DEMOGRAPHIC TRENDS IN RUSSIA¹

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Abstract. In order to understand the demography of Russia today, one needs to know its history and the diversity of its people. This paper describes the main demographic changes in Russia during the 20th century, with an emphasis on recent changes: aging, ethnic composition, mortality, marriage and divorce, fertility and family planning, and migration. It brings together information from a wide range of publications of Russian and Western origin. Much of the data has only become available very recently. Among the main findings are: (1) the number of births declined very rapidly in recent years, mainly a result of the socio-economic situation but also an echo effect of low fertility during World War II, (2) most women marry and have their children in their early twenties, (3) abortion remains the dominant method of family planning, (4) compared to other countries, mortality is particularly high among adult males, largely a consequence of deaths associated with accidents, poisoning, and violence, (5) the difference

¹ The Sovjet Union ceased to exist on 31 December 1991. It followed the agreements of Minsk on December 8, 1991 and Alma-Ata on 21 December 1991, creating the Commonwealth of Independent States. The Soviet Union has been in existence since 31 December 1922. On 25 December 1991, the territory of Russia became the Russian Federation (Rossiyskaya Federatsiya).

between female and male life expectancy is the highest in the world more than ten years, (6) of the 25 million Russians living in the other states of the former Soviet Union, less than 10% are expected to resettle in Russia in the near future, (7) the large volume of emigration of Russians expected a few years ago did not occur and is not expected to occur in the near future. International migration to the West mainly consists of Jews, Germans, and Armenians.

Keywords: population; Russia; USSR (former).

1 | Introduction

In order to understand the demography of Russia today, one needs to know its history and the diversity of its people. The age and sex composition of the population today is a consequence of its demographic history, which, in the 20th century, is characterized by periods of substantial population losses, due to war, social conflicts, and starvation. The ethnic composition and recent and current migration trends have their roots in migration and population redistribution policies determined decades ago.

The major sources of data are censuses and the population register. The first general census of the Russian Empire was organized in 1897 and was published in 89 volumes. The first census of the Soviet Union, established in 1922, was organized in 1926. Further census dates are 1937, 1939, 1959, 1970, 1979, and 1989. The censuses were organized by the Central Statistical Board (TsSU), which in 1987 was renamed the State Committee on Statistics (Goskomstat). In 1985, TsSU organized the first Socio-Demographic Sample Survey. The survey, which is also referred to as the micro-census, covered about 5% of the population (5% of the census enumeration areas). The next micro-census was organized in Russia in February 1994. Births, deaths, marriages, divorces, and other events related to the legal status of family members, such as adoption, recording of paternity, and name changes, are registered at the local civil authorities (ZAGS — *Zapis' aktov grazhdanskogo sostoianiia* [Registry of Acts of Civil Status]²). The results of the 1937

² The ZAGS authorities also provide people with certificates of marriage, birth, etc. Most of the registration is completed in duplicate, with one copy maintained by ZAGS and another sent to the regional offices of the State Committee on Statistics. Deaths should be registered within three days. In Russia, births should be registered within one month. The length of time allowed for registration of births is different in other states of the

Census were rejected by Stalin which led to a new census in 1939. The 1937 census and the oppression and death of its organizers represent a dark period in the history of census-taking. The events surrounding the 1937 census were recently documented by Volkov (1992). Until the end of the 1950s, correct and complete population data were not available. This unavailability of demographic data is largely associated with Stalin. In 1934, the regular publication of population data was interrupted. After Stalin's death in 1953, a new census was debated in conferences held in 1954 and 1957. The 1959 Census initiates a new period in which demographic data are considered to be of acceptable quality and are published annually. Andreev, Darsky, and Khar'kova (1990, 1993) reconstructed the demographic history of the former Soviet Union between 1920 and 1959. For each year in that period, estimates are provided of population size, age structure, and age-specific rates of fertility and mortality. A major advance in the publication of demographic data was the publication in 1987 of the first demographic yearbook of the USSR (called *Population of the USSR, 1987*). It became an annual publication, the title of which was changed in 1989 to *Demographic Yearbook of the USSR*.

The subject of this paper is demographic trends in Russia (Russian Federation). Demographic data are not always available for Russia. In such cases, they are given for the USSR. Data for years before 1917 pertain to the European part of the Russian Empire. Sometimes the data is for Russians only (people with Russian nationality [*rusскиye*]). Russians constitute about 82 % of the population of Russia (*Rossiya*) and about 25 million Russians live outside Russia within the borders of the former USSR. The basic question whether a large-scale migration of Russians to the Russian Federation would take place occupied several analysts (see e.g. Harris, 1993a; Dunlop, 1993).

At the beginning of 1993, the de jure population of Russia was 148.3 million, about 51 % of the population of the former USSR (State Committee of Russia on Statistics, 1994). Russia is the sixth largest country in the world in terms of population size (after China, India, USA, Indonesia, and Brazil). It is the largest country in terms of territory (17,075 thousand square kilometers), twice the size of either China or the United States. The population density

former USSR. A more detailed description of the rules and operations of ZAGS can be found in Gracheva (1983). See also Anderson and Silver (1986). Problems of definition and registration were documented by Anderson and Silver (1986), Dmitrieva and Andreev (1987) and others (for a list of references, see Anderson and Silver, 1990, p. 196).

is low: 8.7 inhabitants per square kilometer. Most people live in the European part of the country. According to the 1989 census, minority ethnic groups comprise about 27 million people, i.e. 18.5% of the population of Russia. On the other hand, more than 25 million ethnic Russians (17.4% of the Russians) and four million persons of other indigenous nationalities of the Russian Federation live outside Russia in the territory of the former Soviet Union³. Most of the nationalities have deep historical roots and the distribution of nationalities is partly a consequence of policies in the past and, consequently, provides a basis for renewed migration and/or calls for territorial recognition.

As in other countries, the demographic parameters of Russia reflect a particular history and socio-economic system. In Russia, women marry early and have their first child soon after marriage. The mean age at first marriage is 21.8 years; that at birth of the first child is 22.9 years. Early marriage and early childbirth may be related to a combination of the housing situation and policies. For many years, abortion has been the main method of birth control. On average, a woman has two abortions per live birth. In 1991, 3.6 million official abortions were carried out (10% of all abortions in the world). About 250,000 of these were among women aged 15 to 19 (Mikhailov, 1992, p. 3).

This introduction is followed by a description of the trends in population size and structure. Sections 3 to 6 cover the components of demographic change and their determinants: mortality, nuptiality, fertility, and migration. Whenever statistical data allow, we look beyond the mere demographic indicators to identify the social factors that are associated with demographic changes.

³ Including Russians, roughly 54 million persons in the former USSR reside outside their ethnic homeland. According to the 1989 Census, about 43 million persons, belonging to one of the 15 union republic nationalities, lived outside the republic of their titular nationality. In addition, there were 8.4 million persons of autonomous republic nationality who lived outside their titular republic, and 2.1 million persons belonging to autonomous oblast or okrug nationalities who reside outside their titular regions (Heleniak, 1993, p. 46).

2 | Population size and composition

At the turn of the century, the population of the European part of the Russian Empire was about 70 million. The first general population census of 1897 records 67.5 million people and the 1926 census 92.7 million. The number of ethnic Russians at the turn of the century is estimated at 56 million (Andreev and Darsky, 1992, p. 3). In the 1890s, the government began to adopt a general policy of russification, and migration of Russians was part of that policy. Between 1897 and 1917, more than 2.5 million Russians migrated beyond the territory of today’s Russia. The population of Russia in 1950 has been estimated at 101.4 million. The number increased to 119.0 million in 1960, to 130.1 million in 1970, and to 148.7 at the beginning of 1993. *Figure 1* shows the change in Russia’s population size. In the 1970s, population growth slowed down significantly, due to the fertility decline which started at the end of the last century and continued steadily till the end of the 1960s and an increase in mortality which started in 1964.

Figure 1. Population of the Russian Federation, 1959-1993

Source: State Committee of Russia on Statistics (1994).

The demographic history of Russia is inscribed in the age structure of the population (*Figure 2*). The first losses were a result of events in 1914-1918: the First World War, 1917 Coup, Civil War, and starvation. According to some estimates (Volkov, 1930, pp. 54-60), the Russian Empire lost about five million persons during 1914-1918. They were killed, died from wounds, or stayed as prisoners of war. According to Urlanis (1963), the birth deficit during this period comprised 7.2 million. In the period following World War I (1918-1921), Russia lost 6.6 million people (Volkov, 1930, p. 188). This number includes those who were killed, died from wounds, or left the country (3.6 million people). The hunger of 1921 took about five million lives in the entire USSR (Maksudov, 1989) [Figure for Russia not available]. Another period of excess mortality was the early 1930s. People born during that period are now 55-60 years of age. Andreev, Darsky, and Khar'kova (1993, p. 44) estimate the death undercount in the USSR during the period from 1927 to 1937 at 12.6 million, the highest excess mortality being during the hunger of 1933⁴. Andreev, Darsky, and Khar'kova (1990, 1993) estimate that the direct loss of life during the famine 1932-33 was 8.5 million persons (mostly infant deaths), while another five million children were not born as a result of depressed fertility during that period, leading to a total population deficit of 13.5 million persons that may be attributed to the famine of 1933. The famine came in the last year of the first Five-Year Plan (1927-33) which was introduced by Stalin and emphasized industrialization and collectivization. The repression during the period 1937-39 caused 1.25 million *unregistered* deaths. The human losses related to World War II are estimated at 26.6 million people for the territory of the former USSR (Andreev, Darsky, and Khar'kova, 1993, p. 77), resulting in a very low number of people aged 45-50 in 1990.

An echo effect of World War II is the small cohort of women currently in their prime reproductive ages. By the end of 1992, there were two million (17%) women aged 20-29 less than in 1987. These women, who are the daughters of the women born during the war, are having markedly fewer children than their immediate seniors. The echo effect of this small birth cohort is the small number of people aged 20-25 in 1990, contributing to the decline in the number of births observed in the late 1980s. This small cohort is expected to affect the number of births until the year 2000.

⁴ The most comprehensive study on the population history of the former USSR has been conducted by Andreev *et al.* (1993). The authors attempt to estimate population size and birth and death rates for the period 1920 until 1959.

Figure 2. Mid-year population of Russia by age, 1990 (x 1,000)

The history of births and deaths in the period 1920-92 is shown in *Figure 3 and 4*. The data for 1920-1938 pertain to the USSR, those for 1960-1992 to Russia.

Since 1992, the number of deaths exceeds the number of births in Russia. In recent years, the migration of Russians from other states of the former USSR to Russia has become a significant factor in population growth. Reguent (1992, p.2) reports that, in 1989, immigration accounted for 33% of the population growth of Russia; in 1991, it had increased to 43%. The underlying factors are discussed below.

A total of 18.5% of the population of Russia is of non-Russian ethnicity, about 27 million people. The 1989 census lists more than 100 ethnic minorities in Russia and, at that time, the Russian Federation had 31 ethnic homelands, which are areas in Russia with a high concentration of ethnic minorities and some autonomy. The minorities that have their homeland in Russia include Tatars (5.5 million live in Russia), Chuvashy (1.77 million),

Figure 3. Number of births and deaths, USSR, 1920-1938

Figure 4. Number of births and deaths, Russia, 1960-1992

Bashkiry (1.34 million), Mordva (1.07 million), and Chechensy (899 thousand). The ethnic minority population of Russia includes the titular population of the other 14 former republics: 4.36 million Ukrainians, 1.2 million Belorussians, 636 thousand Kazakhs, and 532 thousand Armenians.

