Post-Soviet Aliyah and Jewish Demographic Transformation*

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In the 1990s most of the second largest Jewish Diaspora population, which resided in the former Soviet Union (FSU), changed their places of residence. Whereas the majority emigrated to Israel, the rest were divided mostly between the USA and Germany. In fact, this was a continuation of the mass migration which started in the 1970s, and was temporarily stopped in the 1980s. However, the emigration of the 1990s was much more numerous than that of the 1970s. The aims of this paper are to present (post-) Soviet Jewish resettlement, and to study the demographic transformation in the course of this mass migration.

We shall study emigration to outside the FSU, and to Israel in particular, as well as out-migration from Israel of FSU immigrants. In our analysis we shall compare the demographic characteristics of Soviet Jewry at the onset of the recent mass emigration of the 1990s with those of (post-) Soviet immigrants in Israel, who have become the most populous group of the Jews originating from the FSU. For a better understanding of the problem we shall study the demographic changes among

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the Jews who remained in the FSU, mostly in the Russian Federation. Of course, necessary attention will be paid to the general demographic situation and its development in both the sending and receiving countries. Fortunately statistics of these countries, as a rare exception, contain ample appropriate data which will be utilized in the analyses.¹

Recent Mass Emigration

For many years Soviet Jews, like all other citizens of the USSR, had no real possibility to emigrate in sizable numbers, but this situation changed in the 1970s. Between 1970 and 1988, a total of about 291,000 Soviet Jews and their relatives emigrated from the country, the majority of whom – approximately 165,000 – came to Israel (see Table 1).

However, only since 1989 did the mass emigration in general, and in particular that to Israel, play a decisive role in the fate of the Jews in the FSU. According to estimated figures, between 1989 and 2006 about 1.6 million (ex-) Soviet Jews and their relatives emigrated to countries outside the FSU. Approximately 61 percent of this movement (about 979,000) was directed toward Israel, whereas the rest was directed mostly toward the United States and Germany. During this period the number of Jews and their relatives who emigrated from the FSU to the USA may be estimated at about 325,000, and while the number emigrating to Germany was lower, even this approached 220,000.

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¹ For analysis of migration flows we assembled and shall use statistics from many different official sources published by and/or presented at databases of FSU states (Belstat, 2006-2007; Central Statistical Bureau of Latvia, 2008; Moldstat, 2008; Rosstat, 2005-2007b; Ukrstat, 2000-2007) and countries of destination of the migration (BAMF, 2008; HIAS, 2008; Israel CBS, 2007b), as well as international organizations (Council of Europe, 2000-2006; Eurostat, 2008; IOM, 2002). We shall also utilize some unpublished tabulations of the Israel Central Bureau of Statistics (Israel CBS). For other published and unpublished sources, see below.

Table 1. Emigration of Jews and Their Relatives from the FSU, 1970-2006, Thousands

Year	Total		Thereof to:		Percent
		Israel	USA ^(a)	Germany	of total
				•	to Israel
1970-1988	291	165	126	•••	57
1989	72	12.9	56 ^(b)	0.6	18
1990	205	185.2	6.5 ^(b)	8.5	90
1991	195	147.8	35.2	8.0	76
1992	123	65.1	45.9	4.0	53
1993	127	66.1	35.9	16.6	52
1994	116	68.1	32.9	8.8	59
1995	114	64.8	21.7	15.2	57
1996	106	59.0	19.5	16.0	56
1997	99	54.6	14.5	19.4	55
1998	83	46.0	7.4	17.8	55
1999	99	66.8	6.3	18.2	67
2000	79	50.8	5.9	16.5	64
2001	60	33.6	4.1	16.7	56
2002	44	18.5	2.5	19.3	42
2003	32	12.4	1.6	15.4	39
2004	25	10.1	1.1	11.2	40
2005	18	9.4	0.9	6.0	52
2006	10	7.5	0.6	1.1	75
1989-2006	1,607	979	325 ^(c)	219	61
1970-2006	1,898	1,144	•••	•••	60

⁽a) Data for 1970-1988 include all destinations other than Israel for those who emigrated with Israeli visas; annual data for 1991-2006 cover only those immigrants who were assisted by the Hebrew Immigrant Aid Society (HIAS).

Source: Tolts, 2003a and 2007 [updated].

This emigration peaked in the last two years of severe crisis that preceded the dissolution of the Soviet Union, in 1990-1991, when about 400,000 Soviet Jews and their relatives emigrated outside the USSR; of these, 333,000 (83 percent) went to Israel. From 1992 to 1998, slightly more than half of those who emigrated to countries outside the FSU chose Israel. Only in 1999 did the share of this country among the emigrants temporarily jump to 67 percent when emigration to Israel again temporary increased after the Russian financial crash in the previous year. On the other hand, since 2000 sizable economic growth has resumed in the FSU countries and emigration

⁽b) Departures from the Soviet Union.

⁽c) Including migrants who were not assisted by HIAS.

to Israel decreased rather steadily. These data clearly show the decisive role of the push factor in this migration movement.

In the 1990s the USA introduced quotas which limited the possibility of ex-Soviet Jewish immigration to only those persons who had close relatives in the USA; nevertheless, between 1991 and 1996 the USA ranked second as a receiving country. From 1997 to 2001, more emigrants went to Germany than to the USA, and Germany, which had in the beginning of the 1990s introduced a special program for Jewish immigration from the FSU, became the second-ranking receiving country. After 11 September 2001, the USA ceased to be a major destination for ex-Soviet Jewish emigration. From 2002 to 2004 more emigrants went to Germany than to Israel, and Germany temporarily became the first-ranking receiving country. Since 2005, after Germany's admission policy became much more restrictive, the number of Jews and their relatives who emigrated to Germany dropped dramatically, and Israel again became the first-ranking receiving country for ex-Soviet Jewish emigration. This country keeps its borders open unselectively to Jewish immigration in accordance with the Law of Return which was enacted in 1950 by the Israeli parliament (Knesset) and amended in 1970 to include Jews, their children and grandchildren, and all respective spouses in the group of persons eligible for immigration to Israel (aliyah).

During all these years of migration to the USA and Germany, Ukrainian Jews and their relatives were the most numerous group. According to estimates for 1989-2001, among those who emigrated to the USA the absolute number of Ukrainian Jews and their relatives was higher by 1.6 times than that from the Russian Federation; the absolute number of Ukrainian Jews and their relatives who emigrated to Germany was actually double the number of those from the Russian Federation (see Table 2).

