of information on some diaspora populations.

All large populations experience constant changes through the operation of factors mentioned above. Therefore, if estimates remain unchanged for years, it means that no new data have become available. But this fact is not explicitly stated, and the unwary reader, who uses only one particular volume of AJYB, will be led to believe that the reported estimate was made for the year in question.

Also, AJYB neglects to explain sudden changes in estimates, although these may have different reasons. Such a change may be intended to reflect demographic evolution, thus making up for possible invariance in previous years. It also may indicate a change in the assumptions for the previous estimate, and is then in the nature of a correction. In either case, the continuity of the yearly figures is disrupted, with no attempt at reconstructing the assumed multiannual evolution. Of course, a comparison of successive volumes of AJYB will show invariances and sudden changes.

Unwarranted Rise of Population Estimates

More subtle problems sometimes arise from relying on estimates, published over the years for the same population, as indicators of actual demographic evolution. We will illustrate this point by confining our discussion to the two largest diaspora populations, Soviet and United States Jews, and to world Jewry as a whole, though many other examples could be cited.

USSR

In the absence of direct information, AJYB for many years had put the estimated number of Jews in the USSR at 2,000,000. When the results of the January 1959 USSR census, which officially accounted for 2,268,000 Jews, became known, they were adopted by AJYB. Since then, its yearly estimates have risen as follows:

¹⁰ In these and all other figures quoted from AJYB, the year relates to the date of the estimate, not to the publication year of AJYB containing the estimate.

Year ¹¹	Estimate	Year ¹¹	Estimate
1961	2,345,000	1965	2,486,000
1962	2,385,000	1966	2,543,000
1963	2,420,000	1967	2,568,000
1964	2,454,000 ¹²		

During the nearly nine-year span, from January 1959 to the end of 1967, the number was raised from the census figure of 2,268,000 to an estimated 2,568,000, or by 300,000. This implies an average annual growth of 14 per 1,000.¹³

Some writers claim that the true figure must be higher than the 1959 census finding. There is no way of statistically quantifying the various arguments in support of this thesis. But there can be no doubt that prolonged antagonism to religion and the unfriendly attitude toward the Jewish minority in the Soviet Union has given rise to many conceptual and practical problems in defining "who is a Jew?" Yet, on the basis of the census figure, which AJYB adopted outright, the increase in the later estimates seems exaggerated.

For comparison it may be indicated that the 1959-1967 average annual growth was 15 per 1,000 for the total population of the USSR, and 8 per 1,000 for the total remaining population of Europe. From these two figures and many other comparative data (some cited below) it appears that an assumed 14 per 1,000 annual increase for Soviet Jewry is too high. This particularly in view of the following facts and considerations:

(1) The evolution of other Jewish populations in our time.

(2) Findings or inferences regarding the population dynamics of the USSR Jews:

(a) It is known that practically no external migrations of Jews are allowed, so that any rise in population size must reflect primarily a corresponding excess of births over deaths and withdrawals.

(b) While no recent vital statistics are available for USSR Jews, we do have indications that, after the Holocaust, the fertility of the Jews in the other Eastern European countries has generally been below replacement level.¹⁴

(c) Although the official publications of the 1959 USSR census failed to include the age distribution of the Jews, it appears likely from a scrutiny of the published age-specific percentages of married Jews that there was considerable aging. In any event, Soviet Jews also suffered from the impact of the Holocaust and

¹¹ For 1961 and 1962, mid-year figures; for 1963-1967, end-of-year figures.

¹² Estimates for the "ethnic groups" in USSR at the beginning of 1965, which appeared in *World Population*, a publication of the Soviet Academy of Science (Moscow, 1965), put the number of Jews at 2.4 million. Because of rounding, this figure may represent anything between close to 2,350,000 and 2,450,000. No explanation is given on how the various estimates were computed.

¹³ The geometric mean of the yearly rates of growth is given here and elsewhere in this article, as is usual in demographic analysis.

¹⁴ [Usiel] O. Schmelz, "The Israel Population Census of 1961 As a Source of Demographic Data on the Jews in the Diaspora," *Jewish Journal of Sociology*, June 1966, pp. 49-63. [Usiel] O. Schmelz, "Demographic Outline of the Jews in Europe," in *Hagut ivrit be-Europa* ("Studies on Jewish Themes by Contemporary European Scholars"; Tel-Aviv, 1969; Hebrew), pp. 449-485.