In addition, 537 thousand Jews and 842 thousand Germans were living in Russia at the time of the 1989 Census.

Most people in Russia live in families. According to the 1989 census, 88.4% of the population lives in 40.2 million families. The remaining 11.6% lives in one-person households. About 23.5 million families have children under 18 years of age. More than half of the families (58%) consist of three persons. One-parent families are quite common (15.4% of all families) (State Committee of Russia on Statistics, 1992). About 80% of the one-parent families are lone mothers with children (close to 1.5 million families, most with one child); about 7% are lone fathers with children (Soroko, 1992, p. 6). The remaining one-parent families have at least one grandparent. The large proportion of one-parent families may in part be attributed to the large proportion of persons living away from their family.

3 | Mortality

3.1. Introduction

Data on the history of mortality in Russia are scarce. Therefore, some historical data on the USSR will be considered first. The first available data refer to life expectancy of the European part of the Russian Empire in 1896-1897: 31.4 years for males and 33.4 for females. From the same source we have data on life expectancy for the European part of Russia in 1926-1927: 40.2 and 45.6 years for males and females, respectively. Life expectancy from 1920 to 1958 was estimated by Andreev, Darsky, and Khar'kova (1993, p. 135) for the USSR. In 1920, it was 19.5 for males and 21.5 for females, and in 1933, due to the great famine, it reached an all-time low of 10.3 years for males and 13.0 years for females. In 1933, the infant mortality rate was 317 per thousand and the crude death rate was 71.6 per thousand. More than 11 million people are estimated to have died during that year. At the beginning of World War II (1939), life expectancy was about 40.5 for males and 46.8 for females. Life expectancy in the post war period steadily increased in the USSR up to the middle of the 1960s (*Figure 5*), when a negative tendency in mortality became visible.

Data on life expectancy in Russia start in 1958-59 (see State Committee of Russia on Statistics, 1994). In 1958-59, life expectancy was 63.0 for males and 71.5 for females (State Committee of Russia, 1992). Life expectancy for males in Russia reached a maximum of 64.4 years in 1964-65 and for

Figure 5. *Life expectancy at birth USSR (1920-40, 1946-58) and Russia (1959-92)*

females it was around 73.6 years in 1971-74. Life expectancy of males declined in the second half of the 1960s and the 1970s to 61.5 years in 1979-80. In the early 1980s, life expectancy recovered. The mortality decline is due to a decline in deaths caused by diseases of the respiratory system (both sexes) and accidents (males). In 1986-87, it reached a new maximum of 64.9 years for males and 74.6 years for females⁵.

The period after 1985 was characterized by a substantial increase in life expectancy. Between 1985 and 1987, male life expectancy increased by 3.2 years and female life expectancy by 1.3 years, most of the increase being due to a decline in accidents (2.6 years for males and 1.1 years for females; Andreev, Scherbov, and Willekens, 1993). Since 1987, however, life expectancy declined again. In 1991, the life expectancy of men was two years

⁵ The discontinuities in mortality in 1964 and 1980 may, in part at least, be attributed to statistical artifacts (Anderson and Silver, 1990, p. 207).

less than in 1986-87, and that of women one year. The most recent figures (1991) show a life expectancy of 63.7 for males and 74.3 for females. In the past 20 years, males gained 0.6 years of life and females one full year⁶.

Today, mortality in Russia and the other states of the former USSR lags behind the levels in other industrialized countries. Andreev (1992) compared cause-specific mortality in Russia (and other states of the former USSR) with the mortality structure in the Federal Republic of Germany, France, Japan, the United Kingdom, and the USA combined. In 1989, male life expectancy in Russia was 7.5 years below the average of these five countries. More than half (52%) of the difference can be attributed to endogenous diseases, 37% to accidents, and 11% to exogenous diseases⁷. For females, the difference is 4.7 years, 83% due to endogenous diseases, 12% to accidents, and the remaining 5% to exogenous diseases. A comparison using 1986 data is given by Andreev (1994, p. 291). The analysis of mortality trends must take into account changes in registration and procedures used to construct life tables. Anderson and Silver (1990), Ksenofontova (1994), and others studied the degree to which changes in underreporting of death may affect the reported mortality trend. For a brief discussion of the issues, see Willekens and Scherbov (1994).

3.2. *Mortality by cause*

The reasons for the mortality increase since the middle of the 1960s were an increase in mortality from cardiovascular diseases at younger ages, persistent high mortality from infectious and respiratory diseases during childhood, and a considerable increase in the number of deaths related to poisoning, accidents, and injuries.

The mortality change in the 1980s by major cause of death is documented in *Table 1*. In 1980, 48% of male deaths and 70% of female deaths were

⁶ Mortality at old age (above 70, say) seems to be underestimated, especially in the life tables constructed before the 1980s, and the error was greater in earlier life tables and in the Central Asian republics. Improvements in mortality registration at old age means that improvements in life expectancy were better than indicated by the official figures (see e.g. Dimitrieva and Andreev, 1987; Anderson and Silver, 1990, p. 215).

⁷ The share of accidents is highest in Lithuania: 51% of the difference in life expectancy is attributed to accidents. Exogenous diseases are infections, respiratory diseases, and digestive diseases. Endogenous diseases are all causes of death that are not included in the two other categories. They are mostly malformations and circulatory system diseases.

Table 1. Life table probabilities of eventually dying from a given cause by sex, Russia, 1980-1990

Cause of death	Males			Females		
	1980	1985	1990	1980	1985	1990
Infectious and parasitic diseases	0.022	0.018	0.013	0.008	0.007	0.004
Neoplasms	0.157	0.172	0.191	0.122	0.124	0.136
Diseases of circulatory system	0.479	0.502	0.499	0.696	0.710	0.687
Respiratory diseases	0.098	0.087	0.070	0.070	0.055	0.041
Accidents, poisonings, and violence	0.174	0.145	0.144	0.052	0.048	0.046
Other and unknown causes	0.040	0.047	0.057	0.032	0.035	0.064
All causes	1.000	1.000	1.000	1.000	1.000	1.000

caused by cardiovascular diseases. The category 'accidents, poisoning, and violence' was the second cause of death for males (17% of all deaths in 1980), immediately followed by neoplasms (16%). The second cause of death for females was neoplasms (12%). The recovery of mortality in the early eighties was due to a certain positive influence of respiratory diseases (both sexes) and accidents (males) on mortality dynamics.

The share of accidents, poisoning, and violence in male mortality decreased to a minimum of 11% in 1986-87, but it increased again to more than 14% in 1990. In the 1980s, the share of mortality due to cardio-vascular diseases increased for males from 48% in 1980 to 50% in 1990, and remained stable for females (around 70%). Neoplasms as a cause of death increased in the 1980s from 16 to 19% for males and 12 to 14% for females.

In order to assess the contributions of various causes of death to a change in life expectancy, we applied Andreev's component method⁸ to data *for the USSR* for three time intervals. For a description of the method, see Andreev (1982, 1990). *Table 2* and *Figure 6* show the results. The decompo-

⁸ Andreev's method is similar to the Pollard (1982) method. The authors developed the methods independently. The method was recently also applied to USSR data by Meslé *et al.* (1992).

Table 2. Contribution of major causes of death to changes in life expectancy, Males, Russia, 1980-1990

	Total	0-14	15-59	60+
First population: Year 1980 Second population: Year 1984				
All causes	0.314	0.148	0.234	-0.068
Infectious and parasitic diseases	0.070	0.022	0.028	0.021
Neoplasms	-0.074	-0.001	-0.029	-0.044
Diseases of circulatory system	-0.108	0.001	-0.021	-0.088
Respiratory diseases	0.312	0.206	0.042	0.064
Digestive system diseases	0.022	0.020	0.007	-0.005
Accidents, poisonings, and violence	0.265	0.000	0.267*	-0.002
Other and unknown causes	-0.172	-0.099	-0.060	-0.013
First population: Year 1984 Second population: Year 1987				
All causes	3.153	0.180	2.517	0.455
Infectious and parasitic diseases	0.155	0.076	0.066	0.013
Neoplasms	-0.056	0.003	0.008	-0.067
Diseases of circulatory system	0.642	0.000	0.350	0.292
Respiratory diseases	0.503	0.191	0.210	0.102
Digestive system diseases	0.144	0.012	0.126	0.006
Accidents, poisonings, and violence	1.778	0.056	1.616	0.106
Other and unknown causes	-0.015	-0.158	0.141	0.003
First population: Year 1987 Second population: Year 1990				
All causes	-0.909	0.206	-1.159	0.045
Infectious and parasitic diseases	0.049	0.051	-0.007	0.004
Neoplasms	-0.009	0.005	-0.007	-0.008
Diseases of circulatory system	-0.004	0.001	-0.147	0.143
Respiratory diseases	0.096	0.101	-0.005	0.001
Digestive system diseases	-0.004	0.002	-0.016	0.009
Accidents, poisonings, and violence	-0.998	-0.027	-0.917	-0.055
Other and unknown causes	-0.038	0.072	-0.061	-0.050

Figure 6. Contribution of accidents, poisoning, and violence to changes in life expectancy of males in the 1980s, Russia

sition allocates the change during the 1980s in the number of years lived to changes in major causes of death. Seven causes of death are distinguished. Consider the decomposition of the changes in male mortality between 1980 and 1984. The total observed increase in life expectancy between 1980 and 1984 was 0.314 years for males. The change is a result of a decline in some causes of death and an increase in other causes. Mortality from diseases of the respiratory system (mostly at younger ages) and accidents, poisoning, and injuries declined between 1980 and 1984, and that decline would result in an increase of the life expectancy by about 0.6 years, 0.312 years attributable to a declining mortality from diseases of the respiratory system and 0.265 years attributable to a decline in accidents, injuries, and poisoning.

But the relative increase in mortality from cardiovascular diseases and the category 'other and unknown causes' (many chronic diseases as well as birth anomalies etc. fall into this category) during the period 1980-84 resulted in an average number of years lost of about 0.3 years. Most of the gain in life expectancy at adult ages (15-59) in the 1980s is due to a decline in accidents, injuries, and poisoning (Figure 6). The total gain in life expectancy since 1980 of persons aged 15 to 59 reached a maximum in 1987, namely 2.75 years; about 68% (1.88 years) can be attributed to the decline in accidents, injuries, and poisoning.

Between 1984 and 1987, life expectancy increased by 3.2 years for males. The major part of this increase was due to a reduction in accident mortality, concentrated in adult ages (mostly 15-59). The number of male deaths due to accidents, injuries, and poisoning declined from 14.5% in 1985 to 11.1% in 1986 and to 10.9% in 1987. This decline accounts for more than 56% of male life expectancy growth (1.8 years). The decline may in part be attributed to the declining alcohol consumption (see below). Month-by-month analysis of the dynamics of accident death rates proves that the above-mentioned mortality decline was the immediate result of drastic measures taken in May 1985 against alcohol consumption in the USSR. Mortality at younger ages remained practically unchanged. Another factor of mortality decline in the period 1984-87 is the decline in mortality from cardiovascular diseases, predominantly after age 50. It accounts for 20% of the male life expectancy increase. The decline in mortality from cardiovascular diseases has been a major factor in the mortality decline of women. Between 1984 and 1987, life expectancy for females increased by 1.3 years; 34% of this increase resulted from a decline in mortality due to accidents, injuries, and poisoning, and 38% from a decline in mortality from cardiovascular diseases.