Table 2. Emigration of Jews and Their Relatives from the FSU to Israel, the USA and Germany, by Republic (Country)/Region, 1970-1988 and 1989-2001, Thousands

Republic (country)	Total,	To Israel,	To the USA,	To Germany,
/region	1970-1988 ^(a)	1989-2001	1989-2001 ^(b)	1989-2001 ^(b)
Russian Federation	50.4	291.2	81.1	45.0
Ukraine	106.7	299.8	128.5	92.7
Belorussia/Belarus	13.8	70.4	34.4	6.1
Baltic States	27.3	21.4	8.0	7.2
Moldavia/Moldova	29.4	48.3	15.7	8.1
Transcaucasia	41.5	56.5	10.8	2.2
Central Asia	21.7	114.7	35.5	5.0
Unknown	0.0	18.8	0.0	0.0
Total	290.8	921.1	314.0	166.3

⁽a) Including all destinations for those who emigrated with Israeli visas.

Sources: Tolts, 2003a and 2008b [updated]; Table 1 of this paper.

As a consequence, among FSU emigrants to the USA, and even more so to Germany, the share of those who originated from Ukraine was predominant – 41 and 56 percent, respectively; the share of those who emigrated to these two countries from the Russian Federation was much lower – 26 and 27 percent, respectively. In the same period, among FSU emigrants to Israel the numbers and consequently the shares of those who originated in Ukraine and the Russian Federation were about the same – 33 and 32 percent, respectively. During 1989-2001 the recorded number of immigrants to Israel alone from each region (except the Baltic States) was higher than the entire emigration over the previous nineteen years (1970-1988) for that region.

The data show that the share of emigrants to Israel from St. Petersburg among the total number of those emigrants from the Russian Federation peaked in 1990 (31.7 percent), and from Moscow in 1991 (31.6 percent). By 1994 these shares had declined to 11.0 percent from Moscow and to 9.7 percent from St. Petersburg, and in 1998 they were as low as 5.0 percent for each city (Table 3). In the same period, the percentage of emigrants from the provinces (outside the cities of Moscow and St.

⁽b) Estimate for republic/region is based on the known distribution of emigrants which was adjusted for the total number for the FSU in this period.

Petersburg) increased steadily until 1998. In 1990-1991, this share was about half; by 1994 it reached 79 percent and in 1998 it was as high as 90 percent – much more than the percentage of these Jews among all Russian Jewry – about half. In 2006, Moscow's share in the emigration from the Russian Federation increased to 12.5 percent, which was 2.5 times more than it had been in 1998 (5.0 percent). The share of St. Petersburg increased to 9.0 percent, higher than it was in 1995 (8.8 percent). However, the great majority of emigrants to Israel from Russia – more than 78 percent – originated from the Russian provinces.

Table 3. Jews in the Russian Federation and Emigration to Israel, by Area, 1989/1990-2006

	by Area, 1989/1990-2006					
Year	Total	Moscow	St. Petersburg	Provinces		
	Pe	rcentage of all Jev	ws residing in Russ	ia ^(a)		
1989	100	31	19	50		
1994	100	33	15	52		
2002	100	35	16	49		
	Percenta	ige of total emigra	ation to Israel from	Russia ^(b)		
1990	100	21.7	31.7	46.6		
1991	100	31.6	13.7	54.7		
1992	100	22.1	10.6	67.3		
1993	100	14.1	9.5	76.4		
1994	100	11.0	9.7	79.3		
1995	100	9.0	8.8	82.2		
1996	100	9.0	8.0	83.0		
1997	100	6.6	5.9	87.5		
1998	100	5.0	5.0	90.0		
1999	100	7.8	7.9	84.3		
2000	100	8.3	7.3	84.4		
2001	100	7.8	7.1	85.1		
2002	100	6.9	6.5	86.6		
2003	100	8.0	6.8	85.2		
2004	100	8.4	7.6	84.0		
2005	100	10.9	8.4	80.7		
2006	100	12.5	9.0	78.5		

⁽a) Estimates based on the 1989 Soviet census and the 1994 Russian microcensus (both including "Tats"), and the 2002 Russian census (Tolts, 2004).

Sources: As noted above for respective indicator.

⁽b) Israel Ministry of Immigrant Absorption data for 1990-1993; Rosstat data for 1994-1998; and data on Jewish Agency (Sohnut)-assisted flights of migrants to Israel for 1999-2006 (Tolts, 2003b [updated]).

Table 4. Percentage of Jews among Migrants to Israel from the Russian Federation and the Entire FSU, 1990-2003 and 2006

Year	Russian F	Entire FSU	
	Rosstat	Israel CBS	Israel CBS
	data ^(a)	data ^(b)	data ^(b)
1990		94	96
1991		87	91
1992	64 ^(c)	82	84
1993	60	82	83
1994	58	77	77
1995	53	73	72
1996	49	67	68
1997	36	60	60
1998	31	55	54
1999	31	51	50
2000	27	47	47
2001	25	45	44
2002	24	43	43
2003	24		43
2006			42

⁽a) Of all emigrants to Israel whose ethnicity was known.

Sources: Rosstat data; Israel CBS data (Tolts, 2003b [updated]).

Recent mass-migration movement included many people who had previously not identified themselves as Jews, nor had they been seen by FSU authorities as such. Some of them changed their ethnic/religious identification/status to Jewish over the course of their migration. One consequence of the post-Soviet Jewish vital crisis and of rising mixed marriage has been the recent pronounced decrease in the share of Jews among the FSU immigrants to Israel, according to official Israeli data: 96 percent in 1990, 72 percent in 1995, 47 percent in 2000,² 43 percent in 2003 and 42 percent in 2006. These proportions were almost the same as those among the immigrants from

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⁽b) Of all immigrants who entered Israel according to the Law of Return whose ethnicity/religion was known.

⁽c) Second half of the year.

² At the same time, in 2000, according to Israeli criteria, Jews and their nearest relatives (non-Jewish spouses and non-Jewish children of Jews) constituted 78 percent of all immigrants from the FSU countries; the others were spouses of non-Jewish children of Jews, and non-Jewish grandchildren of Jews and their spouses (Tolts, 2008b).

the Russian Federation.³ According to official Russian data, the proportion of Jews among all those who emigrated to Israel fell from 64 percent in the second half of 1992 to 53 percent in 1995, 27 percent in 2000 and 24 percent in 2003 (Table 4).

