Contemporary Trends in Family Formation among the Jews in Russia*

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Most of the Jews remaining in the former Soviet Union (FSU) live in the Russian Federation. To further the understanding of current Jewish population trends there the present article examines the severe age-sex imbalance and the increasing incidence of mixed marriage on the basis of the results of the 2002 Russian census. The changing marriage pattern and fertility among the Jews in Russia today will be discussed as reflected in the data of this census and a special processing of the birth certificates of 2002. Contemporary trends in family formation as well as the mass emigration led to changes in the "enlarged" Jewish population, and for their assessment new estimates of its size and structure are prepared and will be also analyzed.¹

1. Age-Sex Imbalance and Increasing Mixed Marriage

An examination of the ratio of females to males in the relevant age groups showed that the recent mass emigration seriously worsened the severe age-sex imbalance which had already existed among Jews of marriageable age (see Ap-

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- 1. The data of the 2002 Russian census on Jewish population utilized in our analysis were published only in part, see: Rosstat, *Itogi V serossiiskoi perepisi naseleniia 2002 goda* (The Results of the 2002 All-Russian population census), 14 Vols. (Moscow, 2004–2005); available: http://www.perepis2002.ru/index.html?id=9.

pendix 1, Table 1A). According to the 1989 census, the number of Jewish men in the Russian Federation was higher than that of Jewish women in all ages up to 60. Analysis reveals that the analogous sex structure in the total Soviet Jewish population (according to this census, the male surplus was up to age 55) was a consequence of the small sex difference in the level of mortality. In part, this dearth of potential Jewish brides in Russia stems from the earlier migration to this republic of predominantly male Jews from Ukraine. According to the 2002 Russian census, this shortage had improved for ages 65–69.

There must be a reason for this development. However, it cannot be explained by the difference in mortality rates between sexes, as male mortality rates are always higher than those of females in modern developed countries. A more plausible explanation is that in this period of mass emigration Jewish females were more prone to leave the country than Jewish males.³ An alternative interpretation, such as higher rates of ethnic assimilation of Jewish women in mixed marriages and/or higher rates of ethnic reaffiliation with the Jewish people for men of mixed parentage, seems less relevant, especially for the older age groups in which the Jewish sex imbalance grew as well.

Moreover, a peculiarity of the Russian Jewish population's age structure is its "regressive" nature, that is, most preceding generations are more numerous than those following them. This is the result of extremely low fertility over a long period. In view of the sex ratios in adjacent age groups of the Jewish population, the chances of a Jewish male to find a candidate for marriage within his own ethnic community are further reduced.

Even before the recent mass emigration, the shortage of marriage partners for Jewish males in their ethnic group provided the demographic basis for the spread of intermarriage. The recent mass emigration has hastened the erosion of the Jewish marriage market in Russia. As a result of this rising imbalance, there has been a further increase in mixed marriage.

- 2. Mark Tolts, "Jewish Marriages in the USSR: A Demographic Analysis," *East European Jewish Affairs*, 2 (22) (1992), pp. 4–5.
- 3. Mark Tolts, "Recent Jewish Emigration and Population Decline in Russia," *Jews in Eastern Europe*, 1 (35) (1998), pp. 10–13.

Table 1
Percentage of Mixed Married among All Currently Married Jews in the Russian Federation, 1979–2002

Year	Males	Females
1979	51	33
1989	58	40
1994	63	44
2002	72	53

Source: Estimate based on census/microcensus data (Tolts, "The Jewish Population of Russia, 1989–1995," *Jews in Eastern Europe*, 3 (31) (1996), pp. 14–15 [updated; for computation based on the results of the 2002 Russian census, see Appendix 2]).