World War II casualties, as well as the assumed low fertility of the Jews—all factors in the aging of other Jewish populations in Europe.¹⁵

(d) From the available general information and occasional statistical data¹⁶ it seems likely that in the USSR, as in other East European countries, out-marriages of Jews have been frequent in recent decades.

(e) The Soviet government's unfriendly attitude toward a distinct Jewish minority may have prompted some Jews to separate themselves completely from their group.

Factors (b) to (d) operate against any considerable population growth of Jews in the USSR.

(3) The almost totally urban character of the USSR Jewish population (95 per cent, according to the 1959 census). In the USSR, as in many other countries, the urban population has a smaller natural increase than the rural and, in consequence, the total population.¹⁷

UNITED STATES

AJYB contains the following figures for the population of the Jews in the United States:¹⁸

Year ^a	Estimate	Year ^a	Estimate
1946-1953	5,000,000	1961	5,500,000-5,510,000 ^c
1954	5,000,000-5,200,000 ^b	1962	5,585,000
1955	5,000,000-5,200,000 ^b	1963	5,600,000
1956	5,200,000	1964	5,612,000-5,660,000 ^c
1957	5,200,000-5,255,000 ^c	1965	5,720,000
1958	5,250,000-5,260,000 ^c	1966	5,720,000
1959	5,367,000	1967	5,800,000
1960	5,531,500		

^a See note 10.

^b Chenkin's figure was the lower.

^c Shapiro's figure was the lower.

The table shows that, after a period of invariance, the estimates increased, rather irregularly, from year to year. These figures give rise to two inter-related questions: (1) What was, and is, the size of the United States Jewish population? (2) Is the population increase, as implied in the successive AJYB estimates, demographically plausible?

In March 1957 the Monthly Current Population Survey of the U.S. Bureau of the Census asked a question on religion, to which 99 per cent of the inter-

¹⁵ Schmelz, "Demographic Outline . . ." *op. cit.*

¹⁶ J. A. Newth "Statistical Study of Intermarriage among Jews in Vilnius (Vilno), *Bulletin on Soviet Jewish Affairs*, January 1968, pp. 64-69 (mimeo); Szyja Bronsztejn, "Questionnaire Inquiry into the Jewish Population of Wrocław," *Jewish Journal of Sociology*, December 1965, pp. 246-75.

¹⁷ A. M. Vostrikova, "Examination of Fertility, Marriages and the Family in USSR" in Egon Szabady and others, eds., *Studies on Fertility and Social Mobility: Proceedings of the International Demographic Symposium Held November 20-22, 1962 at the Hungarian Academy of Sciences, Budapest* (Budapest: Akademiai Kiadó, 1964), pp. 214-228.

¹⁸ In most volumes, the United States figure in "World Jewish Population" by Leon Shapiro agrees with the countrywide total in "Jewish Population in the United States" by Alvin Chenkin; but see table below, notes ^b and ^c.

viewed responded.¹⁹ The inflated sample results indicated that there were in the United States 3,868,000 Jews who were 14 years old and over; 1,107,000 children in Jewish families, and 64,000 children with only one of the parents reported as Jewish.²⁰ After some slight adaptations, Chenkin arrived at a total U.S. Jewish population of 5,030,000, according to the survey. He claimed that the difference between this figure and his own countrywide estimate of about 5,250,000, arrived at by the summation of local estimates,²¹ was within a reasonable margin of sample error. Chenkin used his own, higher figure as basis for later, ever-rising yearly estimates in AJYB.

No question on religion was included in the 1960 U.S. census or in any large-scale population survey since 1957. In the absence of empirical country-wide data, a representative sample survey of the Jews in the United States will soon be conducted under the auspices of the Council of Jewish Federations and Welfare Funds (in consultation with the Institute of Contemporary Jewry of the Hebrew University in Jerusalem). One of the many objectives of this national Jewish population study is to determine the absolute size of United States Jewry.