The different definitions in Israel and the FSU explain the divergence in the respective percentages.⁴ Obviously some of the immigrants who were considered Jews according to their former Soviet internal passports (as well as in population censuses), that is, the offspring of a Jewish male and a non-Jewish female, are counted as non-Jews by Israeli statistics. Nonetheless, many more immigrants – the offspring of a Jewish female and a non-Jewish male – are counted as Jews in Israel than were registered as such in the FSU, and many of these had never identified themselves as Jews before. Based on the data above, the number of such immigrants may be tentatively guesstimated at about 0.15 million or even more. This recognition of the Judaism/Jewish ethnicity of some individuals who had previously not identified themselves as Jews, nor had they been seen by FSU authorities as such, somewhat moderated the decline of the "core" Jewish population originating from the FSU, and added to the Jewish population in Israel.

³ For similar data for immigrants from Ukraine to Israel in 1996-1999, see: Riss and Klopshtock, 2002.

Israeli official statistics are based on the Ministry of the Interior's Population Register file, which defines "who is a Jew" according to the Halakha (Jewish religious law), i.e. a person born of a Jewish mother or one who converted to Judaism through the accepted formal religious procedure. According to official Israeli data, 74 percent of all FSU immigrants who arrived in Israel since 1990 and were still living here by the end of 2003 are Jews (Israel CBS, 2004c). At the same time, "Jews" according to the official FSU definition comprised only those emigrants (aged 16 and over) who were designated as such in their internal passports. For children, who lacked such passports, ethnicity was defined on the basis of their parents' ethnicity. If the parents belonged to different ethnic groups, preference was given to the mother's ethnicity, although even in the post-Soviet era non-Jewish ethnic affiliation was clearly preferred by the offspring of such couples (see Tolts, 1996 and 2003a).

Out-Migration from Israel of FSU Immigrants

Debates about the size of out-migration from Israel "tend to be more pervasive and heated than those linked with most other groups" (Gold, 2004), and there are a lot of ungrounded statements concerning huge numbers of FSU out-migrants from Israel in particular.⁵ Following a demographic approach to this problem (see DellaPergola, 2007), we shall base our analysis of out-migration from Israel of FSU immigrants on the data from official statistical sources. In order to evaluate these dynamics we shall study the appropriate Israeli statistics, as well as statistics of FSU countries.

Data collected by the Israel Central Bureau of Statistics (Israel CBS) on the FSU immigrants who arrived since 1990 provided us with possibilities to examine their annual out-migration for all destinations as a whole. They are tabulated as numbers of immigrants who left Israel for all destinations in a designated year and stayed abroad continuously for one year or more (departures), and numbers of immigrants who returned to Israel in a designated year of all those who previously left Israel for all destinations and stayed abroad continuously for one year or more (returns).⁶ According to these data, the number of departures was highest in 2002 and 2003 – 9,700 and 9,400, respectively (Table 5). By 2006, the last year for which we have Israel CBS data on departures, it had decreased to 7,400. At the same time, the number of returns was highest in 2004-2007 – between 1,900 and 2,100, and in 2005,

⁵ For example, Radio Tehran (Farsi Broadcast, January 29, 2008, 14:00 local time; Mesamed, 2008) stated: "Thousands of former citizens of the Soviet Union who moved to the Zionist state over the last 15-20 years, leave it monthly, returning to their old places of residence, to the USA or to European countries. According to various estimates, the number of respective returnees fluctuates from 300 to 400 thousand."

⁶ In detail on the method counting out-migration by Israeli statistics, see: Sheps and Hleihel, 2006. According to an assessment of organizations responsible for international statistical cooperation, "[t]his method has produced very promising results on emigrants stocks, thanks to the possibility of linking accurate and individual data on population stocks and flows" (UNECE/Eurostat, 2006).

the annual balance of departures and returns decreased to the size of 2000 - 5,400. In 2006, it was about the same size -5,500.

Table 5. Departures from and Returns to Israel of FSU Immigrants
Who Arrived in Israel Since 1990, Thousands

Year	Departures ^(a)	Returns ^(b)	Balance	Departures,
				per 1,000 FSU
				immigrants (a) (c)
1990	0.4	-	0.4	6.3
1991	3.1	0.0	3.1	11.9
1992	5.8	0.1	5.7	16.2
1993	5.3	0.3	5.0	12.8
1994	5.3	0.5	4.8	11.3
1995	6.3	0.6	5.7	12.0
1996	6.2	0.9	5.3	10.7
1997	6.0	1.3	4.7	9.6
1998	6.2	1.2	5.0	9.6
1999	5.6	1.5	4.1	8.1
2000	6.9	1.5	5.4	9.3
2001	8.0	1.2	6.8	10.1
2002	9.7	1.2	8.5	12.0
2003	9.4	1.5	7.9	11.6
2004	8.7	1.9	6.8	10.8
2005	7.5	2.1	5.4	9.3
2006	7.4	1.9	5.5	9.2
2007		2.0		
1990-2006	107.8	17.7 ^(d)	90.1	-

⁽a) Immigrants who left Israel for all destinations in the designated year and stayed abroad continuously for one year or more.

Source: Compiled on the basis of Israel CBS data.

We can compute the annual rate of departures for the immigrants from the FSU as a whole who arrived in Israel since 1990 and were still living there for each year up to 2006. This rate was highest in 1992 (16 per 1,000), shortly after the greatest

⁽b) Immigrants who returned to Israel in the designated year of all those who previously left Israel for all destinations and stayed abroad continuously for one year or more.

⁽c) The rate is per 1,000 FSU immigrants who arrived in Israel since 1990 and were still living there by the designated year, not including children born in Israel; computed by the author (Tolts, 2007 [updated]), except 1998-2001 (Israel CBS, 2006a).

⁽d) 19,700 in 1990-2007.

wave of FSU immigrants arrived in Israel during the previous two years. Over the following years, the rate decreased rather steadily, and in 1999 it fell to 8 per 1,000. By 2002, it had returned to the level of 1995 - 12 per 1,000. However, in 2003 the rate fell to 11.6 per 1,000, and in 2004, it fell again to 10.8 per 1,000. By 2005, it had returned to the level of 2000 - 9.3 per 1,000, and in 2006, the last year for which we have data, the rate fell further – to 9.2 per 1,000.

According to the Israel CBS data, of all FSU immigrants to Israel since 1990, 107,800 had left the country by the end of 2006 and stayed abroad continuously for one year or more. However, a sizable number (19,700) of these had returned to Israel by the end of 2007, and this return is continuing. Therefore, the registered number of FSU immigrants who left Israel without returning to the country was 88,100. In 1990-2006, about 966,000 immigrants arrived in Israel from the FSU (Table 1). Thus, about 9 percent of this number left Israel without returning. Moreover, a sizable part of the out-migration of FSU immigrants from Israel is circular in character as is true for the entire out-migration from Israel (see Cohen, 2008)

For our study of the distribution of out-migration from Israel of FSU immigrants by country we shall rely on statistics from the receiving countries.⁸ We assembled data on immigration from Israel to the Russian Federation and five European FSU countries for 10 recent years (Table 6).⁹

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⁷ Out-migration of FSU immigrants from Israel is much lower than that among immigrants from Western countries. For all immigrants from North America since 1989 this indicator was almost as high as 25 percent, and for immigrants from France, it was 16 percent for a shorter period of time ending in 2002 (Haaretz, August 15, 2003, pp. 1A, 10A).

