

International Brief

Population Trends: Russia

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While recent Russian demographic trends reflect the country's current economic and social malaise, they also continue to reveal the shocks experienced by Russia's population earlier in this century.

Russia's fertility has been falling sharply since the breakup of the USSR: Russia's 1993 total fertility rate (TFR) of 1.4 ranks among the lowest in Europe. Despite this, access to modern contraceptive methods remains difficult.

In 1992 Russia's population passed a demographic milestone, experiencing more deaths than births. Although attention is often given to the increased mortality among adult men, mortality has also risen for women and infants.

National averages for Russia as a whole often mask variation in demographic patterns and conditions within Russia's vast territory.

Population Growth and Composition

Russia's population dynamics over the foreseeable future will be closely connected to the composition of Russia's population, which possesses a highly irregular age-sex structure (figure 1), due to the vicissitudes of history. As of 1996 the effect of World War II is clearly visible in the dent around age 50, reflecting the small number of wartime births relative to the prewar and postwar years. The trough around age 60 corresponds to the famine and disruption occasioned by the forced collectivization of agriculture and the purges of the

1930's. Further down, the depression around age 25 is an echo effect of World War II. The population ages 25-29 in 1996 is largely the children of mothers born during the war and the immediate postwar years, who were and remain less numerous than their counterparts a few years older or younger. Upon reaching childbearing age this small contingent of mothers produced smaller numbers of children than were registered in the preceding and ensuing years. The

narrowing at the base of Russia's current age pyramid includes the granddaughters of mothers born in the war years.

Russia's age-sex structure leads to sizeable fluctuations in births as the various cohorts pass through the reproductive ages. Much of the recent drop in births in Russia is due to the aging of the relatively large 1950's birth cohorts, which passed out of the prime ages of childbearing by 1995. Similarly, the population increases projected for the first

Figure 1.

Population of Russia by Age and Sex: 1996 and 2020

(Single years of age)



Source: U.S. Bureau of the Census, International Programs Center.

decade of the next century will be shaped, in part, by the entry into the reproductive ages of the cohorts born in the 1980's.

Since 1992 annual deaths in Russia have exceeded births, currently by about 1 million. The impact of this negative natural increase is offset for the most part by the influx of migrants from other former Soviet Republics, many of whom are Russians or Russian-speaking. Russia's 1994 adjusted crude death rate of 16 per 1,000 is more than 1½ times as high as the crude birth rate of 9.8 per 1,000, while the net migration rate for that year is estimated at 5.5 per 1,000.

Current projections indicate that Russia's population will decline somewhat by the turn of the century and that growth will resume at a low rate during the first part of the 21st century (table 1).

Russia's population, already relatively old, is expected to continue to age, so that by 2020 half the population will be over 40 and more than 14 percent will be over 65.

The number of children ages 0-4 in Russia has fallen in the first part of this decade (from 14 million in 1990 to 10 million today) but is expected to rise again over the next 10 years.

Fertility

Although Russia is a low fertility country in global terms, by the standards of European and other industrialized countries Russia's fertility levels have figured among the highest for most of the period since the 1950's. As recently as 1988 Russia's total fertility rate of 2.2 was adequate for the long-term replacement of the population. All this has changed in the past few years. Starting in 1989, fertility began to decline in Russia, accelerating sharply since the breakup of the former USSR. By 1992 Russia's TFR of 1.6 was

about average for West Europe. The rate has continued to fall, and Russia's 1993 TFR of 1.4 (figure 2) ranks as one of the very lowest in Europe. Because few countries have sustained such low fertility for long, and in view of the exceptional nature of Russia's recent history, Russia's fertility is expected to rise from its present low, although not back to replacement levels.

As fertility has declined in Russia, the share of births occurring at young ages has been increasing: while the overall TFR declined by about 40 percent since the late 1980's, the fertility of women under age 20 fell only 2 percent.

Geographic, social and cultural diversity go together with Russia's vast size. Levels of fertility vary accordingly. Above-replacement fertility still characterizes the rural populations of some of Russia's southern and eastern territories. The North Caucasus Region, which is the region with the smallest proportion of ethnic Russians, has the highest fertility level among the economic regions.