Meanwhile, it may be pointed out that the Jewish population growth, implied in the successive estimates of the last ten years—from mid-1957 through 1967—seems rather high. They increased from 5,200,000–5,255,000 to 5,800,000, or by 545,000–600,000. Allowing for the positive migration balance over those years,²² the estimates imply for the Jews living in the United States in mid-1957 an average annual growth rate of about 9 per 1,000 over ten and a half years. Over the same period, the total white population in the United States grew by 12 per 1,000 annually (again approximately correcting for the migration balance).²³

It is doubtful that the ratio of 9 per 1,000 to 12 per 1,000 sufficiently reflects the actual differential in the annual growth rates of the two groups, particularly in view of the following characteristics of the Jews:

Low fertility. The Current Population Survey of March 1957 substantiated the impression that Jewish fertility is considerably below that of the total

¹⁹ More than 96 per cent indicated some religion; nearly 3 per cent responded that they had no religion.

²⁰ U.S. Bureau of the Census, "Religion Reported by the Civilian Population of the United States: March 1957," Current Population Reports, Series P-20, No. 79, February 2, 1958.

²¹ AJYB, 1959 (Vol. 60), p. 5.

²² Immigration estimates were given *inter alia* in Ilya Djijour's articles "Jewish Immigration to the United States since 1944," AJYB, 1961 (Vol. 62), pp. 63–66, and "Jewish Immigration to the United States," AJYB, 1963 (Vol. 64), pp. 77–79; and in Jack J. Diamond, "Jewish Immigration to the United States," AJYB, 1966 (Vol. 67), pp. 92–97.

²³ Computation based on statistics in the U.S. Bureau of Census, *Statistical Abstract of the United States*, Washington, D.C., various issues.

white population (and, obviously, still further below that of the entire population, including all nonwhites).

CUMULATIVE FERTILITY RATE, U.S.A., 1957^a

	Average Number of Children Born to 1,000 Women				Per cent Difference of Jews to		
	Jews	Total Whites	Urban		Total Whites	Urban	
			Total	Areas of 3 million plus		Total	Areas of 3 million plus
Women aged 15-44 ^b							
All women	1,184	1,637	1,504	1,302	-27.7	-21.3	-9.1
Ever married	1,598	2,130	2,009	1,820	-25.0	-20.5	-12.2
Women aged 45 and over, ever married	2,218	2,759	2,514	2,228	-19.6	-11.8	-0.4

^a Fertility data on Jews were published in U.S. Bureau of Census, *Statistical Abstract of the United States*, 1958, p. 41, and in a release of the March 1957 survey, made available in 1967. The data on the general population were also published in these sources, and in U.S. Bureau of Census, "Fertility of the Population: March 1957," *Current Population Reports*, Series P-20, No. 84, August 8, 1958.

^b Standardized for age, according to the distribution by age of all women of given marital status in the United States in 1950. This standardization reduces the cumulative fertility rate of the Jews, compared to the unstandardized rate, because of the greater proportion of women in later reproductive years among Jews (related to the aging of the Jewish population; see p. 275).

The above figures show that the fertility of all Jews is much closer to the total level in the urban centers (although those contain also non-whites) than to the fertility of all whites. A large number of all whites belong to the category of small-town and rural dwellers, who are more fertile and therefore raise the over-all fertility of the whites, while Jews are quite preponderantly concentrated in the larger towns. Similarly, according to other data of the 1957 Survey, the fertility of the Jews is closer to that of couples where the husband is in a white-collar occupation or higher income bracket, than to the average fertility of the population; also, white-collar occupations and higher incomes are relatively more frequent among the Jews than in the general population.

A lower level of Jewish fertility also was indicated by local surveys, insofar as they furnished any data comparable to those for the general population of a given town. Several family planning studies showed a wider and more efficient use of birth control by Jews and their preference for smaller families.²⁴ The 1957 data reveal, too, that Jewish women no longer in their fertile period in 1957 had fallen a little short of replacing themselves demo-

²⁴ This material is conveniently summarized in Calvin Goldscheider, "Fertility of the Jews," *Demography*, No. 1, 1967, pp. 196-209; Sidney Goldstein and Calvin Goldscheider, *Jewish Americans: Three Generations in a Jewish Community* (Englewood Cliffs, N.J., 1968).

graphically.²⁵ For various methodological reasons, it is difficult to get as conclusive a picture of the replacement prospects for the Jewish women below 45 years of age in 1957, who were presented as a single group in the published Survey results.

