

Jewish Survival: The Demographic Factors

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OVER THE CENTURIES, JEWS HAVE SHOWN a remarkable capacity for survival as a group possessing a distinct identity—this despite forbidding difficulties, including serious numerical losses in certain generations. The human life span being limited, however, each generation faces anew the challenge of insuring its growth, maintaining its numbers, or at least reproducing itself at reduced size. This depends both on demographic factors, particularly the balance between births and deaths, and on the will to continue group identity. For minorities like Diaspora Jews the practical feasibility of integrating into the majority population is liable to affect group cohesion. World Jewry constitutes a widely dispersed entity that was reduced in size by almost a third as a result of the Holocaust. Systematic study shows that the prospect of maintaining the present size of the world Jewish population has become quite problematic.

In the following pages we shall review some features of the demographic situation of world Jewry—its recent evolution, present state, and future prospects. Emphasis will be placed on the factors affecting Jewish population size. While the approach will be demographic, the social and economic structure of the Jews is obviously very important in this context. Some of the problems of Jewish demography—e.g., alienation, out-marriage, and low levels of fertility—are by their very nature closely linked to the study of social psychology of modern Jews.

This article is based on extensive research, involving a good deal of data accumulation and computations. However, in the interests of clarity and increased comprehension, technical explanations will be relegated to footnotes or to the appendix at the end of the article. The demographic situation, trends, and prospects of Jews in the Diaspora and Israel differ markedly, as do the amount and quality of the data available on each. We shall therefore consider separately each of these two major components of world Jewry.

Owing to large-scale Jewish migration over several generations, and the reduction of European Jewry through the Holocaust, world Jewry has undergone a drastic geographical redistribution. Many of its component groups are characterized by relative newness in their respective environments; about 70 per cent of Diaspora Jews—and as much as 80 per cent of the total world Jewish population—live at present in regions (the

Americas, South Africa, Australia, Israel, etc.) which contained hardly three per cent of world Jewry a mere hundred years ago. On the other hand, large sections of the traditional Diaspora are now virtually without Jews, e.g., great parts of Eastern Europe, the Balkans, Asian countries, and North Africa.

From the point of view of Jewish ethnography, the main branches of the Jewish people in modern times have been the Ashkenazim, Sephardim, and various Oriental communities. All branches have tended to conform to the demographic patterns of their respective surrounding general populations. The patterns of the Sephardim have reflected those of the nations in which they have lived, either in Europe or in the Middle East and North Africa. Toward the middle of this century, the Ashkenazim exemplified to an extreme the European-North American demographic type of low fertility and high longevity, while Oriental Jews conformed to the demographic patterns of their countries of residence, manifesting high fertility but also high mortality. During the past 30 years, however, the overwhelming majority of the Oriental Jews have left their home countries in Asia and North Africa; those countries have dwindled, with few exceptions, to virtual insignificance on the map of Jewish dispersion. In their new places of residence, Oriental Jews have rapidly adopted the demographic patterns of the advanced populations among whom they have come to live: their mortality rate has been greatly reduced; the marriage-age for girls has risen; fertility has dropped; and, in Diaspora countries, there has been a spate of out-marriages. With the exception of out-marriage, these changes are abundantly documented in detailed evidence from Israel, even though Jews from Asia and North Africa constitute there, by now, one half of the entire Jewish population, and this large proportion might have made them less amenable to rapid transformations. The analogous phenomena are now under study in France, the second largest recent destination of Oriental Jews, as well as elsewhere. In their new countries of residence outside Israel, Oriental Jews are but a small fraction of the entire population; they belong on the average to a higher and more easily adaptable social stratum than their brethren in Israel, and have more opportunities for out-marriage. Thus, recent data point to even faster demographic transformations in the Diaspora than in Israel—*inter alia*, a drastic fertility decline (see Oriental Jews in Greater Paris, Tables 2-4, 7, 8). As a result of the mass exodus of Oriental Jews from their traditional lands of residence and their rapid adaptation to new demographic patterns, virtually the entire Diaspora now belongs to the category of advanced populations such as are characteristic of Europe and North America.

The majority of Jews currently in the Diaspora have their roots in Eastern Europe, which their families left in the course of the last hundred years.

This may be one reason for the underlying similarity of demographic trends evidenced in the contemporary Diaspora, great distances notwithstanding. Prominent features common to Diaspora Jewries of the 1970's are very high urbanization; a high and increasing level of formal education (great proportions of the younger generation are college-trained); and a high and growing share of white-collar workers among the Jewish labor force, including relatively many persons in the professions and in managerial positions. In all of these areas, Jews far outdistance the general populations.

In the following brief analysis, which must confine itself to the most prominent features of Diaspora demography, we shall consider only the overwhelmingly represented type—the demographically advanced Jews. The extant remnants of Asian-North African Jewries and some ultra-Orthodox splinter groups in the Western world are proportionally negligible exceptions in the overall picture.

The dispersion of Jews in a great many countries means that the phenomena of Jewish demography are multiplied in a great many national settings.¹ The study of Diaspora demography as a whole, therefore, is the synthesis of studies of the various Diaspora populations, at least the numerically more important ones. The unique geographical dispersion of Jews results in a scattering of information, which is available, if at all, in differing formats and languages.

The proportion of Diaspora Jews who are distinguished as such in the official statistics of their countries of residence has dwindled since the Holocaust, and is still decreasing. Official census statistics are presently available for only about a quarter of Diaspora Jews, and these figures appear at long intervals. The Jews being now but a small minority in all Diaspora countries, the data routinely published about them in official statistics are basic figures with few cross-classifications.²

In the absence of official statistics—or, better still, in judicious conjunction with them—data on Jews can be compiled by Jewish organizations. The local Jewish community surveys that have been carried out in numerous cities of the United States are well-known examples, but they have the drawback, for purposes of wider synthesis, of lacking coordination of contents, methodology, and timing and, above all, of not being representative of the total American Jewish population. In recent years several

¹On the substantive and methodological problems of Jewish demography, and recent attainments in data collection and research, see the publications in the Jewish Population Studies series of the Institute of Contemporary Jewry, the Hebrew University, Jerusalem. Particularly relevant is R. Bachi's *Population Trends of World Jewry* (Jerusalem, 1976).

²There exists, however, the technical possibility of obtaining detailed tabulations on Jews from official statistics if they are distinguishable therein as a separate group. Use of these potentialities depends on Jewish initiative and funding and, of course, on the consent of the various statistical bureaus. Such opportunities have been increasingly utilized in recent years.

country-wide sample surveys of Jewish populations, embracing a wide range of demographic, social, economic, and identity factors, have been carried out. There has also been some current data collection, undertaken by Jewish institutions, on vital statistics and other population features.

However, both official and Jewish sources of information on the demography of Diaspora Jews give no more than a fragmentary picture. The study of Jewish Diaspora demography, both on the national level and on a global scale, is further complicated by the following factors: the great migratory mobility of Jews; the increasing number of out-marriages and offspring of such unions; and the growing frequency of "marginal" and "alienated" Jews whose identification as Jews may be uncertain. As a result of all this, the Jewish demographic scene, worldwide and poorly documented as it is anyway, undergoes continual change to an extent unusual among majority populations. Close attention to chronology is therefore required in discussing the phenomena of Jewish demography.

Despite these serious difficulties, persevering work, assisted by the substantive and methodological information available to modern demographic researchers, has made it possible to attain a relatively clear picture of the fundamental trends of Jewish Diaspora demography. In this account, we shall have to limit ourselves to the presentation of the principal facts and trends directly influencing the recent as well as the anticipated size of Jewish populations. We shall concentrate on the underlying similarity in trends of the main Jewish populations, notwithstanding the cultural differences of their respective countries of residence, and the great distances separating them. We shall often be unable to enlarge on the peculiarities of each of these Jewish populations. The factual examples adduced will be confined to the larger Jewish populations, usually those comprising at least 20,000 Jews, and for which the required data are available.

For ascertaining the fundamental trends of any population, it is imperative to know its natural movements—especially births and fertility, on the one hand, and mortality, on the other. Direct information on these topics being scanty, extensive use will be made in this discussion of the age-sex composition of contemporary Jewish populations, as empirically known from censuses or surveys. Our aim will be to elucidate the natural movements of Jews in various settings by use of indirect but effective methods of demographic analysis which permit reasonably accurate estimates.³ For lack of space, this account will have to refrain, excepting occasional brief remarks, from any consideration of the determinants for the observed demographic differentials between Jews and Gentiles, between and within the Jewish populations of various Diaspora countries, and between Jews in

³These methods are briefly indicated in the Appendix.

the Diaspora and in Israel. It must be stressed, however, that the investigation of the determinants for these various sets of differentials constitutes a good part of the scholarly challenge and appeal in the demographic study of contemporary Jews.

RECENT DEMOGRAPHIC TRENDS OF DIASPORA POPULATIONS

Demographic Evolution of General Populations in Developed Countries

It has already been noted that most contemporary Jewish Diaspora communities belong to the demographically advanced populations of the world. As background to contemporary Diaspora demography, therefore, it is necessary to outline the salient features of these populations.

At present, the main features characterizing the general populations of the highly developed regions of Europe, North America, and Australia are the following: a) high average length of life, amounting to more than 70 years (if both sexes are considered together). There is limited and decreasing differentiation in the average length of life for various groups within the total population; b) decreasing fertility and birth rate. During the great depression of the 1930's, a slump of births took place in the developed countries. It was followed by a "baby boom" at the end of World War II. In Western Europe the "baby boom" soon subsided and was followed, in most countries, by a decade or so of relatively stable births at a moderate level. In the United States, Canada, Australia, and among the whites of South Africa, the higher level extended into the 1960's. In any case, a sharp decline in fertility and the birth rate set in subsequently, and accelerated in the first half of the 1970's. These transformations are linked to changes in matrimonial mores, including frequency of informal unions, delayed weddings, and rising divorce rates. Both current fertility and the fertility expectation of women of reproductive age have declined a great deal. Family formation—i.e., age at first marriage as well as at childbearing—has been postponed, and this poses the question whether postponement of the anyway low expected fertility may not lead eventually to partial cancellation of even these expectations. The result of all this has been low and dropping natural increase, which in some European countries has descended to virtually nil or turned into an outright decrease (annual deaths outnumbering annual births)—a trend which has been accelerated by the propagation of an ideology of "zero population growth"; c) marked "aging," i.e., a growing proportions of elderly people. The main reason for this is the low

reproduction in the 1930's and early 1940's, and again since the 1960's. A relatively great proportion of elderly persons in a population does not affect average fertility or average length of life, but it tends to reduce the crude birth rate—the number of births per 1,000 of population—as the old do not contribute to it. Conversely, it tends to raise the crude death rate—the number of deaths per 1,000 of population—because, where old people are numerous, many deaths must occur, even if the average life span is long.

In Table 1 some data are presented for illustration of the above-mentioned trends. It can be seen that in those developed countries in which large Jewish populations reside—the United States, Canada, France, Great Britain, and the European parts of the Soviet Union—the rate of natural increase has gone down strikingly in recent years.

Widespread Demographic Features of Jewish Diaspora Populations

Diaspora Jewries are distinguished, at present, by very low fertility and birth rates which regularly fall short of the same phenomena in corresponding general populations—both in whole countries and in individual major cities. Diaspora Jewries are also affected by out-marriages, which tend to reduce the actually Jewish offspring even beneath the level determined by low fertility; they are apt, besides, to sustain other assimilatory losses. "Aging" is more pronounced among Jews than among the corresponding general populations. While average length of life is, by now, roughly equivalent for Jews and corresponding Gentiles, the greater aging of Jews results in higher crude death rates among them. Besides, most European Jewries, and those elsewhere that have absorbed Jewish emigrants from Europe since World War II, are affected by age-sex distortions due to the Holocaust and its after-effects. Under these circumstances it is inevitable that the balance of births and deaths in Diaspora Jewries will fall short of that in corresponding general populations. In all but perhaps one of the large Diaspora Jewries (South Africa) this balance recently has been very close to zero or outrightly negative.

The unmistakable long-term trend in all larger Diaspora populations is toward aggravation of the factors which reduce population size and thus intensify the already negative or near-negative character of their internal demographic balance. In the immediate future, to be sure, there will be a tendency toward increased Jewish births, as the relatively many young people born during the "baby boom" around 1950 reach the procreative age range. This phenomenon, however, is necessarily temporary and should not delude us as to the definite long-term trend.

While the long-term trend appears to be similar throughout the Diaspora, and is in basic alignment with that of the general populations of the advanced countries, there are substantial differences in the present level of the various factors, both between Diaspora Jewries and between the Jews and

TABLE 1. RATE OF NATURAL INCREASE AMONG GENERAL POPULATION, BY SELECTED COUNTRY, 1960-1975
 (Per 1,000 of Population)

Country	1960	1965	1970	1975
U.S.A. (whites)	13	9	8	5
Canada	19	14	10	8
South Africa (whites)	16	14	14	11
Australia	14	11	12	9
United Kingdom	6	7	4	0 ^a
France	6.5	7	6	3 ^a
Belgium	4.5	4	2	0
Netherlands	13	12	10	5
Denmark	7	8	5	4
Norway	8	8	7	4
Sweden	4	6	4	2
Germany (Fed. Rep.)	6	6	1	-2
(Dem. Rep.)	4	3	0	-3.5
Switzerland	8	9.5	7	4
Austria	5	5	2	-1 ^a
Italy	9	9	7	5
Czechoslovakia	7	4	3	8
Hungary	4.5	2.5	3	6
Poland	15	10	9	10
Rumania	10	6	12	10
USSR	18	11	9	9
RSFSR	16 ^b	8	6	6
Ukraine	14	8	6	6
Israel (Jews)	18	16	17	18

^a1976.^b1959.

the corresponding general populations. Diaspora Jewries fall into several regional groups with regard to the intensity of their demographic problems. In rough outline, the situation is most acute in Eastern and Central Europe, and less acute in Western Europe, though some natural decrease usually prevails there also. In the Americas and Australia natural increase is near zero. The only sizable Diaspora Jewry (of European provenance) which maintained a modest natural increase by the beginning of the 1970's was the compact and relatively secluded one in South Africa.

