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Research Article

**Russian Federation:
From the first to second demographic transition**

Sergei Zakharov

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Table of Contents

1	Introduction: Russia's Population at a glance	908
2	The First Demographic Transition towards a two-child family: overcoming an inefficient model of fertility and family policy	909
3	The crisis of the age pattern of fertility and the second government attempt to prevent the ongoing fertility decline	916
3.1	Key quantitative characteristics of the Russian fertility pattern in the 1970s and 1980s	918
3.2	Qualitative characteristics of the Russian fertility pattern in the 1970–80s	919
3.3	The Demographic Effect of the 1980s Family Policy	922
3.4	Family and population policies in the 1990s and 2000s	929
4	Signs of the Second Demographic Transition: A Quiet Revolution in Family Formation in Russia since the mid-1990s	931
5	Conceptions of ideal and desired family size and differential fertility in contemporary Russia	938
5.1	Ideal, desired, and actual family size	938
5.2	Regional variety in fertility	941
5.3	Differentials by marital status	942
5.4	Urban-rural differentials	943
5.5	Inter-ethnic differentiation	944
5.6	Differentials by level of education	945
6	Principal conclusions	947
7	Acknowledgements	950
	References	951

Russian Federation: From the first to second demographic transition

Sergei Zakharov¹

Abstract

The demographic transition in Russia was accelerated by several social cataclysms during the “Soviet type” modernization. Frequent changes in the timing of births and marriages engendered a mass “abortion culture”. Contraceptive devices of poor quality were produced on a limited scale. The Soviet regime promulgated pronatalism and considered contraception to contradict this ideology. There have been two waves of government policy interventions. In the 1930s and 1940s restrictive and propaganda measures prevailed. These failed to yield serious effects. In the 1980s, policies aimed at lessening the tension between full-time employment and maternal roles. These generated shifts in birth timing, namely shorter birth intervals and earlier second and third births, however increase in completed cohort fertility was minimal. A third wave started in 2007. Preoccupied with continuous depopulation, authorities intend to boost births by substantially increasing benefits. The mid-1990s was a turning point in the change of fertility and nuptiality models. The 1970s birth cohorts marry and become parents later. They delay first and second births and increasingly begin partnerships with cohabitation. Contraception is replacing abortion. New attitudes and perceptions about family, partnership, childbearing, and family planning are emerging. A major transformation typical for developed countries, the Second Demographic Transition, is underway. Nevertheless, many neo-traditional features of fertility and nuptiality remain. These distinguish Russia from most European countries and will persist in the near future. Completed fertility, however, hardly differs from the average European level.

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1. Introduction: Russia's Population at a glance

Russia had a population of 143,474 thousands on 1 January 2005. The overall population decrease for 2004 was 694 thousands or -4.8 per 1000 of the mid-year population. This decrease took place because of a surplus of deaths (2,295,000) over births (1,502,000), amounting to 793,000 which was not compensated by the positive international migration balance of 100 thousand or 0.7 per 1000 (including all official corrections for underreporting of immigrants). The population has been decreasing since 1993; the natural increase has been negative since 1992, making up -6.6 per 1000 in 2000–2002. In 1993–2004, Russia's population decreased by 5,087,000. In the 1990s, the first years that followed the breakdown of the Union of Soviet Socialist Republics, an increase due to migration was quite substantial, 6.7 per 1000 (1994). To a large extent, this compensated for a growing negative natural decrease and mitigated the population decrease. The restrictive migration policy of recent years has reduced the number of immigrants, while complicated bureaucratic procedures of registration increased the proportion of illegal migrants residing in the country.

Russia can be described as a mono-ethnic country, with 80% of the population being Russians. The other ethnic population groups making up at least 1% of the overall population are Tatars (3.8%), Ukrainians (2.0%), Bashkirs (1.2%), Chuvash (1.1%), Chechens (0.9%), and Armenians (0.8%). Foreigners, including those without any citizenship and those not declaring citizenship, are 1.9% (the 2002 Census).

Russia is a country with a quickly ageing population. In 1970, the median age was 30.5; in 2005 it was 37.3. In 1990, the population aged 65+ made up 9.9% and the youth aged 0–19 accounted for 29.9%. By comparison, in 2005, the population aged 65+ made up 13.7% and 23.8% were youth aged 0–19. The single cause of the ageing population is low fertility of an under replacement level beginning with cohorts of women born in 1911 (net reproduction rate for synthetic cohorts has remained below 1 since 1965). There have been no signs of improvement in life expectancy in older ages for many decades, while improvements in child mortality helped slow ageing.

The real tragedy for Russia lies in the more than thirty-year deterioration of the mortality situation for those of working age, especially men. According to the present mortality tables, 47% of males who reach their 15th birthday will not survive to age 60. (In Western Europe, the US and Japan no less than 85% do). The major cause of such egregious Russian backwardness is the exceptionally high mortality from all types of external causes and early mortality from cardio-vascular diseases. A reduction in male and female work-age mortality to the level of the developed countries of the West could reduce the negative natural growth of the population by 0.5 million, which is more than 60%.

In an address to the Russian Federal Parliament (in May 2006), President Putin said the issue of raising fertility is central in finding a way out of this demographic crisis. A new demographic policy, which took effect in 2007, is based on the idea of stimulating fertility. Another policy, which concerns replacement migration and aims at improving public health, is not articulated clearly at the official level. The debate over boosting fertility and the necessity of attracting migrants is going on at all levels: among experts, in the mass media, and among legislative and executive authorities.

2. The First Demographic Transition towards a two-child family: overcoming an inefficient model of fertility and family policy

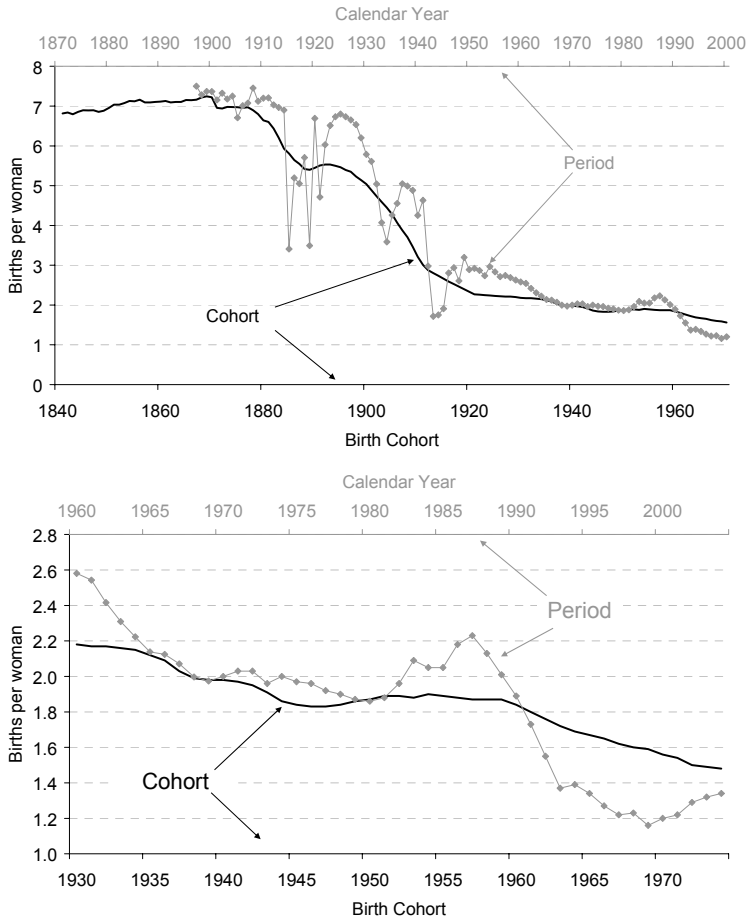
A steady fall in the birth rate in Russia began at the very end of the 19th century, when a radical schism in the social, economic and political system of the Russian Empire gathered force, following the abolition of serfdom in 1861. Cohorts born in the 1880s and socialised at the turn of the century were the first to start out on the path of fertility limitation. The First World War – and the revolution, civil war and famine which followed – provided an additional impetus to the acceleration of the demographic transition.

During the entire first half of the 20th Century, a rapid and often brutal modernization took place and traditional peasant society played the key role in the transformation of reproductive behaviour patterns. Starting much later than in most Western countries, and from a higher level, Russia's fertility transition was also much more rapid. A decline in cohort fertility in Russia was monotonic within the whole period of the demographic transition (see also Scherbov and Van Vianen 1999, Scherbov and Van Vianen 2001). Only the cohorts born between 1890 and 1895 – utilising the short breathing interval produced by the favourable conjuncture of the 1922–1928 New Economic Policy periods – show some interruption of this trend (Fig. 1, Appendix, Table 1).

In contrast, period fertility (the conventional total fertility rate) exhibits strong fluctuations against the backdrop of a generally declining trend. The fluctuations in period fertility reflected particular societal events: catastrophic changes in the socioeconomic environment (World Wars I and II, the 1918–1920 civil war, massive repressions during the 1930s, famines in 1932–1933 and in 1947) and the intrusion of the government into the demographic sphere (e.g. adoption of new family policy measures in the 1980s), all of which caused major changes in birth timing. Sharp falls and subsequent – no less sharp – compensating rises in period indices are good signs of immediate changes in the tempo of family formation in response to sudden changes in macro factors, and at the same time, they mask any major trend in fertility change. In

the case of introduction of policy incentives, naturally the reverse sequence is observed: a rise and then a compensating drop.

Figure 1: Completed cohort and period fertility (PTFR) during the demographic transition in Russia (average number of children born to a woman by age 50: birth cohorts 1841–1970, period 1897–2000 – top panel; birth cohorts 1930–1974, period 1960–2004 – bottom panel)



Source: Zakharov S.V. (2005).

The first demographic transition in Russia came to an end in the 1960s (mothers born between 1920 and 1930). The convergence of total fertility in the cohort of “mothers” and the cohort of their “daughters” can serve as a good indicator of the completeness of the transition process. Cohort and period total fertility converged in level, and spatial fertility variation narrowed, which also testifies to the completeness of the transition to a new type of fertility, one in which the average family has no more than two children (Zakharov 1994, Avdeev and Monnier 1995, Zakharov 2003).

To a substantial degree the transition to low fertility in Russia was accelerated by a series of continued social cataclysms/crises which went hand in hand with the modernization of Russian society. The point is that not only did living standards fall during the crises, but individual control over reproductive behaviour became a widespread practice among the mass of the population. Partners had to continuously adjust their reproductive practices to changing socio-economic reality. The necessity of frequent changes in the timing of births and marriages brought about the specific tools and measures of fertility control. In Russia, unfortunately, it led to widespread prevalence and long persistence of abortion as the major means of limiting family size.

One may say that during the Soviet period there was a mass “abortion culture” (see David ed. 1999: 23–39, 241–242) in which abortion was considered an “unavoidable evil,” and alternatives to which did not exist in order to, firstly, achieve the desired small number of children (no more than two) in the absence of another instrument – contraception – and secondly, for the necessary adjustment of family plans immediately in response to sharp changes in the social environment, which occurred all too often in the first half of the 20th century. It should particularly be noted that the Soviet authorities never allowed any other population ideology than pronatalism (Ivanov et al. 2006), and implicitly considered contraception to contradict this ideology. If in the 1920s the obvious dilemma – abortion or effective contraception – was still discussed among experts, especially among medical specialists, who even carried out research on the development of contraceptive means which was pioneering for that period (Avdeev et al. 1995), then from the beginning of the 1930s and right up to the 1970s the question of the crowding out of abortion by contraception was never posed on a practical level. Until quite recently most if not all medical experts considered the Pill more dangerous than abortion (Rivkin-Fish 2005: 99). In connection with this, despite the absence of a direct ban, contraceptive devices were produced for decades in the Soviet Union on a very limited scale and were of poor quality (Popov et al. 1993). The chronic short supply was only eased in the 1980s, in part by imports of mostly the Intrauterine Devices (IUD), following the introduction of a special unpublicised programme of the USSR Ministry of Health (Avdeev 1994).