At any rate, the Survey data led two competent demographers to sum up similarly the Jewish fertility situation: Donald J. Bogue²⁶ maintained that the Jews "are scarcely reproducing themselves"; Erich Rosenthal²⁷ concluded that "the fertility of the Jewish population in the United States is barely sufficient to maintain its present size."

More recently, fertility figures published from the 1961 census in neighboring Canada²⁸ showed that the Canadian Jews had a higher fertility than the Jews of the States.²⁹ Yet, the 40 to 54 years old ever-married Jewish women in Canada in 1961 failed to reproduce themselves adequately.³⁰ It is true that the 30 to 39 years old Jewish women had already born more children than the 40 to 54 years old, according to the Canadian 1961 census. This was due to the larger participation of the younger than of the somewhat older women in the baby boom around 1950; a similar development is also known from the general Canadian and United States populations. But meanwhile there has been another decrease in Jewish births.

In the 1960s a marked decline, both in the number of births and the fertility of women of reproductive age, occurred in the general population of the United States and Canada. A downward trend in Jewish births began earlier, as revealed by the age distribution of Jewish children in the Canadian census³¹ data and several recent community surveys in the United States.

²⁵ Net reproduction, i.e. the number of daughters replacing women of childbearing age in the population, is assessed by deducting from the average fertility of the ever-married women the combined effects of (a) the proportion of women never married, (b) the rate of female mortality in childhood and reproductive age, (c) the sex ratio at birth, as usually somewhat less than half of all newborn are daughters.

The average completed fertility of women must be more than two children in order to ensure net reproduction, the excess over two being necessary to offset the effects of the above-mentioned factors (a) to (c). The minimum "replacement quota" varies according to demographic circumstances, especially factors (a) and (c).—The 1957 Survey indicated 6.5 per cent never-married among the Jewish women aged 45 and over. Therefore a completed fertility of 2,218 per 1,000 ever-married Jewish women aged 45 and over fell slightly short of replacement needs, even at the recent very low mortality level (in fact, the earlier mortality, which the women aged 45 and over in 1957 survived, was higher; cf. *Current Population Reports*, Series P-20, No. 84, *op. cit.*, p. 4).

²⁶ *The Population of the United States* (Glencoe, Ill., 1959), p. 696.

²⁷ This is Rosenthal's own summary—in "Studies of Jewish Inter-marriage in the United States," *AJYB*, 1963 (Vol. 64), p. 53—of the relevant points in his article "Jewish Fertility in the United States," *AJYB*, 1961 (Vol. 62), pp. 3–27.

²⁸ While both the U.S. and the Canadian data were obtained from samples, the Canadian sample was very much larger in relation to the population (about 20 per cent), as well as in absolute numbers.

²⁹ Also, the percentage of children among Canada's Jews was higher. It should be noted that the proportion of post-World War II Jewish immigrants and, probably, of all foreign-born Jews is much larger in Canada than in the U.S.

³⁰ The census gave the average number of children per 1,000 ever-married Canadian Jewish women, according to age in 1961, as: 2,106 for the 40 to 44 years old; 1,950 for the 45 to 49 years old; 1,873 for the 50 to 54 years old (see note 25).

³¹ Also by changes in the birthrate of the Jews of Canada during the 1950s.

There were fewer 0 to 4 than 5 to 9 years old children and, in some instances, 10-14 years old,³² or, analogously, there were fewer children 0 to 9 than 10 to 19 years old. This was in sharp contrast with the rise in the number of Jewish children a decade earlier, as shown in the 1951 Canadian census and in United States community surveys conducted during, or shortly after, the brief Jewish baby boom about 1950.³³

The decline in births among the Jews of the United States can be related to an unfavorable change in age composition. The 1957 Survey showed fewer 14 to 24 than 25 to 34 years old (of both sexes, but particularly women), which in time brought a decrease of Jews in the most fertile ages.

But it is not unlikely that also the fertility *per se*, i.e., irrespective of age structure, of the Jewish women in the United States has dropped in recent years, a trend that is documented for its general population,³⁴ and for Jewish populations elsewhere.³⁵

Aging. The Current Population Survey of 1957 reported directly on the population 14 years old and over: The Jews had the lowest proportion of 14 to 24 years old among the major religious groups in the United States. If the children are added, it is found that the Jews had the lowest proportion of 0 to 24 years old. On the other hand, according to either approach, the Jews had the highest proportion of persons aged 45 years and over. Their median age³⁶ was about 36, as compared with 30 for the total white population at that date. Also, the comparatively large proportion of Jews 45 to 64 years old in 1957 (36 per cent of the 14 years old and over, as against 29 per cent among the total population of that age), together with the low fertility of the Jews, probably have made their aging still more pronounced since 1957. As we have seen, in populations having the characteristics of United States Jews, aging increases the crude death rate and impedes population growth.