Table 2 presents crude rates of births and deaths, and their difference—the rate of natural increase or, when negative, of natural decrease. These values are given for large Jewries and for corresponding general

TABLE 2. RATES OF NATURAL MOVEMENT AMONG JEWS AND GENERAL POPULATION, BY COUNTRY AND PERIOD
(Per 1,000 of Population)

Country	Period	Birth Rate		Death Rate		Rate of Natural Increase/Decrease	
		Jews ^a	Gen. Pop.	Jews	Gen. Pop.	Jews ^a	Gen. Pop.
U.S.A.	1967-71	10	17 ^b	10	9.5 ^b	0	7.5 ^b
Canada	1957-61	17	27	7	8	10	19
	1967-71	12	17	10	7	2	10
Sao Paulo (Brazil)	1965-69	10		7		3	
Argentina	1956-60	11	24	10	9	1	15
	1966-70	16	23 ^b	9	9 ^b	7	14 ^b
South Africa	1957-61	14	23	9	9	5	14
Australia	1967-71	11	20	11	9	0	11
Greater Paris	1972-76 ^c	9	15	9	9	0	6
Origin of Jews:							
Europe		9		12		-3	
Africa-Asia		9		7		2	

Brussels (Belgium)	1957-61	8	13	10	13	13	0
Netherlands	1962-66	11	19	13	8	-2	11
Germany (Fed. Rep.)	1961-65	3	18	21	11	-2	7
	1971-75	3	11	19	12	-18	-18
Switzerland	1959-62	11	18	16	10	-16	-1
	1969-72	12	15	16	9	-5	8
Italy	1961-65	11	19	16	10	-4	6
	1966-70	11	17	15	10	-5	9
						-4	7
Russian Republic (in Soviet Union)	1959-70	6	18	15	8	-9	10
Israel (Jews)	1971-75	24		7		17	
Origin of Jews:							
Europe	1975	21		10		11	
Africa-Asia	1975	29		5		24	

a"Effectively Jewish" rates; see text.

bWhites.

cAverages for the 5-year interval preceding the years indicated.
Sources and methods: see Appendix.

populations. The figures for Jews are mostly estimates derived from their age-sex distribution as empirically known from an official census or Jewish-sponsored survey. Despite the indirect derivation of these figures, their approximate order of magnitude need not be subject to doubt (see Appendix). The table shows, consistently and strikingly, lower rates of births and natural increase for Jews than for the general populations. It also substantiates in numerical terms the prevalence of a near-zero or negative balance of births and deaths among the large Jewries.

Fertility and Birth Rate

The precarious demographic situation of Diaspora Jewry is evidenced by its very low fertility, which is insufficient for inter-generational replacement.

The importance of fertility in the demographic dynamics of Diaspora Jews is easily realized if we bear in mind that fertility is *the* positive factor on which future replacement depends in any closed population—one unaffected by external migrations or conversions or other affiliative changes. With the average length of life being already very high among Diaspora Jews, as among all advanced populations of the world, there is little chance of increased population growth through the betterment of health and living standards. Moreover, the affiliation balance—losses due to assimilation minus any adhesions to the Jewish group—is assumed to be usually negative for Diaspora Jewries. In addition, the migration balance for the Diaspora as a whole versus Israel is negative. Though there is no uniformity in the migratory balance of the individual Diaspora populations, this is likewise negative for many of them. These circumstances enhance the importance of fertility for Jewish population growth.

Two terms that are part of the basic vocabulary of demography are "fertility" and "birth rate." Fertility means the number of children born, or expected to be born, by a group of, for example, 1,000 women, or by the average woman in that group. The "crude birth rate," or briefly "birth rate," measures the annual frequency of births per 1,000 persons—of both sexes and all ages—in a population, and is therefore markedly influenced by the age-sex composition of that population. The complex realities of Diaspora life, however, necessitate a further distinction. Because of the influence of out-marriages and/or marginality, not all children born to one actually Jewish parent are Jews. Sometimes, too, two parents who are Jews do not wish their newborn children to grow up Jewish. Consequently, it is necessary to distinguish the "effectively Jewish fertility" of Jewesses from their actual fertility, and the "effectively Jewish birth rate" from a birth rate that would account appropriately for all children currently born to Jewish parents, irrespective of whether the children are themselves considered

Jews.⁴ Only the "effectively Jewish" reproduction of Jews operates for the replacement of a Jewish population.

Data enumerated in a census or survey on currently recorded Jewish newborn or on young Jewish children from which recent births can be estimated belong to the "effectively Jewish" type and reflect the direct losses of children due to out-marriages. If mixed marriages are not infrequent, as is usual now in the Diaspora, a disproportion results between the size of the parental generation and the offspring among the Jewish population, and the effectively Jewish birth rate is depressed. On the other hand, data from a census or survey on the fertility experienced by Jewish women usually include all children born to them, irrespective of the children's religion. When considerable mixed marriage prevails, these fertility data, though demographically correct insofar as the full reproductive behavior of Jewesses is concerned, exceed the actual level of effectively Jewish reproduction.

MEASUREMENT OF JEWISH FERTILITY

Table 2 contains figures on effectively Jewish birth rates. Table 3 presents two measures of current effectively Jewish fertility: the "fertility ratio," which has been computed from the number of children 0-4 years old per 1,000 women aged 15-44; and the "total fertility rate," which is the final number of children which women would be expected to have on average, if their current age-specific fertility performance persisted. The approximate value of this parameter for Jews has been derived here by an indirect method (see Appendix). Table 3 shows, in addition, the per cent change over the preceding 5-year interval in the number of effectively Jewish births and in the fertility ratio.⁵ Where the size of the Jewish population changed little over that interval—as was the case in most Diaspora countries listed in the table—the per cent change in the number of births is similar to the corresponding change in the effectively Jewish birth rate.

Table 4 contains retrospective data on the full fertility of Jewish women—cumulative up to given ages—as reported in response to a specific question in a census or survey on the total number of (live-born)

⁴Some actually Jewish children are born to actually non-Jewish wives of Jews. Hypothetically half of the children resulting from "mixed marriages" (where the partners keep their different religions) might be expected to be Jews.

⁵Because of the technique used for obtaining the data (see Appendix), this interval relates to the five years between the average of years 5-9 and the average of years 0-4 prior to the enumeration of a Diaspora population.

TABLE 3. FERTILITY MEASURES^a OF JEWS AND GENERAL POPULATION, BY COUNTRY AND PERIOD

Country	Period	Fertility Ratio			Total Fertility Rate			% Change ^b	
		Jews	Gen. Pop.	% Difference	Jews	Gen. Pop.	Jewish Births	Jewish Fertility Ratio	
U.S.A.	1967-71	228	392 ^c	-32	1.4	2.4 ^c	-30	-41	
Canada	1957-61	421	606	-30	2.6	3.7	-14	4	
	1967-71	292	390	-25	1.8	2.3	-14	-30	
Sao Paulo (Brazil)	1965-69	220			1.3		-38	-42	
Argentina	1956-60	247	471	-48	1.5	2.8	-24	-22	
	1966-70	387	476 ^c	-19	2.4	3.1c,d	-1	-14	
South Africa	1957-61	353	528	-33	2.2	3.4	-16	8	
Australia	1967-71	296	460	-36	1.8	2.9	1	-20	
Greater Paris	1972-76e	221	344	-36	1.4	2.0	-38	-44	
Origin of Jews:									
Europe	257						-44	-44	
Africa-Asia	199						-31	-43	

Brussels (Belgium)	1957-61	238	322	-26	1.4	2.0	-31	-27
Netherlands	1962-66	302	406 ^f	-26	1.8	3.0	8	4
Switzerland	1956-60	315	383	-18	1.9	2.3	-10	-3
	1966-70	305	364	-16	1.8	2.3	-5	-16
Italy	1961-65	303	398	-24	1.8	2.4	3	20
	1966-70	249	396	-37	1.5	2.4	-24	-37
Israel (Jews)	1971-75	529			3.2		18	-4
Origin of Jews:								
Europe	1975	492			2.8		30	8
Africa-Asia	1975	560			3.6		10	-12

^aFor explanation of technical terms, see text. The measures for Jews relate to "effectively Jewish" fertility and births.

^bPer cent change in interval between the two latest 5-year periods.

^cWhites.

^d1970 only.

^eAverage for the 5-year interval(s) preceding the years indicated.

^f1963-1967.
Sources and methods: see Appendix.

TABLE 4. AVERAGE NUMBER OF CHILDREN BORN PER JEWISH WOMAN, BY AGE OF WOMEN, COUNTRY AND YEAR

U.S.A.	Canada	Argentina	Australia	Greater Paris 1972-76	Origin of Jews:					European Immigrants to Israel	
					Total Europe Africa- Asia			Netherlands	Italy		
					1971	1961	1971	1960	1966		
Jewish Women, by Age at Enumeration											
Age:											
15-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
20-24	0.2	0.5	0.2	0.3	0.1	0.1	0.1	0.1	0.3	0.5	
25-29	1.1	1.6	1.1	1.0	1.4	0.7	0.5	1.0	1.0	0.8	
30-34	2.2	2.0	2.1	1.6	2.0	1.4	1.1	1.8	1.5	1.4	
35-39	2.4	2.2	2.4	1.9	2.1	1.9	1.8	2.1	1.8	1.6	
40-44	2.2	2.0	2.4	2.0	1.9	2.6	2.0	3.1	1.7	1.9	
45-49	2.4	1.9	2.3	2.0	1.7	2.5	1.9	3.0	1.8	2.0	
50-54	2.1	1.8	2.0	2.0	1.6	2.3	1.6	3.1	n.a.	1.3	
55-59	1.8	2.0	1.9	2.2	1.4	2.6	1.7	3.8	n.a.	1.8	
60-64	1.6	2.3	1.8	2.4	1.4	2.6	1.8	3.8	n.a.	1.6	
65-69	1.4	3.3	1.9	2.8	1.4	2.8	1.8	4.7	n.a.	1.7	
70+	2.2		3.0	3.4	1.8	2.8	1.8		n.a.	1.9	

Jewish Women with Virtually Completed Fertility (Aged 35-39 and Over at Enumeration),
by Approximate Year When They Reached Age 25-29

Year:	1920	1925	1930	1935	1940	1945	1950	1955	1960	1965
1920	2.2	3.3	3.0	3.2	1.8	2.4	2.0	1.6	2.1	1.9
1925	2.2	2.3	2.0	1.9	1.8	2.0	2.0	1.9	2.4	2.0
1930	1.4	1.4	2.0	1.9	1.8	2.0	1.7	1.9	1.6	1.6
1935	1.6	1.6	1.8	1.8	1.9	2.0	1.7	1.9	1.6	1.6
1940	1.8	1.8	1.9	1.9	2.0	2.0	1.9	2.3	2.5	n.a.
1945	2.1	2.1	2.0	2.0	2.2	2.0	1.9	2.1	2.6	1.7
1950	2.4	2.4	2.2	2.3	2.3	2.3	1.9	2.3	2.6	1.7
1955	2.2	2.2	2.4	2.4	2.4	2.4	2.1	2.5	1.9	1.8
1960	2.4	2.4	2.4	2.4	2.4	2.4	2.6	2.6	2.0	3.1
1965							1.9	1.9	1.8	2.1

aMarried women (in first marriage), by age at time of immigration.
Sources and measures: see Appendix.

children.⁶ Table 4a presents analogous data for currently married Jewish women from three country-wide surveys taken in the United States in the 1970's, as well as data on the number of children expected by these women. Table 4a contains comparisons with women in the general population.

The data presented in Table 2 on births and in Tables 3, 4, and 4a on fertility of Diaspora Jews can be summed up as follows: Jewish fertility and birth rate are lower than in the corresponding general population; both have declined; both are by now usually insufficient for the continuing replacement of Diaspora populations; there are differences in the present levels of fertility and birth rate between various regional types of Diaspora populations.

Jewish fertility and birth rates in the Diaspora have, for a long time, been markedly and consistently lower than those of the general populations. Also, several studies conducted in the United States since the 1950's have

TABLE 4a. FERTILITY OF CURRENTLY MARRIED WOMEN IN THE U.S.A., BY AGE

Age	Jewish Women			All White Women	
	1971	1973	1976	1973	1976
Average Number of Children Born					
15-19	0.3	n.a.	n.a.	0.4	0.5
20-24	0.5	n.a.	n.a.	0.9	0.8
25-29	1.3	1.0	1.1	1.6	1.5
30-34	2.2	2.1	1.7	2.5	2.4
35-39	2.4	2.5	2.4	3.0	2.8
40-44	2.2	2.7	2.5	3.2	3.2
Average Number of Children Expected					
15-19	2.7	n.a.	n.a.	2.4	2.4
20-24	2.5	1.6	2.1	2.3	2.2
25-29	2.3	2.1	2.2	2.4	2.2
30-34	2.4	2.1	2.0	2.8	2.6
35-39	2.4	2.6	2.1	3.2	2.8
40-44	2.2	2.8	2.6	3.2	3.2

Sources: see Appendix.