The decision to ban abortion in 1936 (except when the mother’s health was directly threatened) lay on the same pronatalist plane (Avdeev et al. 1995). The

initiators of that law did not use any sort of argumentation whose roots could be found in ethical or religious norms (see discussion in: Blum 1994: 159–180). The main argument for the ban on abortion, in their opinion, was that “socialism has removed all limits which existed under capitalism for the growth of fertility among the labouring masses and therefore there is no longer the necessity to resort to abortion”. One cannot accuse the authorities of the absence of formal logic, inasmuch as decrees from 1920 on, allowing abortion upon a woman’s request, referred to the temporary character of these measures, for the period when “moral hangovers of the past and burdensome economic conditions” were still in effect (Blum 1994: 166–167). The covert motive of the authorities was the hope for an additional source of growth in births before the coming 1937 population census, which inescapably would reflect the serious consequences of collectivization, repression and famine for the growth of the population.

The period of the ban on abortion (1936–1954) did not bring any tangible dividends in the sense of growth in fertility: the trend in the cohort fertility rate did not even react to this situation, and the growth in the TFR in the second half of the 1930s is mainly explained not by the ban on abortion but rather by compensating mechanisms coming after calendar year shifts in the fertility of specific cohorts, produced by collectivization and famine in the first half of the 1930s. At the same time, negative consequences made themselves known swiftly and operated during the entire period of the ban: the number of maternal deaths doubled, the proportion of deaths from abortion among such deaths exceeded 70%, and murders of children under one year of age as a proportion of the overall number of murders more than doubled; in the urban population it went from 6% to 14%, and in Leningrad reached 25% in 1940 (Sakevich 2006). There is every reason to presume that, despite the fact that abortion became an illegal and criminally prosecuted practice for both sides – the pregnant woman and the abortionist – it continued to become more widespread in correspondence with the decline in fertility.

The ban on abortion was only part of the general measures aimed at halting the fall in fertility. In 1936–1937, the state doubled expenditures on maternity wards and preschool care, and introduced monthly allowances for mothers with seven or more children. In November 1941, following the example of the Horthy regime in Hungary (1940), a tax was introduced for bachelor males and married women without children. Later, in 1944, the liberal law on marriage introduced in 1927, which allowed tribunals to recognize legal rights for cohabiting couples, was repealed, and divorce became more complicated and beyond the reach of most couples. According to the 1944 law, a mother giving birth to a child outside of marriage did not have the right to apply to the court to receive child support from the father of the child. On the birth certificate of a child born out of wedlock, the place for information about the father was crossed out,

which meant deprivation of the right to bear the father's surname. In this way, the status of "illegitimate" child was restored, a status which had existed in the Russian Empire and was eliminated immediately after the revolution. In addition, allowances for third or higher order births, and for children aged 1 to 4 years, were created. Maternity leave was increased from 9 to 11 weeks. Also, a series of six medals was created for mothers with 5–10 children. These medals conferred certain material advantages on their holders, such as preferential positions on waiting lists for kindergartens, summer children camps, and housing, as well as priority in queues in shops.

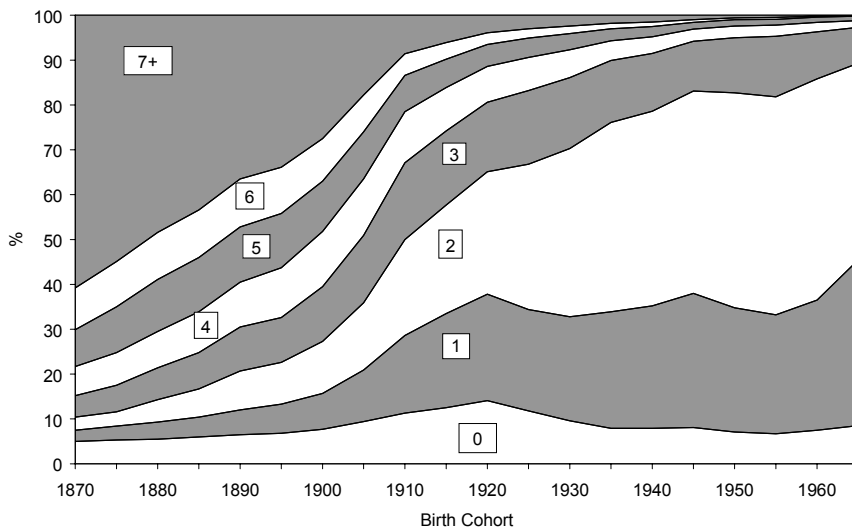
However, all of these measures (prohibitive and incentive) were aimed not at supporting the great bulk of families, but rather at reconstructing the former "ideal" type of family – spouses in a lifelong legal marriage, not regulating the number of their children – which was swiftly disappearing before one's eyes as a social and statistical phenomenon. Therefore, the measures had neither any sort of serious influence on the dynamic of completed fertility nor did they transform the final parity distribution of mothers. The ideal of the two-child family as a central reference point, dictating a change in the level of fertility, swiftly strengthened its position, and high fertility was marginalized. After the War, particularly after the death of Stalin, social dissatisfaction with restrictive laws in relation to divorce and children outside of marriage arose quickly. However, the repeal of these laws occurred only in the middle of the 1960s with the adoption of the new family code of laws.

In the course of the First Demographic Transition in Russia, only two categories of women increased their proportionate weight: those with two children and those with one child. Importantly, women with two children outnumbered those with one, beginning with women born in the second part of the 1920s (Fig. 2, Appendix, Table 2). The proportion of women giving birth to seven or more children continuously declined. The share of women with three to six children varied: in the first stage of the demographic transition, this share rose and subsequently declined. The fluctuating pattern of change in this proportion of women mirrors the statistical regularity of the transition from a traditional type of fertility (high with no regulation at the family level) to a contemporary model (low with widespread birth control at the individual and family level) in a socially heterogeneous population.

One finds that the strongest stability is characteristic of the proportion of childless women (those who did not produce any live births). An increase in this proportion, which considerably exceeds the level of natural physiological infertility (3% to 7% according to various estimates), occurs only in cohorts of women born in the first decades of the 20th Century: 10–15% of these cohorts of women had no children (Appendix, Table 2). The unfavourable population structure by age and sex, as well as a tight marriage market, all of which are products of social cataclysms, account for this.

The major reference point for the first demographic transition is the arrival of the two-child family (the data on the distribution of women by ever-born children support the idea of the existence of this model at a population level). Marriage cohorts seek to fulfill this ideal model of a two-child family with great consistency (Appendix, Tables 2 and 4).

Figure 2: Change in the distribution of women by number of children ever born alive by age 50, Russia, female birth cohorts 1868–1968



ce: Zakharov S.V. (2006b).

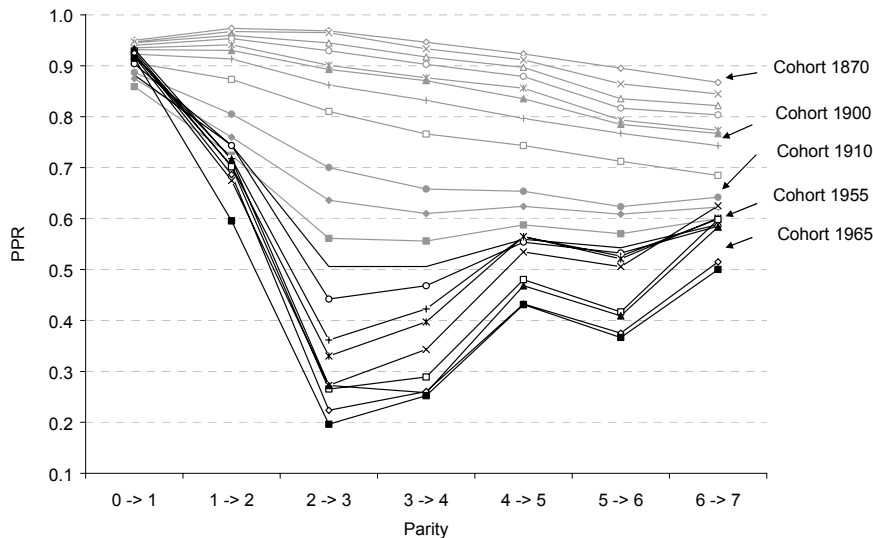
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The change in parity progression ratios indicates that within the whole period of the demographic transition, a family with three to four children has been the least popular (the decrease in probability of birth of the third and fourth child was swift and the greatest in magnitude), (see also Avdeev and Monnier 1995, Scherbov and Van Vianen 2001). The probability of a first birth has remained rather stable until very recently – that is, until the cohorts born in the late 1970s (Figure 3; Appendix, Tables 3 and 5).

Thus transition from high to low fertility in Russia did not so much reflect as it did represent the step-by-step process of change in the social norm for fertility: many

children, medium number of children, few children. The demand for a medium number of children – 3 to 4 live-born in the course of a life – evidently did not exist historically as a mass social norm, neither in traditional society nor in the course of the demographic transition, nor even more so after the transition.

Figure 3: Ultimate parity progression ratios: Russia, female birth cohorts 1868–1968



Source: Zakharov S.V. (2006b).

At the end of the day, what is important for family and society is not the number of children to which an average woman can and actually does give birth, but how many of them survive to socially significant ages, are socialized and come to replace their parents (that is effective fertility). A decrease in inefficient fertility is the essence of the first demographic transition. The Russian experience provides good evidence of this.

While the completed fertility of cohorts in Russia fell by a factor of six in the course of the demographic transition, effective fertility, measured by the number of children still alive at age 20, declined by just one child per woman, from three to two children (Appendix, Table 6). The improvement of social control over infant and child mortality has contributed to the gradual convergence of total and effective fertility at the desirable level of two children.

Within the first demographic transition, the expanded replacement of generations has been replaced by a simple or slightly narrowed one. The proportion of women who gave birth to one girl who survived to age 28, and thus ensured replacement, kept on growing in the course of the transition, reaching 43% in cohorts born in the 1950s and the 1960s (Appendix, Table 7). Those who failed to ensure their replacement by the next generation (did not have at least one girl surviving to age 28) made up a highly stable and large proportion of 30% to 40% over the 20th Century. For selected generations of women (born between 1909 and 1923), we can observe that this proportion rose above 40%: a rapid fertility decline in these generations was not accompanied by an appropriate reduction of mortality.

There is a major question about the prospect of ensuring replacement in the future. Beginning with cohorts born in the second part of the 1960s, the tendency towards under-replacement gathers momentum.

Over the previous hundred years, Russia has moved from a traditional type of reproduction, with accidental and practically unpredictable reproductive outcomes for individuals and their families, to a situation in which the uncertainty of reproductive outcome is minimal for an individual, and unreasonably high for society at large. Russia did not have the historical experience of supporting a regime of simple, let alone expanded, reproduction of a generation after child mortality became low, and control over fertility became the universal practice.