Out-marriages and Withdrawals. The actual frequency of out-marriages among United States Jews, and their recent increase, need not be discussed here. For our purposes it is enough to say that they constitute a not negligible percentage of all marriages of Jews. In all probability, they mean, on balance, demographic losses for the Jewish group. Apart from out-marriages, the unmistakable trend toward assimilation and secularization seems to make for a negative balance of withdrawals, as against adhesions.

³² The Canadian census revealed the following breakdown by age (per 100 of the total Jewish population); 0 to 4 years old, 8.2; 5 to 9 years old, 9.5; 10 to 14 years old, 10.0. In the United States, similar results were obtained in Rochester (1961), Providence (1963), Detroit (1963), Camden (1964), Springfield (1966), Los Angeles (1966-67).

³³ See synopses of local Jewish age compositions in Ben B. Seligman's articles, "The American Jew: Some Demographic Features," *AJYB*, 1950 (Vol. 51), pp. 3-52; "Recent Demographic Changes in Some Jewish Communities," *AJYB*, 1953 (Vol. 54), pp. 3-24, and "Some Aspects of Jewish Demography," in Marshall Sklare, ed., *The Jews* (Glencoe, Ill., 1958), pp. 45-93.

³⁴ See changes in gross reproduction rate in recent issues of U.S. Bureau of Census, *Statistical Abstract of the United States*.

³⁵ See Schmelz, "Guide to Jewish Population Studies," *op. cit.*

³⁶ The median divides the population into two equal parts, one-half being of higher and the other of lower ages than the median age.

The combined effect of lower and decreasing fertility, greater aging, out-marriages, and some withdrawals may cast doubts on whether the ratio of 9 to 12 per 1,000 of population sufficiently expresses the annual growth differential (excluding migrations) between Jews and total whites in the United States over the last decade.

For purposes of further comparison it should be mentioned that the Jews of South Africa, similar in age structure to the United States Jews, only increased 6 per 1,000 annually between the 1951 and 1960³⁷ censuses. In Canada, where the fertility of the Jews is higher than in the United States, their 1957-1959 rate of natural increase was 7.5 per 1,000.³⁸ It had steadily declined from more than 12 per 1,000, at the beginning of the decade, and may have continued to drop after 1959. In Australia, the Jewish population increase between the 1961 and 1966 censuses was almost entirely accounted for by the number of new immigrants that were known to the Jewish agencies (and their records may be incomplete); therefore, it is unlikely that there was much surplus of births over deaths and withdrawals.³⁹ In Israel, the recent annual natural increase of Jews of European origin (including the Israel-born) has been 7.5 per 1,000.⁴⁰

All these demographic considerations are based on the scanty information now available. Definitive information on the recent relative increase of the United States Jewish population, as well as on its absolute size and composition, will emerge from the forthcoming national Jewish population study.

WORLD JEWRY

AJYB figures show an increase in the total number of Jews from 12,036,000 in mid-1957, to 13,628,000 at the end of 1967, or 1,592,000 over ten and a half years. At the beginning of this period, the results of the 1959 USSR census, later adopted by AJYB, were not known as yet. That census put the number of Soviet Jews at 2,268,000; the earlier rough estimate was 2 million. The upward correction of the 1957 figure by about 250,000 reduces the increase from mid-1957 to the end of 1967 to about 1,350,000, or to an annual average of 10 per 1,000. Still higher rates of increase are obtained for shorter intervals within this period: For the 5 years from mid-1957 to mid-1962, estimates come close to 12 per 1,000 (likewise after correction for the USSR).

Such rates of increase seem implausibly high. According to AJYB figures, the relative increase of world Jewry is even larger than the probably over-

³⁷ There seems to have been little external migration of Jews in South Africa during those years.

³⁸ According to data received from the Dominion Bureau of Statistics.

³⁹ Based on a communication by Walter M. Lippmann, Jewish Social Service Council of Victoria, Melbourne.