⁶It is usual for the question to be confined to married or ever-married women (the latter include also the divorced and widowed), but we have been able to convert this information into fertility data with regard to all women, of given age, in a Jewish population. This indicator is needed for assessing the demographic replacement of the population as a whole.

shown that Jews desire and expect fewer children than do members of other groups and are more efficient in the application of family planning practices. This is partly attributable to the fact that Jews are heavily concentrated in the major urban centers, where the reproduction of the general population is below that of the country as a whole. However, even in the great cities some differential in reproductive behavior between Jews and all other inhabitants usually persists. Thus, the Current Population Survey undertaken by the Bureau of the Census in March 1957 indicated that the average number of children born to Jewesses aged 15–44 fell short by 28 per cent of that for all white women, by 21 per cent of that for all urban women, and by 9 per cent of that for all women in urban areas with 3 million or more inhabitants.⁷

The levels of both Jewish fertility and birth rates in the Diaspora have been generally on the decline since the early 1960's, and in many countries even since the first half of the 1950's. This can be seen in those instances, in Tables 2 and 3, where data from several years are presented for the same Jewry. The same tendency is documented more fully by the columns of Table 3 which report on the per cent of change—recently, almost always a decline—in the number of effectively Jewish births and in the fertility ratio of Jewish Diaspora populations over the preceding 5-year interval. In most instances, the reductions in births and in fertility are seen to run parallel. This indicates that the downward change in births was mainly due to an actual drop in "effectively Jewish" fertility and not to a shift, for example, in age composition. We shall later show, through discussion of Table 4 and connected data, that the "full" fertility of the Jewesses has also gone down.

In addition to the data presented in Table 3, a reverse projection carried out on the basis of the age-sex composition of American Jews⁸ revealed by the country-wide sample study of 1970–1971 (the National Jewish Population Study—NJPS), shows the following picture of changes in "effectively Jewish" reproductive behavior:

TABLE 4b. U.S. JEWISH BIRTHS AND FERTILITY: ESTIMATED PER CENT CHANGE OVER 5 YEARS

Interval	Effectively Jewish Births	Fertility Ratio
1957–61 to 1962–66	–32	–26
1962–66 to 1967–71	–30	–41

⁷The data cover women of all marital status categories, and are standardized for age.

⁸Jews only, i.e., excluding non-Jews in households defined as Jewish by the NJPS.

Likewise, among the Jews of the Russian Republic (RSFSR) in the Soviet Union, a drastic decline in effectively Jewish births can be inferred from the following data, which demonstrate that the younger the age group, the more pronounced the reduction in the average number of Jews.

TABLE 4c. AGE DISTRIBUTION OF YOUNG JEWS IN RSFSR, 1970

Age Group	Jews	Average of Jews per Year of Age	
		Number	Per Cent Change from Next Older Group
16-19	31,375	7,844	
11-15	34,335	6,867	-12.5
0-10	56,002	5,091	-25.9

This trend of declining Jewish reproduction makes it imperative to pay close attention to chronology in comparing data for various countries, which are only available from different years.

JEWISH FERTILITY INSUFFICIENT FOR DEMOGRAPHIC REPLACEMENT

For minimal replacement of a Diaspora Jewish community at the present very low level of mortality, a fertility ratio of about 350 Jewish children aged 0-4 per 1,000 Jewish women aged 15-44, or a total fertility rate of about 2.1 Jewish children per Jewess,⁹ is needed (see Table 3). In the retrospective data of Tables 4 and 4a, an average of 2.1-2.2 children per any woman, or about 2.2-2.4 children per married woman, would have sufficed for ordinary demographic replacement of a Jewish population if the woman had reached the terminal ages of fertility in the recent past. Higher figures were required for older women, whose fertile period stretched back to an earlier period when mortality was higher, for spouses in mixed marriages if a majority of their children were not Jews,¹⁰ and for Holocaust survivors who experienced inordinately high child mortality. Tables 3 and 4 show very few examples of Diaspora Jewries whose fertility has recently reached the minimal replacement level. Around 1961 Canadian and Australian Jews did reproduce themselves at an "effectively Jewish" level which, if continued, might have ensured replacement. By 1971, however, their reproductive performance had dropped far below this level.

⁹As somewhat fewer girls than boys are born, and some of the children die before reaching maturity, an average of 2.1 children per woman is required for replacement even with very low mortality.

¹⁰While the data on Jews in Table 3 reflect "effectively Jewish" fertility, those in Tables 4 and 4a report on the "full" fertility of the Jewesses concerned, as stated above.

The decline in the effectively Jewish total fertility rate of U.S. Jews, roughly estimated from the NJPS data,¹¹ is as follows: 3.2 in 1957–1961; 2.1 in 1962–1966; and 1.4 in 1967–1971. The U.S. National Natality Study 1967–1969, a sample survey of women who gave birth during those years, yielded figures on the number of child-bearing women who were reported as Jewesses, by age of women.¹² Recomputing from them, an estimate of approximately 1.7–1.8 for the total fertility of Jewesses in those years can be inferred,¹³ as compared to 2.4 among the entire white population of the United States. Other sample studies, carried out in the United States in 1971, 1973, and 1976, have indicated declining trends and low figures for the number of children born and expected by married Jewish women in the younger procreative ages (see Table 4a).¹⁴ In all age groups investigated, both the actually achieved and the expected fertility of Jewish women were considerably below that of all white women.¹⁵ It is possible, though not statistically substantiated, that at the same time a relative reduction occurred in new marriages of Jews. This would have further diminished the reproductivity of the U.S. Jewish population.

All the above data point to a recent drop of fertility among U.S. Jews, which has rendered it insufficient for "full," and especially for "effectively Jewish," demographic replacement.

Among all the larger Diaspora Jewries for which statistical information exists, only the Jews of South Africa had a reproductive level somewhat above minimal replacement by the beginning of the 1970's. However, analysis of the data from two studies conducted in 1972 and 1974 points to a downward trend there also. Moreover, with the atypical exception of the Jews of Iran, no other large Jewries among those for which data are absent can be assumed to have had a fertility sufficient for demographic replacement. The indirect evidence, based on analogies with geographically close and typologically similar Jewish

¹¹The estimates have been obtained by applying the indirect methods used in Table 3 (see Appendix), excluding non-Jews in households defined as Jewish.

¹²See S.Goldstein, "Jewish Fertility in Contemporary America," in P. Ritterband, (ed.), *Modern Jewish Fertility* (Leiden, in press).

¹³Goldstein himself arrived at fertility estimates ranging between 1.41 and 1.53. We have assumed for the computation of the fertility rate a provisionally estimated total of U.S. Jews at the time of the NJPS which is close to that underlying Goldstein's highest fertility figure. But we have excluded from the published age-sex distribution of the NJPS the non-Jews who were enumerated in households defined as Jewish by that survey. This raises the fertility rate, as non-Jews were relatively frequent among the young women in the NJPS, due to mixed marriages. However, few childbearing Jewesses were included in the survey.

¹⁴See also the article by Sidney Goldstein in the present volume, pp. 3–59.

¹⁵The data from those surveys relate to the "full" fertility of Jewesses and not to "effectively Jewish" fertility. Few Jewish women, however, were included in the two cycles of the National Survey of Family Growth.

populations for which relevant data exist, points decisively in the opposite direction.

Research on the family formation patterns of married Jewish women in the Diaspora shows that most of their reproduction is achieved during ten years or less from first marriage, that it falls within the 20–34 age range, and that it displays its peak activity at ages 25–29. These facts are also reflected in the data of Tables 4 and 4a on the fertility achieved by Jewish women up to given ages (cumulative fertility). It should be kept in mind that these data are cross-sectional;¹⁶ the women of each age-group at the time of enumeration were different individuals, born in different years, and married under different societal conditions. Moreover, the reported enumerations were spread over two decades. The same information has been partially recast in the lower section of Table 4, which shows the virtually completed fertility of Jewesses (aged 35 and over) according to the approximate calendar years when they were age 25–29, and thus in the central stage of their reproductive performances. In this form the table shows more conveniently for Jews of European origin the higher fertility that prevailed up to the 1920's (this can be seen in Table 4, especially among Jewish populations which absorbed comparatively many immigrants from Eastern Europe between the World Wars, e.g., in Canada and Argentina); the depression of cumulative fertility resulting from the slump of births in the 1930's and early 1940's; and the boost in cumulative fertility produced by the "baby boom" around 1950, which in North America and Australia extended until the early 1960's. The onset of the recent fertility reduction is seen among the younger women in the upper part of the table, though their cumulative fertility was, of course, not yet complete. The upper part of Table 4 also shows that the Oriental Jewish women who lived in Greater Paris in the 1970's and were below age 40 had attained very low fertility.

One feature of the displayed fertility data requires special elucidation. Table 3 shows for the Jews of the United States and Canada in the early 1970's low fertility insufficient for replacement, while the upper part of Table 4 and Table 4a indicate that the virtually completed fertility of the Jewish women there, who were aged 35–49 at that time, stood on average at the substantial level of 2.2–2.7 children. The explanation for this lies in the difference between current and retrospective measurement of fertility. The higher figures in Tables 4 and 4a reflect the results of the preceding "baby boom" period. While the cumulative fertility of Jewesses in Canada at ages 25–29 reached an average of 1.6 children in 1961, it was only 1.1 children by 1971. Moreover, for Canadian Jewesses aged 20–24, the average number of children born had declined from 0.5 to 0.2. Analogously, the

¹⁶As distinct from a cohort analysis which follows up the same persons through various ages.

recent data for the United States have revealed a reduction in the number of children achieved and expected by the younger Jewish women.

PROSPECTS FOR THE FUTURE

The future development of fertility patterns among Jewish Diaspora populations remains to be seen. The level reported in the late 1960's and early 1970's was already very low. In addition, the fertility decline of the general populations of the Diaspora countries appeared to be gathering further momentum in the first half of the 1970's. Since Jews have been extreme exemplars of the modern demographic trends, some further reduction of fertility in the Diaspora, especially where it has not been at its lowest levels, seems quite possible. Moreover, "effectively Jewish" fertility can be further eroded by out-marriages and/or advanced marginality.

For about a decade, however, an opposite influence will also operate on Jewish birth rates. As pointed out, the crude birth rate is affected by changes in the age composition of a population, especially in the proportion of women at their most fertile ages. And indeed, throughout the Jewish Diaspora, as in the general populations of the advanced countries, the relatively many children born during the "baby boom" around 1950 are now moving into the procreative age range. In particular, a sudden increase was due in the second half of the 1970's in the number of Jewish women aged 25–29—the most fertile age group. The changes that have taken place in the size of female age groups in some Diaspora populations can be inferred from the

TABLE 5. RELATIVE FREQUENCY OF JEWISH WOMEN, BY SELECTED AGE,
COUNTRY AND YEAR
(30–34 Years Old Women = 100)

Country	Year	Age of Women						
		30–34	25–29	20–24	15–19	10–14	5–9	0–4
U.S.A.	1970–71	100	102	191	201	206	146	103
Canada	1971	100	137	186	183	157	132	118
Sao Paulo	1968–69	100	90	132	180	136	132	80
South Africa	1970	100	114	147	151	134	129	146
Australia	1971	100	132	196	170	158	120	122
Greater Paris	1972–76	100	100	132	128	121	120	77
Netherlands	1966	100	130	127	229	137	113	123
Switzerland	1970	100	106	134	129	98	103	96
Italy	1965	100	115	115	184	143	118	128

data in Table 5, e.g., the high frequencies of 20–24 year olds who were enumerated around 1970, or 15–19 year olds enumerated in the mid-1960's.

The increase in the number of Jewish women who are in their most fertile ages may tend temporarily to boost the number and crude rate of Jewish newborn, if actual fertility remains equal;¹⁷ alternatively, it will for some time compensate, wholly or partly, for any further declines in the "full" or "effectively Jewish" fertility of Jews.¹⁸ The essentially transient nature of this phenomenon, however, must be realized.

Marriage Patterns

Marriage patterns have a great bearing on fertility and on the maintenance of the size and cohesion of a minority group.

For lack of space we shall refrain from dwelling here in any detail on recent Jewish marriage patterns insofar as the propensity to marry and the age of marrying are concerned. Suffice it to state that the average age at first marriage is usually higher among Diaspora Jews than among corresponding general populations, and that there is a tendency for greater percentages of Jews not to marry at all. These features relate to both sexes, and reduce the average number of fertile years spent in marriage per Jew/Jewess. They therefore tend to diminish fertility.

Recently, trends toward increased frequency of informal unions, postponement of formal marriage, and rising divorce rates have manifested themselves among the general populations of the developed countries. These factors account in part for the present fertility decline. Though similar tendencies are likely to operate among Diaspora Jews as well, statistical evidence is still lacking.

OUT-MARRIAGE OF JEWS

Out-marriage is one of the causes of the low level of effectively Jewish fertility. If, as has been the case recently, the latter is barely sufficient or outrightly insufficient for the replacement of Jewish Diaspora populations, any additional net losses due to increased out-marriage will aggravate an already precarious situation. Moreover, apart from the direct effect of

¹⁷In Diaspora Jewries where the baby boom was relatively short-lived, such as South Africa, Switzerland, and Argentina, the expected upward influence on natality will be limited. In the United States and Canada this influence will be prolonged, because the original baby boom lasted longer there.

¹⁸In the next section we shall point out that strong alternations in the size of age groups, as documented for Jewish females in Table 5, constitute a demographic incentive for rising out-marriage.

out-marriage on Diaspora population dynamics, its frequent occurrence may weaken the cohesion, and therefore the future demographic staying-power, of Jewish populations.

The tendency to out-marry is a consequence of the social and spiritual situation of Diaspora Jewry—the weakening of religious commitment, especially insofar as behavioral observance is concerned; the cultural and social integration of Jews into the majority populations of many of the countries in which they live, involving schooling, work, and recreation in religiously mixed settings; the freedom of individuals in choosing a marriage partner; and the desirability of some Jews as marriage partners, because of wealth, good education, talent, etc.

Though the major determinants of modern out-marriage by Jews are socio-psychological in nature, some more specifically demographic factors are also operative. The small size of the Jewish population in certain localities is apt to increase out-marriage, since a small population is more likely to have an irregular age-sex structure, thus impeding the formation of endogamous couples.