3. The crisis of the age pattern of fertility and the second government attempt to prevent the ongoing fertility decline

The First Demographic Transition in Russia ended by the late 1960s, with the TFR dropping to 1.9–2.0. It was one of the lowest levels then reported in the world, and, at this level, could be compared with only a few countries such as Finland, Sweden, the Czech Republic, Hungary and Latvia. Russian cohorts born in the late 1940s experienced completed fertility of 1.83–1.86 live born children per woman.

It should be noted that in a series of modernising features, Russian society significantly overtook many Western societies. It is well-known that in full accord with the principles of “socialist modernisation”, female employment in social production in Russia, as in other countries “east of the Berlin wall”, increased more vigorously, and mass transition to a two-income family occurred earlier in Eastern Europe. Women’s access to professional, including higher, education, was also easier here. Correspondingly, public forms of preschool education for children developed more actively. The liberalisation of divorce and abortion upon request of the woman took place on average earlier than in western countries. As a result, Eastern European

countries confronted the problems of “dual employment” (or double burden) of women earlier, with the conflict between widening equal gender rights in the extra-familial sphere and gender inequality in the family. All of this, of course, had an effect in that fertility in the majority of the countries of Eastern Europe after the Second World War reached low levels earlier than in the majority of countries of Western Europe.

Throughout the 1970s, the level of fertility in Russia remained more or less stable. At the same time, a remarkable process of change in the age pattern of fertility was occurring which, as is well-known, resulted in Western and Eastern Europe going in different directions, with specific regard to the rejuvenation of the age pattern of fertility and nuptiality (see also Avdeev and Monnier 1995, 1996). Since the late 1960s, Western countries, one by one, have been giving up the early and universal marriage pattern, and quite rapidly increasing the age at marriage and childbearing. This is actually an ongoing process (the Second Demographic Transition). In contrast, Eastern European countries have experienced nothing similar, with such countries as Russia and its neighbours in the European part of the former USSR, and a number of then-communist countries, gradually moving towards younger and younger ages at marriage and birth. By the 1980s, the contribution of mothers under age 25 to the overall number of births rose to an extremely high proportion. In Russia, for example, more than 50% of the cohort and period TFR was contributed by mothers at these ages, and by the age of 28 to 30, the number of children in a family ceased to grow (Appendix, Tables 8–11). By age 25, about 80 % of women had been married at least once (Avdeev and Monnier 2000).

Up to the beginning of the 1990s, the tendency to form a family at younger ages prevailed in Russia. The contribution of mothers under age 25 to the TFR exceeded 60%, while the input of the youngest mothers – under 20 – rose to 17–18%.

The reason for such an outstanding rejuvenation of fertility and marriage lay in changes in the premarital sexual behaviour of youth. Sexual debut and subsequent regular sexual relations occurred at increasingly younger ages, which was rarely recorded in Russian local studies and not encouraged by the authorities at that time (Golod 2005). Since knowledge of effective contraceptive behaviour and the actual use of contraceptives among young men and women were at an extremely low level, an early sexual debut automatically led to the growth of premarital conceptions, which in turn gave rise to early marriage and lowered the mean age of motherhood. In Russia in the 1960s to 1980s, traditional morals connected with the joint start of sexual life, entering into marriage and the birth of the first born were still preserved. Negative attitudes to premarital cohabitation of young people fully corresponded to these morals and to mass aversion to artificial interruption of first pregnancies. Therefore the change in the age pattern of fertility flowed out of the shift to freer premarital sexual conduct.

Early marriage fulfilled the function of legalizing early sexual relationships and covered up the obvious fact of “the Fall”, or the unplanned pregnancy.

Thus, the roots of the convergent and then divergent movement of temporal models of fertility in the countries of Western and Eastern Europe in the 1960s to 1980s lay in one and the same process: liberalization of sexual morals. At first, the sexual revolution in both parts of Europe caused a lowering of the age of entry into marriage and the age of motherhood. Later, as the contraceptive revolution gathered force, the situation was corrected in the Western countries, and the age model of fertility there began to grow older. The sexual revolution in Eastern Europe, in comparison with the countries of the West, proceeded more quietly and less noticeably to the observer, by virtue of the taboo placed on the theme for research and the more than simply limited depiction in the mass media. But, in fact, it had a no less radical character. Unlike that in the Western countries, the sexual revolution in Eastern Europe was not accompanied by the parallel process of the contraceptive revolution. Moreover, in East European countries, and first of all in Russia in setting the ideological direction, there was an artificial brake by the state on transition to effective contraception. Only perhaps in Hungary and some republics of the former Yugoslavia was policy in the field of family planning in conjunction with the fight against abortion relatively more pragmatic. From this flowed various consequences for the model of fertility and marriage in Western and Eastern Europe: in the course of two decades at one and the same level of overall fertility, the age at childbirth moved in opposite directions on opposite sides of the Berlin wall. Moreover, family policy, adopted as a weapon in different years in the then-communist countries, last of all in 1981 in the USSR, acted in the same direction: it supported earlier-begun/earlier-completed childbearing and universal marriage.

We systematise here the key qualitative and quantitative parameters of this model of fertility which Russia approached at the moment of change of the political and socio-economic system at the beginning of the 1990s.

3.1 Key quantitative characteristics of the Russian fertility pattern in the 1970s and 1980s

The proportion of childless women is extremely low – 4–7%. On average, family formation in terms of number of children begins at early ages and terminates rather swiftly – the mean age of mother at first birth is 23 years old, at second birth – 26–27. 80% of women born in the 1960s had contracted their first marriage by age 25, while their contribution to the completed cohort fertility by the same age was 60%. By age 30, this cohort had given birth to 85% of the total number of their children.

The interval between first marriage and first birth was, on average, about a year (given current mean age at first marriage and first birth), which implies that first birth was not postponed. Moreover, it is very likely that the timing of the first birth was not regulated at all. As the relevant studies show, more than 50% of pregnancies occurred before marriage.

The attitude towards a two-child family was relatively strong – close to 50% of women by the end of their life had two children (App. Table 2), and the parity progression ratio for those with one child was 71% (App. Table 3). On the other hand, the proportion of mothers with three and more children was not higher than that for only one child (16–18% versus 27–30%). As a result, cohort completed fertility averaged 1.9 (App. Table 2).

The interval between first and second births was less than four years, between the second and third 2.5 years, between the third and fourth, 1.5. The tempo of family formation was greater for those who chose to have more than two children, as well as for those who did not practice birth control on a regular basis (that is, some marginal groups).

The parity progression ratio for third, fourth, and fifth birth orders was much the same and was about 25–27% for those with one child fewer than the given birth order.

3.2 Qualitative characteristics of the Russian fertility pattern in the 1970–80s

Some features of a traditional pattern were preserved: obligatory marriage; a strong link between sexual and matrimonial behaviour; outdated practices of family planning among youth; pre-marital pregnancy as a stimulus for marriage; a high tempo of family formation at young ages; no signs of voluntary childlessness; and, virtually no regulation of the timing of first births. Thus, sexual life, marriage, and childbearing were not viewed as separate values, but rather as concurrent events.

There were transitional features associated with modernization, such as the prevalence of a two-child family ideal, while there was still a considerable proportion who desired more children (largely associated with the ethno-cultural diversity of the population of Russia).

The pattern was not based on economic rationality. Coping with everyday life for a family with children was not possible for young parents without outside financial and other kind of assistance: the young family's income was not enough to ensure the necessary consumption. That is, the help of grandparents, the extended family of other relatives, and the state were all necessary. Thus the first steps towards “grown-up life” were connected not with the obtainment of economic independence but rather with the

creation of a family and the birth of a child. Consequently, poverty took on the character of a “vicious circle” and hardly anyone broke out of this.

The pattern was not based on social rationality. The possibility of acquiring more than a higher or a secondary school level of education was seriously constrained because the time when people normally continue their education coincided with the early stages of family formation. Advancement in professional skills was also limited, particularly for women. Thus, early family formation increasingly conflicted with the values of higher education, professional career, and gender equality.

The pattern was not based on demographic rationality. As there were virtually no births after 30, fertility was very low and the period of possible reproductive life was not used to the full extent. The high prevalence of unintended births led to “shot-gun” marriages (caused by an accidental pregnancy), to high intra-family tension in young families, to conflicts with relatives, and, accordingly, to a high risk of divorce – the probability of divorce in Russia was one of the highest in the world. As surveys showed, a divorced mother with one child was less likely to give birth to a second child than was a married mother.

The pattern was not rational in terms of individual and public health. In order to be able to complete childbearing at a young age, partners need to use effective contraception for a long period of time. The risk of abortion in such a situation is high, and even higher in a country like Russia with a virtual lack of family planning. Modern contraception was either not available or not encouraged by official public health authorities (the Pill), or in short supply (IUD), or of very poor quality (the condom). In addition, both female and male sterilization was prohibited. Russia was an excellent example of the prevalence of an abortion culture in which overall birth limitation was much more important than the spacing and timing of conceptions and births. The reproductive health of the Russian population was poor, with a high level of pathologies, including after-abortion infections and more serious complications.

It was absolutely clear that the persistence of such a pattern into the future was unacceptable, as it failed to meet the requirements of a modern society whose values include good education, high-quality skills, and high standards of consumption. The rationalization of individual behaviour, above all that of Russian youth, was inevitable.

However, before the transformation began, there was a period of a temporary “baby boom” from 1981 to 1990, associated with the implementation of a new variant of pronatalist policy measures.

The theoretical foundations of the new policy in the family field were actively worked out by specialists in the USSR in the mid-1960s, when it became evident that in the European part of the country a below-replacement fertility rate had been firmly established. Various recommendations for altering the situation and increasing the fertility rate were widely discussed throughout the 1970s in the scientific literature, in

the press, and at a multitude of professional conferences, with all of this public discourse finally reaching the ears of the political leadership. The 24th Congress of the Communist Party of the Soviet Union/CPSU (1971) declared that an unsatisfactory demographic situation had developed in the country, and the 25th CPSU Congress (1976) set the task of working out “an effective demographic policy”. The 26th CPSU Congress (1981) indicated the concrete future of political intervention: financial and material assistance to young married couples and families with children; improving housing conditions; increasing the accessibility and quality of preschool establishments; widening the possibilities for part-time employment; and, work at home for women and the introduction of partly paid leave to look after small children. The proclaimed policy did not, however, establish concrete quantitative parameters as goals to fulfil for fertility.

The basic innovative measures in family policy were introduced in stages: from November 1981 in Siberia and the Far East, and also in the territories of the European North, and from November 1982 in the remaining areas of Russia. Maternity leave on full pay was extended from 77 to 112 days (then to 126 days in 1990). Several options were introduced for child-care leave: a) 18 months of leave on full pay to take care of a sick child; b) leave with about 20% of the average wage from the end of maternity leave to the day the child reached 18 months; and c) unpaid leave to look after children from 18 months to 3 years. Moreover, a parent looking after a child was guaranteed the right to part-time employment or to work at home. Women with children under 14 in all enterprises and establishments were to have the choice of working a full or less than full working day, including a flexible hourly or weekly work schedule.

A number of measures introduced earlier continued to be operative, such as: a benefit for poor families, a one-time childbirth benefit graded by birth order, a special tax introduced during the Second World War (1941) for childless unmarried men and unmarried women.