⁴⁰ [Usiel] O. Schmelz "Les juifs d'origine européenne en Israël: aperçu démographique," in *La vie juive dans l'Europe contemporaine* (Deuxième Colloque, Brussels, 1967; in press).

rated increase of the United States Jews, who constitute roughly 40 per cent of world Jewry.

The Jews in all European countries (except USSR), represent about 10 per cent of world Jewry. Their very low fertility, high aging, and frequent out-marriages,⁴¹ as revealed in each new item of information that became available in recent years, are indicative of a severe demographic crisis. The non-Jewish population of Europe outside the USSR grew, on the average, by 8 per 1,000 annually, between 1957 and 1967. The out-marriage and withdrawal drain made the prospects of natural increase for the Jews there definitely worse.

The slow growth of the Jewish population in South Africa and Australia, and the modest natural increase in Canada after 1957, have already been mentioned above. Australia and New Zealand experienced a decrease in Jewish births, like that in the United States, Canada, and a number of European countries.⁴²

Even in Israel, where most Jews of Asian-African origin, with their considerable fertility, are now concentrated and account for about half of the country's Jewish population, the average yearly natural increase was no higher than 17 per 1,000 during the period under consideration (mid-1957 to the end of 1967).⁴³ And Israel's Jews accounted for only about one-sixth of world Jewry.

The rapid raising of some country estimates of Jewish populations in the AJYB (e.g., Argentina) could not but affect the world total.

Therefore, prolonged use of AJYB figures may have led its readers and especially Jews to a belief in the substantial demographic growth of the world Jewish population, which has little warranty in ascertainable facts. The proportional distribution of world Jewry by continents and geographical regions in AJYB must be viewed with considerable reservation as well.

DIFFICULTIES IN ESTIMATING JEWISH POPULATION SIZE

In general, estimates of population size are used to provide a conjecture where no actual count has been taken at all, or for a long time. Another use is updating the results of comparatively recent population counts, as in official statistics during intercensal periods.

In updating, the available population count (or estimate) is altered to reflect the demographic changes that occurred since the count. The most thorough and effective method is to account age-specifically for such factors

⁴¹ Schmelz, "Demographic Outline," *op. cit.* These characteristics do not apply to recent North African Jewish immigrants to Europe.

⁴² This is apparent from the age distribution of the Jewish children, reported in recent censuses and surveys.

⁴³ Of course, Israel has a large migration surplus, and while this affects the country's total rate of population growth, it is irrelevant to comparison with world Jewry, whose overall size is unaffected by migratory movements.

as vital statistics and migratory movements, if current empirical information is available. Where no such detailed data exist, other methods can be used.⁴⁴ However, all rational methods of updating rely on some empirical information about the structure and evolution of a population, or at least, on analogies with assumedly similar populations for which such data are available.

The Israel government provides regular and detailed statistics on its Jewish population. Elsewhere, conjecture is often indispensable for obtaining some knowledge of Jewish population size. But such estimating is made particularly difficult by a number of circumstances, partly related to the very dispersion of the Jews, and it is carried on for some Jewish populations over long periods without sufficient actual basis.

The compiler of worldwide Jewish population estimates has to deal, in the first place, with a multiplicity of country estimates of varying quality, which were prepared in markedly different ways.

Among the major causes of very serious difficulties with the existing estimates for many diaspora communities are:

Conditions of Jewish Populations

- (1) The frequent residential scattering of the Jews, also within individual countries, and their relatively great geographical mobility.
- (2) Insufficient communal cohesion.
- (3) Conceptual and factual uncertainties regarding marginal Jews.
- (4) Failure of many communal leaders to recognize the practical value of reliable statistical information for running the affairs of the communities.

Techniques

- (1) In the past, many Jewish population estimates have been prepared without the necessary factual bases.
- (2) Methodological errors may have occurred in preparing estimates.
- (3) Many different techniques have been used to estimate Jewish population size in different places and on different occasions. But, there has not been enough rational thinking and clarification of the way estimates should be prepared, and actually were prepared.
- (4) Often no distinction was made in newly published estimates between actual updating and implied corrections of earlier figures.
- (5) Countrywide estimates are frequently obtained by totaling local estimates. However, local estimates, often prepared by nondemographers, show a tendency to underrate negative changes and, especially, out-migrations. On a countrywide scale this may lead to double-counting and a resultant exaggerated total.