The alternation of strong and weak Jewish birth cohorts also raises the likelihood of out-marriage. Since grooms are, on the average, a few years older than brides at the contraction of first marriage, the following disparities arose in the past: as a consequence of the gradually intensifying recession of births in the 1930's and early 1940's, the Jewish men born in the earlier part of that period failed to be matched, when they reached marriageable age, by sufficient numbers of Jewish women; conversely, the girls born during the early phases of the ensuing baby boom were not matched sufficiently by boys born toward the end of the preceding slump in births. By a renewed reversal, then, the Jewish boys born toward the end of the most recent baby boom will not find sufficient Jewish partners among the girls born during the current fertility decline. While in actual fact the demographic realities are more complex than these simplifications—particularly since the difference in marriage age between the two sexes is not constant—they do not detract from the basic relevance of alternating strong and weak birth cohorts as a determinant of out-marriage by Jews.¹⁹

In the interpretation of data on out-marriage by Jews, careful attention must be paid to several definitional and terminological matters. When a Jew marries a non-Jew, each partner may adhere to his or her religion; or alternatively, religious uniformity may be achieved by conversion of one of

¹⁹It is true that similar alternations of strong and weak birth cohorts took place among the corresponding general populations. However, Jews are now such a small minority everywhere in the Diaspora that their requirements of match-making need not be viewed as being decisively affected by general squeezes in the "marriage market." The situation may be different in certain cities with a considerable proportion of Jews in the total population, e.g., New York.

the partners either before the wedding or subsequently.²⁰ We shall use the term "mixed marriage" for the former situation and "intermarriage" for the latter, with the term "out-marriage" covering the whole complex. The data available, if any, from official statistics relate to mixed marriages.

Out-marriage data may relate to current weddings indicated in marriage statistics, or to all couples existing in a population as enumerated in a census or survey. Since the frequency of out-marriage has risen in recent decades, data of the former type indicate higher levels of the phenomenon than do data of the latter type.

Out-marriage data may relate to Jewish persons or to couples with at least one Jewish partner. It should be noted that in the same factual situation, the latter type of data indicates higher percentages of out-marriage than does the former type. This is so because an endogamous Jewish couple is reckoned as two persons in the enumeration of marrying or married Jews, but as only one counting-unit, just like any mixed match, in the enumeration of couples with at least one Jewish partner.

There are uncertainties with regard to the "unknown" category of religious classification in official statistics on weddings or couples. The designation "unknown" may hide a Jew/Jewess who has not converted out, and who might, on other occasions, be included in a count of Jews.

MEASUREMENT OF OUT-MARRIAGE BY JEWS

Data on out-marriages of Jews are poor in quantity and quality. Official statistics, available only for a limited number of countries, tend to understate the phenomenon, as they usually take into account only the current situation (at the time of the wedding, or of the census), disregarding prior conversions; they reflect mixed marriages but not intermarriages. Jewish-sponsored sample surveys, if undertaken with some sophistication, inquire not only about present religion (or Jewishness otherwise defined) but also about religion at birth, religion of parents, etc. On the other hand, they often have great difficulty in identifying some types of out-married Jews or ex-Jews (in particular, originally Jewish wives who live in non-Jewish surroundings), and in obtaining responses from them. Because of these objective difficulties, Jewish-sponsored sample surveys may end up underestimating the volume of Jewish out-marriage and getting a non-representative picture of the persons involved.

²⁰Under present conditions, uniformity of an originally mixed couple may be achieved even without formal conversion. Moreover, in Eastern Bloc countries, and for some elsewhere as well, it is no longer religion but other criteria that define Jewishness. Even the validity of formal conversions is contested among the several branches of organized Judaism.

Aside from direct statistics on Jewish out-marriage, several other types furnishing indirect indications are sometimes available, e.g., official statistics on newborn children by religion of both parents, or on divorcing couples by religion of both partners. Even a sharp decrease in synagogue marriages may be indicative of a rise in out-marriage.

Despite the quantitative and qualitative deficiencies, a considerable amount of statistical information on recent Jewish out-marriage has been accumulated, and there is wide consensus on the saliency of the phenomenon. Table 6 presents some general data on current mixed marriages and existing mixed couples among Diaspora populations.

In the United States, the Current Population Survey of 1957 found 8 per cent of mixed couples among those with at least one Jewish partner. The NJPS of 1970-1971 came up with a figure of 17 per cent out-married couples, including those in which a spouse had converted to Judaism and some in which neither spouse was actually Jewish at the time of the survey (but which belonged to the enlarged Jewish population covered by the survey). From the published data the following approximate extent of mixed marriage by persons reported as actual Jews with actually non-Jewish partners could be inferred: 7 per cent of Jewish husbands, 5 per cent of Jewish wives, and 11 per cent of couples with at least one Jewish partner. The NJPS showed a marked rise of recent out-marriage, though its exact extent remained a matter of dispute (see footnote 29).

The available information makes it clear that out-marriage is found to a considerable extent in most Diaspora populations. There are great differences in the level of Jewish out-marriage between geographic regions, individual countries, and cities. It is especially common in some European countries, where an absolute majority of the newly married couples involving a Jewish partner are mixed. A marked rise in the relative frequency of out-marriage has recently occurred everywhere, except perhaps where its level was already previously very high. One gets the impression that the rising trend, which applies also to the United States, is continuing. Within the same Diaspora country there is a tendency for greater prevalence of out-marriage where fewer Jews reside, and where they are more acculturated. So far it has been usual to find greater proportions out-married among Jewish men than Jewish women. Yet, it must be realized that even high levels of out-marriage actually signify a marked persistence of Jewish endogamy. Since Jews are a small minority nearly everywhere in the Diaspora, if they were to contract their marriages randomly, hardly any endogamous unions would be formed.

TABLE 6. MIXED MARRIAGES OF JEWS, BY COUNTRY AND PERIOD

Country	Period	% in Mixed Marriages among		
		Jewish Husbands	Jewish Wives	Couples with Jewish Partner(s)
New Weddings				
Canada ^a	1961-65	12	6	17
	1966-70	14	10	21
	1971-76	21	16	31
Netherlands ^b	1960-65	54	45	67
Germany (Fed. Rep.)	1961-65	78	43	81
	1966-70	67	45	74
	1971-75	69	57	78
Switzerland	1961-65	49	31	58
	1966-70	44	26	56
	1971-75	45	42	61
All Married Couples in Population				
U.S.A.	1957	6	3	8
	1970-71 ^c	(7)	(5)	(11)
Canada ^a , total total	1951	7	4	11
	1971	9	6	14
Jewish centers		7	5	12
Other		17	13	26
South Africa,				
Jewish centers	1974	2	0	3
Australia, total total	1961	12	6	15
Jewish centers	1971	14	10	21
Other		12	9	20
24		20		36
Netherlands	1966	42	34	55
Switzerland	1950	19	10	26
	1960	25	12	32
	1970	24	13	32
Italy	1965	23	10	29

^aFor weddings in Canada—Jews according to religion (since 1974 excluding Quebec); for couples in Canadian population—Jews according to ethnicity.

^bMarried Jews in 1966 survey whose wedding occurred in 1960-1965.

^cSee explanations in text.

Sources and measures: see Appendix.

DEMOGRAPHIC CONSEQUENCES OF OUT-MARRIAGE

The demographic consequences of out-marriage for a Jewish population can be divided into short- and long-range effects as they relate to the out-marrying Jews themselves and to their children and subsequent descendants.

In the past it was customary for out-marrying Jews to adopt the Christianity of their mates. Presently, it is usual for each partner to retain his or her religion, so that a mixed couple is formed. It also happens that the non-Jewish partner, generally the wife, formally accepts Judaism or becomes informally committed to the Jewish group. In discussions in the United States on the demographic consequences of out-marriage, conversions to Judaism are often emphasized; the claim is put forward that the conversion balance is positive on the Jewish side. However, the situation in this regard varies from country to country. Moreover, the information available to Jewish bodies on conversions for reason of marriage may be biased in favor of cases where Judaism is accepted. Above all, as stated above, religious conversions at the present time seem to occur only in a minority of out-marriages. This has been amply confirmed for the United States by the NJPS.²¹ The demographically decisive factors in terms of the short-range consequences of out-marriage, therefore, are the fertility of out-married couples and, most especially, the religious designation and consequent upbringing of their children.

There is some indication that the fertility of mixed couples is lower than that of endogamous Jewish unions—other relevant characteristics being equal.²² However, this issue requires a good deal of further empirical study. If such differentials are confirmed, they might perhaps be attributable to some correspondence between the types of Jews who exercise particularly vigorous birth control and those who out-marry.

In out-marriages, where one partner has converted, it may be presumed that the children will be brought up in the religion which now unites the parents. The problem of the children's religious identity, therefore, pertains to overtly mixed couples, which are thought to constitute in our time the great bulk of the out-married. At any rate, the children of those mixed marriages in which the Jewish partner is not only out-married but also very marginal, are not likely to grow up as Jews.

The empirical information available on the religion of children born to mixed couples is very fragmentary. Obviously, it is not a knowledge of particular instances that is needed, but a statistical assessment of the

²¹F. Massarik and A. Chenkin, "United States National Jewish Population Study: A First Report," AJYB, Vol. 74, 1973, p. 296.

²²Here the "full" and not the "effectively Jewish" fertility of the mixed couples is meant.

proportion of such children actually being reared as Jews. Official data on births or on children in a population, by religion of both parents and of the children themselves, are very rare. Inferences can be drawn by comparing the number of young Jewish children in a population to the actual or expected²³ number of recent births to Jewish women. If the former number falls considerably short of the latter, it is clear that some of the children born to Jewish women were not reported as Jews in the population count.²⁴ But the main source of information should be surveys which permit detailed investigation of the religious composition of households with Jewish members.

Since in cases of mixed marriage the parental generation is evenly divided between Jews and non-Jews, a majority of the children in either direction signifies gain or loss for the respective Jewish population. The statistical indications available on this issue point in most cases, especially in Europe, to net losses for the Jewish group. Any recent very low levels of "effectively Jewish" birth rates ought probably to be interpreted as the combined result of reduced fertility and net losses of children due to out-marriage.

While some of the data on U.S. Jewry released by the NJPS require additional evaluation,²⁵ two stark facts stand out:²⁶ 22.5 per cent of the young children (aged 0-4) in households classified as Jewish²⁷ were not Jews; and the respective percentage was increasing rapidly, since it amounted to only 6.5-7 per cent for the 5-9 and 10-14 year olds. This corresponded to the sharp rise in the frequency of out-marriage which was indicated by the same survey. To arrive at a clear picture of the recent demographic loss or gain to the U.S. Jewish population through out-marriage, it would be necessary to know, *inter alia*: the religious composition (including religion prior to marriage) of all those couples to which the 0-4 years old children who were reported in the NJPS were born; the respective fertility of the endogamously Jewish couples and the out-married couples; and the degree to which the survey actually succeeded in representing individuals at the margins of the population intended to be covered, such

²³As computed from data on the fertility of Jewish women.

²⁴The more so as some of the children in the population who were actually reported as Jews may have been born to non-Jewish wives of Jewish husbands.

²⁵E.g., a table was published on "children's religious orientation," but without breakdown by period of marriage (F. Massarik, and A. Chenkin, *op. cit.*, p. 298).

²⁶F. Massarik, "The Boundary of Jewishness—Some Measures of Jewish Identity in the United States," in U.O. Schmelz, P. Glikson, and S. Della Pergola, (eds.), *Papers in Jewish Demography, 1973* (Jerusalem, 1977), p. 120.

²⁷In the enumeration stage of the NJPS, as well as in the data here quoted, a wide definition of Jewishness was used, including some households none of whose members was a Jew at the time of the survey, though at least one had had a Jewish parent. The quoted NJPS figures are, of course, subject to sampling errors.

as out-married and alienated Jews living in very "un-Jewish" surroundings.²⁸ On the basis of the various bits of evidence already available,²⁹ it may be doubted whether the overtly mixed couples who had engendered most of the reported 22.5 per cent non-Jews among the children aged 0-4 really brought at least half their children into the Jewish fold.

Special note should be taken of the effects of Jewish out-marriage in Eastern Bloc countries, where out-marriage is reported to be frequent. Because of the social pressures of endemic antisemitism and the weak state of religious life, it is unlikely for the children of such unions to become or remain Jews. Generally those European Jewries which show the highest tendency to out-marriage also have a very low effectively Jewish reproductive rate.

As to the long-range consequences of out-marriage, it is clear that under the conditions of the Diaspora, where Jews are a small and sometimes even tiny minority, Jewish survival depends, in the long run, not only on patterns of demographic behavior, but also on the ability and readiness to transmit to further generations a sufficient sense of Jewish values to make them willing to maintain their distinctiveness in the face of religio-culturally different majority populations. This challenge confronts every Jewish family in the Diaspora. When, because of out-marriage, children are not brought up as Jews, their "non-Jewishness" is generally final. When children from out-marriages, in particular overtly mixed unions, grow up as Jews, only the future, over several generations, can reveal the strength of Jewish commitment that will be maintained. It is not difficult to speculate that this commitment will further weaken under the ever-mounting pressure of increased secularization, integration, and out-marriage. Empirical information, though sparse, indicates that children from out-marriages who grow up as Jews tend to out-marry more than other Jews. With regard to mixed unions where the children are not brought up as Jews, one certain and important demographic effect is a lack of inter-generational Jewish replacement. The out-married person may remain a Jew until death, but he/she

²⁸One of the reports on the NJPS states cautiously: "For those individuals who converted out of Judaism and others who made a purposeful move to completely cut ties with anything Jewish, together with their associated household members, the likelihood of failing to appear in a *Jewish* household survey was strong, despite the 'field definitions' employed." F. Massarik, "National Jewish Population Study: A New United States Estimate," AJYB, Vol. 75, 1974-75, p. 300.