Still, all of Russia's economic regions have experienced fertility reductions in the past few years—some of them quite dramatic. The region with the lowest fertility is the Northwest Region, an area adjacent to the Baltics and including St. Petersburg. In 1993 this region registered an exceptionally low total

fertility rate of 1.03. This level of fertility would, if maintained in the absence of migration, imply halving of the population each generation.

Another noteworthy aspect of recent Russian fertility trends is the rising share of births out-of-wedlock. As of 1993, roughly 18 percent of all births occurred to unmarried women, and the share has risen steadily over the past few years (figure 3). This is close to the West European average and comparable to the White population of the United States. The share of out-of-wedlock births is twice as high in East Siberia and the Far East than in the Volga and Chernozem regions.

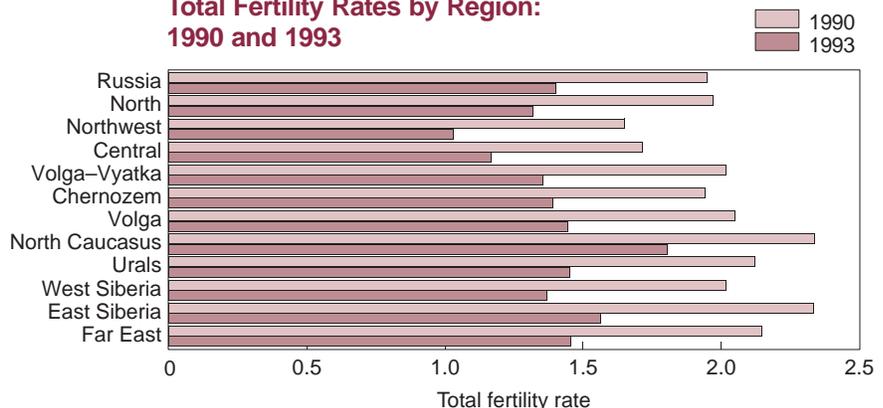
Mortality

Since the 1960's, there has been little overall improvement in Russian mortality. Periods of mortality decline have been succeeded by spells of apparent increase. The present phase of deterioration has brought Russian life expectancy from a postwar high of 70.1 in 1986-87 to its 1994 level of 65.1, which is the lowest registered for the postwar period. While the recent increase in death rates has been greatest among adult men, mortality rates have also risen among women and infants.

Russia's regions differ in mortality as well as fertility. All regions have experienced rises in mortality

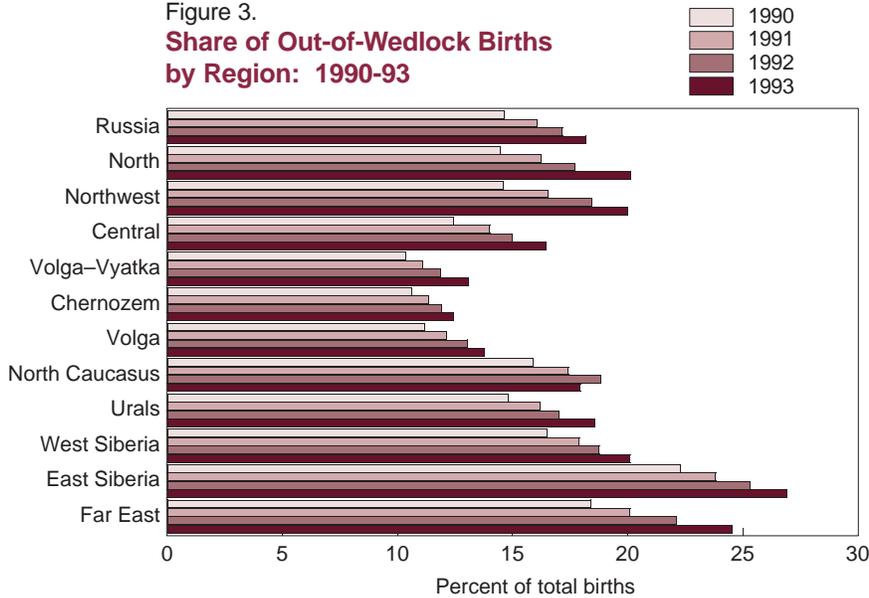
Figure 2.