Finally, the 1981 policy provided a whole series of subsidies for a special category: “mother of many children” (*mnogodetnaya*). This provided a whole set of advantages: reducing the time needed to obtain housing, easing access to consumer-durable goods in short supply, cutting queuing time in shops, which was critically important in the prevailing conditions of short supply of every sort of everyday product, and so on. Moreover, mothers who raised at least five children to the age of eight were supposed to have a reduction in pension age.

In 1991–1992 the pronatalist policy of the state in fact ended, as the result of galloping inflation as much as because of the more general reason: the political and financial-economic system of the Soviet state ended its existence. Thus the overall duration of this family policy can be determined as ten years. Among the most important measures, in our view, the following should be singled out:

- lengthy maternity leave, partially paid, with previous employment guaranteed for three years;
- introduction of two types of child allowances, both as a lump sum and on a regular monthly basis;
- some changes in housing policy and granting to families with children some benefits in the difficult consumer market.
- The extension of the status of mother/family of many children to those with three children was also important.

3.3 The Demographic Effect of the 1980s Family Policy

The reaction of the population to the innovative measures was practically instantaneous. The TFR increased from 1.89 in 1980 to 2.11 in 1983 and to 2.22 in 1987. TFR then started to fall quickly, decreasing to 1.37 in 1993. The dynamic of the period progression ratios for first to sixth order births shows that the probability of birth of children of the first three orders increased – the probability of the fourth and subsequent children continued to decrease. The indicator for second births displayed the greatest growth (Zakharov and Ivanova 1996).

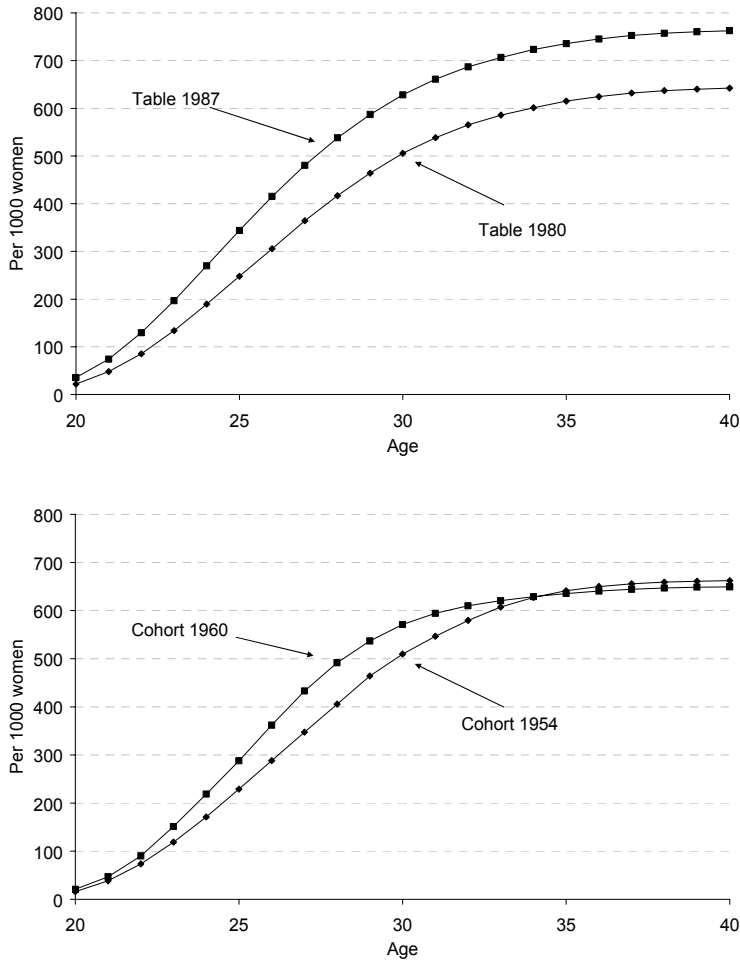
However, if we pass from period to cohort indicators, we can only with difficulty observe any visible successes in the family policy of the 1980s.

The generation which was in its active child-bearing years in the period the measures were operative did not show an increase in completed cohort fertility. (Zakharov and Ivanova 1996; Avdeev, Monnier 1995; Zakharov 2006d). It should be noted that it is entirely possible that these measures prevented a further decline in cohort fertility. Basically the demographic effect of family policy was in fact reduced to calendar year shifts in births of actual generations (a timing effect).

We illustrate what has been said with the data itself.² The two panels of Figure 4 show the proportion of mothers who have given birth to two or more children, presenting cumulative totals for the indicated age for real and synthetic cohorts. In the first panel the curve relates to two synthetic cohorts (calendar periods): 1980, that is, up to the introduction of the demographic policy measures, and 1987, when the growth of the current-year indicators of fertility reached their peak. In the second panel, two birth cohorts are presented: the cohort of females born in 1954, whose fertility was affected by the influence of the demographic policy measures only at later ages (by the end of 1983 they had reached the age of 30), and the cohort born in 1960, whose fertility was most directly affected by the policy measures.

² The data presented were calculated by the author by constructing full parity-specific fertility life tables for real and synthetic cohorts.

Figure 4: Cumulative proportion of women giving birth to a second child at the indicated age, per 1000 women: period life tables for 1980 and 1987 (top panel) and life tables for 1960 and 1954 birth cohorts (bottom panel)



Source: Zakharov S.V. (2006).

Comparison of the two panels demonstrates the gravity of error possible in analysis of the effectiveness of demographic policy measures which depend on indicators of a hypothetical generation. According to the period fertility table for 1980, it might be expected that 25% of women will have had two or more children by the age of 25, 51% will have had two or more children by the age of 30, by age 35, 61% and by age 40, 64%, which fully corresponds to the actual rhythm of fertility of the 1954 cohort. The table for 1987 reflects the destabilising character of the demographic policy measures – expectations have sharply increased: by the age of 25, 33% of women should already have given birth to two or more children, 61% by age 30, 72% by age 35, and 76% by age 40. It is not surprising that the total fertility rate (the indicator summarising fertility of a hypothetical generation) jumped from 1.89 in 1980 to 2.22 in 1987. However, not a single actual generation followed the “optimistic” schedule shown by the fertility table for 1987.

The birth timetable for women of the 1960 birth cohort differs in a significant fashion from the timetable for women born six years earlier. In the 1954 cohort, 23% of women had given birth to at least two children by age 25, 51% by age 30, and 64% by age 35. In the 1960 birth cohort, the corresponding figures are 29%, 57%, 64%. This means that representatives of the younger of these two cohorts gave birth to their second and successive children on average one to three years earlier than their older contemporaries. However, by age 35, despite the powerful start of the younger cohort, the cumulative proportion of women with two and more children was equal for both cohorts.

Completed cohort fertility was to some extent influenced by the social policy measures of the 1980s, shown in Table 2. The indicators presented in the final column of the table do not allow us to speak about any sort of significant success of this policy, i.e. about any increase in the ultimate number of children born. The single indisputable effect which can be observed is the change of the timetable of births, expressed in the “rejuvenation” of fertility of a whole series of cohorts.

It is interesting to ask which social groups reacted most to the family policy measures. Official statistics do not allow breakdowns by social group in the analysis of fertility in Russia. Therefore, we use data from the nationally representative sample study of the “Gender and Generations” Programme (GGS), carried out in 2004³.

³ All Russia representative sample Survey was conducted by the Independent Institute of Social Policy (Moscow) with the financial support of the Pension Fund of the Russian Federation and the Max-Planck-Gesellschaft, Germany. The design and standard survey instruments of the GGS were adjusted to the Russian context by the Independent Institute of Social Policy (Moscow) and the Demoscope Independent Research Center (Moscow), in collaboration with the Max Planck Institute for Demographic Research (Rostock, Germany).

Table 2: Mean number of children born by age 25, 30, 35 and 50, to the 1954–1966 female cohorts

Year of birth of cohort	Mean number of children born by the given age			
	25	30	35	50
1954	0.94	1.45	1.78	1.90
1955	0.95	1.49	1.83	1.89
1956	0.95	1.54	1.85	1.88
1957	0.94	1.50	1.78	1.87
1958	0.96	1.53	1.77	1.87
1959	0.96	1.56	1.77	1.87
1960	0.99	1.60	1.77	1.84
1961	1.02	1.59	1.74	1.80
1962	1.03	1.55	1.70	1.76*
1963	1.04	1.50	1.65	1.72*
1964	1.05	1.47	1.62	1.69*
1965	1.07	1.44	1.59	1.67*
1966	1.07	1.39	1.56	1.65*

Source: Zakharov S.V. (2006) updated.

Note: *Preliminary estimate using data up to 2005. The actual magnitude will most probably be somewhat higher, in light of the tendency of fertility to increase at older ages, as observed in the most recent years.

It is well-known that the strongest socially differentiating characteristic for demographic behaviour in Russia are place of residence – cities or rural areas – and educational level. The GGS questionnaire unfortunately established the place of residence and the educational level achieved only at the moment of the survey: the corresponding retrospective characteristics at the moment of childbirth are not available to us. However, the error which may arise in connection with this can scarcely have a significant impact on the conclusions.

We will be comparing the 1950–1954 birth cohort, all of whom reached the age of 30 to 35 years at the moment the new family policy was launched, and whose fertility was not influenced by the policy measures in younger ages. The fertility of the 1960–1964 cohort was influenced to the greatest degree by the new family policy. Table 3 shows the cumulative value of the parity progression ratios from first to second births for a given age for women living in population points of different status. Table 4 contains the same indicators, but for women of differing educational levels. The general conclusions about the influence of family policy in the 1980s on the selected social groups may be summarised as follows: This policy did not bring about a significant change in the ultimate level of fertility, which is in accord with the conclusions reached

through analysis of the macro-statistical data. For the entire population as a whole, neither the aggregate probability of birth of a first nor a second child rose, and the aggregate probability of a third birth even declined somewhat.

The policy slightly raised the aggregate probability of birth of a first child in regional centres and to mothers with a high level of education and the probability of second births in provincial cities and to women with a high level of education. The probability of a third birth increased only in provincial cities.

The policy to a significant degree accelerated the formation of families in all social groups, primarily due to the birth of the second child at a younger age, which in practice meant a widespread and significant shortening of the interval between the first and second births.

The policy for a short time levelled social distinctions in the calendar of births: the tempo of family formation in the cities strongly increased and came as close as possible to the tempo in rural areas; the tempo of family formation in women with higher than average educational status came closer to the tempo of family formation of women with a lower than average educational status.

Table 3: Parity Progression Ratios of women with 1 child, by type of settlement, by age 20, 25, 30, and 35: Russia, cohorts 1950–54 and 1960–64, per 1000 women

Birth cohort and type of settlement	Transition to second parity (1→2)			
	By age 20	By age 25	By age 30	By age 35
1950–54				
Provincial capitals	28	162	447	623
Other cities	42	224	484	632
Villages and small towns	50	340	647	788
All areas	39	242	520	674
1960–64				
Provincial capital	106	340	532	569
Other cities	33	361	648	693
Villages and small towns	92	494	736	781
All areas	80	403	635	676

Source: Author's estimates based on Russian GGS (2004) data.