²⁹Data produced by various members of the scientific staff of the study differ somewhat in the definition used for the "Jewishness" of the individuals tabulated, the way the weighting of the sample figures was handled, and the criteria by which results were considered to be sufficiently reliable. See F. Massarik and A. Chenkin, *op. cit.*, "Explorations in Intermarriage," and D. Lazerwitz, "Current Jewish Intermarriages in the United States," in U.O. Schmelz, S. Della Pergola, and P. Glikson, (eds.), *Papers in Jewish Demography*. 1977 (Jerusalem, 1980).

will not be replaced demographically. Given the facts that most persons today marry as young adults and have a life span of 70 years or more, and that mixed marriages have been growing rapidly in many important Diaspora countries in the last few decades, as long as they live, the many Jews who have recently contracted mixed marriages will, by their very survival, delay the numerical attrition of Jewish Diaspora populations. But when they die—which will happen in great numbers toward the very end of this century—the numerical decline of Diaspora Jewries will be accelerated.

Marginality and Alienation

In the 19th and early 20th centuries it was not uncommon in Europe for assimilated Jews desirous of social advancement to embrace Christianity. This is illustrated by many well-known names in public life, scholarship, and the arts. In the climate of secularization and religious tolerance which prevails in most Diaspora countries today, conversions from Judaism—for the above-mentioned or other reasons—have become unusual. Absence of formal conversions also applies to Eastern Bloc countries, where religion in general is discouraged. On the other hand, there is at present widespread assimilation, but with complex and, in many countries, insufficiently studied patterns. For our purposes, the different stages of the assimilation process may be distinguished as follows: "estrangement," involving reduced participation, interest, or knowledge regarding Jewish matters in any respect (religious, communal, cultural, etc.); "marginality," corresponding to far-reaching estrangement; "alienation," consisting of deliberate repudiation by a person who was born Jewish of his Jewishness—this however without formal change of religion; and "out-conversion," signifying a Jew's formal embracement of another religion.

For the purpose of realistically delimiting and measuring Diaspora populations, the elimination of out-converts and the alienated from among the Jewish-born or in-converted is necessary. In practice, the distinction between the very marginal and the alienated is an important and difficult issue. This will be best determined by the individual's self-identification if questioned in a Jewish-sponsored survey.³⁰ Where it is impossible to distinguish between the actually alienated and the very marginal persons, for lack of evidence, it has been customary to extend the benefit of doubt, and to

³⁰Reliance on a person's self-identification is in keeping with common practice in large-scale demographic data collection. Besides, a moral issue is involved—respect for a person's own will. An alienated individual, as defined here, or even an out-convert, may still be regarded as "Jewish" by some people, or evince an interest in certain Jewish matters, e.g., cultural subjects or support for Israel.

include both in the count of Jews. This imparts an upward bias to the resulting figures.

In the contemporary Diaspora, an unmistakable tendency to estrangement from Judaism and organized Jewish life prevails. Some of the specific factors operating to enhance estrangement are out-marriage, ideological opposition (often based on leftist political views), and sheer indifference. These factors often overlap; individuals who are indifferent or negatively oriented toward Judaism are more likely to out-marry, and if they do, they move even farther away from Jewishness. In our time, marginality appears to be particularly frequent among young adults. However, very marginal and even alienated persons may later change their minds for reasons having to do with becoming older, assuming the responsibilities of child-rearing, world events (particularly as they pertain to Israel, Soviet Jewry, antisemitic outrages), etc. The increasing "respectability" of being Jewish in important Diaspora countries can also counteract tendencies toward alienation that are influenced by practical considerations. In reality, marginal persons are often inconsistent and are apt, under different circumstances, to admit or disclaim a Jewish identity.

In most Diaspora countries no detailed socio-demographic surveys have yet been undertaken that would permit us to distinguish between marginal and alienated persons for improved assessment of actual Jewish population size. Practical difficulties arise from the inevitable crudeness of terminology, definitions, and procedures employed in large-scale enumerations when confronted by such subtle and evasive phenomena. There exists also the danger of willful distortions; some persons who otherwise admit to a Jewish identity have been known to disclaim their Jewishness in an official census,³¹ either as a practical precaution toward their Gentile surroundings or because the census inquired into religion and they are non-religious Jews. On the other hand, Jewish-sponsored data collection confronts great difficulties in reaching very marginal or alienated people.

The alienated, as defined above, deliberately place themselves outside the actual Jewish population, and this usually applies to their children as well. Advanced marginality is likely to express itself, in terms of Jewish population size, only in the next generation—a phenomenon similar to what happens at the present time with many out-marriages. If a very marginal Jew or Jewess is out-married, the chance of his or her children being raised as Jews is extremely slim. Also some endogamous couples of marginal Jews do not encourage their children to grow up as Jews. The likelihood is considerable that the children of the very marginal will be raised in an environment devoid of Jewish content, and will

³¹Mostly by leaving the question on religion unanswered or declaring to have "no religion."

eventually remove themselves from Jewish life and perhaps out-marry.

In the Eastern Bloc countries, where Jewish religious life is largely nonexistent, assimilatory pressures are particularly heavy, unless counterbalanced to some extent by latent or overt antisemitism, or evaded through emigration. Paradoxically, in the Soviet Union the Jewishness of individuals and their descendants is formally perpetuated by use of the term "Jew" in the entry for ethnic group in their identity documents.³²

Assimilatory losses to Jewish populations comprise not only the alienated and out-converted, but also the children of out-marriages who are not raised as Jews.

Mortality

Jews, as a group, have a low rate of mortality, resulting in high average length of life.³³ This can be attributed to their socio-economic status, their concentration in large cities where health services are most readily available, and to the Jewish tradition of concern about health care. In the 19th and early 20th centuries, one of the most consistent demographic differences between Jews and Gentiles was the lower mortality of the former, especially in the case of children. The differentials in mortality between Jews and Gentiles in the developed countries have narrowed as a result of the great progress in public health care.

A radically contrasting picture is presented by the crude death rate of Jews, i.e., the number of deceased per 1,000 persons. Because of the greater "aging" of Jews as compared with the other inhabitants of the Diaspora countries, the former have increasingly higher crude death rates. This can be clearly seen from the data in Table 2. The differential is most pronounced in Europe, where the crude death rate of Jews in some areas is about twice that of the general population.

Aging

Demographic aging of a population manifests itself, in its advanced stages, through considerable and growing proportions of elderly persons. Such a trend prevails in all the developed countries, but it is much more pronounced among Jews than among the general populations.

As can be seen from Table 7, Diaspora Jewries contain substantial and rising percentages of elderly people, and have a higher median

³²Except for children of mixed couples who can choose, upon reaching the age of 16, the ethnic group to which they wish to belong.

³³Here and subsequently in this article, average length of life means life expectancy at birth as computed by the life-table technique.

age³⁴ than the corresponding general populations. Where data from several surveys are indicated in Table 7 for the same Jewry, the intensification in aging which has taken place can be seen. Further aggravation of this situation in the near future can be inferred where a larger percentage of a Jewish population belonged recently to the 55–64 age group than to the 49–54 age group, or where these two percentages were similar. Among American and Canadian Jews in 1971, the 25–34 and 35–44 age groups were smaller than the group of 45–54 year olds. This reflected the recession in births that had taken place in the 1930's and early 1940's, and foreshadowed further accentuation of aging in the future. A similar predictive significance attaches to the very low proportions of young children throughout the Diaspora. Among the larger Diaspora Jewries, the phenomenon of aging is most pronounced in Europe.

The main cause of the present aging of Jewish Diaspora populations is the prolonged prevalence of low fertility. Another contributing factor is the Holocaust, which exacted particularly heavy losses among those who were old people or children at the time. If the latter had survived, they would have been, roughly, in the 25–40 age range by 1970. Consequently, in the enumerations taken around 1970, their absence made itself felt among the Jewish populations which had been directly affected by the Holocaust or had absorbed relatively many of its survivors. Also playing a role is age-specific selectivity of population losses due to a negative migration balance (including the effect of *aliyah* to Israel) or to alienation, since these phenomena occur most frequently among young adults.

The strong aging of Jewish Diaspora populations has many societal consequences, including a reduced proportion in the labor force, growing dependency ratios, increased percentages of institutionalized persons, and shifts in the demand for communal services. In the narrowly demographic field, the advanced aging of a population, as displayed by contemporary Diaspora Jewries, depresses the number and crude rate of births, while it raises the number and crude rate of deaths. Hence, it has a negative effect on the balance of current population changes.

The Interrelationship of Internal Population Change Factors

So far we have considered separately the factors of internal change in Jewish Diaspora populations. In reality there is an interaction among them which, under the prevailing conditions, strengthens their negative effect on Jewish population size. Low fertility leads to aging, which, in turn, reduces the crude birth rate and raises the crude death rate. To the extent that net

³⁴This is the age which divides a population into two numerically equal groups; 50 per cent are younger or older than the median age.

TABLE 7. AGE COMPOSITION OF JEWS AND MEDIAN AGE OF GENERAL POPULATION, BY COUNTRY AND YEAR
(By Per Cent)

Country	Year	All Ages	Age Composition of Jews						Median Age		
			0-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75+
U.S.A.	1970-71	100.0	4.8	17.1	18.1	9.8	12.1	14.0	11.9	8.1	4.1
Canada	1961	100.0	8.2	19.4	11.8	11.3	15.5	16.0	9.6	5.9	2.3
	1971	100.0	5.9	14.7	18.3	11.7	10.5	13.8	13.3	7.9	3.9
Sao Paulo	1968-69	100.0	5.0	16.6	19.1	11.4	13.7	13.7	11.2	7.2	2.1
Argentina	1960	100.0	5.5	15.0	14.8	15.0	14.3	15.6	12.0	5.8	2.0
South Africa	1970	100.0	7.8	15.9	16.8	11.9	10.8	11.8	13.4	8.5	3.1
Australia	1961	100.0	6.7	17.6	10.7	9.9	16.3	17.4	12.0	9.4	3.8
	1971	100.0	5.6	12.6	16.8	10.3	10.5	16.1	15.2	12.9	4.0
Greater Paris	1972-76	100.0	4.4	16.0	18.2	12.5	12.1	13.7	11.7	7.8	3.6
Origin of Jews:											
Europe	100.0	4.3	16.2	14.8	10.5	11.3	14.1	14.2	9.7	4.9	39.1
Africa-Asia	100.0	4.6	15.9	20.9	14.1	12.7	13.5	9.8	6.1	2.4	30.2

Brussels (Belgium)	1961	100.0	4.0	12.3	11.0	11.5	12.0	18.1	19.5	7.9	3.7	44.3	40.0
Netherlands	1966	100.0	5.4	10.7	15.3	10.2	10.0	15.4	17.5	9.6	5.9	43.6	28.6
Germany (Fed. Rep.)	1961	100.0	3.6	11.1	5.4	7.5	15.6	18.2	19.1	13.3	6.2	49.0	34.6
1970^b	100.0	(11)	(13)	(10)	(11)	(10)	(11)	(16)	(19)	(14)	(6)	(48)	34.4
Switzerland	1960	100.0	5.1	12.3	11.4	10.9	11.4	15.5	14.7	11.4	7.3	44.0	32.6
1970	100.0	5.3	11.4	13.8	10.9	10.3	11.7	15.1	12.9	8.6	43.4	32.1	
Italy	1965	100.0	5.7	11.9	13.1	9.9	14.4	14.2	13.2	9.6	8.0	41.7	32.0
Russian Republic (in Soviet Union)^c	1970	100.0	(11)	(10)	(13)	(15)	(16)	(16)	(19)	(19)	(46)	30.6	
Israel	1975	100.0	11.4	18.4	19.0	14.0	10.2	10.1	8.4	6.0	2.5	25.7	
Origin of Jews:													
Europe		100.0	9.8	14.0	16.1	14.0	9.6	12.2	11.8	9.0	3.5	30.9	
Africa-Asia		100.0	13.0	22.9	22.0	14.0	10.8	7.9	4.9	3.1	1.4	21.3	
Iran	1966	100.0	10.8	26.3	19.0	13.6	11.8	8.0	5.3	5.2	21.1	17.3	

^aWhites.^bPercentages computed from rounded figures of sample tabulation.^cRough estimates made from the differently classified age data that were published.
Sources: see Appendix.

losses are incurred among Jewish Diaspora populations because of alienation or conversion from Judaism the negative factors in the current population dynamics are intensified. Out-marriage and alienation reduce the already low fertility of Diaspora Jewries to a still lower "effectively Jewish" fertility, and thus further depress both the current balance of population change and the long-range prospects of intergenerational replacement.

The balance of internal change in a Jewish Diaspora population is the product of two main components: the balance of natural changes and of affiliative changes. The balance of natural change (or "natural movement," i.e., the difference between births and deaths) has gone down consistently in the Diaspora since the "baby boom" around 1950. This decrease has been due to declining birth rates and growing death rates (in consequence of aging).

The crude rates in Table 2 convey the short-range picture of the numerical relationship between births and deaths. A sophisticated measure of the extent of intergenerational replacement is given by the net reproduction rates (NRR) of Table 8. For technical reasons, these rates assume that the detailed age-specific fertility and mortality patterns of the base period will continue unaltered. The NRR is not influenced by irregularities and changes in the age structure. Values of the NRR above 1.0 signify expected intergenerational growth; values below 1.0, if persisting over considerable time, indicate future decline of a population. Actually the NRR values for Jewish Diaspora populations in Table 8 are rough estimates, arrived at by an indirect method (see Appendix). As they are, they fell short of 1.0 by the end of the 1960's, thus pointing to the future population decrease—with the solitary exception of the Jews in South Africa. The NRR of Jews was lowest in Europe, and everywhere considerably lower than that of the corresponding general populations.