Total Fertility Rates by Region: 1990 and 1993



Source: U.S. Bureau of the Census, International Programs Center.

Figure 3.
**Share of Out-of-Wedlock Births
by Region: 1990-93**



Source: U.S. Bureau of the Census, International Programs Center.

since 1990. The Siberian, Far Eastern, North, and Northwest Regions are distinguished by above average mortality.

Among the adverse characteristics of Russian reproductive health are high rates of maternal and infant mortality. These rates are approximately at levels seen in various countries of Latin America (e.g., Argentina) but are many times higher than the rates in most developed countries.

Russia's maternal mortality, at about 52 deaths per 100,000 live births, is 6 to 7 times higher than rates in the United States or Western Europe and has shared in the recent general rise in Russian mortality. Abortions account for about 28 percent of maternal mortality in Russia. Roughly 90 percent of maternal deaths due to abortion involve illegal abortions. The maternal mortality rate varies considerably across Russia's regions, ranging from 37 to 78 (figure 4).

Russia's infant mortality rate (24.7 per 1,000 in 1995) is about three times greater than in the United States or Western Europe.

It is widely recognized that mortality from infectious diseases can be prevented in most cases by standard medical treatments and public health precautions, such as antibiotics and proper sanitation. An inspection of infant mortality rates by cause of death in Russia shows that the rates of infant mortality due to infectious diseases and pneumonia in the less developed and more remote regions (North Caucasus, East and West Siberia, the Far East) are much higher than in the northern and western parts of Russia (figure 5). Also, the rates in almost all rural areas, including rural parts of the most developed regions, are much higher than in

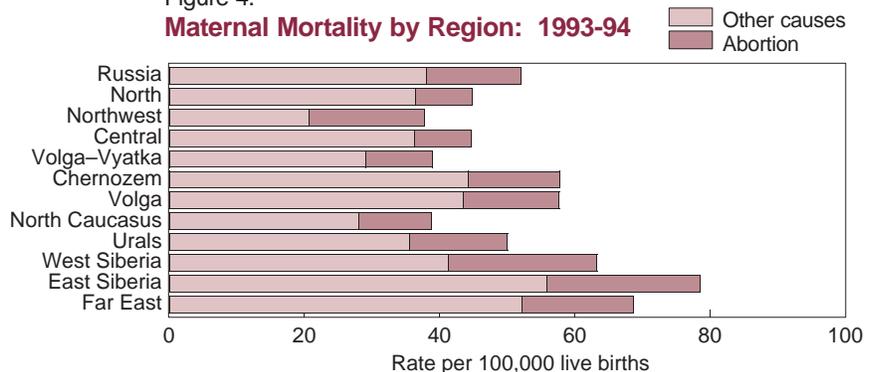
urban areas. Since deaths from these causes can be prevented by reasonably straightforward remedial actions, the regional variations in the corresponding infant mortality rates suggest wide differences in living conditions and social infrastructure throughout Russia.

Contraceptive Prevalence and Abortion

Russia's former government was pronatalist, but not coercively so. In the 1980's the Communist Party instituted a system of incentives including extended partly paid maternity leaves and cash awards graduated by birth order. However, IUD insertions and abortions were available upon request.

Estimates of contraceptive prevalence for Russia vary widely. Recent information indicates that two-thirds of married women (ages 20-49) practice some form of family planning, including 18 percent who rely on traditional methods such as rhythm (table 2). Earlier data showed lower rates of contraceptive prevalence. Only 30 percent of women in a national-level survey in 1990 reported using any form of family planning, whether regularly or only occasionally. Even at the higher rates, only half of the women who want no more children are using modern methods of contraception, and a quarter are using no method at all. Unmet need for family planning assumes significant proportions in Russia's population. Based on the more recent surveys,