Mortality again started to change for the worse after 1987. Mortality from accidents increased everywhere, exogenous mortality decrease slowed down. We can assume that the increase in Russia's mortality in the years 1987-1990 was significantly connected with the economic crisis and the relaxation of the anti-alcohol campaign.

A peculiar feature of mortality in Russia is the difference between female and male life expectancy, which was 11.6 years for Russia in 1980 and 10.5 years in 1990. In 1990, male life expectancy was 63.9 years compared to 74.4 years for females. The difference is probably the largest in the world. Excess male mortality may be attributed to external causes of death (accidents, poisoning, and violence). In 1990, external causes accounted for

25% of all male deaths and are on the increase (11% for females). Male deaths from accidents, poisoning, and violence have been associated with the consumption of vodka and surrogates. In 1990, accidents, injuries, and violence accounted for 14.4% of all male deaths. The State Committee of Russia on Statistics (1992, p. 282) reports that, in 1991, 2.6 million persons (males and females) were registered for alcohol and drug abuse, more than half of the 5.1 million psychiatric patients⁹. Between 1986-87 and 1991, alcohol poisoning increased by 8% and murder by 26% (Mikhailov, 1992, p. 4). In Moscow, the main cause of male deaths in the able-bodied age is traumatism and intoxications, 70-80% due to alcohol consumption (Dmitriev, 1992, p. 5)¹⁰.

Statistics on violence cover important figures on suicides and homicides. The Demographic Yearbook of the USSR 1990 reports numbers of deaths by detailed causes of death. In 1989, 29,462 males and 8,555 females committed suicide, and 13,937 males and 4,590 females were killed by others. In that year, more people died from homicide than from infections and parasitic disease (13,921), and the number of suicides is about the same as the number of people who died from stomach cancer (29,494).

In order to assess the contribution of the various causes of death to the difference in male and female life expectancy, the difference has been decomposed. The results are shown in *Table 3*. In 1990, accidents, poisoning, and violence accounted for a difference between male and female mortality of 3.6 years, which is 34% of the total difference of 10.6 years. Cardiovascular diseases account for another 3.3 years, or 31% of the total difference. In 1980, the contribution of accidents, poisoning, and violence was even larger, 4.4 years or 38% of the total difference of 11.6 years. The decline in the difference between male and female life expectancy during the 1980s is entirely attributable to the decline in accidents, poisoning, and violence, and diseases of the respiratory system. The change in neoplasms had an increasing effect on the difference.

⁹ Since the production capacity of alcohol in Russia is inadequate, Western countries are supplying the alcohol. In 1992, Belgium exported, through German traders, pure alcohol (over 80 degrees) to Russia for about 27 million US dollars, up from 2 million US dollars in 1991 (Het Nieuwsblad, 4-5 December 1993). Pure Belgian alcohol is being advertised at many places in Moscow.

¹⁰ In Russia, alcohol consumption through official outlets fell from 11.2 litres per person in 1984 to 4.8 litres in 1988. In 1989, it increased again to 5.8 litres (Tarschys, 1993, p. 22).

Table 3. Components of male-female life expectancy differences by age group and causes of death, Russia, 1980 and 1990

	Total	0-14	15-59	60+
First population: Year 1980, Female Second population: Year 1980, Male				
All causes	-11.579	-0.703	-7.243	-3.634
Infectious and parasitic diseases	-0.399	-0.053	-0.262	-0.083
Neoplasms	-1.425	-0.015	-0.589	-0.822
Diseases of circulatory system	-3.284	-0.002	-1.591	-1.691
Respiratory diseases	-1.190	-0.181	-0.452	-0.557
Digestive system diseases	-0.393	-0.016	-0.258	-0.119
Accidents, poisonings, and violence	-4.401	-0.198	-3.929	-0.274
Other and unknown causes	-0.488	-0.238	-0.163	-0.088
First population: Year 1987, Female Second population: Year 1987, Male				
All causes	-9.453	-0.680	-5.178	-3.594
Infectious and parasitic diseases	-0.275	-0.039	-0.188	-0.048
Neoplasms	-1.770	-0.015	-0.696	-1.058
Diseases of circulatory system	-3.137	0.002	-1.502	-1.637
Respiratory diseases	-0.796	-0.083	-0.244	-0.47
Digestive system diseases	-0.277	-0.004	-0.154	-0.118
Accidents, poisonings, and violence	-2.649	-0.192	-2.286	-0.171
Other and unknown causes	-0.549	-0.349	-0.109	-0.091
First population: Year 1990, Female Second population: Year 1990, Male				
All causes	-10.554	-0.617	-6.267	-3.67
Infectious and parasitic diseases	-0.260	-0.019	-0.196	-0.045
Neoplasms	-1.776	-0.011	-0.693	-1.072
Diseases of circulatory system	-3.274	-0.001	-1.648	-1.625
Respiratory diseases	-0.787	-0.055	-0.244	-0.488
Digestive system diseases	-0.275	-0.005	-0.164	-0.106
Accidents, poisonings, and violence	-3.621	-0.212	-3.161	-0.248
Other and unknown causes	-0.562	-0.313	-0.162	-0.087

Most of the difference in life expectancy between males and females is due to different levels of *adult* mortality (ages 15-59), about 60%. Accidents, poisoning, and violence are particularly important contributing factors in this age category. In 1990, they accounted for more than half of the difference in adult mortality. The difference above age 60 can mainly be attributed to cardiovascular diseases.

Trends in mortality dynamics by cause of death in Russia may seem regular if compared to world trends in mortality and the trends anticipated by the theory of epidemiological transition. Thus, despite the mortality increase from neoplasms, its level in many regions remains lower than in developed countries, this in contrast to mortality from cardiovascular diseases. Mortality from the numerous chronic diseases that are included in the group 'Other and unknown causes' seems to be unrealistically low. Andreev (1987, 1990) attributes it to the poor level of differential diagnostics and the unjustified transfer of deaths from rare chronic causes to deaths from cardiovascular diseases. Mortality from infectious diseases, diseases of the digestive system, and especially respiratory diseases decreased in most regions, in full agreement with the theory of epidemiological transition.

3.3. *Infant mortality*

The recorded infant mortality rate (IMR) in Russia is 17.4 per thousand live births, 20.0 per thousand for males and 14.7 per thousand for females (1990)¹¹. It is 10 in the USA and 7 in the Netherlands. The IMR declined relatively rapidly in the 1960s (from 36.6 per thousand in 1960 to 23.0 per thousand in 1970) and only slightly since the early 1970s (22.1 in 1980 and 17.4 in 1990) (*Figure 7*). Changes in the health status of the Russian population, relative to that of other countries, may be illustrated with infant mortality. In 1968, the IMR in Russia was about the same as in the USA (Anderson and Silver, 1990, p. 225), in 1970 it was 15% higher, and today it is 78% higher (Dmitriev, 1992, p. 6). Referring to the USSR, Anderson and Silver conclude that, although the reported IMR in 1989 is about the same as the reported rate in 1971, the *actual* IMR in 1989 was probably much lower than the *actual* rate in 1971. The IMR increase (USSR) between 1971 and 1976 (24% in urban areas and 56% in rural areas) 'was almost entirely a statistical artifact'.

¹¹ On 1 January 1993, Russia adopted the WHO definition of infant mortality. This change in definition may result in an increase of the figure by up to 30% (from 18 per thousand to 25 per thousand).

Figure 7. *Infant mortality USSR (1920-1958) and Russia (1959-1992)*

The negative tendencies in the health of children deserve special attention. The health of children is deteriorating (Dmitriev, 1992, p. 7). A significant observation is the increase in neonatal mortality from 9.2 per thousand live births in 1980 to 11.1 in 1990. Dmitriev relates the increase to deteriorating health of delivering women. Other authors attribute at least part of the increase to better registration of neonatal deaths (see above; and Anderson and Silver, 1990, p. 219 and Ksenofontova, 1994). The rates are much higher in urban than in rural areas, although the rates in rural areas have been increasing faster. Some further data on the health of children are given by Rimashevskaya (1992). The proportion of babies that are born prematurely increased by almost 20% between 1985 and 1990 (from 4.1% of the newborn babies to 4.9%). About 30% of the babies are discharged from the maternity hospitals with serious neuralgic disorders. The number of retarded children and children with inherited mental disorders is growing. In 1991, the Ministry of Health estimated that a total of 1.1 million children below age 14 and 350 thousand teenagers below age 18 suffer from heavy neuroses and mental illnesses. Part of the deteriorating health of children is attributed to the declining health of mothers, which is related to their nutritional status, housing situation (particularly the housing situation during the mother's childhood), and environmental conditions.

The state of the environment in Russia is regularly receiving attention in the media. Its impact on the health status of the population is less well-documented. According to Rimashevskaya, 25% of the decline in health in Russia is due to environmental degradation. She reports that, in 103 cities in Russia, the Maximum Permissible Concentration (MPC) of elements injurious to health are exceeded by a factor of ten. The 1992 White Book on the state of public health, one of a series of reports published annually on major problems in contemporary Russia, contains more data. Bond (1993) reviews the main findings of the report, as published in the Russian press. It states that 50 million persons in Russia (about one third of the population) live in areas where the MPC for one or more major pollutants is exceeded at least once annually, and 60 million (roughly 40% of the population) reside at locations where air pollution levels exceed the MPC five times for one or more substances at least once annually. Most polluted are areas with industry focused on petroleum refining, ferrous and nonferrous metallurgy, chemicals, and pulp-paper production. The most polluted areas are the lower Volga, North Caucasus, and Ural and some other regions, about 15% of Russia's land area. Bond (1993, p. 77) identifies eight regions as locations where the ecological condition can be considered critical. In addition, the White Book reports only 12% of water bodies tested in Russia as clean (pollution concentrations at background levels), 32% as 'under stress' (moderately polluted), and 56% as heavily polluted (subject to a noticeable deterioration).

The main victims of environmental degradation are the children, because of the less developed state of their immune systems. In Russia, the leading ailments among children in 1991 were not the common ones found elsewhere in the developed world (i.e. childhood diseases such as mumps, measles, and chicken pox). Rather, childhood diseases ranked third after respiratory ailments and nervous disorders (Bond, 1993, p. 75).

4 | Marriage and divorce

In 1991, about 1.3 million couples married. Traditionally, most women in Russia marry and they marry early. During some periods in the history of the country, many women were unable to marry or had to delay marriage due to social cataclysms. The proportion of never-married women aged 50-59 in the 1897 census was 4.8%. According to the 1979 census, the proportion of women never married in the age group 50-54 was 5.3%; it was 3.3% in 1989. The 1989 Census shows higher proportions of never-married women

at older ages (see *Figure 8*). This is the consequence of a marriage squeeze. Male mortality was considerably higher during the second world war than female mortality, resulting in a lack of males of marriageable age. For example, the generation born in the period 1916-25 experienced tremendous human losses during the war, which resulted in a very low level of final celibacy among men and a very high level among women. According to the 1985 Socio-Demographic Sample Survey, 7.1% of the Soviet women born in 1920-1924 never married, while the figure was only 1.1% for men (Darsky and Ilyina, 1990)¹². (These data are for the USSR; data for Russia not available).

Life table calculations allow the smoothing out of irregularities caused by calamities. The life table (stationary) population that is associated with the observed rates of marital change in 1989 is shown in *Figure 9*. For a discussion and further results, see Willekens and Scherbov (1994).