⁸ According to an official responsible for Israel CBS migration statistics, the national statistical service has no information on distribution of out-migration by country of destination, and therefore does not present respective data (Sheps, 2008).

⁹ For Estonia we found no recent data on migration flows on national or international databases presented on the internet. For a review of international migration statistics in the CIS countries, see: Chudinovskikh, 2008a.

Table 6. Immigration from Israel to the Russian Federation and European FSU Countries, 1997-2006

Year	Russian	Ukraine	Belarus	Moldova	Latvia	Lithuania
	Federation					
1997	1,626	1,045	•••	•••	51	•••
1998	1,528	1,193	230		50	
1999	1,425	1,098	214	9	38	12
2000	1,508	1,019	198	12	28	9
2001	1,373	898	207	38	36	77
2002	1,670	1,003	233	40	51	94
2003	1,808	1,164	361	68	58	94
2004	1,486	1,411	283	90	75	117
2005	1,004	1,281	227	94	58	88
2006	1,053	1,372	271	72	32	87

Sources: Data of national statistical services of the respective FSU countries.

The most sizable FSU return migration flow has been to Russia. Immigration from Israel to the Russian Federation was registered in Russian statistics, and these data have been available since 1997 for analysis. The statistics of Rosstat are based on the neighborhood passport office registration of immigrants who resumed residence status in Russia. 10 In 1997 the registered number of immigrants from Israel to the Russian Federation was 1,626. In 1999, a period of severe economic crisis in Russia, the number of immigrants from Israel decreased to about 1,400.

In 2003, a period of recession in the Israeli economy, the registered number of immigrants to Russia from Israel reached its maximum to date – 1,808. However, the Israeli economy subsequently improved (see EIU, 2008), and in 2004 the number of immigrants decreased to less than 1,500. In 2005 the registered number of immigrants from Israel to Russia fell even more noticeably – to about 1,000; that is, it was lower by 44 percent than in 2003. In the first half of 2006 the registered number of immigrants from Israel to Russia continued to fall (by 15 percent; see Table 7) as compared with the first half of 2005.

¹⁰ These data also include some people who previously emigrated to Israel from other parts of the FSU.

Table 7. Immigration from Israel to the Russian Federation, 2003-2008

Year	January –	July –	January –
	June	December	December
2003	845	963	1,808
2004	689	797	1,486
2005	454	550	1,004
2006	388	665	1,053
2007	504	590	1,094
2008	445	557	1,002

Source: Compiled on the basis of Rosstat data.

At the same time, even a short-term worsening of the situation in Israel (i.e., the recession caused by the second Lebanon war) can lead to an increase in the number of immigrants from Israel. According to the Rosstat data, in the second part of 2006 as compared with the same period of 2005 the registered number of immigrants from Israel to the Russian Federation increased by 21 percent. In the first half of 2007 this increase continued, and the registered number of immigrants from Israel to the Russian Federation was higher than in the respective months of the two previous years. However, the registered number of immigrants from Israel was much lower (by 40 percent) than in the first part of 2003. In the second part of 2007 as compared with the same period of 2006 the registered number of immigrants from Israel to the Russian Federation had decreased by 11 percent, and this decrease continued in 2008.

Before 2005 in Ukraine the registered number of immigrants from Israel was consistently lower than that in the Russian Federation (see Table 6).¹¹ In 2004, the registered number of immigrants to Ukraine from Israel reached its maximum to date – about 1,400. However, in 2005 despite the euphoria after the victory of the Orange Revolution the registered number of these immigrants was lower. As in Russia, in Belarus the registered number of immigrants from Israel reached its maximum in

According to the opinion of a noted expert of CIS migration statistics, the quality of Russian and Ukrainian registered immigrant data is about the same (Chudinovskikh,

2008b).

2003. At the same time, in Moldova, Latvia and Lithuania respective numbers reached their maximum in 2004-2005. For the six FSU countries as a whole the registered number of immigrants from Israel reached its peak in 2003 – about 3,600. This corresponds rather well with the dynamics of out-migration according to the Israeli statistics (cf. Table 5), which inevitably lagged behind statistics of the FSU countries. Of course, there were some immigrants from Israel who officially resumed residence status in the other FSU countries, ¹² and we may conservatively guesstimate that in 2003 the total number of such immigrants from Israel for the FSU as a whole was almost 4,000.

Simultaneously, comparison of Israeli data and statistics of FSU countries clearly shows that a very sizable part of FSU out-migration from Israel went to Western countries (cf. Tables 5 and 6), mostly to North America. However, we have no appropriate statistical data for the USA. At the same time, according to the 2001 Canadian census, "8,030 individuals born in the Former Soviet Union ... came from Israel to Canada after June 1996" (Shahar and Magonet, 2005); that is, about 1,600 per year. Therefore, in this period the average annual number of immigrants from Israel to Canada was higher than that registered in the Russian Federation (cf. Table 6).

A comparison of the percentage of emigrants from Russia to Israel and immigrants to Russia from Israel aged 16 and over with higher education shows that both these migration streams are about identical in this characteristic. In 2006, 36 percent of the emigrants from Russia to Israel, and 35 percent of the immigrants to Russia from Israel had attained higher education (estimate based on Rosstat, 2007a). At the same time, according to the 2002 Russian census, 59 percent of the Jews aged

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¹² In 2000, 80 immigrants were registered from Israel in Kazakhstan and 69 in Uzbekistan (IOM, 2002).

16 and over had higher education (computation based on Rosstat, 2004, including postgraduate degrees presented separately in the census results). Thus, the level of education among emigrants to Israel is much lower than that of the Jews who remained in Russia. This can not be explained by the fact that the recent emigrants from the provinces (outside the cities of Moscow and St. Petersburg) constitute the great majority of the emigration from Russia to Israel (see Table 3). According to the same census, 54 percent of the provincial Jews aged 16 and over had attained higher education. Based on these cited education data we can conclude that return migration from Israel to Russia in comparison with recent emigration from this country to Israel did not cause a "brain drain" in either place.