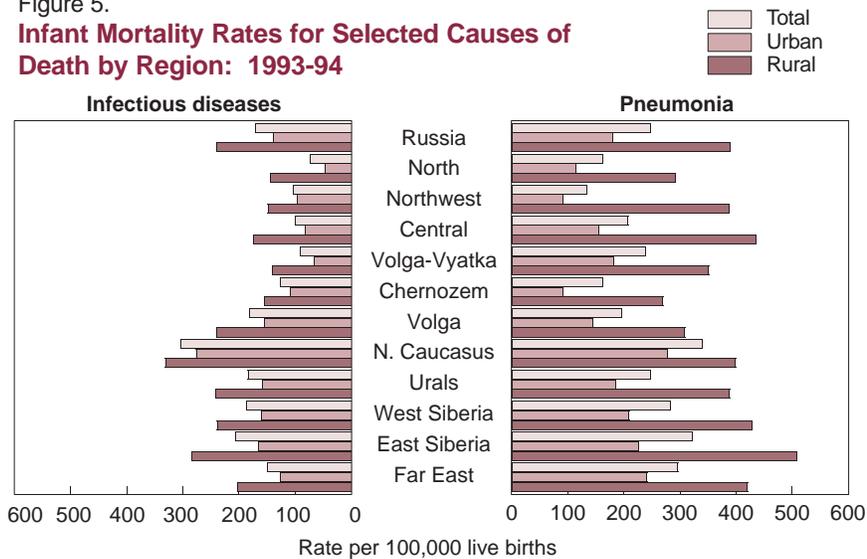
Figure 4.
Maternal Mortality by Region: 1993-94



Source: U.S. Bureau of the Census, International Programs Center.

Figure 5.

Infant Mortality Rates for Selected Causes of Death by Region: 1993-94



Source: U.S. Bureau of the Census, International Programs Center.

about 8.5 million women who want no more children are not using modern contraception and 4.6 million of them are not using any family planning method.

Contraceptive use in Russia is characterized by an unusual method mix (figure 6). The IUD is the most common method, used by roughly half of married women ages 20-49 who are practicing contraception. Only about 6 percent use oral contraceptives, which in the past were discouraged as potentially harmful by the medical profession and the public health administration.

Russia's low fertility has been associated with heavy reliance on abortion. Russia and her neighbors together with Romania and Bulgaria stand out as the countries with the highest rates of abortion in the world. The abortion rates of Russia and the other European republics of the former USSR are several times higher than those of the United States and Western Europe. Russia has perennially had the highest abortion rate among the former Soviet republics, recently registering twice as many abortions as births. As the number of births has dropped lately, so

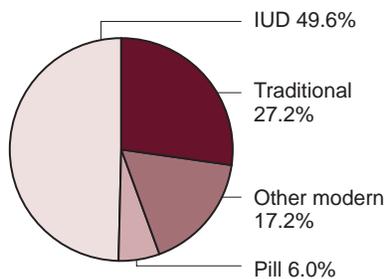
has the number of abortions. Nonetheless, the ratios of abortions to births have been increasing in Russia and her neighbors in recent years, indicating that the fraction of pregnancies that are unwanted remains substantial and may even be increasing. In 1993, there were 3.2 million abortions reported in Russia, compared with 4.4 million in 1985.

Ratios of abortions to births in Russia's regions do not differ greatly, the principal standout being the lower ratio for the North Caucasus. The inhabitants of this

Figure 6.

Contraceptive Use by Method: 1994

(Percent of currently married women ages 20-49 who use some means of contraception)



Source: U.S. Bureau of the Census, International Programs Center.

region represent a variety of ethnic minorities, including some traditionally Islamic groups.

The family planning behavior of Russia's population reflects the adaptation of its members to the scarcities and constraints of the social and economic environment. These have included irregular supply and unreliable quality of the contraceptives which are most widely preferred on a worldwide basis, such as the pill. High prices may also be an obstacle. Because Russia's population is highly educated and mobile, it seems likely that as supply and quality issues are resolved and the general economic environment improves we will see a shift towards modern methods and, perhaps, a more typical mix of these methods.

The International Programs Center (IPC) collects, assesses, and analyzes population and related statistics from all countries. Based on these data, IPC produces the demographic estimates and projections used in this series of reports. This report, written by Ward Kingkade, was prepared with the support of the U.S. Agency for International Development. More detailed information is available from the International Programs Center, Population Division, U.S. Bureau of the Census, Washington, DC 20233-8860.