The long-range net effects of out-marriage and affiliative changes are, in all likelihood, negative for the size of most Jewish Diaspora populations. This compounds the effects of low fertility and reduces even further the insufficient demographic replacement. According to the indicators computed by this author for U.S. Jewry from the available NJPS data of 1970–1971,³⁵ the crude rate of natural movement was close to zero in 1967–1971 and perhaps subject to a slight temporary rise afterwards, because of the entry into the most fertile age groups of those born during the "baby boom." However, the NRR, which is so devised as to disregard the passing effects of age irregularities, indicated already then a clearly negative long-range trend with regard to future Jewish population size—0.7, or 30 per cent below the replacement level of 1.0. Both measurements relate to

³⁵Excluding non-Jews in households defined as Jewish by the study.

**TABLE 8. NET REPRODUCTION RATES^a OF JEWS AND GENERAL POPULATION,
BY COUNTRY AND PERIOD**

Country	Period	Jews	General Population
U.S.A.	1967-71	0.7	1.2 ^c
Canada	1957-61	1.2	1.8
	1967-71	0.8	1.1
Sao Paulo	1965-69	0.6	
Argentina	1956-60	0.7	1.4
South Africa	1966-70	1.1	1.5 ^{c,d}
Australia	1957-61	1.0	1.6
	1967-71	0.8	1.4
Greater Paris	1972-76 ^b	0.6	0.9
Origin of Jews:			
Europe		0.7	
Africa-Asia		0.6	
Brussels (Belgium)	1957-61	0.7	0.9
Netherlands	1962-66	0.9	1.4
Switzerland	1956-60	0.9	1.1
	1966-70	0.9	1.1
Italy	1961-65	0.9	1.2
	1966-70	0.7	1.1
Israel (Jews)	1971-75	1.5	
Origin of Jews:			
Europe	1975	1.3	
Africa-Asia	1975	1.7	

^aFor explanation, see text. The rates for Jews relate to "effectively Jewish" net reproduction.

^bAverages for the 5-year interval preceding the years indicated.

^cWhites.

^d1970 only.

Sources and methods: see Appendix.

effectively Jewish reproduction in the United States, excluding non-Jewish children of Jewish parents. Any additional declines in fertility and/or negative shifts in the balance of affiliative changes will further reduce both the short- and long-range balance of internal demographic changes among U.S. Jewry.

Among the factors which at present tend to aggravate the demographic problems of Diaspora populations are their smallness, remoteness, and newness in their surroundings. Under the present conditions of secularization and social integration, these factors, so common in the long history of

Jewish dispersion, assume particular demographic importance.

The dispersal of the Diaspora Jews has been much intensified in the last hundred years and made truly global, though a great new nucleus has been created in the United States. Jews have been highly active in international and intercontinental migrations, as well as in residential shifts within countries. The Holocaust drastically reduced most European Jewries and scattered the survivors. The momentous ingathering of exiles in Israel has had the corollary of leaving extant no more than small remnants of previously large Jewries in some age-old Diaspora countries. While there are now eight Diaspora countries with Jewish populations above 100,000, most countries where Jews reside have but small or medium-sized Jewish populations. Moreover, great geographical scattering of Jews prevails within many countries and cities. In the United States, Jews have been moving to the West and South; in the USSR, to the Asian territories. Suburbanization of the Jews has taken place in metropolitan areas. These migratory movements within countries reflect, *inter alia*, the occupational and social mobility of many Jews, and will apparently continue. In some countries, particularly in the United States, there is a tendency for Jewish college students, who form a great proportion of young Jewish adults, to stay away for long periods from the parental home. Consequently, the majority of Diaspora Jews now live in places which were inhabited by few, if any, Jews a hundred years ago, and a considerable proportion reside in small clusters quite removed from one another. Moreover, even among the larger Jewish populations in urban areas, it is not uncommon for Jewish families to reside at a distance from other Jews.

The smallness and relative geographical isolation of Jewish groups hamper organization and maintenance of communal services, including the provision of Jewish education for the young. The newness of a Jewish group in a particular country, city, or neighborhood may also be associated with limited internal cohesion. All of this is conducive to estrangement, out-marriage, and the eventual alienation of Jews, and to loss of their children to the Jewish group. Besides, a small population is more likely to have an irregular age-sex structure, another factor that makes for out-marriage.

The Holocaust destroyed two thirds of European Jewry and about one third of the world Jewish population. The ravages of the Holocaust have led to far-reaching distortions in the age-sex composition of the survivors. These distortions, in turn, have intensified aging and out-marriage. In addition, there may have been psychological after-effects of the Holocaust which were of demographic significance, e.g., instances of decreased will for Jewish continuity. (Instances of the opposite phenomenon are also to be noted.) Nor are these only concerns of the past. The indirect after-effects of the Holocaust will continue to make themselves felt for decades to come—not

only in Europe, but also among the Jewish populations elsewhere which absorbed considerable numbers of survivors.

Some fleeting reference must be made to the numerous countries with small Jewish populations. At the end of 1975 the number of such countries (with Jewish populations of between 100 and 20,000 persons), and the respective aggregates of Jews, were approximately as follows:

Number of Jews in Country	Number of Countries	Estimated Total of Jews
100 to less than 500	16	4,000
500 " " " 1,000	12	7,500
1,000 " " " 2,000	8	10,500
2,000 " " " 5,000	7	21,000
5,000 " " " 10,000	8	48,500
10,000 " " " 20,000	6	73,000
	Total: 57	164,500

There is no uniformity in the situation of these small Jewish populations, which are distributed over all regions of the world, and are unlike in their geographical distance from larger Jewish concentrations, their political climate, and their typology of Jews. A rough distinction may be made between these Jewries according to whether they are in the free and highly developed countries of the world, are in developing countries (except for the Arab states), are the small remnants of some East European Jewries, or are the small remnants of Jewries in Arabic-speaking countries. The first and third groups are exposed to especially strong assimilatory influences, while the second, third, and fourth groups have particularly distorted age-sex compositions.

The information available on several small and medium-sized Jewries, including some with above 20,000 persons, indicates advanced disintegration—very frequent out-marriage, very high aging, and a striking natural decrease (because of many deaths among the aged, and few effectively Jewish births). In the communist countries of Europe the religious and communal aspects of Jewish life have been greatly weakened, and there is no Jewish immigration from abroad. In Western Europe there is freedom of worship and organization and opportunity for Jewish cultural life. Besides, instances are not lacking in which the deficit of the internal Jewish population dynamics has been covered by immigration of Jews from abroad. Such reinforcements have, for the time being, maintained or even increased the size of certain Jewish populations in Western Europe which otherwise would have displayed a numerical decline.

DIFFERENTIALS AND TIME LAGS

In the preceding review of demographic conditions we have continually encountered differentials of two kinds: between Jews and corresponding general populations, and between various Jewries. As for Jewish-Gentile differentials, we have already noted that they are partially to be explained by factors which may be termed "positional," insofar as Jews are concentrated in certain sectors of the general population and display the features characteristic of those sectors—residence in large cities, advanced education, and economic affluence. Other factors include perennial minority status, high geographical and socio-occupational mobility, and perhaps mental and cultural peculiarities due to long historical conditioning and/or traditional "Jewish values." With regard to the differentials between Jewish populations, we have mentioned some explanatory elements: size, geographical proximity to Jewish centers, age-old or recent location, and the after-effects of the Holocaust.

Without wishing to detract from the relevance of the factors just noted, it is necessary to draw attention to an additional explanatory factor which has both analytical and some predictive value—the occurrence of timing differences in essentially analogous demographic evolutions. The modern demographic evolution of Jews in Europe, North America, and, in recent decades, the developing regions of the world, can be viewed as a shift away from traditional patterns, involving a reduction, first, of mortality and, then, of fertility. There have been time lags in the attainment of new patterns between "leading" and "lagging" population groups, between different countries (in Europe the innovations were transmitted from the northwest and center to the east and south), between urban and rural localities within the same country, and between the affluent and educated classes and the other social strata in the same country or locality.

A study of the demography of European Jews in the 19th and early 20th centuries (which is the only aspect of Jewish demography that affords both extensive statistical documentation and a considerable time perspective) makes it seem likely that a large part of the observable differentials in given years between Jews and the general population of any country or city, and between Jews in the Western and the Eastern regions of Europe, were in fact differences in the chronology of reaching a certain level in much the same demographic modernization process. Jews preceded the surrounding population in reducing, first, mortality and, then, fertility; similarly, Jews in the Western regions of Europe preceded those in the Eastern regions. Eventually, however, the lagging groups reached the level attained some time earlier by those whose transition had been faster. The differentials either persisted by and large, while moving to a new level, or narrowed as the group which had advanced later caught up with that which had preceded it.

It has already been noted that the general populations of the developed countries have virtually caught up with the Jews in terms of average length of life, and are moving like them, though at some distance behind, toward zero and perhaps negative population growth. Jews appear in this, as in other fields, as torch-bearers of "modernization." This is not to state, however, that full uniformity of demographic levels will soon or, perhaps, ever be reached between the general and Jewish populations in and among the various countries.

International Migrations

The Jews as a people have a long history of migration. This has been especially conspicuous over the past hundred years, and has resulted in a far-reaching redistribution of the world Jewish population. On the whole, it is the hope for social and economic betterment which makes Jews decide to move to another country, but there are other operative factors, including the desire for personal safety, political freedom, and status as Jews. The refugee aspect has been more prominent among Jews than among most other migrants.

There is a continual net transfer of Jews from the Diaspora as a whole to Israel, since the number of *olim* exceeds that of *yordim*. There are also some important Diaspora countries—the United States, Canada, and France—which have had a markedly positive migration balance for a long time; compared to the existing Jewish population, the migratory gains have been small in the United States in the last decades (except for Soviet Jews quite recently), whereas they have been considerable in Canada and particularly in France. Argentina, South Africa, and Australia, important destinations of Jewish migrants in the past, have virtually ceased to be so. On the other hand, the East European and, especially since 1948, the Islamic countries have been the main sources of Jewish emigration, resulting in several instances in the virtual disappearance of age-old Diaspora communities.

Otherwise there is little regularity. Jewish migration, like that of other groups, often shows a wave-like pattern, with peaks and troughs, depending on economic or political conditions in the countries of departure and arrival. Since the bulk of Jewish emigrants in recent decades have come from Eastern Europe and the Islamic countries, political circumstances in those countries, particularly changing attitudes of the authorities toward Jewish emigration, have had a great influence on the total volume of international migration of Jews. The Soviet Union is a case in point.

A multiplicity of migratory streams and trickles—far too complex and irregular to be followed up here in any detail—have proceeded between the various countries of Jewish residence. Since most Jewish migration for the last 30 years has been directed toward Israel, subsidiary migratory gains

have accrued in this process to transit countries (e.g., Italy) and to the destinations of *yordim*, whose number tends to increase after an immigration wave to Israel. Many Diaspora populations in the free world during the last few decades have experienced net gains or losses as a result of migrations, depending on the circumstances in their own countries and elsewhere. In recent years several Jewish populations in Western Europe, including some medium-sized and small communities, have been numerically reinforced by emigrants from the Soviet satellites, Islamic countries, and South America, *noshrim* from the USSR, and *yordim* from Israel.

In the previous sections of this article we have outlined the trend toward zero or negative population growth in Jewish Diaspora populations. When the external migration balance is negative, it necessarily intensifies any internal population decrease; when it is positive, it helps to compensate for the internal demographic decline, and may result in numerical increases for the particular Diaspora population concerned. Instances of this kind are well documented for several Jewries in Western Europe, Canada, etc. However, it should be realized that the latter instances are irrelevant for the evolution of world Jewry as a whole, as they are only transfers within the global Jewish framework; while some Jewries are thereby strengthened, others are weakened.

We have pointed above to South African Jewry as the only large Diaspora population which clearly had a natural increase up to 1970. However, the external migration balance of South African Jews is negative, and the migratory deficit has cancelled the effect which natural increase would otherwise have had on population size.

External migrations can influence a great variety of demographic and socio-economic characteristics. It is frequent, for example, for external migrants to include a larger share of young and middle-aged adults than the population in the country of origin and possibly also the country of destination. Consequently, a migratory surplus may counteract the aging of a Jewish population and temporarily improve its balance of natural movement. Conversely, a migration deficit operates not only to diminish the size of a Jewish population, but also to accentuate its aging, and thereby reduce the relative level of balance of internal change.³⁶

³⁶The above information and reasoning about demographic trends among Diaspora Jews, as well as specific additional evidence, necessitate a downward revision of the accepted estimates of the number of Jews in several important countries and in the Diaspora as a whole.

DEMOGRAPHIC TRENDS OF JEWS IN ISRAEL

The demographic situation and trends of Jews in Israel present several striking contrasts to those prevailing among the overwhelming majority of Diaspora Jewries.

The total number of Jews in Israel has grown from 650,000 at the establishment of the State in 1948 to more than 3 million (2,959,000 at the end of 1975; 3,155,000 at the end of 1978). Consequently, Israel has at the present time the second largest Jewish population in the world. The Jews of Israel are unique in having turned from members of a small minority group in their previous countries of residence into the numerical majority and socially dominant population sector of a small but sovereign state. The growth of Israel's Jewish population has been achieved mainly through the immigration of 2.1 million Jews—and net immigration of about 1.8 million Jews—over the last 60 years, though natural increase has also made an important contribution to the growth of the country's population. As the magnitude of *aliyah* has been diminishing—in absolute numbers and especially per 1,000 Jews already living in Israel—natural increase has actually become the predominant source of population growth for Israel's Jews. Jews have come to this land, and especially to the independent State of Israel, vastly differing as to numbers and rates (per 1,000 of the respective Diaspora population) from the various geographical regions. In the Mandatory period, immigrants from Europe predominated;³⁷ since 1948 about half the immigrants have originated in Asia and North Africa. Most of the Jews of Eastern Europe (excluding the USSR), the Balkans, Asia, and North Africa have migrated to the State of Israel (Table 9).

By now slightly more than half of Israel's Jews are native-born; the Israeli-born constitute an absolute majority of those under the age of 30. Whereas at the foundation of the State the overwhelming majority of Israel's Jews were of European origin, by now the two major origin groups—Asian-North African and European—are about evenly matched.