Table 4: Parity Progression Ratios of women with 1 child, by educational level, by age 20, 25, 30, 35 and 40: Russia, cohorts 1950–54 and 1960–64, per 1000 women

Birth cohort and education*	By age 20	By age 25	By age 30	By age 35	By age 40
	Transition to second parity (1→2)				
1950–54					
Secondary and lower	74	322	590	735	761
Post-secondary	...	192	480	642	670
All levels	39	242	520	674	701
1960–64					
Secondary and lower	74	406	663	698	715
Post-secondary	85	402	618	663	675
All levels	80	403	635	676	689

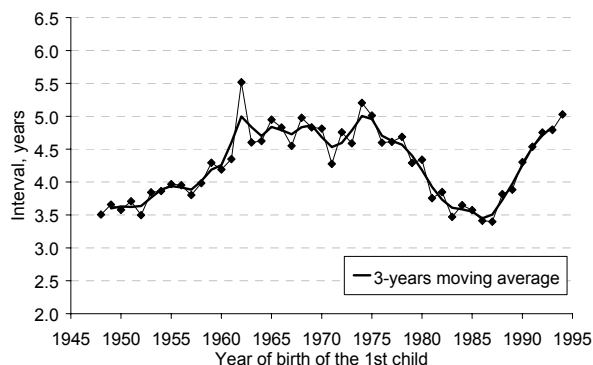
Source: Author's estimates based on Russian GGS (2004) data.

Note: *Secondary education includes elementary vocational education; post-secondary includes middle and higher professional education, and advanced research programmes.

Thus, the demographic effect of the policy did not manifest itself in an increase in average family size in any major social group, but rather in an increase in social homogeneity in the model of fertility timing dominant in Russia. Fertility over all became even younger than before, above all for inhabitants of large cities and populations of high educational status, for whom the timing effect showed itself most strongly.

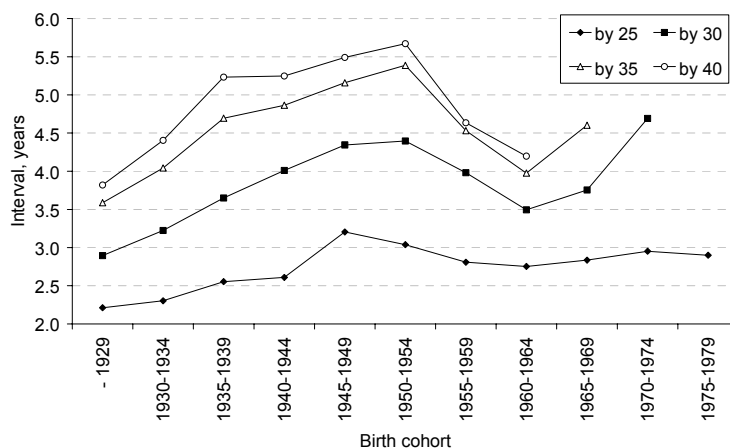
Apparently the major innovative measure which had the greatest significance for change in the timetable of births was that of child-care leave, giving fully employed women the possibility to bring a desired second child into the world at an exceptionally young age and with the shortest interval after the birth of the first child. It should be noted that the bulk of women with high educational status in Russia are teachers and doctors (these spheres of employment in Russia are almost entirely female), for whom a long leave with preservation of one's position at work plays a particularly important role in creating good conditions for motherhood. A sharp reduction in the interval between the first and second child is also explained by the introduction of such measures as child-care leave. A significant fraction of women in fact extended their leave to look after the first child in connection with the birth of the second child (the more so in so far as they used all of the three-year leave). The average magnitude of the interval between the first and second births in the 1980s was shortened by almost two years – from 5.5 years to 3.5 years measured as a period indicator (Figure 5), and by at least 1.5 years for cohorts (Figure 6).

Figure 5: Average interval between first and second births, years: Russia, 1947–1993 (calculation carried out for women with an interval between the birth of the first and second child did not exceed 10 years)



Source: Author's estimates based on Russian GGS (2004) data.

Figure 6: Average interval between first and second births: Russia, selected female birth cohorts by specified age at second birth



Source: Author's estimates based on Russian GGS (2004) data.

On the one hand, the policy of the 1980s offered improved opportunities for childbirth and bringing up children, namely for the most advanced social groups, and it is entirely probable that it prevented a further decline in Russia for some period of time. On the other hand, however, the policy only temporarily postponed the final destruction of the traditional model of early family formation, which by that time was already going through a crisis and did not have a long-term future. In the new socio-economic conditions of the Transition Period in Russia, such a model of fertility and family formation had even less chance for survival, given that the previous dependence on the paternalism of the parents' family and the state was no longer possible.

3.4 Family and population policies in the 1990s and 2000s

The economic and political reforms which had gathered strength in the middle of the 1990s triggered the transformation of marital and reproductive behaviour in the direction of an increase in the age of entry into marriage and the birth of children. At the same time, in the 1990s, no new initiatives in the area of family policy were put forward. The government supported a liberal economic model and the actions of the state in the area of social policy, under the pressure of powerful budget limitations, came down to reactive measures for ameliorating the most acute problems: pensions, employment and poverty (Eatwell et al 2000). Attempts to preserve the real value of the packet of family benefits and other payments for children in conditions of high inflation were timid, delayed and on the whole extremely unsuccessful. Expenditure on family allowance as a percentage of GDP dropped from 2% in 1991 to 0.36% in 2000; family allowance as a percentage of total household income decreased from 5.6% to 1.2%, respectively (A Decade of Transition 2001: 43). In 2004 these indicators fell even lower – 0.28% and 0.4%.

In President Putin's budget address to the Federal Assembly (May 2006), a demographic theme occupied the central place. Priorities and solutions to the problem were placed by the President in the following order: reduction of mortality, increase in the attractiveness for immigration to Russia, and an increase in the birth rate. At the same time, the main accent was placed on the necessity to stimulate the birth rate, beginning in 2007. At the end of 2006, the legislative and executive organs made all necessary decisions and, in 2007, the new measures came into force. First of all, there were significant increases in the size of the basic forms of benefits:

The maximum size of pregnancy and childbirth benefits came to 16,125 roubles in 2007, as compared with 11,700 in the period 2003–2006. In general, maternity leave is paid for 70 days at 100% of the woman's monthly salary (the average nominal salary in Russia in 2006 was about 11,000 roubles).

The one-off payment at the birth of a child was set at 6000 roubles from 1 January 2006, paid out of federal sources (between 1997 and 2000, it was 1,250 and in the period 2002–2005, it was 4,500 roubles). However, at the regional level, starting in 2005, an additional benefit was paid, determined by the regional administration (for example, Moscow has the maximum benefit for Russia, which is tied to the annually determined official subsistence minimum in that city: for the first child, it is five times this minimum (25,000 roubles in 2007) and for the second, a multiple of seven, and for the third and subsequent children, ten times this minimum).

From 1 January 2007, the monthly maternity leave benefit for up to 1.5 years was established at 40% of the recipient's average wages, but not less than 1,500 roubles for the first child and 3,000 for the second and subsequent children, payable also where the mother was unemployed, but not more than 6,000 roubles a month (in 2000, 167 roubles; in 2002, 500 and in 2006, 700 roubles, independent of birth parity but on condition of employment history).

The monthly federal benefit for children from 1.5 to 16 years of age (for those remaining in studies up to the age of 18) was repealed in 2005 (at that time, it was 70 roubles). From 2006, this is the prerogative of the regional authorities, who set differing levels (usually 100–200 roubles) and some regions established the size of the benefit depending on birth parity and/or family income. In 2007, there was a recommendation to increase this benefit, which in fact occurred. For example, in Moscow the benefit, initiated on 1 January 2007, is paid only to families with a per capita income lower than the subsistence minimum (5,100 roubles in January 2007), and is 300 roubles (in 2006, it was 150 roubles), and for single mothers, 750 roubles (in 2006, it was 300 roubles).

Thus the size of the benefit was significantly increased but the basic system of measures did not undergo any significant change, if one does not consider the continuing tendency to strengthen the role of regional authorities and their financial responsibility for family policy.

The single innovative measure of “Putin’s policy” was the introduction of the so-called “maternal capital”. This specified that 250,000 roubles (\$9,600 or 7,200 Euros at the exchange rate of March 2007) be paid to a special individual account for mothers who gave birth or adopted a second child starting in January 2007. The measure also includes mothers who have not previously made use of this benefit and who have a third or subsequent child. The non-cash benefit is paid once in a mother’s life and may be spent only three years after the birth of the child, via an account and for one of the following purposes: private education for a child of any parity; obtaining housing in the Russian Federation; or, the formation of the investment part of a pension. Partial expenditure of “maternal capital” is allowed per calendar year and in any proportion for the established purposes.

It is important to note that the authorship of “maternal capital” as an innovative measure is unknown in expert circles. Not one of the variants of the conceptions worked out for “Demographic Policy in the period 2015–2020”, presented to a wide circle of specialists for expert evaluation in 2005–2006, mentioned this measure. A conception of demographic policy itself was adopted by the Russian government and signed by President Putin in October 2007. Thus, all the measures which came into force in 2007 are the work of Putin’s Administration, and the Ministry of Health and Social Development.

4. Signs of the Second Demographic Transition: A Quiet Revolution in Family Formation in Russia since the mid-1990s

By the middle of the 1990s, signs of inevitable change in the Russian fertility pattern under discussion emerged, and arguments were made that Russia was on the threshold of the Second Demographic Transition (Zakharov and Ivanova 1996, Katus and Zakharov 1998, Zakharov 1999, Zakharov 2000).

Criticism develops around the fact that the available Russian data do not offer firm foundations for conclusions about the start of “westernization” of fertility in Russia: official marriage at an early age remains the only form of union and cohabitation is not widespread among Russian youth. The first child is unplanned, as was the case 100 years ago, and having children is not postponed to a later age (Barkalov 1999, Avdeev and Monnier 2000, Mills 2004). The fact that fertility decline in the first half of the 1990s had a quantum effect (Philipov and Kohler 2001) is frequently linked, exclusively, to the economic crisis, deteriorated standards of life, and cultural shocks rather than to the beginning of a fundamental transformation of the model of family formation itself. It should be noted that there is not enough empirical data to verify “the crisis hypothesis”, either (Kharkova and Andreev 2000, Kohlmann and Zuev 2001, Kohler and Kohler 2001).

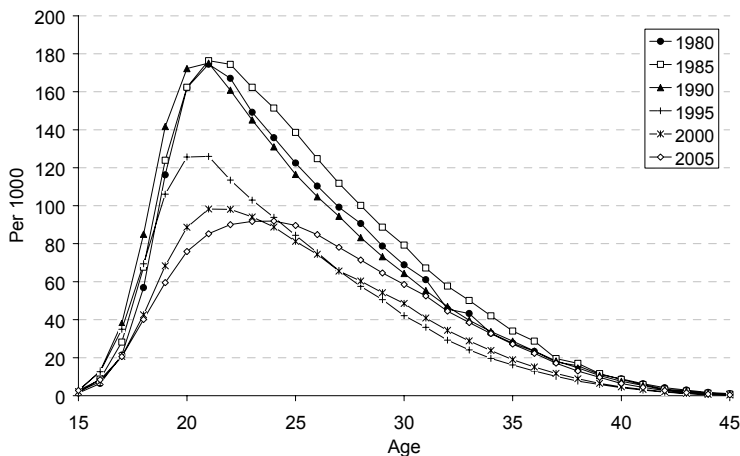
It was not very long before the newest trends gathered strength and naturally debunked most of the critical remarks. Today it is impossible to doubt that the middle of the 1990s was a turning point in Russian fertility and nuptiality models. The economic growth beginning in 1999 and the consequent improvement in living standards in Russia (which today has nearly returned to the level prevailing at the start of the reform), was accompanied not so much by an increase in the birth rate, which was hoped for by the proponents of the “crisis” interpretation of the previous decline, but more as a strengthening of the structural changes in the model of family formation. The latest research, based on the panel observations of the Russian Longitudinal Monitoring Survey/RLMS (Roshchina 2006) and on the first wave of the Russian GGS

(Maleva and Sinyavskaya 2006), indicate that the probability of an actual birth and the intention to have a first and second child in Russia are practically unrelated to factors of economic rationality (income, female employment). At the same time, the high significance of socio-cultural determinants and values are confirmed, which today are undergoing a powerful change in the direction of individualism.