According to the estimate based on the data of the 1989 Soviet census, by the start of the recent mass emigration, among all currently married Jews in the Russian Federation 58% of the men and 40% of the women had spouses from another ethnic group. (For 1979, 10 years earlier, the same indicator can be estimated at 51% for married Jewish men and 33% for Jewish women, the estimated intercensal increase having been 7 percentage points for both married Jewish men and women.) On the basis of the 1994 Russian microcensus data, 5 years after the beginning of recent mass emigration, this mixed marriage indicator was estimated at 63% for Jewish men and 44% for Jewish women; an increase of 5 and 4 percentage points, respectively (Table 1). These figures show a steady rise of mixed marriage during the first five years of recent mass emigration.

Based on the data of the 2002 Russian census we prepared a new estimate of the same indicator: 72% of the men and 53% of the women had spouses from another ethnic group. Accordingly, between the 1994 Russian microcensus and the 2002 Russian census the estimated increase was 9 percentage points for both married Jewish men and women. These figures clearly show a continuing increase in the incidence of mixed marriage during the most recent period of mass emigration and demographic erosion.

2. The Changing Marriage Pattern

Based on the results of the 2002 Russian census and special processing of birth certificates of that year we can analyze the contemporary marriage pattern of the Jewish population in detail. The process of contracting first marriages is usually characterized in demography by the proportions of never-married in successive age groups. The figures for the 20–24 and 25–29 age groups are usually regarded as the principal indicators of age at first marriage, and that for the 45–49 age group, which coincides with the upper limit of the female reproductive ages, as an indicator of the extent of final celibacy.

According to the data of the 2002 Russian census, the indicator for final celibacy for Jewish females was 10.5%. Before the start of the recent mass emigration, according to the data of the 1989 Soviet census, this indicator was sizably lower – 7.3% (Table 2). According to the data of the 2002 Russian census, for urban Russian females the indicator for final celibacy was half that for Jewish females – only 4.9%.

Table 2
Percentage of Never-Married among the Jews
in Selected Age Groups in the Russian Federation, 1979– 2002

Year	Males		Year			Females	
	20–24	25–29	45–49	20–24	25–29	45–49	
1979	65.5	24.7	2.8	52.0	20.5	8.8	
1989	68.7	26.7	3.3	45.8	18.0	7.3	
1994	71.1	34.1	4.5	49.4	18.7	11.9	
2002	78.9	46.9	6.2	67.0	32.8	10.5	

Sources: 1979 and 1989 Soviet censuses, 1994 Russian microcensus, and 2002 Russian census.

Data of the recent Russian census show a sizable increase from the 1994 Russian microcensus in the percentage of Jewish males and females aged 20–29

never married. This process of marriage postponement is a new phenomenon in Russia which recently spread among the total population, particularly its urban population.⁴ According to the data of the 1994 Russian microcensus, the percentage of Jewish females aged 20–29 who had never married was lower than that in 1979. It then increased considerably in 2002.

Clearly, these recent changes among the Jewish population indicate a rise in the age of first marriage. There are various approaches to estimate mean age at first marriage. One method is based on the proportions of never-married from census data, and the indicator arrived at by using this approach is called the singulate mean age at marriage (SMAM).⁵ Recently this has become the most commonly used indicator of mean age at first marriage.

In fact, according to the data of the 2002 Russian census, the mean age at first marriage reached 24.7 years for Jewish females and 27.6 for Jewish males, a very sizable increase of 2.0 years for Jewish females and 2.5 years for Jewish males during the period of less than 14 years since the last Soviet census of 1989. This indicator for the Jewish population is quite a bit higher than for urban Russians, among whom the mean age at first marriage was only 23.7 years for females and 26.3 for males according to the data of the 2002 Russian census.