Demographic Transformation

Even before the large-scale emigration of the 1970s, the balance of births to at least one Jewish parent and Jewish deaths had become negative in Russia and Ukraine. By the end of the 1980s, this balance was decidedly unfavorable in all the republics of the European part of the Soviet Union (Tolts, 2003a). We shall begin our study of the demographic characteristics and their transformation among the (post)-Soviet migrants with an analysis of age structure.

By the end of 2004 the median age of the (post-) Soviet immigrant population in Israel was 36.8 years, about 13 years lower than that of Jews in the USSR before the onset of the recent mass emigration according to the 1989 census (see Table 8). Emigration is highly selective by age and younger people have been more prone to migrate, especially to Israel (DellaPergola, 1998; Tolts, 2003a). In 1990-2001, among the FSU immigrants to Israel those under 15 constituted 20.3 percent (Israel CBS, 2007b), whereas among Jews in the USSR the same age group accounted for only

11.6 percent in 1989, and their share was even less in the Russian Federation. Moreover, among the Jews in the Russian Federation the share of children under 15 decreased sizably from 8.4 percent in 1989 to 4.9 percent in 2002.

Table 8. Jews in the USSR and the Russian Federation, and (Post-) Soviet Immigrant Population in Israel, (a) by Age Group, Percent

F				ge Group,			
Group and year	All	0-14	15-29	30-44	45-64	65+	Median
	ages						age
Jews in the							
USSR							
1989	100.0	11.6	13.0	20.2	31.6	23.6	49.7
Jews in Russia							
1989	100.0	8.4	11.4	19.5	33.8	26.9	52.3
2002	100.0	4.9	10.7	14.2	33.6	36.6	57.5
(Post-) Soviet							
immigrant							
population							
in Israel							
End of 2004	100.0	17.5	22.5	20.7	23.0	16.3	36.8

⁽a) FSU immigrants who arrived in Israel since 1990 and were still living there by noted date, including children born in Israel to mothers who immigrated from the FSU in this period.

Sources: Compiled on the basis of Tolts, 2003a and 2007; Israel CBS, 2005c.

As noted above, not all the FSU immigrants to Israel were Jews. However, the share of children under 15 in the (post-) Soviet immigrant population in Israel was higher than that among the total population of the Russian Federation at the same date: 17.5 and 15.2 percent, respectively (cf. Table 8; Rosstat, 2005b). At the same time, not only the age peculiarities of the emigrants led to all these discrepancies. In the (post-) Soviet immigrant population in Israel more than two-thirds (69 percent) of the children under 15 were born in Israel to mothers who had immigrated from the FSU since 1990, and it is clear that without the sizable input of their fertility the immigrant population in Israel would be much older.

The Israeli Jewish population represents a mix of very different lifestyles and values (see, e.g.: Levy et al., 2004). Therefore, the demography of its components shows great differentiations (DellaPergola, 2004). The total fertility rate (TFR)¹³ of the Jews in Israel is the highest among contemporary developed countries: in 1985-1989 it was 2.8 and approached about the same level again in 2006 – 2.75 (Israel CBS, 2007c). However, this is only the average. At one end of the spectrum are ultra-Orthodox Jews (Haredi) who have a very high average fertility (TFR of about 7), whereas at the other end is the non-religious segment of the Jewish veteran population with a TFR of 2.0-2.2 (Friedlander, 2002). The non-religious majority of FSU immigrants is more similar to the latter.

In 1988-1989 the TFR of Russia's Jewish population was 1.49 and that of the Ukrainian Jewish population – 1.52 (Interstate Statistical Committee, 1995; Piskunov, 1997). At that time the TFR of the Jewish population in the Soviet Union as a whole was only slightly higher than in the Russian Federation and Ukraine – 1.56 (Andreev at al., 1993). At the onset of the recent mass emigration only two small Jewish groups in the USSR had much higher levels of fertility. Based on the data of the last Soviet census of 1989 the TFR was estimated at 3.1 for Bukharan Jews in Uzbekistan (Tolts, 2008a), and it was probably not much lower among the Mountain Jews in East Caucasus. However, their estimated numbers were not high: in the 1990s about 40,000 Mountain Jews from East Caucasus and 22,000 Bukharan Jews from former Soviet Central Asia emigrated to Israel (Leshem and Sicron, 2004; Kaganovich, 2003). A third distinctive Jewish group – Georgian Jews – was much more similar to the Ashkenazi majority of migrants in terms of its demographic characteristics.

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¹³ The total fertility rate is the average number of children that a woman would bear in her lifetime if current age-specific fertility rates were to remain stable.

For 1993-1994 the TFR of Russia's Jewish population was estimated at about 0.8 (Tolts, 1996); that is, from 1988-1989 it fell dramatically by 46 percent. We have no direct information on the dynamics of TFR for Jews in other parts of the FSU, but the fertility reduction in the post-Soviet period was very pronounced also outside Russia (Heleniak, 2005; Vishnevsky, 1999). Thus, for the FSU as a whole we would conservatively guesstimate the TFR of the Jewish population at 0.9 in the mid-1990s, and we assume that it did not rise subsequently before the end of the decade.

Table 9. Total Fertility Rate (TFR) Among FSU Immigrants Who Arrived in Israel Since 1990

Year	Total	Of tl	nese:
		Jews	Non-Jews ^(a)
1990	1.58		•••
1991	1.31		
1992	1.33	•••	•••
1993	1.52	•••	•••
1994	1.65		
1995	1.72		
1996	1.70	•••	•••
1997	1.71		
1998	1.71		
1999	1.63	1.69	
2000	1.62	1.73	
2001	1.56	1.69	
2002	1.55	1.70	1.27
2003	1.60	1.78	1.27
2004	1.55	1.76	1.15
2005	1.55	1.75	1.20

(a) Author's estimate.

Sources: Compiled on the basis of Israel CBS data (see Appendix, Tables 1A and 2A).

Analysis of the birth dynamics shows that the Jews and their relatives who emigrated to Israel in the 1990s escaped the dramatic fertility reduction which was characteristic of the FSU population as a whole and Jews in particular. By 2001 their TFR was 1.56 (see Table 9); that is, at the same level as that of Jews in the Soviet

Union in 1988-1989. At the same time, the age pattern of fertility changed noticeably: age-specific birth rates under 20 and at ages 20-24 decreased sizably, whereas those at ages 30-45 increased considerably in comparison with the same indicators of Jews in the Soviet Union in 1988-89. Among (post-) Soviet immigrants the interval of 25-29 instead of that of 20-24 became the highest intensity childbearing age (see Appendix, Table 1A).