Figure 8. Population of Russia by sex and marital status, 1989 (x 1,000)

¹² This is the generation that had the highest male losses during the second world war. After the war, there were 65 males per 100 females in this cohort. At the 1979 census, 6% of the women in this cohort had still never married (Ilyina, 1992, p. 6). The generations born between 1911 and 1930 were most affected by the war.

Figure 9. Life table population by marital status, Russia, females, 1989

The mean age at first marriage has always been low in Russia. In 1989, it was 21.8 years. Life table calculations, using data of 1980-84, show that the proportion of females married at age 20 is 27.6%; at age 25 this is 79.1%¹³ (Ilyina, 1992, p. 13). The proportion married at age 20 is highest among females with incomplete secondary education (37.7%) and general secondary education (29.6%). The rural-urban difference in age at first marriage is substantial. In rural areas of Russia, Ukraine, and Belorussia, 39.3% of the females are married at age 20 and 87.4% are married at age 25. In cities of over 100,000 inhabitants, the proportion married at age 20 is 20.5% and 72.3% at age 25 (Ilyina, 1992, p. 16). The proportion married at age 20 is increasing among younger cohorts. The 1985 Socio-Demographic Sample Survey revealed that, *in the Soviet Union*, about 19% of the females born in 1930-34 married before the age of 20; this increased to 30% for females born in 1940-44 and increased further to 32% for the 1950-54 birth

¹³ Russia, Ukraine, and Belorussia combined.

cohort and to 34% for the 1960-64 cohort (see also Volkov, 1994, p. 151). There are large regional variations in age at marriage. Volkov (1994, p. 151) reports that the proportion of women born between 1937 and 1941, and experiencing their first marriage by age 20, varied from 14.4% in the Estonian population to 55.4% in the Kirghiz population. Age at marriage decreased among Estonian women and increased among Kirghiz women. The proportion of the 1957-61 birth cohort married by age 20 was 22.0 and 33.9%, respectively. Housing shortages, prejudices against cohabitation and modern contraceptives, inadequate sexual education, and lack of effective contraceptives are the main reasons for early marriage (Willekens and Scherbov, 1994, p. 186). Darsky and Ilyina (1988) assert that, in recent years, the tendency towards a younger age at marriage has stopped.

Marriage dissolution due to death of the spouse declined considerably at younger ages because of mortality decline. Using life table techniques, Darsky (quoted in Vishnevsky and Tolts, 1988, p. 83) estimated that, at the end of the 19th century (1897), more than 25% of the females of European Russia experienced the death of their husband at least once before age 50. Assuming that females married at age 20 and that the husband was five years older, and assuming the mortality level of the period, and using life table techniques, Vishnevsky and Tolts (1988, p. 83) determined that in Russia, in 1896-1897, 50.1% of marriages were preserved by the end of the procreative period, in 1958-1959, 78%, and in 1984-1985, 73.8%.

Divorces were very exceptional in pre-industrial Russia. The Orthodox Church and legislation did not permit divorces. Marriage was expected to last a lifetime. In 1913, the divorce rate among the orthodox population of the Russian Empire was about 0.15 divorces per 1000 married couples. In the *USSR*, the divorce rate increased from 4.8 per thousand in 1938-1939, to 5.3 in 1958-1959, to 15.2 in 1978-1979, and to 16.0 in 1989. In 1990, more than half a million (560,000) divorces were registered *in Russia*. In 1991, this had increased to 598,000 (compared to 1.3 million marriages in that year) and to 631,000 in 1992. Life table calculations, based on 1989 data, show that, in Russia, the probability that a marriage ends in a divorce is about 36% (Darsky and Scherbov, 1993, p. 19). The probability is somewhat lower than in Latvia and Estonia, but is higher than in the other states of the former *USSR*. Many couples separate because the women feel that they are treated unfairly. They have to shoulder the burden of shopping, cooking, and childcare, despite the fact that most hold jobs outside the home.

Most Russian men do not share responsibilities in the home¹⁴. Couples are frequently ill-prepared for marriage, which is related to the low age at marriage. A contributing factor is the absence of a social stigma attached to divorce and the ease with which couples can divorce.

The level of cohabitation is difficult to trace because such a question was never asked during the census. The question on unregistered marriages (cohabitation) was asked for the first time in a micro-census of 1994. One indication of unregistered marriages is the proportion of children born out of wedlock, but registered by mutual statement of mother and father. In 1991, about 16% of the children born in Russia were born out of wedlock, and 41% of them were registered by mutual statement of mother and father (Vishnevsky and Zakharov, 1993). This issue is further discussed in Section 5 on fertility.

5 | Fertility

5.1. Fertility trends

Fertility started to decline in Russia almost 100 years ago (Belova *et al.*, 1988; Coale *et al.*, 1979). The main characteristics of the demographic transition in Russia have been summarized by Zakharov (1994, p. 117):

- a. Late start of the transition compared with European countries. In Russia, the demographic transition began in the late 19th and early 20th century.
- b. Transition completed by the mid-1960s. The duration was less than 70 years, from the late 19th century to the mid-1960s, when the total fertility rate (TFR) reached a level of 2.2 and the infant mortality rate (IMR) reached 25.
- c. A practically simultaneous start of an irreversible decline in mortality and fertility (not an exception in Europe but in Third World countries).
- d. The absence of a pronounced population explosion due to (c) and a series of social cataclysms.

¹⁴ The high levels of female labour force participation and divorce do not indicate high levels of autonomy. Russian women work because the family needs the income. The status of Russian women did not increase with Perestroika (Buckley, 1992). Although most women have paid jobs, it is not a free choice. When asked 'If your husband would be given a substantial pay rise, would you continue to work?', only 20% of female white-collar workers and 26% of blue-collar workers would retain their job. Most would look for another job or work part-time (Rimashevskaya, 1994, p. 267).

- e. The sequence of wars, revolutions, and other discontinuities that shook Russia during the 20th century played a significant role in the demographic transition. World War I caused a considerable drop in the size of the cohorts born in 1914-24. The famine in the early 1930s, with a peak in 1933, was followed by a considerable decrease in the number of births. World War II decreased the fertility level by more than half (see Andreev *et al.*, 1994, p. 423).

According to different sources, women in the Russian Empire, born in the period 1850-1860, did not practice birth control and they had seven children on average (TFR). Birth control started to prevail among women born after 1870. The female generations born between 1890 and 1930 had their fertility considerably distorted due to historical events like the First World War, 1917 Coup, the civil war, hunger in the 1930s, and the Second World War. At the end of the 1920s, fertility started to decline faster. The reconstruction of the demographic history of the USSR by Andreev, Darsky, and Khar'kova (1993) shows that, in 1924, the TFR of the USSR reached a peak of 6.9 children per woman. In the early 1930s, the TFR declined sharply due to the famine and reached a minimum of 3.8 in 1934. In 1937, the TFR was high again at 4.9, but declined steadily afterwards to reach 2.7 in 1959 (*Figure 10*). Note that abortions, the dominant method of birth control, were legalized in the 1920s and forbidden in 1936 (see Section 5.2). The sharp fertility decline during World War II was only partly compensated by a fertility increase starting in the mid-1950s. Not all postponed births were realized, however.

Reliable fertility data for Russia have been available since 1959. At the end of the 1950s, the TFR of Russia was slightly less than that of the USSR, about 2.6. The TFR started to decline sharply in 1959 until the late sixties, when it stabilized and oscillated at a level of about two. The increase in the few years following 1968 may be attributed to the Code on Marriage and Family of 1968, which reduced the stigma of registering non-marital¹⁵ children. Until 1968, the birth certificate obtained from ZAGS following the registration of the newborn baby, listed the names of both parents if they were legally married. If the parents were not legally married, then the space for the father's name was supposed to be left blank, which often stigmatized

¹⁵ The term 'illegitimate children' is not used in Russian and Soviet demography, as it is perceived as an expression of social disparity of children (Bondarskaya, 1992, p. 64).

Figure 10. Total fertility rates, USSR (1920-40, 1946-59) and Russia (1959-92)

the child. That has been mentioned as a reason for nonregistration or late registration of births to unmarried mothers (for details, see Anderson and Silver, 1986, pp. 719 ff). The Code of 1968 stipulated that the space for the father's name could not be left blank¹⁶. The Code seems to have affected mainly women in their twenties, since the fertility increase was limited to this age group (*Figure 11*).

At the beginning of the 1980s, due to measures of population policy adopted in 1981¹⁷, a fertility increase was observed until 1987. This increase may in part be attributed to the January 1981 law, strengthening state assistance to families with children (see Borisov, 1989, p. 324). The fertility increase in the early 1980s was mainly due to the increase in second and third births

¹⁶ In Russia, the Code was accepted on 30 June 1969 and went into effect on 1st November.

¹⁷ The policy includes such incentives as partly paid maternity leave for one year (later extended to 1.5 years) for working women.

Figure 11. Age-specific fertility rates, Russia, 1959-1992

(Darsky, 1992a, p. 60), affecting women aged 25 to 39 (particularly the 25-29 age group) (Figure 11). This observation supports the proposition that the 1981 law caused the fertility increase. There may also have been some 'catching up' effect, since women in the age group that accounted most for the fertility increase in the early 1980s had lower than average fertility at younger ages (Avdeev, 1994, p. 142). The levelling-off of the effect of the law in 1984 may indicate that its main effect has been a change in timing of births, instead of an increase in ultimate family size. The fertility increase between 1985 and 1987 was mainly due to the fertility increase of women 25 to 34, and much less to fertility changes in other age groups. Darsky attributes the fertility increase in 1986-87 to the 1981 policy measures: "It is possible that the first wave was the result of the shift in the timing of births and the decrease of the interval, and then it was the effect of the increase of the number of births in real cohorts." (Darsky, 1992a, p. 50; see also Darsky, 1994, p. 59). Darsky adds, however, that the 1985 Socio-Demographic Sample Survey did not show a decline in birth intervals following 1981, but an increase in second and third births.

The Total Fertility Rate in 1987 was high: 2.19 compared to 2.11 in 1986 and 2.12 in 1988. In 1988, fertility declined in all age groups, except among women under twenty, in which case the rate of fertility increased from 47.8 per thousand in 1987 to 49.6 per thousand in 1988. The fertility of women under twenty had been increasing steadily since the early 1960s from 21.0 per thousand in 1964 to 30 in 1971, 40 in 1979, 50 in 1988, and 56 in 1990. In 1990, fertility started to decline substantially¹⁸. If the trend continues, the TFR in Russia will not exceed 1.3 at the end of the century (Darsky, 1992b, p. 8). In 1991, the TFR in Russia had a record low number: 1.73. It is still difficult to say whether it is a short-term oscillation or a long-term tendency. It is clear, however, that the socio-economic crisis has begun to influence fertility in Russia, although the change in birth timing at the beginning of 1980s could have also forced the sharp decline in fertility in the early 1990s, due to the fact that some women had already reached the desired family size (timing factor).