Reasonably, the issue of a spread of cohabitation and subsequent births within relatively stable informal unions arises here.⁷ The results of special processing of the birth certificates of 2002 show that 15% of all children born to

- 4. See, e.g.: Sergei Zakharov, "Brachnost' v Rossii: Istoriia i sovremennost" (Nuptiality in Russia: History and the present), *Demoscope Weekly*, 261–262 (2006); available: http://demoscope.ru/weekly/2006/0261/tema04.php.
- 5. United Nations, Manual X: Indirect Techniques for Demographic Estimation (New York, 1983), Annex 1, pp. 225–229.
- 6. Cf. Mark Tolts, "Jewish Marriages in the USSR: A Demographic Analysis," p. 13.
- 7. Recent mass abandonment of traditional pattern of sexual behavior for the general Russian population has been well documented, see: Igor S. Kon, *Seksual'naia kul'tura v Rossii* (Sexual culture in Russia), 2nd ed. (Moscow, 2005), especially Chapter 13; see also: Sergei I. Golod, *Chto bylo porokami, stalo nravami: Lektsii po sotsiologii seksual'nosti* (What were vices have become the custom: Lectures on the sociology of sexuality) (Moscow, 2005), especially Chapter 6.

Jewish women were registered by parents who were not formally married (Table 3). This percentage among births to Jewish mothers was about the same as among total urban births. At the same time, the percentage of children registered by the mother alone among total births to Jewish mothers (7%) was only half that in the total urban population (14%).

Table 3
Children Born to Jewish and Total Urban Females in the Russian Federation, by Marital Status, 2002, Percent

Group of fe-	Total	Marital births	Of these:	Births out of		registered y:	Extra- marital
males			marital concep- tions ^(a)	wedlock	Both parents	Mother alone	concep- tions
	(1)	(2)	(3)	(4)	(5)	(6)	(7)= (3)+(4)
Jewish ^(b) Total	100	78	13	22	15	7	35
urban	100	72	26	28	14	14	54

- (a) Births less than nine months after registration of marriage.
- (b) Based on all 451 births to Jewish mothers which were registered in government statistics.

Source: Special processing of birth certificates (for methodological aspects of this processing and detailed data on the total urban population, see: Mark Tolts, Olga Antonova and Evgueni Andreev, "Extra-Marital Conceptions in Contemporary Russia's Fertility," Research Note Prepared for the European Population Conference, Liverpool, UK, 21–24 June 2006; available:

http://epc2006.princeton.edu/download.aspx?submissionId=60155).

Clearly, this difference coincides with a different level of contraception among Jewish and non-Jewish females. An indirect indicator of this may be our data on pre-marital conceptions – births less than nine months after registration of marriage. The percentage for Jewish mothers (13%) was half that in the

total urban population (26%). All in all, extra-marital conceptions constitute 35% of total births to Jewish mothers and 54% in the total urban population.

The 2002 Russian census data also show a rise in the incidence of divorce. The proportions of currently divorced among all ever-married during the intercensal period rose for both Jewish males and females of all age groups. The highest percentage of currently divorced was found among Jewish males aged 30–44 years old – 14%, and among Jewish females aged 35–49 years old the percentage was even higher – 20–22%.

It is not surprising given all these findings that the proportions of currently married during the intercensal period decreased for both Jewish males and females aged 20–49 (see Appendix 1, Table 2A). These proportions dropped especially among Jewish males and females under age 30. This decrease resulted from the process of marriage postponement which we analyzed earlier.

The 2002 Russian census data show that the proportion of currently married whose union was unregistered was highest at ages 30–34 for Jewish males – 7%, and about 6% at ages 25–34 for Jewish females. These proportions are not as high as in the general population of Western Europe. However, we may conclude that our findings show the direction of demographic development.