References

Barkalov, N.B. and L.E. Darskiy. *Russia: Fertility, Contraception, Induced Abortion, and Maternal Mortality*. The Futures Group. 1994.

Entwisle, B., P. Kozreva, N. Zohoori and C. Cross. *Family Planning and Abortion in the Russian Federation. The Russia Longitudinal Monitoring Survey, 1992-1994*. University of North Carolina, Chapel Hill. 1995.

Popov, A.A., "Family Planning in Russia," presented (postmortem) at the RAND Workshop on Russia's Demographic Crisis in Comparative Perspective, Santa Monica, June 5-6, 1995.

"Problemy sem'i, okhrany materinstva i detstva" ("Problems of the family, maternal and child care"), *Vestnik statistiki*, 6, 1991, pp.55-64.

Regional Demographic Indicators: 1993 and 1994

Region	1994 population (thousands)	1993				1993 and 1994			
		Total fertility rate	Abortions (thousands)	Abortions per 1,000 woman 15-49	Percent of births out of wedlock	Maternal mortality from all causes (per 100,000 live births)	Maternal mortality from abortions (per 100,000 live births)	Infant mortality rate (per 1,000 live births)	Infant mortality rates from infectious and respiratory diseases (per 1,000 live births)
Total	148,363	1.40	3,244	88	18	52.0	14.0	25.00	5.33
North	5,975	1.32	117	77	20	44.8	8.4	22.74	3.40
Northwest	8,073	1.03	150	72	20	37.8	17.2	22.21	3.62
Central	29,911	1.17	575	78	16	44.6	8.4	22.72	3.96
Volga-Vyatka	8,505	1.36	184	90	13	38.9	9.9	22.22	3.88
Chernozem	7,894	1.39	161	89	12	57.8	13.6	22.70	4.02
Volga Proper	16,932	1.45	391	95	14	57.6	14.2	25.52	4.83
North Caucasus	17,599	1.80	297	71	18	38.8	10.7	26.53	7.99
Ural	20,506	1.45	500	100	19	50.0	14.5	24.51	5.78
West Siberia	15,192	1.37	349	90	20	63.3	22.0	26.51	5.88
East Siberia	9,190	1.56	246	106	27	78.6	22.8	29.36	6.43
Far East	7,657	1.45	189	91	25	68.6	16.4	27.78	5.18

Note: Totals include Kaliningrad Oblast not shown separately.

Economic Regions of Russia



Table 1.
Population Indicators for Russia: 1990 to 2020
(Absolute figures in thousands)