The fertility decline in Russia is mainly a consequence of a decline in higher-order births. Unlike in other countries, it has not been accompanied by an increase in voluntary childlessness. Childlessness is very unpopular in Russia. Using data from the 1985 Socio-Demographic Sample Survey on married women in 1970-74 who were still married in 1985, Darsky and Scherbov (1990) estimated that 5% of married women would remain childless (based on parity progression ratio calculations). Between 6 to 8% of women in the former USSR remain childless, which is a few percentage points above natural sterility (Willekens and Scherbov, 1994, p. 198). Other estimates are higher. Most of the childlessness may be involuntary and due to sterility. The high abortion rate in Russia and frequent complications probably increase the level of sterility. Dr. I. Grebesheva, Director General of the Russian Family Planning Association, estimates that 20% of married couples are unable to have children and mainly attributes this to previous abortions (Grebesheva, 1992, p. 8¹⁹).

The 1985 Socio-Demographic Sample Survey revealed that less than 1% of married Russian women²⁰, born in 1960-64, expects to remain childless, which is less than biological sterility (Darsky, 1992b, p. 4). The proportion

¹⁸ Fertility declined in Russia and the other European republics, but increased in Central Asia and Azerbaijan (Darsky, 1992a, p. 61).

¹⁹ The estimate seems high. The basis of the estimate remains unclear (Grebesheva, 1993).

²⁰ The data are for Russian women, not for women in Russia.

of women who want to remain childless has increased in the last years. In a 1989 survey, 2.6% of Russian women declared that the ideal number of children is zero. This increase may be due to deteriorating economic conditions. The preference for a two-child family has been increasing steadily. In 1969, about half of the women considered two children the ideal number; in 1989, about 70% adhered to the two-child-family norm (Darsky, 1992b, p. 7). As a consequence, the ideal family size changed: from 2.6 in 1969 to 2.1 in 1989. In all marriage cohorts formed after World War II, the two-child norm prevails, and the share of Russian families preferring to have two children has risen from 35% in the 1945-49 marriage cohort to 62% in the marriages of 1980-84 (Andreev and Darsky, 1992, pp. 4-5).

The Survey on the Reproductive Behaviour of the Population, conducted in July 1991 by the Russian Center for Public Opinion and Market Research, reveals interesting additional information (Bodrova, 1992). The survey was carried out among more than 3,000 persons (females and males) aged 16 and over in the former USSR to elicit information from different generations on the ideal, desirable, and expected number of children, and on the major obstacles of realizing fertility preferences²¹. According to the survey, persons of 16 and over living in Russia *desire* 2.3 children on average²², although the *ideal* family size is considered to be 2.1 children. However, they *expect* to have much less children, only 1.7 on average, which is below replacement level, and which is less than the average number of children in the families of the respondents' parents (2.9). To the question "Are you going to have at least one more child during the next 2-3 years?", only 11% of the respondents in Russia answered 'Yes' (in the Urals, only 5%), which is much less than the average of the former USSR (18%). In case of an unplanned pregnancy, only 23% of the respondents would like to keep the child (in the Urals, 15%). In Russia, 69% of the respondents consider families without children better off in material respect than families with children (in the Urals, 81.5%) and 77% expect people to postpone their plans to have children as a result of price increases and decline in income. The main factors that prohibit the realization of fertility preferences are lack of confidence in the future, lack of food and other necessities, and housing

²¹ A similar survey was held in June 1990. The results are presented by Bodrova (1994).

²² It was not exactly the desired number of children, because the question contained the words: if you would have the necessary conditions for that.

conditions²³. In Moscow and St. Petersburg, childcare is an important concern. In a similar survey conducted in 1990, the majority of the respondents named low income and double workload of women as the most serious problems of families. The 1990 survey included questions on population policy measures. Bodrova (1994, p. 238) reports that 56% of the population of Russia support urgent measures to increase fertility. About 5% would like to see policies to decrease the fertility level.

The timing of births has changed considerably in the last decades. Women of Russian nationality who married in the years following World War II had their first child 2.35 years after marriage, on average. This interval has been declining steadily. It reached 1.38 years among women who married in 1970-74 (Darsky, 1992a, p. 55; 1993, p. 62). The newspaper *The European* reported, in 1990 (August 31-September 2), that in some parts of the country as many as half of the brides are pregnant when they marry.

In 1991, about 16% of the births in Russia occurred outside of marriage. The figure is up from 13.5 in 1989 and 14.6 in 1990 (the number was 290,601 births in 1990 and 288,000 in 1991 [State Committee of Russia on Statistics, 1992, p. 114]). The 1989 figure is lower than in Estonia (25%), Georgia (18%), and Latvia (16%), but higher than in the other states of the former USSR²⁴. In *the USSR*, the proportion of non-marital births was relatively high after the war (20% in urban areas and 15% in rural areas). It decreased rapidly up to the end of the 1960s. The introduction of the Code of Marriage and Family in 1968 reduced the stigma of registering non-marital births. In the 1970s, the proportion remained relatively stable around 11% in Russia (10.8% in 1969 and 11.1% in 1979). The proportion of non-marital births started to increase in 1978, mainly as a result of an increase among the urban population (Bondarskaya, 1992, p. 68).

Births to women not legally married consist of two categories: (i) births registered by joint voluntary declaration of both parents and (ii) births registered by the mother only. Most of the births in the first category are

²³ The average living space per capita for families in Russia is 8.9 square meters (State Committee of the USSR on Statistics, 1991, p. 142; quoted in Vitkovskaya, 1993, p. 19).

²⁴ Until recently, non-marital births did not receive much attention from Russian demographers. The first study at the level of the USSR was conducted by Bondarskaya and Darsky (1990). Bondarskaya (1992) studied non-marital fertility by republic.

likely to have occurred in unregistered marriages or consensual unions. In Russia, 42% of non-marital births are registered by joint declaration.

5.2. *Family planning*

Contraceptive use among women of Russia is poorly documented. Two recent publications review what is known. Avdeev *et al.* (1993) and Avdeev (1994) review the history of abortion and contraception in Russia and the former USSR and present historical data. Popov *et al.* (1993) review the few contraceptive use studies that were published. Abortion is the dominant method of birth control²⁵. Using data from the 1985 Socio-Demographic Sample Survey and indirect methods, Darsky and Scherbov (1990) estimated that 99.6% of married Russian women (Russian nationality) who had a child in the period 1970-84 were regulating their fertility. Anderson and Silver (1991) approximate the degree of fertility control by all women (married and unmarried) by the proportion of births that occur before age 35. In Russia, this proportion increased in the 1960s, when the TFR decreased substantially, from 0.85 in 1959 to 0.89 in 1970, and further in the 1970s, when the decline in the TFR did not continue, from 0.89 in 1970 to 0.94 in 1979, and remained at that level during the entire 1980s, when the TFR increased again.

The USSR has the highest level of induced abortion in the world, with 10% of all abortions in the world, and the contraceptive prevalence rate is very low. In order to understand the current situation, one should view it in a historical perspective. Abortions were legalized in Russia in 1920 under conditions of hunger, before the establishment of the USSR in 1922. In the absence of reliable contraceptives, families relied on abortions to avoid unwanted childbearing. At that time, one out of three pregnancies was interrupted (Khomassuridze, 1991, p. 8). The main aim of the policy was to reduce the number of abortions outside hospitals. It was considered a temporary measure. The doctrine was that the increase in unwanted children and the decline in fertility was a temporary phenomenon not typical of socialism. It was believed that improvement in economic conditions of life would automatically result in decreased abortion levels and increased birth

²⁵ There is a 12-week criterion for legal abortion. Since 1987, physicians (a group of an obstetrician, a gynaecologist, and a specialist) may decide for an abortion of 12-28 weeks of gestation on medical *and social* grounds (Khomassuridze, 1991, p. 13). Uterine curettage accounts for three-fourths of all abortions during the first trimester (12 weeks). For a description of abortion methods used in the former Soviet Union, see Khomassuridze (1991).

rates. This doctrine prevented interest in modern contraception (Avdeev, 1994, p. 133).

However, the phenomenon was not temporary. The number of abortions continued to increase and fertility declined further. In 1936, abortions were forbidden, a measure taken by Stalin to increase the Soviet population (Khomassuridze, 1991, p.12). In the late 1940s and early 1950s, the number of clandestine abortions rose significantly, accompanied by a rise in morbidity and mortality of young women. After the death of Stalin in 1953, abortion was legalized again in 1955 "With the purpose of allowing Soviet women to have an opportunity to make the decision about motherhood themselves and also to prevent harm resulting from illegal abortion." (Khomassuridze, 1991, p. 12). The unwanted child was still considered a temporary phenomenon. Only in the 1960s it was understood that the fertility decline was associated with the low levels of mortality (theory of demographic transition). As a consequence of this understanding, the attitude to abortion changed. It became clear that abortions could only be reduced by introducing reliable methods of contraception. But reliable contraceptives were not available and abortion was a generally accepted method of family planning. In the early 1980s the Ministry of Health started to pay increased attention to contraception, in particular intrauterine devices (IUDs) and oral contraceptives, in order to reduce the level of abortion. In 1980, two million IUDs were manufactured in the USSR, and in 1987 the figure had reached 4.8 million. In addition, since 1983, IUDs were imported from Yugoslavia and, in 1987, from Finland. Hormonal pills were imported from Eastern Europe. This import grew slowly and reached 6.5 million pills in 1989. The import of contraceptives, including condoms, increased substantially in 1990²⁶. Avdeev (1994, p. 142) estimates that, in 1989, about 2% of married women of reproductive age had access to hormonal pills and, because of the increased import, 10% in 1990.

Concern over the high abortion rate grew in the late 1980s. Several initiatives were taken. In January 1989, the Soviet Family Health Association (SFHA) was founded. It is a non-governmental association providing family planning services²⁷. In April 1990, President Gorbachov urged the Supreme Soviet

²⁶ In 1990, IPPF helped Soviet Family Health Association (SFHA) through the purchase of 15.5 million condoms from Malaysia.

²⁷ The activities of the SHFA are described by Manuilova (1990, 1991). Originally, the SFHA was a member of the International Planned Parenthood Federation (IPPF). With the dissolution of the USSR, the regional sections of the SFHA became national family

to formulate and adopt a resolution on measures to improve women's status, as well as maternal and child health care. He made a special point of saying that family planning should be the most important aspect of caring for women's health (Manuilova, 1990, p. 9; Taniguchi, 1991, p. 2). As a result, the Committee on Problems of Women, Family and Maternal and Child Health Care was established by the Supreme Soviet. In October 1990, UNFPA, WHO, IPPF, and the Zhordania Institute of Human Reproduction, Tbilisi, organized a conference in Tbilisi with the symbolic title "From Abortion to Contraception".