3. Contemporary Jewish Fertility and Origin of Children Recorded as Jewish in the 2002 Russian Census

The fertility of the Jews in Russia has for a long time been too low to ensure replacement. Total Jewish fertility in the Russian Federation has not exceeded 1.6 children per woman in all the cohorts born since the beginning of the 20th century. Moreover, according to the data of the Soviet censuses of 1979 and 1989, since 1919 the birth cohorts of Jewish women had a very stable and low level of fertility – about 1.4 or less. According to the data of the 1989 Soviet

- 8. See, e.g.: United Nations, *Partnership and Reproductive Behaviour in Low-Fertility Countries* (New York, 2003).
- 9. Mark Tolts, "Jews in the Russian Republic since the Second World War: The Dynamics of Demographic Erosion," IUSSP, *International Population Conference, Montre- al* 1993, Vol. 3. (Liège, 1993), p. 103.

census, Jews had the lowest level of fertility of all ethnic groups of the Russian Federation.¹⁰

According to the 2002 Russian census, Jewish fertility recently declined even further among females under age 35, so that despite a very sizable decrease in the fertility level in the total Russian population, Jews preserve their characteristic as the ethnic group with the lowest level of fertility. Between the 1989 Soviet census and the 2002 Russian census, the average number of children ever born to Jewish females aged 20–29 fell by 22–23%. Among those aged 30–34 the decrease was only slightly less – 18% (Table 4).

Table 4

Average Number of Children Ever Born to Jewish Females in the Russian Federation, by Age, 1989 and 2002

Age at census date	1989	2002
20–24	0.41	0.32
25–29	1.02	0.79
30–34	1.30	1.07
35–39	1.40	1.34
40–44	1.33	1.45
45–49	1.33	1.40

Sources: 1989 Soviet census and 2002 Russian census.

Thus, new data from the 2002 Russian census clearly show that the vital crisis among Russia's Jewry is continuing and has deepened following the mass emigration of the 1990s. This has coincided with general depopulation in the Russian Federation.

- 10. Cf. Chauncy D. Harris, "A Geographic Analysis of Non-Russian Minorities in Russia and Its Ethnic Homelands," *Post-Soviet Geography*, 9 (34) (1993), p. 563.
- 11. Cf. Vladimir Archangelsky, *Faktory rozhdaemosti* (Factors of fertility) (Moscow, 2006), pp. 121–122.

The 2002 Russian census recorded only 3,130 Jewish children under five years of age, a dramatic decrease of 79% as compared with data from the 1989 Soviet census which counted 14,860 children in this age group in the Russian Federation (see Appendix 1, Table 3A). However, not only did the number of children under five years old fall noticeably, but also the origins of those children recorded as Jewish changed radically.

Although all the birth categories¹² showed dramatic decline, this was the greatest among the children born to endogamous Jewish couples, and smallest among those born to at least one Jewish parent. Compared with the 5 years preceding the 1989 Soviet census in the Russian Federation the number of births to endogamous Jewish couples had fallen by the 5 years preceding the 2002 Russian census by 91%. The decline in the number of births to Jewish mothers was less pronounced – 82%. In the same period in the Russian Federation the decline in the number of births to at least one Jewish parent can be estimated at 77%.

As a result, the proportions of children born to endogamous Jewish couples of all newborn children with at least one Jewish parent in the Russian Federation decreased dramatically: probably from 27% in 1984–1988 to as low as about 10% in the 5 years preceding the 2002 Russian census. According to our estimate only about 1,700 children were born to at least one Jewish parent in 2002 in the Russian Federation if we assume the number of children born to non-Jewish mothers and Jewish fathers to be twice that born to Jewish mothers and non-Jewish fathers.

A comparison of the number of children recorded as Jewish at ages under 5 in the 2002 Russian census with the estimated number of children born to Jewish mothers with Jewish fathers in the 5 years preceding the census shows

12. Births to endogamous Jewish couples traditionally form the basis (under Soviet conditions in most of the republics, actually about the only source) of reproduction for the "core" Jewish population. Births to at least one Jewish parent by definition of course include endogamous births, as well as births to Jewish mothers with non-Jewish fathers and births to non-Jewish mothers with Jewish fathers; these are the figures for Jewish fertility as a whole. Only births to Jewish mothers are considered Jewish according to Jewish religious law ("Halakha").

that more than two-thirds (68%) of the "core" Jews in this age group were of mixed origin. The analogous comparison shows that among children recorded as Jewish at ages under 5 in the 1989 Soviet census in the Russian Federation only about one-quarter (24%) were of mixed origin.