The return to the soil has been a basic tenet of Zionist ideology, and there are about 700 rural settlements, each with below 2,000 Jewish inhabitants. Nevertheless, 91 per cent of Israel's Jews now live in urban localities. The metropolitan area of Greater Tel Aviv comprises more than 1,200,000 persons, or about 40 per cent of the country's total Jewish population, and is, after Greater New York, the second largest urban concentration of Jews in the world.

³⁷The European Jews predominated in absolute numbers, while the migration rate was considerably higher for Jews from Asia.

TABLE 9. JEWISH ALIYAH TO THE LAND OF ISRAEL,^a BY REGION OF ORIGIN AND PERIOD

Region of Origin	1919–May 1948		May 1948—1977	
	In Thousands	Per 1,000 Diaspora Jews ^b	In Thousands	Per 1,000 Diaspora Jews ^b
Diaspora	483	33	1,611	154
USSR ^c	54	18	160	74
Eastern Europe (excl. USSR) ^d	294	55	538	717
Other countries in Europe	80	51	66	70
Asia (excl. Israel)	43	140	342	856
North Africa	3	8	400	645
Other countries in Africa ^e	1	15	18	148
U.S.A., Canada	7	2	42	8
Latin America	1	3	43	91
Oceania	0	4	2	51

^aGross number of immigrants, including subsequent remigrants.^bImmigrants to land of Israel during whole period per 1,000 of initial Diaspora population of each period (as estimated for 1925 and 1948, respectively).^cFor most of period 1919–1948 according to boundaries before World War II, plus Baltic republics.^dPoland, Czechoslovakia, Hungary, Rumania and Balkan countries; see note c.^eMainly South Africa.

Sources for immigration figures: official statistics of Palestine and Israel.

In demographic terms, the integration of the various strands of Jews in Israel has made considerable headway. The Jews of European origin have set an example for those from Asia-Africa, as the former constitute a demographically advanced population—with low mortality and rather low fertility. However, the Jews of European origin have themselves undergone certain transformations in Israel which mark them off significantly, for the time being at least, not only from Diaspora Jews, but also from other populations in the developed countries.

Despite the bad health conditions of the Middle East, the Jews in Palestine, by the end of the Mandatory regime, had managed to place themselves among the most advanced populations of the world as far as average length of life was concerned. The mass influx of Oriental Jews in the first years of the State caused but a short and limited set-back; and the absorption of further waves of Oriental Jews resulted in the abrupt reduction of their previously high mortality, so that their mean length of life quickly soared to a level similar to that of European Jews in Israel. Both major origin

groups of Israel's Jews enjoy, in international comparison, very high longevity. The crude death rate of all Israel's Jews is low because of a "younger" age composition than in other developed countries.

Unlike those in the Diaspora, European Jews in Israel have adopted virtually universal marriage—nearly all individuals of either sex marry within the procreative ages. Asian-African Jews continue in Israel their traditional mores to the same effect. Thus, near universal marriage has so far been characteristic of Israel's Jews. The marriage age of European Jews of either sex is considerably lower in Israel than in Europe. Among Oriental Jews, the previously very low marriage age for women has been raised. A convergence has occurred in the average and median ages at first marriage of the two origin groups; this applies to both sexes. These marriage patterns,³⁸ together with the rather low divorce rate and very low mortality, have the consequence that the average Israeli Jewess is married during a comparatively high proportion of the female reproductive life span. Moreover, next to no out-marriage of Jews with a non-Jewish partner takes place in Israel.³⁹

While the fertility of Jews in Europe is insufficient for demographic replacement, the Jews born in Europe, or of European origin, who live in Israel have had in recent years a total fertility rate of about three children per woman, a net reproduction rate of approximately 1.5, and a natural increase of 1 per cent per annum. The rise of fertility in Israel from its previous low level in Europe can be ascertained statistically, thus disproving any conjecture that the higher fertility observed in Israel is decisively due to selective immigration of groups which had already been more fertile abroad. Jewish women in Asia-Africa, on the other hand, used to give birth to 6–7 children on average, though many of these children died at an early age. In Israel the fertility of the Asian-African born women has declined consistently and rapidly. By 1977 the total fertility of this group as a whole, i.e., irrespective of immigration period, had diminished to 3.4 children. There is thus strong convergence in the fertility patterns of both origin groups. In the first generation, i.e., among the persons born abroad, a moderate rise has taken place in the European group and a strong decrease in the Asian-African group; at present, the fertility levels of the two groups, which differed abroad by 4–5 children, are only about half a child apart. In the second and higher generations, i.e., among the Israeli-born, there is little differentiation in fertility according to origin; the fertility level attained

³⁸About 20 per cent of the Jewish marriages contracted in Israel unite partners one of whom belongs to the European and the other to the Asian-African origin group. There are many more unions of partners from different countries or *edot* within each of the two major origin groups.

³⁹Some Jewish immigrants arrive out-married. If these families stay on in Israel, the non-Jewish spouse and/or the children will eventually become Jewish.

by the Israeli-born of all origin groups has so far averaged around three children per woman. For the overall Jewish population of Israel the total fertility rate has also dropped to three (Table 10), while the crude birth rate has been near 2.5 per cent per annum.⁴⁰

Of the above outlined transformations in the patterns of natural movement, those which have occurred among the Asian-African Jews in Israel can be viewed largely as a strong acceleration of trends that might have been anticipated, sooner or later, in their previous countries of residence (in keeping with the general demographic transitions in the developing countries). Such transitions would also have occurred rapidly if these Jews had migrated to a developed Diaspora country. It is the transformations among the European Jews in Israel which merit special attention. These transformations, particularly the fertility rise and the attainment of reproduction above replacement level, constitute reversals of the changes undergone by the respective Jewish populations in the Diaspora, and contrast, both in level and tendency, with the present trends of the general populations in the developed countries. This is a noteworthy indicator of socio-psychological

TABLE 10. TOTAL FERTILITY RATES OF ALL JEWISH WOMEN IN ISRAEL AND OF RECENT IMMIGRANTS, BY REGION OF BIRTH, 1951-1977

Year	Period of Immigration	Region of Birth			Europe-America
		All Women	Israel	Asia-Africa	
1951	Total	4.0	3.5	6.3	3.1
	From 1948			6.9	2.8
1956	Total	3.7	2.7	5.6	2.6
	From 1948			6.1	2.6
1961	Total	3.4	2.7	4.9	2.3
	From 1955			5.7	2.4
1966	Total	3.4	2.8	4.5	2.5
	From 1955			5.0	2.8
1971	Total	3.4	3.2	4.1	2.9
	From 1965			4.0	2.8
1975	Total	3.2	3.1	3.8	2.8
	From 1965			4.0	3.0
1977	Total	3.0	2.9	3.4	2.8
	From 1965			3.6	3.1

Source: official statistics of Israel.

⁴⁰Since 1977 there has been a small reduction.

forces operating among the Jews in Israel, and is important for the global balance of Jewish population dynamics.

Israel's Jews have a net reproduction rate of approximately 1.5, and a natural increase above 1.5 per cent per annum. Both these figures exceed by far the corresponding values in all large Diaspora populations (excepting the atypical case of Iran before the revolution). They also considerably surpass the corresponding values for the general populations of the developed countries. Moreover, Israel's Jews are virtually unaffected by out-marriage and alienation. Whatever their views in matters of religion or ideology, Israeli Jews remain Jews as part of the body politic. Consequently they do not sustain the demographic losses incurred on these counts in the Diaspora. Finally, Israel's Jews have a positive migration balance, as *olim* outnumber *yordim*. Thus the balances of both their natural movement and external migrations are positive, while the affiliative balance is very small and probably positive.⁴¹

GLIMPSES INTO THE FUTURE

In our analysis of recent demographic trends among Diaspora Jewry, we pointed to very low fertility and marked aging as principal factors liable to cause natural decrease under existing conditions. These factors will continue to be operative; low fertility, because this is the trend in all developed countries for the time being, and Jews have always been in the forefront of demographic transformations; intensified aging, because of the great proportion of late-middle-aged persons in Diaspora populations who will swell the ranks of the old in the not-too-distant future. The "effectively Jewish" population balance is further reduced, and the aging further enhanced, by assimilatory losses of many children from out-marriages and of alienated persons. These tendencies, too, are likely to intensify in the future.

Moreover, there is a strong element of suspended decline which will make itself felt in the future. Those out-married or very marginal Jews who do not have Jewish children lead, in the first instance, to a diminution in the number of effectively Jewish births and, subsequently, of Jews in the younger age brackets. When they themselves die without having reproduced themselves, the Jewish population will undergo a further reduction. Since out-marriages have become more frequent in recent decades and have often been contracted by young Jews, this delayed demographic effect will make itself increasingly felt toward the end of this century.

⁴¹Mainly in consequence of non-Jewish members of Jewish immigrant families becoming Jews.

Official population projections for the Jews of Israel predict that they will reach about 4.5 million by the end of this century, assuming a very modest level of positive net migration (10,000 per annum). To the extent that net migration exceeds this low level, the number of Jews in Israel will grow more rapidly. If average net migration per annum should exceed 30,000, the projected figure of Jews in Israel at the end of this century will rise to above 5 million.

These projections have assumed a continuation of the empirically observed fertility levels among the European- and Israeli-born Jews in Israel. A major question relating to the future demography of Israel's Jews is whether, or how long, they will be able to maintain their not inconsiderable fertility in the face of the contrary trend in the developed countries of the world and in the Jewish Diaspora. To the extent that they do not do so, the above-mentioned projection will have to be reduced accordingly. At any rate, the Jews in Israel can be expected to remain virtually exempt from assimilatory losses.

The internal growth among Israel's Jews will for some time continue to offset the internal decrease in the Diaspora, and thus maintain approximately the size of world Jewry. But eventually, roughly around 1990, the total number of Jews in the world will start to decline. This decline will accelerate as the losses due to insufficient fertility, aging, and assimilation in the Diaspora increasingly outweigh the natural growth of Jews in Israel, despite the latter's rising proportion among world Jewry.

Appendix

TECHNICAL NOTES TO TABLES

Sources to Tables

JEWISH DIASPORA POPULATIONS

TABLES 2, 3, 4b, 4c, 5, 7, 8

Most of the data on Jews in these tables are based on the empirical age-sex distribution of an enumerated Diaspora population. The age distribution is epitomized in Table 7. For the indirect methods used to estimate vital statistics parameters from age-sex distribution, see below.

The sources for age-sex distribution and for any direct vital statistics measures of Jews in Diaspora countries are as follows: *United States*: National Jewish Population Study of 1970–1971, sponsored by the Council of Jewish Federations and Welfare Funds. So far data have been published mainly in AJYB (Volumes 1973–1978) and in a series of reports by CJFWF; see also the article by Bernard Lazerwitz, "An Estimate of a Rare Population Group—The U.S. Jewish Population," *Demography*, Vol. 15, No. 3, 1978. The published age-sex distribution included non-Jews in households defined as Jewish. An age-sex distribution of Jews only was obtained with the assistance of data on Jewishness at the time of the survey in each age-sex category.¹ Only data on persons self-identified as Jews appear in the tables. *Canada*: Official population censuses of 1961 and 1971 with data identifying Jews according to religion. *Sao Paulo (Brazil)*: Enumeration of Jewish population sponsored by local Jewish federation. The enumeration was carried out in two stages: an incomplete census in 1968, and a sample of the not previously covered households in 1969. Some data from the first stage were published by H. Rattner.² Through the courtesy of the Sao Paulo Jewish

¹See F. Massarik "The Boundary of Jewishness—Some Measures of Jewish Identity in the United States," in U.O. Schmelz, P. Glikson, and S. Della Pergola, (eds.), *Papers in Jewish Demography, 1973* (Jerusalem, 1977).

²H. Rattner, "Census and Sociological Research of the Jewish Community in Sao Paulo, 1968," in U.O. Schmelz, P. Glikson, and S. Della Pergola, (eds.), *Papers in Jewish Demography, 1969* (Jerusalem, 1973).

federation, the Hebrew University received tabulations from both stages of the enumeration. The age-sex distribution used in the tables is an amalgamation of the results of the two stages.*Argentina:* Tabulations made at the Hebrew University from a copy of the computerized data file on Jews in Argentina's official population census of 1960.*South Africa:* Special tabulations on Jews from a 10 per cent sample of the official population census of 1970, made by the SA Department of Statistics at the request of the SA Jewish Board of Deputies. The estimated vital statistics parameters have been cross-checked with the results of the South African Jewish Population Study of 1974, a socio-demographic sample survey of the six major urban concentrations of Jews (carried out by A.A. Dubb and so far analyzed mainly by S. Della Pergola at the Hebrew University in a series of advance reports).*Australia:* Official population censuses of 1961 and 1971.*Greater Paris:* Socio-demographic sample survey of Jews, carried out in three stages—in 1972, 1974, and 1976—by the Groupe de Sociologie des Religions, Centre National de la Recherche Scientifique, Paris, and the Institute of Contemporary Jewry, Hebrew University. The project is directed by D. Bensimon and S. Della Pergola.³ The final data are in the process of publication.*Brussels (Belgium):* Socio-demographic survey of the Jewish population utilizing the data of the official population census of 1961 for households in which one or more persons could, by various methods, be identified as Jews. The study was carried out by W. Bok.⁴*Netherlands:* Enumeration of Jews in 1966, undertaken by the Committee for Demography of the Jews in the Netherlands, reflecting the information available from Jewish-communal and municipal records (without direct canvassing of the individuals and households concerned).⁵ Since World War II, Dutch official statistics, despite their otherwise high quality, have not been able to adequately identify and represent Jews (because of low reporting of Jewishness by Jews who fear misuse of official registration material, as happened during World War II). This is why Jewish-sponsored counts have become necessary in the Netherlands (the first was taken in 1954), and why we have not made use of the officially compiled data on age and vital events of the Dutch Jews.*Germany (Federal Republic):* Age distributions of Jews in Table 7 are from the official population censuses of 1961 and 1970. From the latter, only a 10 per cent sample tabulation is available. For this reason,

³S. Della Pergola and D. Bensimon, "Sondage Socio-économique Auprès des Juifs en France; Résultats Préliminaires pour Paris," *Yod.*, Jan. 1976; and D. Bensimon, "Sondage Socio-économique Auprès des Juifs en France; Résultats Préliminaires pour la Banlieue Parisienne," *Yod.*, Oct. 1977.