In 1999-2005 the TFR among (post-) Soviet immigrants registered as Jews was rather steady at 1.7-1.8; that is, it was double the post-Soviet level of Jewish fertility in the FSU and approached the TFR level of Israeli non-religious veteran Jews (2.0-2.2) which was noted above. At the same time, according to our estimate, this indicator for (post-) Soviet immigrants registered as non-Jews in 2002-2005 was also steady and as low as approximately 1.2-1.3; thus, it was similar to the low level of post-Soviet Slavic populations in their home countries. ¹⁴ However, the data clearly show a similarity in age-specific fertility schedules of the two segments of (post-) Soviet immigrants. In 2002-2005, not only was the age of the highest intensity of childbearing 25-29 for both groups, but the birth rates at ages 30-34 were higher than those for ages 20-24 (see Appendix, Table 2A).

Results of a special processing of the 2002 birth certificates in Russia show that 15 percent of all children born to Jewish women were registered by parents who were not formally married, and another 7 percent were registered by the mother alone; thus, 22 percent of total births to Jewish mothers were out of wedlock (Tolts, 2006). At the same time, this percentage was sizably lower than that in the total urban population of the Russian Federation where it was 28 percent in the same year (Tolts et al., 2006). In Israel births out of wedlock are very rare among the veteran Jewish

¹⁴ In 2005, TFR was 1.20 in Ukraine, 1.21 in Belarus and 1.29 in Russia (INED, 2008).

population – as low as 3 percent, and their share among the FSU immigrant population was nearly 10 percent in 2000 (Nahmias, 2004). Thus, indicators show that FSU immigrants' fertility behavior in Israel has already distanced itself from that in the sending country.

At the onset of the recent mass emigration, Jewish males had a much higher life expectancy than the average for total Soviet males, whereas Jewish females in the USSR had no such advantage. Life expectancy at birth for Soviet Jews in 1988-1989 was 70.1 for males and 73.7 for females, and these indicators were very similar to these in the two republics where most of them were concentrated – the Russian Federation and Ukraine (see Table 10). At the same time, in Soviet Central Asia life expectancy for Jewish males and females was lower than that of the total Jewish population in the USSR.

Table 10. Life Expectancy at Birth for Jews and Total Urban Population in the FSU, On the Eve of and During Jewish Mass Emigration of the 1990s

on the Eve of the Burning rewish Wass Emigration of the 1990s					
Area	N	Iales	Fen	Females	
	Jews Total urban		Jews	Total urban	
		population ^(a)		population ^(a)	
	On the	eve of Jewish mas	ss emigration, 1	988-1989	
Entire USSR	70.1	65.6	73.7	73.9	
Russian Federation	69.7	65.4	$73.5^{(b)}$	74.2	
Ukraine	70.3	67.1	73.5	74.7	
Central Asia	65.7		71.6		
	During Jewish mass emigration, mid-1990s ^(c)			1990s ^(c)	
Russian Federation	69.6	57.7	73.2	71.2	
Moscow	72.2	57.7	76.0	71.5	

⁽a) Indicators for 1988 and 1994, respectively (Goskomstat of USSR, 1989; Goskomstat of Russia, 1995; Rosstat, 2005b [updated]).

⁽b) According to alternative estimate – 73.3 (Bogoyavlensky et al., 2000).

⁽c) For Jews in the Russian Federation and Moscow, indicators for 1993-1994 and 1993-1995, respectively (Tolts, 1996 [indirect estimate]; Shkolnikov et al., 2004). Sources: As noted above, and Andreev et al., 1993 [Jews in the USSR, 1988-1989]; Interstate Statistical Committee, 1995 [Jews in the Russian Federation, 1988-1989]; Piskunov, 1996 [Jews in Ukraine, 1988-1989]; Tolts, 2003a [Jews in Central Asia, 1988-1989].

Actually the most acute demographic problem in most of the contemporary FSU countries, especially in Russia, is mortality; the total Russian population has the lowest life expectancy for males among all the developed countries. Between 1988 and 1994, the life expectancy of males in the total Russian urban population fell precipitously by 7.7 years from 65.4 to 57.7, and was 59.0 in 2003 (Rosstat, 2005b). However, the life expectancy of Russian male Jews has been estimated for 1993-1994 at 69.6, which is about the same level as at the end of the 1980s, showing a great difference of about 12 years. Given the demographic situation of contemporary Russia, the life expectancy of Jewish males was relatively very good.

From these figures we see that the Jewish population has adapted to the recent economic transition in Russia better than the rest of the population. Nor were the dynamics of Jewish life expectancy adversely effected by the selective character of mass emigration as one might have supposed. Although people who are unwell usually have a lower tendency to migrate and this could have been expected to raise Jewish mortality somewhat, this factor was offset by successful Jewish socioeconomic adaptation in post-Soviet Russia. At the same time, the life expectancy for both Jewish males and females was higher in Moscow than the country averages for Jews. Thus, we can conclude that by the mid-1990s the life expectancy for both Jewish males and females was lower outside Moscow. However, we do not know when this discrepancy arose within Russian Jewry, and how it was linked to the recent mass emigration.

A comparison of Jewish life expectancy at age 15 in Russia and Israel at the onset of the recent mass emigration shows a sizable differentiation between them: the discrepancy for both males and females was more than three years (see Table 11). However, in 1990-1994 in Israel the standardized rates of female mortality were lower

for the new immigrants from the FSU than for the veteran Jewish population of Israel, while the indicators for males of both groups were rather close (Rotem, 1998).

Table 11. Life Expectancy at Age 15 for Jews in the Russian Federation and Israel, and All (Post-) Soviet Immigrants Who Arrived in Israel Since 1990

Group and period	Males	Females
On the eve of (post-) Soviet		
Jewish mass emigration		
Jews in the Russian	56.7	60.2
Federation, 1988-1989		
Jews in Israel, 1985-1989	60.1	63.6
On arriving in Israel (post-)		
Soviet mass emigration of		
the 1990s		
All (post-) Soviet	61.0	67.0
immigrants, 2000-2003		
Jews in Israel, 2000-2004 ^(a)	63.5	67.4

⁽a) Including immigrants.

Sources: Israel CBS, 2007c [Jews in Israel, 1985-1989 and 2000-2004]; Interstate Statistical Committee, 1995 [Jews in the Russian Federation, 1988-1989]; Ott et al., 2009 [(post-) Soviet immigrants, 2000-2003].