In the absence of modern contraceptives, couples rely on traditional methods and abortion. Using Bongaarts' model of proximate determinants of fertility, Avdeev (1994, p. 144) estimates that, in 1980, about 35 % of married women of reproductive age in the USSR uses contraceptives. Most (28 % age points) use traditional methods. Note that these data are for the USSR. Since contraceptive prevalence is very low in Central Asia, the figures for Russia and the other European states must be higher. The contraceptive prevalence rate did not change much in the 1980s. It declined even slightly to 29.0 % in 1986 and increased again to 31.4 % in 1988. The proportion of couples using modern methods has been increasing, however. In 1988, 12 % of married couples of reproductive age used traditional methods and 19.4 % used modern methods, mainly IUDs (13.1 %) and condoms (4 %). A significant finding of Avdeev was that, in the 1980s, modern contraceptive methods competed with traditional methods, not with abortions. The model estimate of the prevalence of modern contraception of 19.4 % of married women of reproductive age may be compared with the estimate obtained by the SFHA. SFHA estimates that 13.3 % of women of reproductive age in the USSR (not necessarily married) employ efficient means of preventing unwanted

planning associations and the SFHA became the International Association "Family and Health". Being an international association, it lost its IPPF membership. In the meantime, half of the gynecologists perform nothing but abortions (estimated by the *Independent Newspaper* of 19 May 1991; quoted by Taniguchi, 1991, p. 2) and half of the women who give birth experience serious complications (Mikhailov, 1992, p.4). About 10 % of all live births are premature (at seven or eight months of gestation), a statistic which is closely related to the high abortion rate (Laskin, 1991, p. 6). In addition, the health of delivering women is deteriorating, resulting in an increase in neonatal mortality (see section 3.4 of this paper). Maternal mortality in the USSR in 1988 was 430 per 100,000 women. In 1990, 40.7 pregnant women died per 100,000 births (total) as a consequence of complications during pregnancy, delivery, or after delivery (56.4 in 1980) [USSR data]. The consequences of abortion for the woman's health are discussed by Khomassuridze (1991).

pregnancies (Manuilova 1990, p. 10). Another estimate was obtained by the Zhordania Institute of Human Reproduction in Tbilisi. The institute estimated the modern contraceptive prevalence rate among women of reproductive age (married and unmarried) in the USSR at 13.7% (Khomassuridze, 1991, p. 8). This low contraceptive prevalence is associated not only with the lack of contraceptives, but also with a low contraceptive knowledge. This ignorance is due to lack of sex education. The inadequate provision of information can be traced to the mid-1930s when all scientific and practical work on contraceptives ceased.

In 1990, for the first time in the history of the Soviet Union, Goskomstat conducted, a large-scale survey on contraceptive use. The data were collected as part of the regular budget survey. It reveals that, in Russia, 56.8% of women aged 15-49 never uses modern contraceptives. A total of 21.8% always uses contraceptives and 9.7% sometimes takes preventive measures. The proportion of women without contraceptive knowledge is 6.0% (Popov *et al.*, 1993, p. 233).

Oral contraceptives occupy a unique position in Russia. The few surveys available indicate that they are not well known, whereas the IUD is fairly well known (Popov *et al.*, 1993, p. 230). The surveys also indicate that women consider the pill to be ineffective, inconvenient, unavailable, and harmful. Popov *et al.* assert that "the main factor influencing public opinion about oral contraceptives is the negative attitude of Russian doctors and the former Soviet Union's ministries of public health towards the pill." (Popov *et al.*, 1993, p. 232). The origins of the present situation are rooted in the late 1960s and early 1970s, when oral contraceptives first appeared on the Soviet market and led to a struggle between the traditional model, based on abortion, and the alternative model, based on the use of modern contraceptives. The alternative model was defeated. In 1974, the Ministry of Public Health issued a formal, decisive instruction constituting a *de facto* prohibition on the use of oral contraceptives in the Soviet Union. When the Ministry of Health started to increase attention to contraception in the early 1980s, the focus was on IUDs. The position against the pill was reinforced in the mid-1980s, when the ministry issued a number of directives regarding the contraceptive policy. One of these states: "The long-term use of the pill can result in a serious destruction of the main internal organs. It is prohibited to speak about the pill in lectures on contraceptive use. ..." (Popov *et al.*, 1993, p. 232).

The unmet need for family planning services is very large. Khomassuridze (1991, p.10) estimates that family planning services are the concern of 40-45 million women in the USSR. He also reports that only 10-30% of the required contraceptives could be obtained in pharmacies in 1988 (20% of the required hormonal contraceptives, 30% of IUDs, and 11% of the condoms). In 1990, when the import of pills increased sharply, the supply did not even cover half of the demand (Avdeev, 1994, p. 145). Prospects for sterilization seem to be considerable. The 1985 Socio-Demographic Sample Survey indicated that 50% of the women aged 26 and 90% of the 37-year-old women did not intend to have any more children (Andreev and Darsky, 1992, p. 5). Sterilization is virtually unknown in Russia.

In Russia, women who want to prevent an unwanted pregnancy have almost no choice but abortion. Most women do not know how hazardous abortions are to their health. Remennik (1987, quoted by Laskin, 1991, p. 6) estimates that about five out of six women in Russia have at least one abortion in their lifetime. Popov *et al.* (1993, p. 234) estimate that, in Russia, a woman has an average of five abortions in their lifetime (two of which two are illegal). Twenty abortions to the same woman have been reported (Manuilova, 1992). The most recent official figure of 3.6 million abortions in 1991 (for 1,795,000 births [total]) may be an underestimate. Popov (quoted by Khomassuridze, 1991, p.12) estimated in 1980 that the number of illegal abortions in the USSR matched that of legal abortions. According to Dmitriev (1992, p.9), most of the unmarried women attempt to induce illegal abortion. Komyssova (1992, p. 7) reports that, in 1990, nearly 190 thousand women interrupted their first pregnancy. Other data suggest that, for first pregnancies, 70 to 90% of abortions take place outside the recorded official statistics. This may be associated with the law on abortion which states that a girl under 18 cannot have a legal abortion unless she is accompanied by her mother. Legal abortions are inexpensive, but illegal abortions are expensive. Abortion is free in state polyclinics, but not in cooperative clinics. The newspaper *Pravda* reported in its June 28, 1991 issue that in a cooperative clinic an abortion costs 110 Rubles at a time when the average salary was 300 Rubles per month (Seewald, 1991, p. 27). Illegal abortions may also be associated with the stigma attached to non-marital pregnancy. The social pressure is strong for young women who have unwanted pregnancies to resort to clandestine abortions.

Between 1975 and 1988, the absolute number of abortions in the USSR declined by 15.4% and the number of abortions per 1,000 live births dropped by 26.8% (Khomassuridze, 1991, p. 9). The number of abortions in Russia

in 1991 constituted 3.6 million or 2,056 abortions per 1,000 births. In 1980, the number of abortions in Russia was 4.5 million, which was 2,012 abortions per thousand births. In 1985, the number of abortions per 1,000 births was 1,800 (Vishnevsky and Zakharov, 1993, p. 28). Khomassuridze (1991) gives the following reasons for the decline: (i) an increase in the use of modern contraceptives, (ii) the proportion of women of reproductive age decreased due to a change in the age structure (26.5% in 1975 and 24.9% in 1985), and (iii) the number of mini vacuum abortions (menstrual regulation), which began to be used in the early 1980s were not included in the number of reported abortions before 1988. In 1988, the number of mini abortions accounted for 16.5% of the total number of abortions in the USSR.

6 | Migration

6.1. Migration in the territory of the former USSR

Migration within Russia and from and to Russia today has its roots in the history of the country. Since the 16th century, Russians colonized the vast area of Eurasia between Poland and Japan. By the end of the 19th century, a large Russian empire had formed, the Russians comprising less than half of its population — 41%, down from 71% at the beginning of the 18th century (1719) and 53% at the end of the 18th century (1795) (Kappeler, 1992, p. 233). During the 20 years between 1897 and 1917, over five million Russians migrated to outlying districts of the Empire, more than half of them beyond the territory of today's Russia. A major role was played by the resettlement of people in connection with the agricultural development of new lands in South Russia and the South Ukraine, in the Lower Volga and Siberia. Particularly significant was the role of Stolypin, Prime Minister under Nicholas II from 1906 to 1911. Following the violent peasant uprising during the 1905 Revolution, he abandoned communal land tenure and allowed peasants to leave their communes and acquire private ownership of land. Russification was one of the most important features of the policy of Stolypin and his successors. About 2.5 million people were resettled to new lands in the three years (1907-1909) of the Stolypin colonization programme (Zajonchkovskaya, 1993, p. 19).

The proportion of Russians living outside Russia has risen steadily during the 20th century. It was 6.7% in 1926, 9.3% in 1939, 14.2% in 1950, 17.4% in 1979, and again 17.4% in 1989 (Andreev and Darsky, 1992). In 1989, about 25 million Russians lived outside Russia, nearly half in Ukraine (11 million; most in East Ukraine), one quarter in Kazakhstan (6 million; most

in North Kazakhstan), and 13 % in Central Asia, half of them in Uzbekistan. In all republics, Russians show a tendency to concentrate in urban areas, mainly capital cities. They occupy a high proportion of the skilled jobs in industry and government. The Russians located in rural areas largely reside in regions (oblasts) directly bordering Russia.

There were three periods in the migration of Russians (Harris, 1993a, p. 21).

- a. The first period, from 1897 to 1926, was characterized by increased political and economic programs in Central Asia. Most Russians settled in capital cities. The proportion of Russians in Bishkek increased from 38 to 69 %; in Tashkent from 10 to 33 %; and in Ashkhabad from 41 to 62 %. The capital cities were centres of Russian tsarist imperial expansion into non-Russian rural areas. In some cases, the capital cities were originally Russian fortresses. Examples are Alma-Ata, founded in 1854 as the Russian fortress of Vernyy; Bishkek, founded in 1873; and Ashkabad, founded in 1881 to control the Kazakh, Kirghiz, and Turkish pastoral nomads. In some cases, separate Russian and native districts existed side by side within a single city, most notably in Tashkent. In 1926, Russians accounted for 22 % of the population of Kazakhstan and 14 % of the population of Ukraine.
- b. The period 1926-1959 witnessed great upheavals: collectivization of agriculture, implementation of five-year plans of industrialization, purges, forced transfer of several ethnic groups to the Asian part of the Soviet Union, World War II, and the expansion of the Soviet Union westward to incorporate Estonia, Latvia, Lithuania, and Moldavia, and to enlarge Belorussia and Ukraine. This was the period of a rapid rise in the proportion of Russians in the capital cities and other areas of the republics due to the influx of administrators and industrial workers. For instance, in Kazakhstan, the proportion of Russians increased from 20 % in 1926 to 43 % in 1959. The share of Kazakhs dropped from 58 % in 1926 to 30 % in 1959. During the Second World War, Stalin relocated industry to Kazakhstan for safety from German attacks. In 1941, about 400,000 Volga Germans were relocated to Central Asia, and in 1943/44, 600,000 people from other minorities were relocated to Central Asia. Koreans were relocated from the Far East to Central Asia before the War as a preventive measure. In total, about two million people were deported to Central Asia, one third of them died either during deportation or soon after (Kappeler, 1992, p. 309). In the 1950s, the Virgin and Idle Land Programme of Krushchev brought many Russians to Kazakhstan.

- c. In the most recent 30 years, 1959-1989, the proportion of Russians decreased in capital cities of 12 republics and it increased in two (Tallinn and Riga). Very large drops in the proportion of Russians occurred in Central Asia. For instance, the proportion of Russians in Tajikistan decreased from 13.3% in 1959 to 7.6% in 1989, and in Turkmenistan it decreased from 17.3% in 1959 to 9.5% in 1989. This decline was mainly due to the differential rates of natural increase, low for Russians and very high for the titular indigenous ethnic groups of the Central Asian republics. The proportion of Russians increased in the Baltic and the Western Republics. A substantial increase was observed in the Baltic republics. For instance, the proportion of Latvians in Latvia declined from 83% in 1945 to 52% in 1989 (Harris, 1993a, p. 9). During the period 1959-89, the russification programme resulted in about nine million Russians moving to the other republics of the USSR, most (5.2 million) in the 1960s (Zajonchkovskaya, 1993, p. 21).