Indicator	1990	1995	2000	2005	2010	2020
Total	148,081	148,291	147,938	148,907	149,978	149,632
Urban	109,176	108,167	110,933	114,546	118,115	122,836
Rural	38,905	40,124	37,005	34,361	31,863	26,797
Male, total country						
All ages	69,325	69,451	69,100	69,610	70,329	70,620
0-5	7,174	5,225	5,083	6,390	6,322	5,017
6-9	4,725	4,910	3,461	3,316	4,301	3,801
10-16	7,548	8,196	8,537	6,502	5,869	7,403
17-19	3,090	3,272	3,525	3,771	2,715	3,219
15-49	36,228	38,268	39,201	39,062	36,952	35,886
50-64	11,808	9,796	9,791	10,292	12,635	13,094
55+	10,929	12,409	11,290	11,760	13,143	16,374
0-15	18,412	17,226	15,825	15,035	15,735	15,145
Work age	43,410	44,074	44,284	46,338	45,785	43,634
Pension	7,503	8,152	8,991	8,237	8,808	11,841
Female, total country						
All ages	78,756	78,840	78,838	79,297	79,650	79,012
0-5	6,901	5,003	4,865	6,104	6,033	4,786
6-9	4,580	4,733	3,318	3,179	4,112	3,627
10-16	7,335	7,961	8,247	6,248	5,631	7,077
17-19	2,974	3,204	3,448	3,661	2,617	3,090
20-29	10,459	9,950	10,873	11,484	11,820	8,308
15-49	36,024	38,391	39,733	39,593	37,309	35,985
50-64	15,052	12,533	12,720	12,995	15,781	15,586
0-15	17,808	16,617	15,210	14,399	15,048	14,459
Work age	40,576	40,435	43,228	44,241	42,660	39,596
Pension	20,371	21,787	20,400	20,658	21,941	24,958
Female, married						
Total 15+	36,357	36,614	37,037	37,741	38,212	37,179
15-49	24,292	25,709	26,265	26,116	25,589	24,105
15-19	520	559	609	626	437	538
20-24	2,892	3,189	3,417	3,652	3,632	2,590
25-29	4,611	3,821	4,264	4,447	4,741	3,285
30-34	5,280	4,790	4,007	4,398	4,582	4,840
35-39	4,839	5,166	4,706	3,907	4,285	4,755
40-44	3,787	4,616	4,926	4,469	3,716	4,252
45-49	2,363	3,568	4,337	4,618	4,196	3,845
DEPENDENCY RATIOS (Both Sexes)						
Total	49.40	49.80	45.80	46.10	46.10	48.80
Youth	34.40	32.00	28.20	26.80	28.50	27.30
Old age	15.00	17.80	17.60	19.30	17.50	21.50
TOTAL FERTILITY RATE						
Fertility rate per woman	1.947	1.422	1.947	1.865	1.810	1.749
LIFE EXPECTANCY AT BIRTH						
Both sexes	68.50	63.24	65.36	67.37	69.23	73.01
Male	63.39	56.51	59.37	62.08	64.59	68.86
Female	73.86	70.31	71.65	72.92	74.10	77.36
INFANT MORTALITY RATE						
Both sexes	23.10	24.70	21.60	18.60	16.00	11.40
Male	25.10	27.20	23.20	19.50	16.50	12.00
Female	20.90	22.10	19.90	17.60	15.50	10.70

Notes: According to Russian conventions, the working age population consists of men ages 16-59 and women ages 16-54. The pension age population comprises women ages 55+ and men ages 60+.

The child dependency ratio expresses the ratio of the population ages 0-14 per 100 persons ages 15-64. The old age dependency ratio is the ratio of the population ages 65+ per 100 persons ages 15-64. The total dependency ratio is the sum of these two ratios.

Table 2.
Contraceptive Prevalence: 1992 and 1994

Method	Percent of currently married women ages 20-49		Percent of users	
	1992	1994	1992	1994
Any	62.5	66.8	100.0	100.0
Any traditional	18.1	18.2	29.0	27.2
Any modern	44.4	48.6	71.0	72.8
IUD	29.7	33.1	47.5	49.6
Pill	3.3	4.0	5.3	6.0
Other	11.4	11.5	18.2	17.2

Source: Entwisle, et al., 1995.

Table 3.
Average Age of Users of Contraceptive Methods Among Currently Married Women Ages 20-49: 1992 and 1994

Method	1992	1994
Any	33.6	33.5
Any traditional	35.2	34.4
Any modern	32.9	33.1
IUD	33.5	33.2
Pill	29.8	29.2
Other	32.5	34.2

Source: Entwisle, and U.S. Bureau of the Census, International Programs Center, unpublished tables.

Table 4.
Age-Specific Fertility Rates
(Per 1,000 women)

Age	1979-1980	1986-1987	1990	1995	2000	2010	2020
<20	44.1	49.3	57.4	50.0	68.4	63.6	61.4
20-24	162.1	174.6	161.7	121.0	165.6	153.9	148.7
25-29	104.4	125.7	96.1	69.4	95.0	88.3	85.3
30-34	54.2	69.2	49.7	30.8	42.2	39.2	37.9
35-39	19.0	28.0	20.0	10.9	14.9	13.8	13.3
40-44	5.3	5.9	4.3	2.3	3.1	2.9	2.8
45-49	.4	.2	.2	.1	.2	.2	.2
Total fertility rate (per woman)	1.947	2.264	1.947	1.422	1.947	1.810	1.749

Source: U.S. Bureau of the Census, International Programs Center, unpublished tables.