In 2000-2003, life expectancy at age 15 for (post-) Soviet immigrants in Israel was very close for all Jewish females in the country, however this indicator for males was sizably lower for FSU immigrants. At the same time, it was much higher than that in Russia for both males and females. It is interesting to note that (post-) Soviet immigrants constitute a very sizable portion of the medical profession in contemporary Israel: according to the data for the first part of this decade, almost half of all doctors under age 45 and one-quarter of those between 45 and 65 were from the FSU (Remennick, 2007). We suppose that the existence of this huge pool of Russian-speakers (this includes nurses) renders the Israeli health system unusually user-friendly for FSU immigrants. However, surely emigration postponed death for many FSU Jews in other destinations as well, where mortality was lower than in the FSU states.

Demographic Decline and Revitalization

Migration has been a positive factor in Jewish demographic dynamics. It caused additions to the Jewish population as a result of ethnic re-identification in the process of migration as was noted above. The estimates (which use the 1970 Soviet census as a baseline)¹⁵ show that, by the beginning of 2004, worldwide there were about 1.6 million "core" Jews (by self-identification) who originated in the FSU, of whom about one-tenth, mostly in Israel, had become part of the "core" Jewish population as a result of migration (Tolts, 2004). In Israel there were about 0.8 million Jews who had arrived since 1970 from the FSU and their descendants (approximately half of the estimated worldwide number). Perhaps one fifth of these had previously not been identified as Jews, neither by themselves, nor by the FSU authorities. According to the same estimates, at the beginning of 2004 less than one-quarter (less than 0.4 million) remained in the FSU, and the rest were mostly in the United States (about 0.3 million) and Germany (less than 0.1 million).

Between 1999 and 2004 population censuses were conducted in most FSU countries and the results of all these censuses clearly show the demographic decline of the Jewish communities in the FSU (see Table 12). At the start of the recent mass emigration, Russia's Jews made up 39 percent of the total number of "core" Jews in the FSU. However, since 1989 the population decline of Russia's Jewry was lower than that of the total Jewish population in the FSU. This corresponds to Russia's lower share in FSU Jewish emigration as a whole (see Table 2; see also DellaPergola, 1998; Tolts, 2003a). As a result, by 2000 the Jews in the Russian Federation

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¹⁵ According to the 1970 Soviet census, there were 2.15 million Jews in the Soviet Union. According to the 1989 Soviet census, at the start of the recent mass emigration the number of those who remained there had decreased to 1.45 million.

accounted for more than 60 percent of the total number of "core" Jews in the FSU (Tolts, 2004).

Table 12. Numerical Decrease of "Core" Jewish Population According to Recent Post-Soviet Censuses, Thousands

Country	Census date	Number	Number	Numerical
		of Jews	of Jews	decrease,
			according to	%
			the 1989	
			Soviet census	
Azerbaidzhan	January 1999	8.9	30.8	71
Belarus	February 1999	27.8	112.0	75
Kazakhstan	February 1999	6.8	18.9 ^(a)	64
Kirgiziia	March 1999	1.6	6.0	74
Tadzhikistan	January 2000	0.2	14.8	98.5
Estonia	March 2000	2.15	4.6	54
Latvia	March 2000	10.4	22.9	55
Lithuania	April 2001	4.0	12.4	68
Ukraine	December 2001	104.3	487.3	79
Georgia	January 2002	3.8 ^(b)	24.8	85
Russian				
Federation	October 2002	233.6 ^(c)	570 ^(d)	59 ^(c)
Moldova	Oct./Nov. 2004	4.8 ^(e)	65.8	93

- (a) As published in the results of the 1999 census of Kazakhstan.
- (b) Not including Abkhazia and South Ossetia.
- (c) There were possibly additional Jews (approximately 20,000) among people whose ethnicity was not recorded in the census, and therefore the numerical decrease was perhaps lower 55 percent (see Tolts, 2004).
- (d) Including "Tats".
- (e) According to the results of the Moldova census of October 2004, there were about 3,600 Jews; however, this census did not cover Moldovan territory east of the Dniester River. According to the unofficial results of the separate census of November 2004, there were about 1,200 Jews there.

Sources: Post-Soviet censuses; 1989 Soviet census (Tolts, 2007 [updated]).

In the Russian Federation, from 1988 to 1998, the decline in the number of births to at least one Jewish parent was much faster than that of Jewish deaths, and as a result the estimated negative balance of these vital events increased by 1,100, from about -5,800 to -6,900 (Table 13). This coincided with negative demographic development among the Jews who remained in all other FSU countries (see Tolts,

2003a). Also in Germany, despite the sizable immigration of Jews from the FSU, in the 1990s and in the first part of the 2000s the vital balance worsened significantly. There was no substantial increase in the number of births in the Jewish community, and the number of deaths increased by 2.7 times from 1990 to 2005. As a result of this development, the negative vital balance increased in this period by 3.3 times. The attempt to revitalize the German Jewish community through FSU immigration was hardly a great success, at least in terms of natural growth. We have no direct information on the balance of births and deaths for FSU Jewish immigrants in the USA; however, the respective balance since the 1990s was negative for USA Jewry as a whole (DellaPergola, 2006).

Table 13. Balance of Births and Deaths among Jews in the Russian Federation and Germany, and FSU Immigrants in Israel. 1988/1990-2005

Year	Births	Deaths	Balance	
Jews in the Russian				
Federation				
1988	$8,006^{(a)} \\ 2,177^{(a)}$	13,826	-5,820	
1998	$2,177^{(a)}$	9,103	-6,926	
2001	1,805 ^{(a) (b)}	•••	•••	
Jews in Germany				
1990	109	431	-322	
1998 ^(c)	123	782	-659	
2001 ^(c)	117	990	-873	
2005 ^(c)	128	1,178	-1,050	
FSU Immigrants in				
Israel (d)				
1998	8,926	5,967	+2,959	
2001	10,333	6,918	+3,415	
2005	10,997	7,597	+3,400	

⁽a) Children born to at least one Jewish parent, assuming the (unknown) number of children born to non-Jewish mothers and Jewish fathers was twice the (known) number of children born to Jewish mothers and non-Jewish fathers (author's estimate).

Sources: Compiled on the basis of vital statistics data, see sources above.

⁽b) 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 were applied in the estimate.

⁽c) Mostly FSU immigrants (DellaPergola, 2003 and 2006; Polian, 2000).

⁽d) Who arrived since 1990, according to Israel CBS data.

At the same time, the number of births among FSU immigrants in Israel grew significantly, and in 2005 it was about 6 times higher than was the number of births to at least one Jewish parent in Russia in 1998, which subsequently continued its decline.