A particular phenomenon during the last period is the remigration of Russians to Russia, in particular, from the eight southern republics. The outmigration of Russians already started in Georgia and Azarbaijan in the 1960s, but outflow from the other states began in the late 1970s (Zajonchovskaya, 1992, p. 6; 1993, pp. 19ff). The remigration of Russians in recent years is not a new phenomenon. Over the period 1981-90, two million people left Central Asia and Kazakhstan. In Central Asia, many ethnic Russians were being ousted from their prestigious jobs - in science, culture, health care, and government. From 1977 to 1987, in Tajikistan and Uzbekistan, the share of jobs held by the native population grew from 20-30% to 30-40% in science, from 30-50% to 50-60% in health care, and from 40-45% to 50-60% in government (State Comittee of the USSR on Statistics, 1988, p. 23; quoted by Vitkosvkaya, 1993, p. 32). What is new is the stress form of migrations. Outmigration increased substantially in the last years. Between 1985 and 1992, about one million Russians left Uzbekistan. In 1990, 130.9 thousand persons left Kazakhstan, 40.9 thousand Kirghizia, 179.6 thousand Uzbekistan, 60.3 thousand Tajikistan, and 136.2 thousand Azarbaijan (Kvahsha, 1992; quoted in Harris, 1993a, p. 10). The migrants are not all Russians. The total number of Russians registered in 1990 as interrepublic migrants numbered was 264,000, 77% of them went to Russia and most of the other migrants went to Ukraine and Belorussia, several as members of mixed families (Zajonchovskaya, 1993, p. 23). Of the more than 200 thousand Russians who went to Russia in 1990, 43 thousand came from Azerbaijan, 40 thousand from Uzbekistan, 36 thousand from Kazakstan, and 32 thousand from Tajikistan. In 1992, 926,020 persons obtained an entry visa for permanent

residence in Russia (State Committee of Russia on Statistics, 1994). Most of the migrants came from Ukraine (199 thousand), Kazakhstan (184 thousand), and Uzbekistan (112 thousand). About 67 thousand migrants came from the Baltic states.

Not only Russians have returned, but also Crimean Tatars, Caucasian people, Germans, and Koreans (Zajonchovskaya, 1992, p. 9). The autonomous Volga German Republic was re-established in April 1992 by agreement between Russia and Germany; Germany hoped that it would stem further emigration of ethnic Germans to Germany. At the same time, there was a considerable emigration of Central Asian nationalities from Russia. In 1990, 3.5% of the Kirghiz and 2.5% of the Uzbeks living in Russia left. There are approximately 32 million expatriates of the former 15 union republics, and several may be regarded as potential migrants (Harris, 1993a, p. 442).

In the USSR, no citizen could choose where to live or travel without a host of formalities. Migration was organized by the State and conditioned by change of place of employment, recruitment, and the distribution of young specialists on graduation from various educational institutions. The main instrument of the internal migration policy was the system of residence permits ('propiska'). An internal passport system and the system of residence permits in cities prohibited free movement. In October 1991, the USSR Constitutional Review Commission declared the residence permits unconstitutional (Harris, 1993a, p. 452; Perevedentsev, 1993, p. 6²⁸). That did not mean that residence permits were abolished. On 12 August 1993, CNN reported that in Moscow residence permits were being auctioned and that prices could be as high as US \$ 20,000. Some people bypass the system by marriage. Part of the high divorce rate in cities like Moscow may be attributed to marriages to obtain residence permits.

Current migration patterns in Russia and the former USSR are largely determined by three forces: first, real, or expected ethnic tension resulting in ethnically motivated migration; second, economic factors; and third, environmental degradation, resulting in environmental migration. During the 1980s, political instability, conflicts between different nationalities, and deterioration of the socio-economic and ecological situation in a group of regions led to a large outflow of population from the Trans-Caucasian

²⁸ Perevedentsev (1993) gives an overview of the new migration (residence) policies of the states of the former USSR. A discussion is beyond the scope of this paper.

Republics, Uzbekistan, Moldavia, and the area near the Chernobyl disaster. A recent study of migration in the former USSR, mainly using data from the 1989 Census, was conducted by Cole and Filatotchev (1992). This paper considers ethnic and economic migration.

6.1.1. Ethnic migration

Aggravation of relations between nationalities has engendered a new type of migration in the former USSR, known as refugee migration. A strong national conflict between Azerbaijan and Armenia resulted in population losses for both republics in the 1980s. In Azerbaijan, the population decreased by 266 thousand people, whereas Armenia lost 321 thousand inhabitants due to migration. In contrast, until 1979, Armenia had a positive migration balance. Outflow of population from this republic began long ago and reached considerable size long before the Karabakh conflict, but the conflict greatly intensified the population outflow.

Official data released by the Ministry of Internal Affairs reveal that, by the end of 1991, there were about 800 thousand forced migrants in the former USSR, 230 thousand of them in Russia. The real number, however, may be much higher (Reguent, 1992, p.2; Vitkovskaya, 1993, p. 1). The disposition of Russians living in other states to return to Russia or settle abroad has been studied by Vitkovskaya (1993).

As far as the future of ethnic migration is concerned, experts agree on the following (see e.g. Zajonchkovskaya, 1992; Harris, 1993a, p. 442):

1. Half of the Russians in the Baltic states may leave in the 1990s.
2. Most of the Russians in Ukraine and Belorussia will stay.
3. Most of the Russians in Transcaucasia and Central Asia will leave in the 1990s. A total of four million Russians lived in these republics in 1989.
4. In 1989, about six million Russians were living in Kazakhstan and they constituted 38% of the total population. Most of them live in North Kazakhstan. In some areas (oblasts), more than 60% of the population is Russian, and the proportion is even higher in urban areas. They will probably stay. Those in the southern part of the state are likely to move either to North Kazakhstan, to Russia, Ukraine, or Belorussia.

It is clear that most of the 25 million Russians living outside Russia will remain in the state of current residence. According to estimates made by the Russian Center for Public Opinion and Market Research, two million ethnic Russians will resettle in Russia in the near future (*Izvestia*, June 27, 1992;

quoted by Vitkovskaya, 1993, p. 4). Most will come from the southern states. Among the Russians living in Turkmenia, Kirghizia, Tadjikistan, Azerbadijan, Uzbekistan, and Kazakhstan, 37.5% intend to emigrate to Russia (same survey, quoted by Reguent, 1992, p. 4). Vitkovskaya (1993) studied the propensity to migrate of ethnic Russians living in the former USSR outside of Russia, based on a survey in May-June 1992. The research was part of the project "Internal migration and emigration from the former USSR", carried out by the RAND Corporation (USA) and the Institute for Employment Studies of the Russian Academy of Sciences.

The migration policy of Russia with respect to refugees and displaced persons is contained in the 'Migration Programme' that was adopted by the Supreme Soviet of the Russian Federation in June 1992 (Reguent, 1992). According to the law, a forcefully displaced person is 'a citizen of Russia or a person possessing no citizenship, who was compelled to leave the place of his or her usual residence'.

6.1.2. Economic migration

Until recently, regions with severe living conditions, mainly the Northern territories and those conferred with the same status, attracted many migrants. Yet, the artificially introduced additions to wages and salaries do not contribute to growth of the economic efficiency of the industrial enterprises located in these regions. Under the conditions of a market economy, the high expenses at low effective production will seriously heighten the costs of production. Probably unemployment will be more acute in the north than in the other areas, which may cause a migration flow out of these regions. Outmigration from these regions has recently been observed.

The future of economic migration not only depends on privatization and associated employment policies, but also on what happens to the system of residence permits ('propiska'). Free mobility never existed in the former USSR. No one could change residence or travel without a host of formalities. In spite of the formalities, the population of the former USSR was highly mobile. According to data from the 1979 census, only 47% of the population lived in the place where they were born; 56% of the urban population and 32% of the rural population.

In recent years, migration in Russia has been characterized by a significant urban to rural migration. In 1991, 302 thousand persons moved from towns to rural areas (Reguent, 1992, p. 5). This migration may be a consequence of deteriorating living conditions in towns.

6.2. *Migration from and to the rest of the world*

Until the end of the 19th century, Russia was a country of immigration (Bartlett, 1979). From the 15th century onwards, specialists from West Europe were invited to come to Russia. Their number increased significantly during the reign of Peter the Great (1689-1725), when most settled in the new capital of St. Petersburg. Katharina II (1762-1796) implemented an active immigration policy (1762-1763) in order to develop the steppes north of the Black Sea and the Caspian Sea, that were annexed during the first half of the 18th century. Foreign settlers were given many privileges, including land, exemption from taxes and military service, freedom of religion, and self-governance. German farmers, in particular from South-West Germany, responded to the call of the Empress and the new opportunities. By 1775, about 30,000 persons had settled in the farmland west of the lower Volga (Kappeler, 1992, p. 52). They are the predecessors of the Volga Germans. Because of the privileges and the land inheritance which did not allow division, they were better off than the Russian farmers. Culturally, the settlers differed from the local farmers and there were no significant attempts towards integration and/or assimilation. "The catholic and protestant German settlements remained enclaves in an orthodox world." (Kappeler, 1992, p. 53). The German population increased and reached 1.8 million in 1897. The number of ethnic Germans living in the Russian Empire in 1914 is estimated at two million, the same as at the 1989 census of the USSR.

There were also other ethnicities, like mennonites coming from Friesland (most went in the 1780s to South Ukraine to avoid military service). Immigration of foreigners to Russia continued until the beginning of the First World War. It is estimated that about four million foreigners settled in Russia in the 100 years before World War I. More than half of them were Germans and ethnic Slavs from the Austro-Hungarian Empire. Until the end of the 19th century, immigration to Russia exceeded emigration from Russia.

From the beginning of the twentieth century, emigration exceeded immigration, in the period from 1900-1915 by about 1.5 million people (Bubnova, 1992, p. 147). Three out of four emigrants from Russia moved to the USA and Canada. In 1901-1905 there were 660 thousand people and in 1906-1910 another 938 thousand people, with the peak year 1907 when about 259 thousand people left for the USA. Out of about 1.6 million people who left Russia in 1901-1910, 704 thousand were ethnic Jews, 433 thousand Polish people, 90 thousand Germans, and only 75 thousand ethnic Russians. Return migration statistics show that, in 1911, per 100 ethnic Russian emigrants to the USA, there were 37 return migrants. For other ethnicities,

return migration was much lower. According to modern estimates, between one and two million people left the territory of the USSR during the first World War and the civil war .

In the post World War I period, overseas emigration from Russia stopped almost entirely, due in part to restriction on immigration introduced in the USA (introducing quotas). That is why, during the civil war period, the major receiving countries of Russian emigration became France, Germany, Turkey, and China. Rules introduced in the USSR in 1926 made emigration much more difficult.

The change of the borders in 1939 (annexation of East Poland and East Galicia following the Hitler-Stalin Pact) and the transfer of western Ukraine from the Austro-Hungarian Empire to the USSR in 1945, also had an effect on migration. Although in between the wars there was no mass migration of people from the territory of the USSR, emigration continued from the territory of modern Western Ukraine mostly to the USA and Canada.