⁴W. Bok, "Some Socio-demographic Characteristics of the Jewish Population in Greater Brussels—A Comparative Approach," in U.O. Schmelz, S. Della Pergola, and P. Glikson, (eds.), *Papers in Jewish Demography*, 1977 (Jerusalem, 1979).

⁵See Ph. van Praag, *Demography of the Jews in the Netherlands* (Jerusalem, 1976).

and especially because of the great demographic instability of the Jewish inhabitants of West Germany, we have refrained from using indirect methods for estimation of vital statistics parameters. The data on Jewish births and deaths in Table 2 are taken from Jewish communal registration. *Switzerland*: Official population censuses of 1960 and 1970. The data on births and deaths of Jews (Table 2) are also taken from the official statistics of Switzerland, which reflect the religion of the newborn (i.e., effectively Jewish births). *Italy*: Age-sex distribution in 1965 from socio-demographic sample survey of the Jewish population of Italy in that year, conducted by S. Della Pergola and E.F. Sabatello.⁷ Data on births and deaths of Jews (Table 2) compiled by S. Della Pergola from Jewish communal records. Age-sex distribution in 1970 estimated by S. Della Pergola from the 1965 survey and up-dating information. *RSFSR (Russian Republic in Soviet Union)*: A rough age distribution of Jews, who constituted 38 per cent of all Soviet Jews, was released in the official publications of the population census of the USSR in 1970. These data have been converted into age categories approximately comparable to those of other populations listed in Table 7. The level of birth and death rates is given in Table 2.⁸ However, because of the crudity of the published census data, we have had to refrain from the further elaborations undertaken for other Diaspora populations. *Iran*: An age-sex distribution of Jews is available from the official population census of 1966. It has been emended in the higher ages because of obvious irregularities (Table 7). Because of the dissimilar yet insufficiently known level of mortality among Jews in Iran, compared to those of the previously mentioned countries, we have not presented any estimates of vital statistics parameters.

TABLES 4, 4a

See the sources for the United States, Canada, Argentina, Australia (unpublished data from the 1966 population census), Greater Paris, the Netherlands, and Italy listed above. The data in most of these sources were tabulated for (ever-)married women and have been converted to extend to all women.

The data for the U.S. in Table 4 and in the columns relating to 1971 in Table 4a have been taken from an article by S. Della Pergola, "Time

⁷Unlike most other countries that distinguish religion in their birth statistics, where the religion of one or both of the parents is indicated.

⁸S. Della Pergola and E.F. Sabatello, "The Italian Jewish Population Study," in U.O. Schmelz, P. Glikson, and S.J. Gould, (eds.), *Studies in Jewish Demography, 1969-1971* (Jerusalem and London, 1975).

⁹See U.O. Schmelz, "New Evidence on Basic Issues in the Demography of Soviet Jews," *Jewish Journal of Sociology*, 1974.

Patterns of American Jewish Fertility," to be published in *Demography*. In Table 4a the data for 1973 and 1976 are from the U.S. National Survey of Family Growth, conducted by the National Center for Health Statistics. The figures for 1973 were published in the Center's *Advancedata*, No. 10 (August 12, 1977); those for 1976 were kindly provided by the Center.

The data on European immigrants to Israel during 1956–1961 in Table 4 have been taken from Israel's 1961 census (Vol. 32), so as to illustrate the situation then prevailing among Jewish women in Eastern Europe (excluding the USSR), whence most of those immigrants came.

TABLE 6

The data have been extracted from official statistics of weddings or counts of couples in official population censuses,⁹ as well as from the Jewish sources listed above for the United States, the Netherlands, Italy, and South Africa.

The "Jewish centers" in Table 6 refer in the case of Canada to the provinces of Quebec and Ontario; in the case of Australia to the states of Victoria and New South Wales; and in the case of South Africa to Johannesburg, Capetown, and four other cities.

JEWS OF ISRAEL

The data for all Jews in Tables 1, 2, 3, 7, and 8 are taken from Israel's official statistics (they can all be found in, or computed from, various issues of the annual Statistical Abstract). The figures for Jews in Israel of European and Oriental origin have been derived from the official data on population and vital events according to birth region of foreign-born and father's birth region for Israeli-born by conjecturally dividing those Israeli-born whose fathers were also born in Israel.

Tables 9 and 10 are also based on official statistics of Palestine and Israel.

GENERAL POPULATIONS

All data are taken from official statistical publications of the various countries (censuses, vital statistics, statistical abstracts) or from the

⁹The respective population counts include, besides the above-mentioned, the Swiss census of 1950 and the U.S. Current Population Survey of March 1957 (2nd release). The data on couples in the Canadian censuses identified Jews according to ethnicity.

For international compilations of data on mixed marriages of Jews, see Appendix to S. Della Pergola's *Jewish and Mixed Marriages in Milan, 1901–1968* (Jerusalem, 1972) and the same author's "Demographic Perspectives of Mixed Marriage," *Encyclopaedia Judaica Yearbook*, 1975–76.

international compilations in various issues of the *United Nations Demographic Yearbook*.

Methods Used for Estimation of Vital Statistics Parameters of Jews in Tables 2, 3, and 8

GENERAL

Because of the serious lack of direct data on the vital statistics of contemporary Diaspora Jewries, we have had to resort, in the main, to indirect methods to obtain the estimates presented in Tables 2, 3, and 8. These methods rest essentially on two foundations: a) the age-sex distribution of a Diaspora Jewry, as empirically known from an enumeration (i.e., an official population census or a Jewish-sponsored survey); b) the fact that average length of life (i.e., life expectancy at birth) is high and roughly similar throughout the developed countries as well as in the few Jewish populations for which it can be ascertained. Therefore, life tables available for such populations can be used, in the absence of direct information, for rough estimations of deaths in other analogous populations (concerning particulars see below).

The estimates obtained for our statistical tables relate to the 5-year period (or the last two 5-year periods) prior to the enumeration in question. Also the comparative data for the respective general populations relate to the same reference periods, as stated in the tables.¹⁰

Since the ultimate basis for the vital statistics estimates is the Jewish population at the end of the 5-year period(s) considered, these estimates reflect the net result of any migratory and affiliative changes which occurred during that time.¹¹

BIRTH RATE

The number of "effectively Jewish" births during the 5-year period preceding an enumeration can be estimated from the number of 0-4 years old Jews enumerated, plus an estimate of the newborn deceased up to the date of enumeration.¹² Through division by the average population of the

¹⁰For Jewish enumerations extending over 2 years, the preceding 5-year period is indicated in the tables according to the later of the two years; e.g., 1967-71 for the U.S. (instead of 1966-67 to 1970-71). For Greater Paris, where the survey of Jews extended in stages over the years 1972-1976, the estimates relate to the 5-year period(s) prior to the time of enumeration (as indicated in notes to Tables 2, 3, and 8).

¹¹Consequently these estimation methods are not fully applicable where such changes are relatively frequent. This is why we have not used them for Jews in Germany (Fed. Rep.).

¹²According to a suitable life table. See below.

5-year period, as obtained from a reverse projection,¹³ an average annual crude rate of effectively Jewish births—per 1,000 of population—can be estimated (Table 2).

The per cent change in the number of effectively Jewish births (Table 3) was computed from the ratio between the number 0–4 and 5–9 years old, as enumerated in the Jewish population, accounting also for child mortality. Consequently this measure relates to the change in the average annual number of births between the two latest 5-year periods prior to the enumeration. Where the Jewish population size did not change much in the interval—as was the case in most Diaspora countries listed in Table 3—this measure approximates to the corresponding change in the effectively Jewish birth rate.

DEATH RATE

The number of Jewish deaths during the 5-year period preceding an enumeration is equal¹⁴ to the size of the initial population (computed by reverse projection), plus the number of births, minus the size of the final population (as enumerated). Through division by the average population of the 5-year period, an average annual crude rate of Jewish deaths—per 1,000 of population—can be estimated (Table 2).

RATE OF NATURAL INCREASE OR DECREASE

This is the difference between the average annual crude rates of effectively Jewish births and Jewish deaths in the 5-year period preceding an enumeration. (See Table 2.)

FERTILITY RATIO

This is a rough measure of fertility (Table 3), indicating the number of 0–4 years old children per 1,000 women aged 15–44 years in a population. When applied to Jews (Table 3) it relates to effectively Jewish fertility.

The per cent change in the fertility ratio (Table 3) was computed for a narrower range of the women's fertile ages—only the most reproductive ages—so as to eliminate the influence of changing proportions of women in the less fertile ages. It shows the numerical relation between two ratios: 0–4 years old children per 20–34 years old women, relative to 5–9 years old children per 25–39 years old women. It thus reflects changes in average

¹³Where necessary, the reverse projection started from a revised estimate of the size of the respective Jewish population.

¹⁴With the proviso concerning migratory and affiliative changes, as stated above.

current fertility between the two latest 5-year periods prior to the enumeration.

NET REPRODUCTION RATE (NRR)

This is conceptually a refined measure of inter-generational replacement, but has been obtained for the Jewish populations in Table 8 by a very approximate method of estimation. This method consists of computing the numerical relation between the empirical fertility ratio and the analogous ratio among the hypothetical population reflected in a suitable life table. This procedure is based on the fact that, by definition, in the "stationary" population of a life table, $NRR = 1.0$.

TOTAL FERTILITY RATE (TFR)

The estimates of this indicator for Jewish populations (Table 3) have been derived from the NRR values. NRR considers only reproduction in the female line, and accounts for mortality. By adding estimates for male births (according to the rather constant sex ratio at birth) and for the relevant deaths (according to a suitable life table), the NRR estimates have been converted into those of TFR.

LIFE TABLES

The computations of rates of births, deaths, net reproduction, etc. from the mid-1950's to the early 1970's are based on the following: *U.S. Jews*: the life table of whites in the Middle Atlantic area (which includes New York) in the years 1959–1961, whose life expectancy at birth was 67.3 for males and 73.3 for females. Life expectancy of total whites in the U.S., especially males, changed little from the mid-1950's to the second half of the 1960's.¹⁵ *Other Diaspora Jewries*: the life table of Israel's Jews in 1971, whose life expectancy was 70.6 for males and 73.8 for females. This life table is the most reliable one in existence for Jews. Life expectancy for Israeli Jewish males has been very high in international comparison. The use of this particular life table for the period since the late 1950's, therefore, may

¹⁵The life table proposed by J. Fauman and A.J. Mayer for U.S. Jews, on the basis of three local community surveys (see "Jewish Mortality in the U.S.," *Human Biology*, Vol. 41, 1969), was not used. Experimentation with it in reverse projections, starting from the age-sex distribution of Jews according to the NJPS of 1970–1971, showed that its high mortality rates in old age would have resulted in the "resuscitation" of so many old people in the backward projection that it would have implied a greater proportion of the old among the U.S. Jewish population in the past than at the time of the NJPS. This seemed demographically improbable.

have resulted in a slightly low assessment of mortality and in an accordingly slightly high assessment of natural increase and NRR for some Jewish Diaspora populations to which it has been applied. This would have led to conservative estimates of some of the negative features of Jewish population dynamics in the Diaspora.

RELIABILITY OF THE METHODS USED

The indirect and approximate methods here used are each familiar to demographers. Only their systematic application to the study of Diaspora Jewries is a new feature.¹⁶

The various methods used for deriving vital statistics parameters from empirical age-sex distributions are not equally accurate. The degree of accuracy is greatest for the estimation of births under conditions of very low child mortality, and smallest for NRR and TFR values if inferred from a relatively crude measure like the fertility ratio. We cannot expand here on this topic, but may state that these approximate methods will suffice for the ascertainment of levels of demographic behavior, which has been our aim in this article. Besides, in several instances it has been possible to cross-check the results of these indirect methods, under the concrete circumstances of Diaspora populations, against directly collected vital statistics data on Jews. Reasonable agreement has been found. Since writing this article, the author has also applied another indirect method for estimating TFR and NRR. The results have been similar.

Measures Presented in Tables 4, 4a, and 6

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN, BY AGE OF WOMEN

This is a retrospective measure of fertility, obtained from replies of women of various ages in an enumerated population about the number of (live-born) children to whom they have given birth. For Jewish women this refers to the full number of their births, irrespective of whether the children have themselves been Jews or not. In the enumerations the replies are usually obtained from married or ever-married women for the specific study of marital fertility. The respective figures, wherever possible, have been converted into averages of children born per total women of given age—by accounting for the other marital status categories as well. This gives a

¹⁶Population models could not be used, because of the far-reaching demographic instability—vital, migratory, and affiliative—of Diaspora Jewries.

clearer picture of the replacement prospects of the population concerned, which issue we have wished to emphasize in Table 4.

AVERAGE NUMBER OF CHILDREN EXPECTED PER MARRIED WOMAN

As ascertained from replies to a question in a survey. The expectations, especially of the young women, need not materialize.

MIXED MARRIAGES

Table 6 contains empirical data on the proportion of weddings, or of couples in the population, in which only one of the partners was declaredly Jewish. The proportion of mixed marriages has been measured a) per 100 respective Jewish individuals of each sex, i.e., Jews marrying or Jewish spouses in existing married couples among the population, and b) per 100 couples, with at least one Jewish partner, who have contracted new marriages or exist already in the population studied. Logically, the second measure always indicates a higher proportion of mixed marriages than the first.