Table 14. Actual and Guesstimated Births and Deaths for FSU Migrants to Israel, (a) 2001, Thousands

	Births	Deaths	Balance
1. Actually			
registered			
in Israel	$10.3^{(b)}$	6.9 ^(c)	+3.4
2. Guesstimated			
according			
to indicators of			
FSU Jews	$6.0^{(d)}$	11.8 ^(e)	-5.8
3. Discrepancy			
[(3)=(2)-(1)]	-4.3	+4.9	X

- (a) Who arrived since 1990.
- (b) According to Israel CBS registered data (total fertility rate for all FSU immigrants [Jewish and non-Jewish] was 1.56, see Table 9 of this paper).
- (c) According to Israel CBS registered data (life expectancy at birth of the immigrant population is close to that of the Israeli Jewish population as a whole which was 77.9 years for males and 81.6 years for females in 2001).
- (d) Total fertility rate at 0.9, see text.
- (e) Life expectancy at birth 70.1 years for males and 73.7 years for females as in life tables for Soviet Jewish population in 1988-1989 (Andreev et al., 1993). Sources: Vital statistics data as noted above; author's computations.

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An estimate (Table 14) shows that if in 2001 the total fertility rate among FSU immigrants in Israel had been as low as that found for FSU Jews as a whole in the period of the mid-1990s and onwards (0.9) the number of births among them would have been lower by 4,300. Moreover, if in 2001 the life expectancy at birth among this immigrant group had been as low as that found for FSU Jews (70.1 years for males and 73.7 years for females as in life tables for the Soviet Jewish population in 1988-1989) the number of deaths among them would have been higher by 4,900. Thus, they would have had a decisively negative balance of births and deaths had they

not arrived in Israel.¹⁶ The post-Soviet mass exodus led to tens of thousands of additional Jewish births among those Jews who emigrated, most of which occurred in Israel, and the deaths of many FSU immigrants in all their destinations have been postponed.

Conclusion

In our study we have assembled and analyzed statistics of post-Soviet Jewish emigration to outside the FSU, and to Israel in particular, as well as out-migration from Israel of FSU immigrants. There is no simple correlation between the situation in Israel and Jewish migration from different countries (DellaPergola, 1998). However, it has been found that the push factor is decisive for emigration to Israel, and the recent wave from the FSU confirms previous observations which were based on emigration from other countries. At the same time, our findings confirm the previous analysis which found that emigration from Israel is largely dependent on the dynamics of the country's business cycle (see DellaPergola, 1999).

Our findings concerning the demographic changes among FSU immigrants in Israel are important for evaluation of the demographic situation in the post-Soviet countries. Despite difficulties of migrant adaptation this rather sizable group originated from the segment of Soviet society with long-time low fertility escaped post-Soviet fertility reduction, and in Israel it approached the higher level of fertility of the non-religious sector of that country's Jewish veteran population. Soviet-origin medical personnel after immigration to Israel was successfully re-trained, and now make up a very large proportion in the county's highly effective medical service. Life expectancy of (post-) Soviet immigrants in Israel increased rapidly and noticeably.

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¹⁶ Socio-economic adaptation of FSU immigrants in Israel is generally successful; see, e.g.: Leshem, 2008; Remennick, 2007, especially chapter 2; Sicron, 2007.

Therefore, we may suppose that the severe FSU mortality problem is not mostly caused by people or by their behavior, but rather by their place of residence and the level of medical service available.

Appendix

Table 1A. Age-Specific Birth Rates of the Jewish Population in the Soviet Union in 1988-1989, and All (Post-) Soviet Immigrants Who Arrived in Israel Since 1990, Per 1,000 Females

Year	Age					TFR		
in	Under	20-24	25-29	30-34	35-39	40-44	45-49 ^(a)	
Israel	20							
		Jewish Population in the Soviet Union, 1988-1989						
X	24.9	125.6	90.6	50.7	17.8	3.2	0.1	1.56
	A	All (post-) Soviet immigrants who arrived in Israel since 1990						
1990	37.5	167.8	66.3	30,6	12.3	2.1	0.0	1.58
1991	32.9	119.0	65.2	29.6	11.0	3.4	0.2	1.31
1992	27.6	108.2	73.9	38.9	14.6	2.5	0.3	1.33
1993	30.9	105.0	92.3	52.3	19.9	3.6	0.4	1.52
1994	26.9	111.0	96.8	64.5	25.8	5.0	0.0	1.65
1995	25.9	105.6	112.3	66.5	27.8	5.0	0.0	1.72
1996	24.1	102.3	108.9	71.8	28.4	5.2	0.2	1.70
1997	22.8	98.7	107.4	73.9	32.6	6.5	0.3	1.71
1998	19.9	96.7	112.3	73.0	33.9	6.2	0.3	1.71
1999	16.3	88.7	107.0	72.9	33.3	5.8	0.4	1.63
2000	15.3	83.9	108.0	75.2	34.4	6.7	0.3	1.62
2001	12.9	76.2	108.0	72.4	34.6	7.5	0.1	1.56

⁽a) Computation based on a low number of births.

Sources: Compiled on the basis of Darsky, 2005; Israel CBS, 2007a and 2000-2002c.

Table 2A. Age-Specific Birth Rates of Jewish and Non-Jewish (Post-) Soviet Immigrants Who Arrived in Israel Since 1990, Per 1,000 Females

Year	Age					TFR		
in	Under	20-24	25-29	30-34	35-39	40-44	45-49 ^(a)	
Israel	20							
	All (post-) Soviet Immigrants							
2002	11.9	71.9	108.1	76.6	33.6	6.7	0.4	1.55
2003	10.3	67.7	115.4	78.6	38.8	8.5	0.3	1.60
2004	10.2	61.9	111.1	79.8	38.2	7.8	0.6	1.55
2005	9.9	57.9	112.0	83.2	37.8	8.7	0.6	1.55
	(Post-) Soviet immigrants registered as Jews							
2002	11.1	78.4	122.7	83.5	36.5	6.9	0.6	1.70
2003	10.4	75.1	130.6	88.8	41.8	8.6	0.4	1.78
2004	9.8	70.3	129.9	91.2	41.9	8.6	0.6	1.76
2005	10.5	65.5	126.9	95.6	40.9	9.7	0.5	1.75
	(Post-) Soviet immigrants registered as non- Jews ^(b)							
2002	13.6	57.6	82.9	65.0	27.6	6.3	0.3	1.27
2003	10.2	51.7	88.8	61.9	33.1	8.1	0.1	1.27
2004	11.0	43.9	76.4	61.5	31.7	5.9	0.3	1.15
2005	8.6	41.3	82.9	64.5	35.2	6.7	0.8	1.20

⁽a) Computation based on a low number of births.

Sources: Compiled on the basis of Israel CBS, 2002-2006c.

⁽b) Author's estimate.

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