In the industrialized world, the second demographic transition manifested itself in the generation born in the 1950s and 1960s. The former Yugoslavia (republics of Slovenia and Croatia, specifically) and Hungary were pioneers in this process among the Eastern European countries, with the cohorts of the 1960s leading. At least reducing the contribution of young mothers to completed fertility. The fertility postponement process in these countries started somewhat earlier than in other former socialist countries (Appendix, Table 12, see also: Sobotka 2002, p.14–15, Philipov 2004, p.2, 11). In Russia, no changes were observed before the cohorts born in the first part of the 1970s (Appendix, Tables 12, 14).

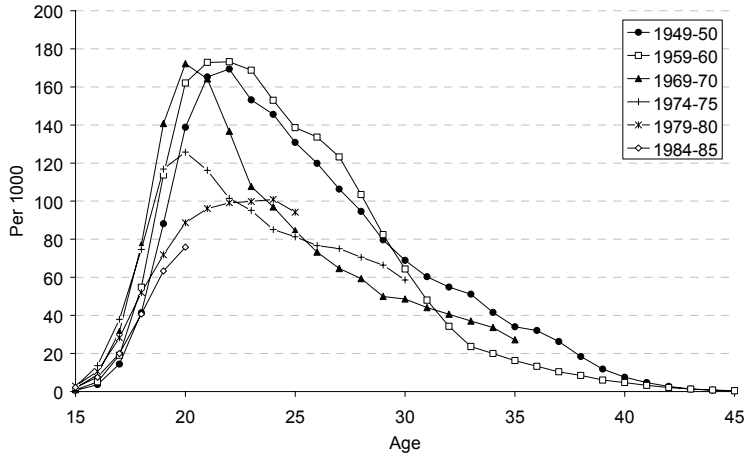
The Russian cohorts born in the 1970s and more recently, whose socialization had already begun in the “new, post-Soviet Russia,” tend to differ from their parents. They marry and become parents at more mature ages (fig. 7, 8, 9, Appendix, Tables 14–17). They delay the first and the second birth (Appendix, Table 18). They increasingly prefer to begin a partnership with cohabitation rather than with legal marriage. Family planning becomes more effective, i.e. contraception replaces abortion.

Figure 7: Age-specific fertility rates, per 1,000 women: Russia, 1980, 1985, 1990, 1995, 2000, 2005



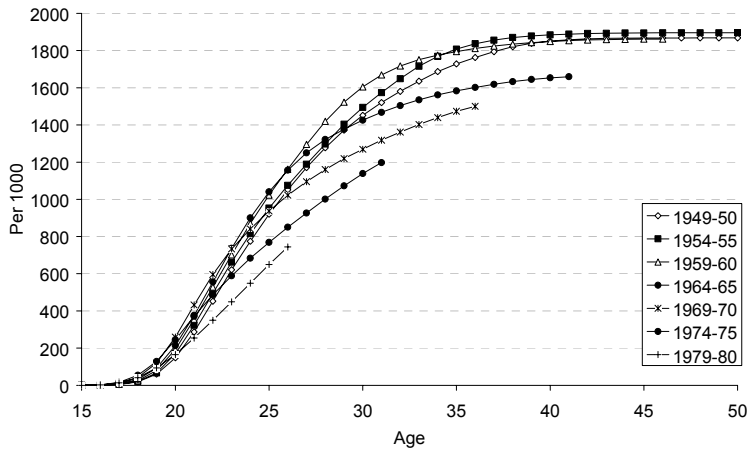
Source: Author's calculations based on unpublished official data

Figure 8: Age-specific fertility rates per 1,000 women: Russia, female birth cohorts 1949–50, 1959–60, 1969–70, 1974–75, 1979–80, 1984–85



Source: Author's calculations based on unpublished official data

Figure 9: Cumulative fertility by age, per 1,000 women: Russia, female birth cohorts 1949–50, 1955–55, 1959–60, 1964–65, 1969–70, 1974–75, 1979–80



Source: Author's calculations based on unpublished official data

Data from the current registration of marriages, results of the 2002 Population Census and research carried out in the GGP Programme convincingly demonstrate that in Russia over the past two decades a “quiet revolution” has taken place with respect to the institution of legal marriage: the age at first marriage is increasing; cohorts of Russians born in the first half of the 1960s and later increasingly begin living together with a partner outside a legal marriage, i.e. cohabitation [“unregistered marriage”] is gradually crowding out the traditional form of marriage (Appendix, Tables 13, 17).

It cannot be said that cohabitation before marriage was not widespread in Russia. On the contrary, in the generations of Russians born before the war and, in the 1950s, establishing their families, up to 20% of men and women under the age of 30 began their first partner union with a non-marital relationship. Moreover, the tendency for an earlier start in partnership relations, as discussed above, was accompanied by a steady if slow growth of informal unions among youth (Figure 10). It is very probable that the family policy interventions of the 1980s are responsible for the drop in the proportion of those who began a first partnership with cohabitation in the 1955–1965 female cohorts. A legal marriage tended to bring more rewards.

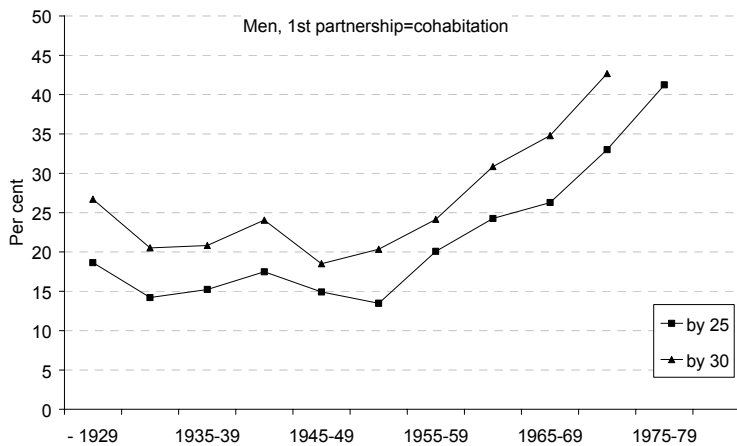
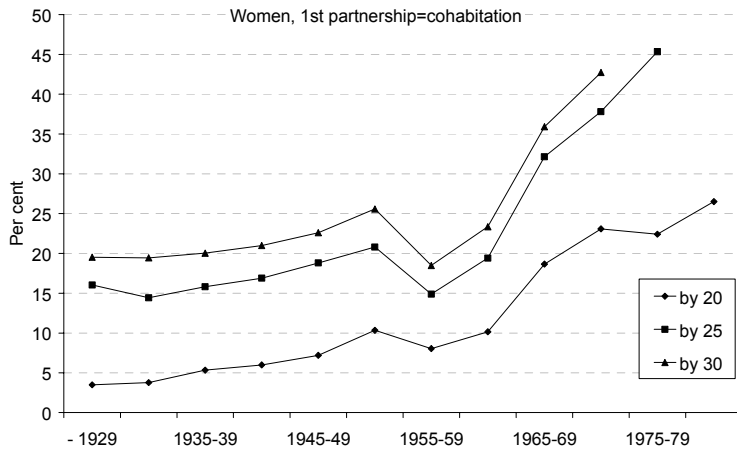
However, among representatives of the cohorts born after 1960, the spread of informal unions take on an explosive character. Today, up to 25% of women by the age of 20, and up to 45% by age 25, do not register a marriage with their first partner. Data for men confirm these figures – 40 to 45% of first unions today are informal unions.

Informal relations (consensual unions) at the start of living together have the temporary character of a trial marriage for the majority. After some period of time for many couples the relationship becomes fully respectable and it is legally formalized in a marriage. At the same time, the RusGGS data indicate that registration of marriage in Russia is increasingly not simply postponed to a time when the stability of the relationship is proven, but does not happen at all (Figure 11). If in the cohorts born in the 1950s, 50% had already registered a marriage with their partner less than a year from the start of a consensual union, then in the cohorts born in the second half of the 1970s, this figure is 30%. The indicator also declines for those who live together a long time. Not long ago 70% of partners registered their marriage by the third year of a consensual union. Today it is 50%. By the fifth year of family life, the reduction is more than 10 percentage points. We note that if the relationship is not formalized within 3–5 years of living together, the chances the marriage will be registered at some time in this partnership are minimal: there is virtually no difference between the percentage of registered marriages by the fifth and the tenth year from the start of relations.

Can it be surprising, then, that the proportion of non-marital births doubled during the last 15 years, amounting to one-third of the total number of births? Childbearing out-of-legal marriage is becoming socially acceptable at all ages and in all social strata: age-specific probabilities of giving birth to a child outside of marriage among mothers

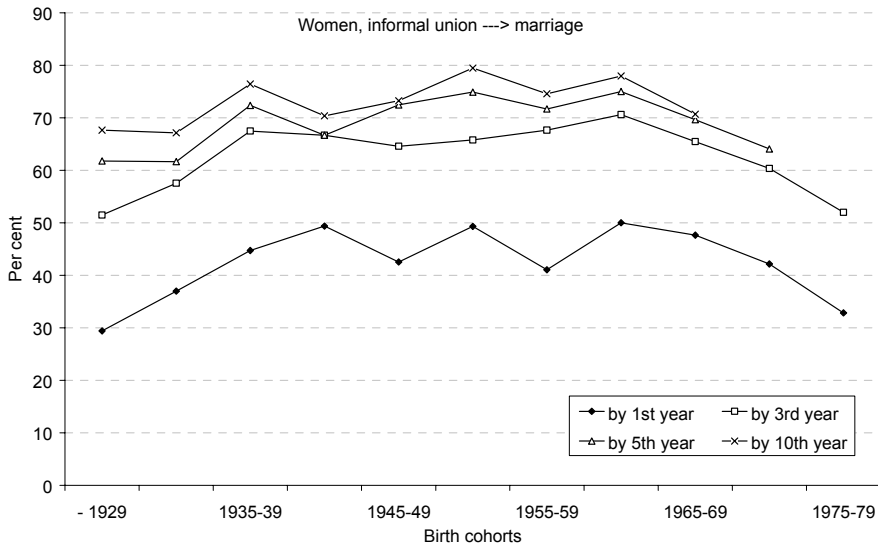
aged 20+ have become almost equal in the last 15 years (Appendix, Table 20). Non-marital pregnancy is losing a pusher role in contracting a marriage.

Figure 10: Cumulative percentage of women who had, by the specified age, entered a first partnership which was a consensual union: Russia, birth cohorts



Source: Author's estimates based on Russian GGS (2004).