The majority of children under age 5 labeled by their parents as Jews in the last Russian census were of mixed origin. This is quite a new situation which is clearly a consequence of the Jewish demographic situation in the Russian Federation. After the mass emigration of the 1990s even the "core" Jewish population became less homogeneous in its origin.

4. Dynamics of the "Enlarged" Jewish Population

The "core" Jewish population is the aggregate of all those who, when asked, identify themselves as Jews or, in the case of children, are identified as such by their parents. It does not include persons of Jewish origin who reported another ethnicity in the census. The last Soviet census was in 1989, giving us a good base against which to measure Jewish population decrease during the recent mass emigration. The number of Jews according to Soviet census data has been entirely dependent on the self-declaration of respondents. Conceptually, these numbers correspond to what has been defined as the "core" Jewish population. It

According to the estimate based on the data of the 1989 Soviet census, by the start of the recent mass emigration 43% of all "core" Jews lived in multi-ethnic households and 57% were in mono-ethnic households. On the basis of the 1994 Russian microcensus data, these indicators were estimated at 47 and 53%, respectively.¹⁵

- 13. For a detailed analysis of "core" Jewish population dynamics based on the data of the 2002 Russian census, see: Mark Tolts, "The Post-Soviet Jewish Population in Russia and the World," *Jews in Russia and Eastern Europe*, 1 (52) (2004), pp. 37–63.
- 14. Sergio DellaPergola, "Demography," in Martin Goodman, ed., *The Oxford Hand-book of Jewish Studies* (Oxford, 2002), pp. 807–808.
- 15. Mark Tolts, "The Jewish Population of Russia, 1989–1995," *Jews in Eastern Europe*, 3 (31) (1996), p. 16

Based on the data of the 2002 Russian census we prepared a new estimate of the same indicators (see Appendix 2) which show that in contemporary Russia more than half (53%) of the "core" Jews today live in multi-ethnic households and only a minority (47%) live in mono-ethnic households.

A broader definition, that of the "enlarged" Jewish population which can also be empirically measured, includes Jews along with their non-Jewish household members. ¹⁶ In the FSU as a whole, and in the Russian Federation in particular, today this group is significantly larger than the "core" Jewish population. However, even the "enlarged" Jewish population is smaller than the total population entitled to immigrate to Israel; according to the Israeli Law of Return, Jews, their children and grandchildren, and all their respective spouses are eligible.

Migration is more frequent at younger ages. Among Russian Jews, the younger the population, the higher the percentage of both intermarriage and its obvious result, offspring of mixed couples. However, the dynamics of the "enlarged" Jewish population depend not only on mixed marriage, but also on aging and the level of marriage dissolution.

Based on the data of the 2002 Russian census, we prepared a new estimate of the "enlarged" Jewish population according to which it numbers more than 470,000 in the Russian Federation (Table 5). According to this estimate, the ratio of "enlarged" to "core" Jewish population was about 1.9 to 1, a sizable increase over the 14 years of the recent mass emigration. However, this increase in level of the ratio occurred mostly during the first five years (between 1989 and 1994) of this mass emigration.