According to estimates by Goskomstat, the negative net migration in 1946-1958 made up about 700 thousand people. Within the next decade, it was annually not more than several thousands. At the end of the 1960s, migration to join families was allowed in the USSR. Most migrants were Jews, Germans, and Armenians. In the 1970s, 228.5 thousand Jews emigrated from the USSR, 57.6 thousand ethnic Germans and 20.2 thousand Armenians (Carter *et al.*, 1993, p. 484). Starting in 1981, migration flows again decreased until 1986. Migration was mostly restricted to marriage migration. From 1987, when the Soviet Union opened its door and almost free emigration of Jews, Germans, and Greeks was introduced, emigration experienced a sudden jump from nearly 40 thousand people leaving the USSR in 1986, to 108 thousand in 1988, 235 thousand in 1989, and to 452.3 thousand people leaving the USSR in 1990. From 1948 to 1990, about 400,000 Jews moved from the USSR to Israel, nearly half (180,000) in the last year (Chesnais, 1991).

Data on recent emigration are provided by Zajonchkovskaya (1993, pp. 41ff). The following figures are based on her report. In 1990, 23% of the total number of emigrants from the USSR came from Russia (103.6 thousand; in 1991, it was 88.3 thousand), 21% from Ukraine, 20% from Kazakhstan, 16% from Central Asia, and 5% from Transcaucasus. The majority of migrants who left the USSR in 1990 were Jews (35% or 148 thousand) and Germans (29% or 124 thousand). Russians comprised 12% (53 thousand) and

Ukrainians less than 4% (15 thousand). Germans accounted for 75% of the migrants who left Kazakhstan in 1990 and 81% of those who left Kirgizstan. Jews accounted for 66% of the emigrants from Ukraine, 74% of the emigrants from Belorussia, and 83% of those who left Moldavia. The ethnic composition of the emigrants from Russia was more balanced: 25% Germans, 20% Russians, and 20% Jews. The direction of migration mirrors the ethnic composition. In 1990, 59% of the emigrants from Russia went to Israel, 32% to Germany, 4% to Greece, and 2% to the USA. In 1991, the picture is different (Israel 44%; Germany 38%; Greece 2.4%, and USA 12.5%). In 1991, the number of Russian citizens who migrated to the west was 88.3 thousand. Additional data are shown in *Table 4*.

As far as the future of external migration is concerned, experts offer very different estimates. Estimates vary from 400,000 up to one million people leaving the country annually. By early 1991, some official Soviet sources were estimating possibilities of up to five to seven million emigrants over the next two or three years (Carter *et al.*, 1993, p. 487). In the early 1990s, Jews and Germans comprised an overwhelming share of all emigrants from the territory of the former USSR, but later on experts also expect migration of Russians, Ukrainians, etc. Polls conducted in the early 1990s suggested from 11 to 46 million potential Russian emigrants. In 1991, the Institute of Employment Studies in Moscow conducted a Delphi study among 30 experts from government, science, and business, with the aim of getting their estimates of the prospects of emigration from the territory of the former USSR during the period 1992-97. Half of the experts expected about two to four million emigrants, 30% expected four to five million emigrants, and 20% expected the number of emigrants not to exceed two million (Tikhonov, quoted by Vishnevsky and Zayonchkovskaya, 1993, p. 268). In early 1992, the Russian Center for Public Opinion and Market Research asked people about emigration. One out of five adults would like to emigrate in principle (Zaslavskaya, 1992, p. 3). Western scientists came up with their own estimates. Chesnais (1991) has drawn up a list of ethnic groups with 'bonds' to cousins living elsewhere. He arrives at 20 million, but this includes the entire Armenian population of the former USSR, the entire population of Estonians, Latvians, Lithuanians, and Moldovians. The 1989 Census counted 14 different minorities with strong ethnic consciousness and strong ties with people of the same ethnicity outside the former USSR. They included 4.6 million Armenians, 2.0 million Germans, 1.4 million Jews, 1.1 million Poles, 440 thousand Koreans, and 370 thousand Bulgarians.

Table 4. *Emigration of main ethnic groups, USSR, 1970-1991*

Year	Jews	Germans	Armenians	Total
1970	1046	342		1388
1971	14300	1145		15445
1972	31478	3420	170	35068
1973	34922	4635	421	39534
1974	20181	6683	662	27526
1975	13139	6127	1036	20302
1976	14138	9846	4050	28034
1977	17159	9416	3165	29740
1978	30594	8597	2557	41748
1979	51547	7368	8153	67068
1980	21471	7096	13909	42476
1981	9860	8153	4337	22350
1982	2700	4461	769	7930
1983	1320	3127	439	4886
1984	903	1960	200	3063
1985	1140	980	248	2368
1986		753		
1987	8000	14488		
1988	19000	47572	11000	
1989	71000	98134	20000	
1990	200000	145000	55000	
1991		147320		

Source: Carter *et al.*, 1993, p. 484.

The new 'Law on Exit from the USSR and Entry into the USSR of Soviet Citizens and other Nationals', which was drafted in 1989, and approved in May 1991 shortly before the USSR ceased to exist, and which came into effect on 1st January 1993, did not result in a major increase in the number of emigrants. The law gives every citizen the right to an international passport and to travel anywhere in the world for any reason. Administrative restrictions (difficult to obtain passport) may be part of the reason. Another reason is the change in policy of Western countries. Following the open-door policy of the USSR in 1987, the United States first increased the quota, but then decided in August 1988 to stop according *presumptive* refugee status to all Soviets and instead began a case-by-case adjudication for them. The policy of the United States towards emigration from the former Soviet Union is described by Vernez (1993). German policy towards *Aussiedler* changed dramatically during 1990. Beginning in the 1970s, the policy was to gain freedom of exit for ethnic Germans in the Warsaw Pact countries, using a

series of bilateral treaties. In 1990, the policy was reoriented. Priority was given to improving the economic, social, and political situation of ethnic German minorities in their East European home countries. For instance, the autonomous Volga German Republic was re-established in April 1992 by agreement between Russia and Germany; Germany hoped that it would curb further emigration of ethnic Germans to Germany. The new policy towards ethnic Germans was enforced by changes in administrative procedures and financial regulations that made the move to Germany more difficult. It was accompanied by a new and more flexible guest-worker policy, opening channels by which East Europeans might gain access to the German labour market (Carter *et al.*, 1993, p. 486).

A significant new feature of migration from Russia to countries outside the territory of the former USSR could be migration to Eastern Europe. Carter *et al.* (1993) see a potential for new migration streams to develop. An estimated 1.2 million Poles and 170,000 Hungarians live in the former Soviet territory. The Poles never went to the USSR, but were subject to border changes after World War II. Some observers consider the East European countries as a 'waiting room' for many Ukrainians, Belorussians, and Russians on their way to the west. Many come as 'tourists', in reality on business escapades. The number of Soviet visitors to Poland rose from 2.9 to 4.3 million between 1989 and 1990. The forecast of millions of Soviet refugees staying in Eastern Europe has not taken place. Significantly, at the time of the August 1991 coup in Moscow, only fifteen out of the hundreds of thousands of Soviet citizens then in Poland applied for political asylum (Carter *et al.*, 1993, p. 477).

What can we meaningfully say about future emigration from Russia? The most likely future emigrants are those ethnic nationalities with ties in other countries. One might reasonably expect the outflow of Jews, Germans, and Armenians to remain high for a number of years. One trend is increasingly becoming apparent. It is that the people who are most likely to wish to emigrate, and actually do so, are those who in the past have moved, whether forcibly or voluntarily (Carter *et al.*, 1993, p. 488).

7 | Conclusion

Russia today has close to 150 million people distributed over a vast territory of 17 million square kilometers. Almost one out of five inhabitants of Russia belongs to one of the 100 minorities. On the other hand, 25 million ethnic

Russians live outside Russia, in the states of the former USSR. In order to understand today's demography of Russia, we must consider the history of the country.

The history of Russia is inscribed in its age pyramid. For instance, there are few persons aged between 45 and 50, because during the Second World War few children were born. About twenty-five years ago, when the women born during the war were in their prime reproductive ages, fewer children were born than in other periods, not because fertility declined but because there were fewer women. Today, the women born during the war become grandmothers. Their children are now in the prime reproductive ages. But today, two forces are working together to substantially reduce the number of births in Russia. First, there are much less women in their twenties than some years ago. At the end of 1992, there were two million (17%) women aged 20-29 less than in 1987. Second, the lack of confidence in the future and the lack of food and other necessities induce women to postpone childbearing. A recent survey revealed that only 11% of women of reproductive age expect to have a child in the next two to three years. According to a small sample survey on reproductive behaviour, conducted in July 1991, only 23% of the women in Russia intend to keep the child in case of unplanned pregnancy. Statistics show the facts. The number of births have dropped sharply since 1987 and, by early 1992, Russia had fewer births than deaths.

Women have their children early in Russia. More than half of the women have a child by the age of 25 and fertility is completed by age 37. Most children have a brother or sister since the two-child family norm is strong, and it became stronger in recent decades. In 1989, 70% of the women adhered to the two-child norm. Adherence means abortion. A woman has two abortions on average for every live birth. One scholar estimated that five out of six women in Russia have at least one abortion in her life. Modern contraceptives are not widely spread. Estimates of the proportion of women of reproductive age who use effective contraceptives ranges from 13 to 14% (estimates by scholars) to 22% (result of the 1990 Goskomstat survey). Modern contraceptives are not widely used because women do not know about them and they are not generally available anyway. When they are used, they do replace traditional methods of contraception, but they do not affect the number of abortions. This important finding was obtained by Avdeev.

A major concern is the deteriorating health of children. Rimachevskaya reports that, between 1985 and 1990, the proportion of children born

prematurely increased by 20% and that about 30% of the babies are discharged from the maternity hospitals with serious neuralgic disorders. The chance of surviving the first year of life declined relative to the chances of children born in Europe or North America. In 1968, infant mortality in Russia was about the same as in the USA, in 1970 it was 15% higher, and today it is 78% higher. Part of the deteriorating health of children is attributed to the declining health of mothers.

Although, as Rimachevskaya reports, more women feel unhealthy than men, they live longer, much longer. On average, women live more than ten years longer than men, the highest difference in the world. In 1990, accidents, poisoning, and violence accounted for a difference between male and female mortality of 3.6 years, which was 34% of the total difference of 10.6 years. Most of the difference in life expectancy is due to different levels of adult mortality (ages 15-59), about 60%. In this age category, accidents, poisoning, and violence are particularly important. The anti-alcohol campaign of 1985 was followed by a substantial mortality decline. Life expectancy increased by 3.2 years in only three years (1984-87). More than half of the increase (56%) could be attributed to the decline in mortality from accidents, poisoning, and violence in these years.

Migration is a new phenomenon to many citizens of Russia. In 1990, more than 100 thousand persons left Russia. About 25% were Germans, 20% Jews, and 20% Russians. The most likely future emigrants are those ethnic nationalities with ties in other countries. The 1989 Census counted some 20 million people from 14 different minorities with strong ethnic consciousness and strong ties with people of the same ethnicity outside the former USSR. They include 4.6 million Armenians, 2.0 million Germans, 1.4 million Jews, 1.1 million Poles, 440 thousand Koreans, and 370 thousand Bulgarians.

More people are settling in Russia from other states of the former USSR. That process is not new; it started in the 1960s, when an increasing number of jobs held by Russians were occupied by titular nationalities. In 1990, more than 200 thousand Russians migrated to Russia from the other states, 77% of all Russians who left the other republics. Most came from Azerbaijan, Uzbekistan, Kazakhstan, and Tajikistan. Most of the 25 million Russians living outside Russia do not intend to migrate to Russia. A survey in 1992 among Russians outside of Russia revealed that two million intend to resettle in Russia in the near future. Most of the persons resettling will come from Central Asia, Transcaucasia, and the Baltic states.

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