⁴⁴ United Nations, *Manuals on Methods of Estimating Population*, Vols. I-IV. ST/SOA/Series A/ Nos. 10, 23, 25, 42.

Resources

The systematic collection of statistical data requires funds, proper organization, and expertise. An appropriate expenditure of money is indispensable, but often not forthcoming, even for providing a minimal realistic basis for Jewish population estimates.

Personnel

(1) Jewish estimates are often prepared by persons who are not professional demographers, and who do so without proper guidelines from, or consultation with, professionals. Such persons are not sufficiently aware of the realities of demographic change, of the operating factors and the magnitude of their effects.

(2) Also, at times there is lack of continuity, as between the makers of successive estimates on the Jewish population of the same locality or country.

COPING WITH SOME PROBLEMS

We have presented here a formidable, though by no means exhaustive, list of difficulties in preparing population estimates of diaspora Jews. However, it should be added that, while there are many possibilities for relatively rapid improvement in demographic data, including rational estimates, for local and countrywide Jewish populations of moderate size, it is, for the time being, much easier to criticize than to improve on global compilations, as undertaken by AJYB. Such a compilation is necessarily a superstructure which must rest on and postdate fact finding activities in many countries. An essential is satisfactory data for the large Jewish population concentrations. While the preparation of data for these Jewish populations is an especially arduous task, their great proportional weight is of decisive importance for the summation of the world Jewish population. As we have shown, the AJYB estimates for these larger populations—in the United Kingdom, Argentina, USSR, as well as France—are quite crude; and the estimates for the United States are subject to some doubt.

It is gratifying to note that progress is being made in the collection of empirical data on the size, composition, and demographic prospects of Jewish diaspora populations. We have mentioned the national Jewish population study that will be conducted in the United States. Similar projects in other diaspora countries either have been undertaken, are being planned, or are in various stages of preliminary discussion. Such Jewish-initiated sample surveys, together with systematic data collection on population dynamics and the intensified use of the potentialities of official statistics specifying Jews, are expected to improve the demographic documentation regarding the Jews of the world.⁴⁵

⁴⁵ Bachi, "Recent Progress . . ." *op. cit.*, Schmelz "Guide to Jewish Population Studies," *op. cit.* It is to be hoped that a comparison of the official data on USSR Jewry, as they will emerge from the forthcoming census, with those available from the 1959 census will permit some assessment of the evolution of this population.

However, for the present, certain measures can be taken to raise the quality and usefulness of globally compiled estimates:

(1) Better guidance can be provided for preparing country estimates. The methods best suited to different conditions should be determined, put into writing, and placed at the disposal of the prospective estimators. The sources and methods actually used should be recorded in detail and according to a uniform pattern, to facilitate continuity of practice in any given country for successive years and to give the world compilers better control over the proposed country figures. The same applies to countrywide compilations of local estimates.

(2) Demographic yardsticks should be applied to country or local estimates for assessing the plausibility of the implied evolution between successive estimates.

(3) An unspectacular but helpful device is to indicate the base figure, its source, and year, for all updating estimates. If no change is made in the base figure, despite the lapse of time, this fact will then become evident at a glance. Similarly, when a new base figure is adopted after a new census, survey, or estimate, this, too, will immediately be apparent. This is the practice followed by compilers of international population figures (as the United Nations); it was used by the late Arthur Rupp in his world compilations of Jewish populations some decades ago.

(4) A characterization of the estimates, according to source, technique, and quality, would be helpful. This can be done uniformly and succinctly by using an appropriate code. An analogous device is employed in United Nations world compilations.

(5) After a population figure has been updated for several years, some correction may become necessary on the basis of more recent empirical information. This happens in official statistics of high professional level when, for instance, a new census shows inaccuracies in intercensal estimates. Here, earlier figures usually are corrected retrospectively to give a plausible picture of the demographic evolution. No retrospective corrections are made in AJYB. This leads to "jumps" between the figures of two successive years, when there are new empirical data or a new approach in preparing estimates.

Therefore, it is recommended that the country estimates be presented not only for the latest available year, but also for several preceding years. This will be more instructive for the user of the population estimates and, at the same time, will make it possible to show properly annotated retrospective corrections.

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