Table 5

Dynamics of the "Enlarged" Jewish Population^(a)
in the Russian Federation, 1989–2006, Thousands

	1989	1994	2002	2006
1. "Core" Jewish population	570 ^(b)	409(b)	254 ^(c)	228
2. Non-Jewish members of				
multi-ethnic households				
with Jewish presence(d)	340	311	218	202
3. "Enlarged" Jewish				
population $[(1)+(2)]$	910 ^(e)	$720^{(f)}$	472(g)	430 ^(h)
4. Ratio of "enlarged" to				
"core" Jewish population	1.6	1.8	1.9	1.9
[(3)/(1)]				

- (a) "Core" Jews and their household family members.
- (b) Including Tats.
- (c) Including those who appeared in the census results as Mountain Jews, Georgian Jews, Central Asian (Bukharan) Jews and Krymchaks, and additional Jews (approximately 20,000) among people whose ethnicity was not recorded in the census (Tolts, "The Post-Soviet Jewish Population in Russia and the World," p. 45).
- (d) Persons living in households with at least one "core" Jew.
- (e) Estimate based on the 1989 Soviet census.
- (f) Estimate based on the 1994 Russian microcensus sample.
- (g) Estimate based on the 2002 Russian census.
- (h) Estimate based on the ratio of "enlarged" to "core" Jewish population, as for 2002.

Sources: 1989 Soviet census; 1994 Russian microcensus; and 2002 Russian census (Mark Tolts, "Jews in the Russian Federation: A Decade of Demographic Decline," Jews in Eastern Europe, 3 (40) (1999), p. 13, and Appendix 2 of this article).

On the basis of the 1989 Soviet census and the 1994 Russian microcensus, comparable estimates of the "enlarged" Jewish population in the Russian Federation were about 910,000 in 1989 and 720,000 in 1994. According to these estimates, the ratio of "enlarged" to "core" Jewish population was 1.6 to 1 in 1989, and 1.8 to 1 in 1994.

For a conservative estimate for 2006, we applied the ratio of "enlarged" to "core" Jewish population which is based on the data of the 2002 Russian cen-

sus: 1.9 to 1. Accordingly, the estimated "enlarged" Jewish population in the Russian Federation would have been about 430,000 in 2006. Given these figures, during the last 17 years (between 1989 and 2006), the "enlarged" Jewish population fell by 52% there. That is, the estimated decrease of "enlarged" Jewish population in the Russian Federation was more moderate than that of the "core" Jewish population in this country which was estimated at 60%.

5. Concluding Remarks

The estimate based on the data of the 2002 Russian census clearly shows a continuing increase in the incidence of mixed marriage during the recent period of mass emigration and demographic erosion: 72% of the men and 53% of the women had spouses from another ethnic group. As a result the share of Jews living in multi-ethnic households also increased and in contemporary Russia more than half (53%) of the "core" Jews today live in multi-ethnic households. Moreover, after the mass emigration of the 1990s even the "core" Jewish population became less homogeneous in its origin. Of those children who were recorded as Jewish at ages under 5 in the 2002 Russian census more than two-thirds were of mixed origin.

Data of the 2002 Russian census revealed a process of marriage post-ponement and a sizable rise in age at first marriage for Jewish males and females following the 1994 Russian microcensus. Consequently, the proportions of currently married dropped considerably among Jewish males and females under 30. The new data from the 2002 Russian census clearly show that the vital crisis among Russia's Jewry is continuing and has deepened following the mass emigration of the 1990s.

The analysis indicates that the "enlarged" Jewish population declined less than did the "core," and the "enlarged" Jewish population in the Russian Federation is still about 430,000. The total number of people eligible to emigrate from this country to Israel according to the Israeli Law of Return is even higher.

APPENDIX 1

Table 1A
Sex Ratio in Selected Age Groups among Jews in the Russian Federation,
1989–2002

Age group	Number of females per 100 males in the same age group			females 5 ye males in the	•	
					group	
	1989	1994	2002	1989	1994	2002
15–19	91	90	90	_	_	_
20–24	87	86	89	85	81	81
25–29	87	83	83	61	93	81
30–34	87	80	72	71	63	72
35–39	88	86	75	80	60	72
40-44	88	85	74	75	74	55
45–49	92	85	79	107	68	66
50-54	89	74	80	58	97	63
55–59	94	95	87	108	53	91
60–64	114	85	87	89	108	62
65–69	141	115	88	151	87	91

Sources: 1989 Soviet census, 1994 Russian microcensus, and 2002 Russian census.