Figure 11: Cumulative percentage of women whose first partnership was a consensual union later converted into marriage, by the time since start of first partnership: Russia, birth cohorts

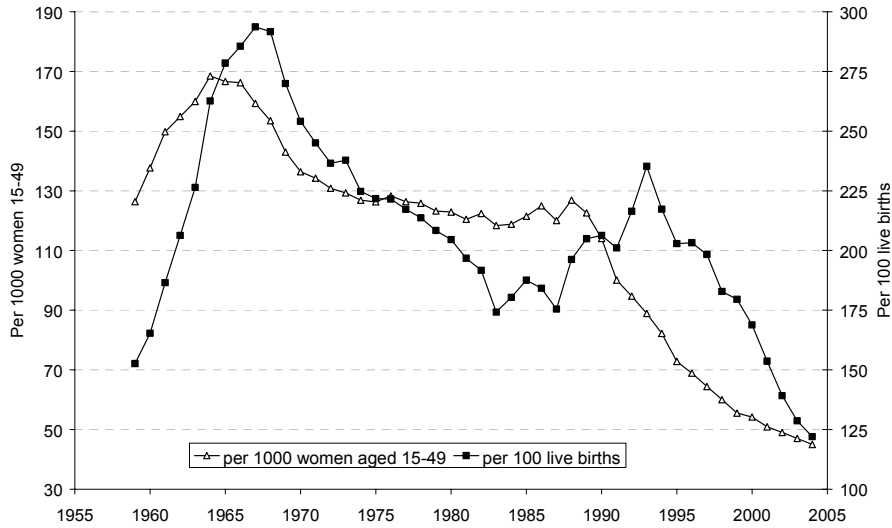


Source: Author's estimates based on Russian GGS (2004).

Over the last ten years, the fertility of women under age 20 in Russia has halved (Appendix, Table 10), which indicates that a radical change in the behaviour of young people is taking place. Since 1995, fertility in Russia has been aging. The contribution of mothers at less than 25 years of age to the TFR is diminishing, while that of more mature mothers is increasing (Appendix, Table 11). Today, the mean age of mothers at first, second, and third births is higher than twenty years ago, and is close to that of the female cohorts born in the 1940s. The mean age at first marriage is increasing as well. The minimum mean age observed, in 1992–1993, was 23.9 for men and 21.7 for women. In 2004, as my estimate suggests, this indicator has increased to 26.1 for men and to 23.3 for women (Appendix, Table 17).

The notable reduction of fertility at younger ages has not been accompanied, for the first time ever in Russian history, by an increase in induced abortion rates. On the contrary, abortion rates have halved over ten years, and the issue of registration of legal abortions has had little to do with this (Philipov et al. 2004) (Figure 10, Appendix, Table 21).

Figure 12: Abortion Rate (per 1,000 women 15–49) and Abortion Ratio (per 100 live births), Russia, 1959–2004



Source: Author's calculations based on official data.

It is important to note that the sociological studies of which we are aware show that sexual activity among post-Soviet youth has increased, while the average age of sexual debut has become younger, and, at present, barely differs from that observed in the West (Denissenko et al. 1999, Golod 2005). At the same time, there is a shift towards the use of more effective contraceptive methods, which provides grounds for the widespread delay of the first birth and of union formation (Table 5).

Table 5: Usage of contraceptive methods in Russia: selected survey data, percentage of women in reproductive ages using contraception

Region	Year	Withdrawal	Rhythm	Vaginal douche	Condom	IUD	Hormonal	Other
1. c. of Moscow	1982	14	30	17	21	11	4	4
2. Khabarovskiy kray, rural*	circa 1985	20.0	17.1	16.4	20.4	12.5	3.7	10.4
Tverskaya oblast, urban *		19.2	19.9	14.3	20.5	15.4	3.3	8.1
Chelyabinskaya oblast, urban*		20.3	20.5	18.7	16.7	11.7	2.4	10.8
3. c. of S.-Petersburg, c. of Kaluga	1988	18.4	24.4	14.7	16.9	24.4	3.3	Na
Ivanovo oblast (urban+rural), c. of								
4. Ekaterinburg, c. of Perm **	1996	7.0	16.4	Na	17.1	42.3	10.3	6.8
Ivanovo oblast (urban+rural), c. of								
Ekaterinburg, c. of Perm **	1999	11.0	16.4	Na	21.9	34.2	11.0	5.5
5. Russia (RusGGS-2004)***	2004	7.6	11.4	4.2	27.9	28.6	17.2	3.1

Source: (1) Popov et al. 1993; (2) Shneiderman 1991; (3) Kharkova 1994; (4) Goldberg et al. 1998, Goldberg and Serbanescu 2001; (5) Zakharov and Sakevich 2006.

Note: * Used contraception in the last two years; ** women having a partner; *** women having a partner, if a respondent reported several methods for this tabulation, the most effective method was chosen.

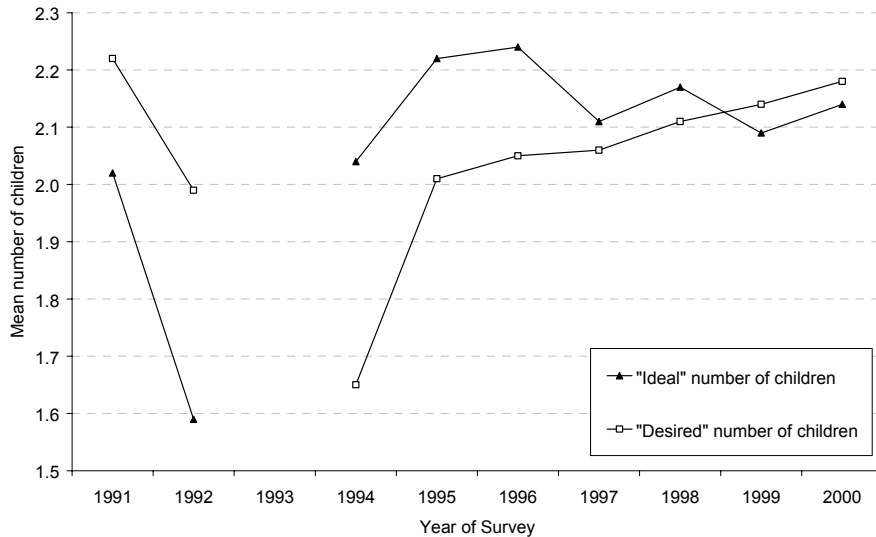
(1) 75% of women used any method at the time of survey; (2) in last two years before the survey, regularly used any method: 64% of women in Tverskaya oblast, 60% in Chelyabinsk oblast, and 57% in Khabarovsk kray. 14%, 15%, and 20% of women in corresponding regions never used contraception; (3) 59% of women at risk of pregnancy used any method at the moment of survey; (4) 71.9% of women used any method at the moment of survey in 1996, and 72.8% in 1999; (5) 83.8% used any method at the time of survey.

5. Conceptions of ideal and desired family size and differential fertility in contemporary Russia

5.1 Ideal, desired, and actual family size

Nationally representative research carried out after 1990 shows that the conception of ideal and desired family size in Russia has not undergone significant change. After the shock resulting from the initial stages of the socio-political and economic reforms, the average evaluation of preferable family size was re-established (Figure 13). In public opinion, the two-child family continues to dominate as the social norm and desired model for one's own family. The proportion of voluntary childlessness as a desired behavioural model does not have a distinguishable dynamic, varying at a low percent and, in general, not exceeding 5% in the data of differing studies.

Figure 13: Mean ideal and mean desired number of children in a family. Russia, women aged 16 and older, nationally representative surveys of national opinion, 1991–2000



Source: Surveys conducted by the Russian Centre for Public Opinion and Market Research (VCIOM). Bodrova V. (2002).

Note: "Ideal" number of children based on responses to question: "If one speaks of the 'ideal family' then how many children do you think are in it?" "Desired" number of children based on responses to question: "How many children in all, including those you already have, would you want to have, if you had all that is necessary for this situation?"

According to the latest representative survey (October 2006), the mean desired number of children per woman 18–34 years of age was 2.04 (58% would like to have two, one 21%, three or more 20%) (Arkhangelsky 2006). We may compare this data with the results of the survey carried out in the framework of the Population Microcensus of 1994, which took place under the evident influence of the social shock called forth by disappointment with the reforms: the mean desired number of children per woman 18–29 years of age was 1.78 (two children -- 52%, one -- 30%, three or more 13 %, none -- 5%) (Borisov 1997).

Thus we do not have any confirmation that Russian women's preferences have shifted in the direction of dominance of one child and childlessness.

We now examine the degree to which preferences are being realised in practice. Table 6 presents the mean of the potentially desired and concretely intended total number of children for women 21–35 years of age according to the data of the 1994

Microcensus, which is compared with the estimate of the actual mean number of births for this same cohort, i.e. eight years later. In addition to data for Russia as a whole, the table also gives an estimate for two regions which represent two poles with respect to models of marital and family relations and fertility: a) the more traditional Dagestan, which has not completed the first demographic transition (a multi-ethnic republic in the Northern Caucasus, population 2.6 million, primarily of Muslim faith and with a very low proportion -- less than 5% -- Slavic); b) the capital city of Moscow, competing with St. Petersburg for the rank of territory with the lowest fertility and a population of 10.4 million, of which Russians, Ukrainians and Belorussians comprise almost 88%.

The first conclusion: the Russian population plans its fertility fairly well, in as much as the actual number of births does not strongly diverge from the expected number, according to the survey of eight years before. Muscovites achieve their goals the most consistently. But even in Dagestan, where effective family planning is notably much worse (modern contraceptive methods are less widespread, the attitude towards abortion less liberal), the overwhelming majority of families have the number of children they anticipated at the start of their reproductive cycle. And, moreover, the fulfilment of plans made in these or other socio-economic conditions is not a strict adherence to an unchanging programme.

The second conclusion is that the mass expectations of the population, formed in the very difficult economic conditions and low social expectations at the start of the 1990s deflated into pessimism. This is confirmed by the actual total fertility for the generation of women born in the second half of the 1960s, who turn out to have by the middle of the first decade of the 21st century not much more, but nonetheless more, than the mean expected number of children in the survey carried out a decade earlier.

The third conclusion concerns the divergence of the actual number of children born from the mean desired number of children, at about the level of 0.1–0.3 children per woman. Many experts see in this a reserve for increasing fertility which can be achieved in the event of well-constructed policies aimed at this. On the other hand, people as a rule wish to have more of any given good thing than in fact they have and, in contemporary conditions, this turns out to involve not only material goods but also children. Therefore, it is hardly possible to set as an achievable goal the satisfaction of all desires. It is more important to create an atmosphere in society against the lowering of the social norm itself concerning the mean number of children in families, or some sort of "ideal image" of the two-child family, which is closely connected with the wish of an individual to have a defined number of children in their own family, and to which in turn actual fertility is drawn, although with significantly more elasticity.