Table 2A

Percentage of Currently Married in Selected Age Groups among Jews in the Russian Federation, 1989 and 2002

Sex and	1989		2002			
age group	Total	Total	Ther	eof in:		
			Registered marriage	Unregistered marriage		
Males						
20–24	28.2	18.8	14.6	4.2		
25–29	67.3	47.1	40.6	6.5		
30–34	81.6	63.6	56.6	7.0		
35–39	86.1	73.3	66.9	6.4		
40–44	86.5	76.3	70.8	5.5		
45–49	87.2	79.5	74.7	4.8		
Females						
20–24	48.9	28.9	23.9	5.0		
25–29	72.2	56.4	50.3	6.1		
30–34	75.3	64.5	58.6	5.9		
35–39	74.0	65.7	61.0	4.7		
40–44	71.9	68.5	64.3	4.2		
45–49	69.8	64.2	61.0	3.2		

Sources: 1989 Soviet census and 2002 Russian census.

Table 3A

Comparison of the Number of Children Under 5 Recorded as Jewish in the Census with the Number of Jewish Children Born during the Five Years Preceding the Respective Census, 1989 and 2002

	1989	2002	Dynamics, %
	(1)	(2)	(3)=(2)/(1)
1. Children under 5 recorded as Jewish in the census	14,860	3,130	21
2. Children born to Jewish mothers in the 5 years preceding the respective census	21,597 ^(a)	3,900 ^(b)	18
2a. Of these with Jewish fathers	11,279	1,000 ^(b)	9
3. Children born to at least one Jewish parent in the 5 years preceding the respective census (c)	42,200	9,700	23
4. Percentage of children born to endogamous Jewish couples among all newborn children with at least one Jewish parent $(4)=(2a)/(3)$	27	10	37
5. Percentage of children of mixed origin among all children under 5 recorded as Jewish in the census (5)=[(1)-(2a)]/(1)	24	68 ^(d)	2.8 times

- (a) Registered in 1984–1988.
- (b) Estimate, for 1999–2002 we applied the percentage of children born to non-Jewish fathers and the rate of children born to Jewish mothers per 1,000 "core" Jews as in 1998.
- (c) The (unknown) number of children born to non-Jewish mothers and Jewish fathers was assumed twice the (known) number of children born to Jewish mothers and non-Jewish fathers; this corresponds to our estimate that, according to the 1989 Soviet census, the 1994 Russian microcensus, and 2002 Russian census, approximately twice as many Jewish males were currently married to non-Jewish females as were Jewish females currently married to non-Jewish males.
- (d) Minimum estimate without emigration.

Sources: 1989 Soviet census, 2002 Russian census, and vital statistics data.

APPENDIX 2

The "Enlarged" Jewish Population Based on the 2002 Russian Census Data: A Rough Calculation

The 2002 Russian census gave us data on the number of Jews living in monoethnic households: among the total number of about 229,900 Jews registered with no specified sub-group, 107,600 were counted in such households.¹⁷ Thus, according to the census data, the number of Jews living in multi-ethnic households can be computed at about 122,300 (Table 1B).

Table 1B

Estimate of the "Enlarged" Jewish Population, (a) by Components, the Russian Federation, 2002, Thousands

(Step One)

1. Jews living in mono-ethnic households(b)	107.6
2. Jews living in multi-ethnic households	122.3
3. "Core" Jewish population ^(b) [(1)+(2)]	229.9
4. Non-Jewish members of multi-ethnic households	
with Jewish presence(c)	198.2
5. "Enlarged" Jewish population ^(d) [(3)+(4)]	428.1
6. Ratio of "enlarged" to "core" Jewish population	
[(5)/(3)]	1.86

- (a) Based on the number of Jews registered with no specified sub-group in the 2002 Russian census; not including those who appeared in the census results as Mountain Jews, Georgian Jews, Central Asian (Bukharan) Jews and Krymchaks. The total number of Jews counted in this census is 233,596.
- (b) Census figure.
- (c) Persons living in households with at least one "core" Jew.
- (d) "Core" Jews and their non-Jewish household members.

Source: 2002 Russian census data.

17. According to the 2002 Russian census, there were 64,066 Jewish mono-ethnic households, among which 36,925 households consisted of one person, and 27,141 households had two or more people, with 70,686 Jews with no specified subgroup.

According to the census, 27,141 Jewish mono-ethnic households consisted of two or more people. For our estimate of the corresponding number of homogeneous Jewish married couples, we used a ratio for the total urban population in the Russian Federation of the number of married couples (i.e., currently married males) to the number of households with two or more people: 0.810 to 1. Based on this ratio, the number of married couples living in Jewish mono-ethnic households was estimated at 21,985 (=27,141 *0.810).

According to the same census, among Jews registered with no specified sub-group 79,114 currently married men and 47,272 currently married women were counted. Thus, the corresponding total number of currently mixed married Jewish men was estimated at 57,129 (=79,114–21,985) and that of Jewish women at 25,287 (=47,272–21,985); the total is 82,416 Jewish mixed couples.

For the above estimate, we used the ratio for the total urban population in the Russian Federation of the number of married couples (i.e., currently married males) to the number of households with two or more people: 0.810 to 1. By again applying this figure to the estimated number of Jewish mixed couples, we estimated the corresponding number of multi-ethnic households with Jewish presence at 101,748.

According to the census, the average number of persons in households for the total urban population was 3.15. Based on this figure, we estimated the corresponding total number of members of multi-ethnic households at about 320,500. After subtracting from the latter figure the estimated number of Jews living in such households (122,300), the number of non-Jewish members of multi-ethnic households with Jewish presence was estimated at approximately 198,200. By adding this figure to the number of "core" Jewish population, we arrived at the estimate of the "enlarged" Jewish population for 2002: 428,100. However, all these computations are merely a first step in our estimate – they are based only on the number of Jews registered with no specified sub-group in the 2002 Russian census.

When we included in our estimate those who appeared in the census results as Mountain Jews, Georgian Jews, Central Asian (Bukharan) Jews and Krymchaks, and additional Jews (approximately 20,000) among people whose

ethnicity was not recorded in the census we arrived at the higher figure for the "enlarged" Jewish population in the Russian Federation – about 472,000 (Table 2B).

Table 2B

Estimate of the "Enlarged" Jewish Population, (a) by Components, the Russian Federation, 2002, Thousands (Step Two)

1. Total number of "core" Jewish population(b)	254	
2. Ratio of "enlarged" to "core" Jewish population(c)	1.86	
3. Total number of "enlarged" Jewish population (d) [(1)x(2)]	472	
4. Non-Jewish members of multi-ethnic households		
with Jewish presence as a whole ^(e) [(3)–(1)]	218	

- (a) Adjusted to the total number of the "core" Jewish population on the census date.
- (b) Estimate including those who appeared in the census results as Mountain Jews, Georgian Jews, Central Asian (Bukharan) Jews and Krymchaks, and additional Jews (approximately 20,000) among people whose ethnicity was not recorded in the census (Tolts, "The Post-Soviet Jewish Population in Russia and the World," p. 45).
- (c) See: Table 1B of this Appendix.
- (d) "Core" Jews and their non-Jewish household members.
- (e) Persons living in households with at least one "core" Jew.

Source: 2002 Russian census data.

In this new estimate of the "enlarged" Jewish population, the approach previously successfully applied to the data of the 1989 Soviet census and the 1994 Russian microcensus was used.¹⁸

18. Tolts, "The Jewish Population of Russia, 1989–1995," p. 19.