Table 6: ‘Desired’ and ‘Expected’ mean number of children in a family of respondent (1994 Microcensus), and mean number of children actually born (2002 Census), female birth cohorts

Birth cohort	1994 Microcensus			2002 Census		Difference between “Expected” and “Desired”	Difference between Actual and “Desired”
	Age	‘Desired’ mean number*	‘Expected’ mean number**	Age	Actual + extrapolated mean number***		
Russia							
1958–1962	31–35	1.99	1.85	40–44	1.83	–0.14	–0.16
1963–1967	26–30	1.87	1.66	35–39	1.73	–0.21	–0.14
1968–1972	21–25	1.74	1.47	30–34	1.62	–0.27	–0.12
City of Moscow							
1958–1962	31–35	1.74	1.52	40–44	1.48	–0.22	–0.26
1963–1967	26–30	1.68	1.42	35–39	1.42	–0.26	–0.26
1968–1972	21–25	1.62	1.34	30–34	1.38	–0.28	–0.24
Dagestan Republic							
1958–1962	31–35	3.08	2.93	40–44	2.81	–0.15	–0.27
1963–1967	26–30	2.74	2.58	35–39	2.63	–0.16	–0.11
1968–1972	21–25	2.61	2.40	30–34	2.42	–0.21	–0.19

Source: Marital status and fertility in Russia (according to the data of the 1994 Microcensus of the Population). Goskomstat of Russia, Moscow, 1995; Fertility. Results of the All-Russia 2002 Census of the Population. Volume 12, Rosstat, Moscow, 2005; Author’s calculations

Note: * ‘Expected’ number based on responses to question “How many children do you intend to have (including already present)?”

** ‘Desired’ number based on responses to question “What is your desired number of children?”

***To the actual number of children born by the 2002 Census is added the expected number of children, in accordance with current fertility statistics for 2002–2004.

Representatives of different social groups react in different ways to changes in social and economic realities. In Russia, as, by the way, in other countries, there are four basic factors differentiating fertility: marital or partnership status; geographical location (cities of different types, rural settlements); ethnic membership; and, educational status. The complex combination of these factors, expressed in population structures, is reflected in the regional and territorial variety of fertility Russia.

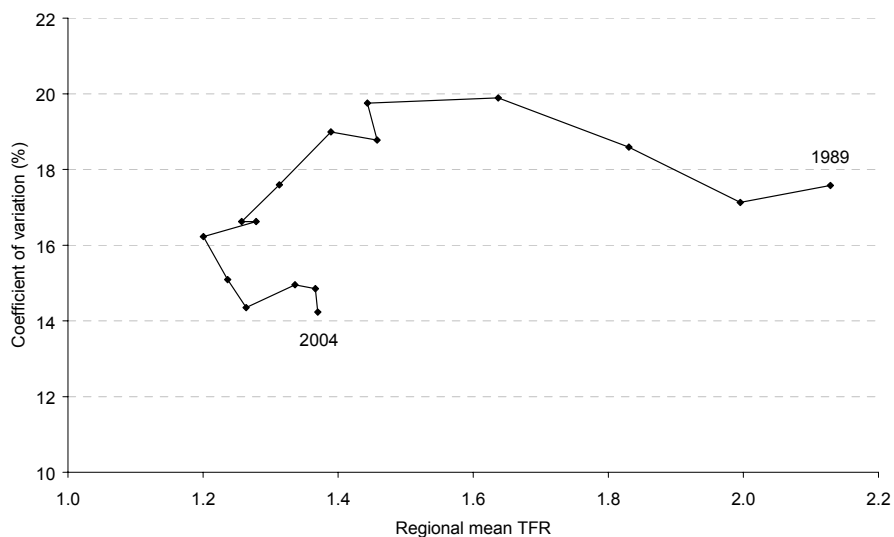
5.2 Regional variety in fertility

An overall representation of the changes in regional variations in Russia in the last 15 years is given in Figure 14. A rapid reduction in fertility in the first five years of the 1990s was accompanied by a temporary increase in regional variation. Following this,

however, a tendency towards unification in fertility level predominated, and, currently, regional variety is lower than it was at the start of political and economic reforms.

In this way, the historical tendency toward reduction in interregional variation in fertility and regimes of population reproduction have been restored. (See Zakharov, 1994, Zakharov and Ivanova 1996). It is consequently possible to hypothesize that differential fertility, based on social indicators, will more likely decline rather than increase.

Figure 14: Regional mean TFR and coefficient of regional variation. Russia, 1989–2004.



Source: Author's calculations based on the Demographic Yearbook of Russia. Goskomstat/Rosstat, Moscow, corresponding years.

Note: Mean TFR is unweighted arithmetic mean for 79 administrative units of the Russian Federation; Coefficient of variation is ratio of standard deviation to arithmetic mean (%).

5.3 Differentials by marital status

Being married is a significant advantage in terms of the number of children born. At the same time, significant changes in marital behaviour have occurred in the last decade, and namely that the proportion of women aged 18–34 who are married declined from 62% to 45% (Table 7). Although the child-bearing preferences among unmarried women rose, this was insufficient to compensate for the effect stemming from the

change in marital status. As a result, the low overall fertility in Russia nowadays can be largely explained by the population's sceptical attitude towards the advantages afforded by legal marriage. At the same time, informal partnership unions, which are rapidly becoming widespread, are still not seen by the majority of the population as an equally significant alternative to marriage in relationship to child-bearing.

Table 7: Period TFR for women in and out of legal marriage, and proportion of legally married and unmarried women aged 15–49 and 18–34. Russia, 1993–1994 and 2003–2004

Year, age group	All women	Women in registered marriage*	Women out of registered marriage*
1993–1994			
TFR	1.38	2.41	0.26
Distribution by marital status (percent)			
15–49	100.0	61.1	39.9
18–34	100.0	61.5	39.5
2002–2003			
TFR	1.29	2.01	0.36
Distribution by marital status (percent)			
15–49	100.0	50.2	49.8
18–34	100.0	44.9	54.1

Source: Author's calculations based on unpublished data of the 1994 Microcensus, of the 2002 Census, and birth statistics by marital status of women by single age group for corresponding years.

Note: Life-time TFR adjusted by expected duration in a specified uninterrupted marital status according to then-current marital structure by age (Microcensus 1994: expected duration of registered marriage by age of 50 was 21.2 years, and duration of being out of registered marriage, including never married, separated and widowed, was 13.8 years; Census 2002: 17.8 years and 17.2 years correspondingly).

5.4 Urban-rural differentials

Urban-rural differentials in fertility level remain highly significant at present. At the same time, these differentials over two decades have been strongly reduced as a result of the rapid rate of reduction in fertility in rural areas (Table 8). The contribution of rural residents to births in the country in the period 2002–2005 was less than 29% -- the lowest level in the history of Russia. (At the start of the 1960s, rural residents provided more than half of the births in the country and at the start of the 1990s, 31–32%). We note that the urban and rural proportions in the total population of the country in the last ten to twenty years have changed little. Therefore, the reduction in overall fertility in

Russia is to a substantial extent explained by the rapid change in reproductive behaviour of rural inhabitants, reducing their fertility in the direction of a lower birth rate than that of urban residents.

Table 8: Period and Cohort total fertility rates for urban and rural population, and proportion of urban and rural population. Russia, selected calendar years and female birth cohorts

Year	Total population	Urban population	Rural population	Difference	Per cent of urban population	Per cent of rural population
				between TFRs in Rural and Urban populations		
				Period total fertility rate		
1979–1980	1.89	1.70	2.50	0.80	69.8	30.2
1994	1.39	1.24	1.91	0.67	73.0	27.0
2004	1.34	1.25	1.67	0.42	73.2	26.8
				Cohort completed fertility, 2002 Census		
Birth cohort						
1948–1952	1.85	1.70	2.37	0.67	78.2	21.9
1953–1957	1.88	1.73	2.35	0.62	76.8	23.2
1958–1962	1.83	1.69	2.26	0.57	75.6	24.4
1963–1967*	1.73	1.59	2.14	0.55	74.8	25.2

Source: The Demographic Yearbook of Russia. Rosstat. Moscow, 2000, 2006; Fertility. Results of the All-Russian 2002 Census of the Population. Volume 12, Rosstat. Moscow, 2005; Author's calculations.

5.5 Inter-ethnic differentiation

At first glance, the ethnic factor in Russian fertility appears important, in as much as the differentials between ethnic groups is boldly delimited. Among 16 ethnic groups, comprising 95% of Russia's population, there are those which have not yet completed the first demographic transition (peoples of the Caucasus, represented in Table 9, and also the less numerous peoples of Siberia and the Far East which are not in the table.) With rare exceptions, (Azeris, Kazakhs) peoples with higher fertility have lived in their own local areas from ancient times, that is, they are not migrants. At the same time, the contribution of ethnic minorities with a higher fertility to the overall fertility level in the country is minimal as a result of their small representation within Russia's population. There is little chance that these populations will materially increase their contribution to Russian fertility in the future, in as much as ethnic differentials in fertility are quickly converging because of a rapid reduction in fertility among precisely those peoples for whom it is now relatively high. In fact, this means that the ethnic factor is presently acting in the direction of a reduction and not an increase in fertility. On the other hand,

it is impossible to rule out in the not so distant future an increase in ethnic and demographic variety in Russia, as a result of a strengthened migration from Central Asia and other regions with a higher fertility.

Table 9: Completed cohort fertility by major ethnic groups residing in Russia; proportion of ethnic group in total population of Russia, and in female population aged 20–49; contribution of women by ethnicity to total number of births. Russia, 2002 Census

Declared ethnicity*	Mean number of children ever borne, female birth cohorts			Mean number of children ever borne by women aged 20–49	Percentage of men and women of specified ethnicity to total Russia's population	Percentage women of specified ethnicity to total female population aged 20–49	Percent contribution of women of specified ethnicity to the total number of children borne by
	1948–	1953–	1958–				
	1952	1957	1962				
Russian	1.77	1.81	1.76	1.33	80.6	80.0	76.8
Tatar	2.01	1.97	1.89	1.48	3.9	4.0	4.4
Ukrainian	1.91	1.90	1.85	1.54	2.0	2.1	2.4
Bashkir	2.43	2.31	2.13	1.66	1.2	1.2	1.5
Chuvash	2.26	2.19	2.05	1.62	1.1	1.2	1.4
Chechen	3.86	3.47	3.13	2.18	0.9	0.2	0.3
Armenian	2.16	2.14	2.14	1.68	0.8	0.7	0.9
Mordvinian	2.07	1.97	1.89	1.59	0.6	0.6	0.7
Avar	3.61	3.23	2.90	1.97	0.6	0.5	0.8
Belarusian	1.87	1.88	1.79	1.55	0.6	0.6	0.6
Kazakh	2.90	2.55	2.23	1.69	0.5	0.5	0.6
Udmurt	2.27	2.18	2.09	1.69	0.4	0.5	0.6
Azeri	2.85	2.60	2.44	1.91	0.4	0.4	0.5
Mari	2.44	2.34	2.18	1.72	0.4	0.5	0.6
German	2.21	2.23	2.19	1.61	0.4	0.4	0.5
Kabardinian	2.62	2.49	2.37	1.67	0.4	0.4	0.5
Russia	1.85	1.88	1.83	1.39	94.8**	93.9**	93.0**

Source: *Fertility*. Results of the All-Russian 2002 Census of the Population. Volume 12, Rosstat. Moscow, 2005; National composition and language, citizenship. Results of the *All-Russian 2002 Census of the Population*, Vol. 4(1). Rosstat. Moscow, 2004.

Note: Ethnic groups with contribution of 0.5% and more to the total number of births by women aged 20–49 by the date of the 2002 Census. ** Total for listed ethnic groups in Russia's population of specified category (sums by column).

5.6 Differentials by level of education

Differentials in level of education are probably the only example of a social differential in Russian fertility which have not only failed to decrease in the last decade, but have

instead increased. Among the female cohorts born in the second half of the 1960s, those with a higher education had an average of 0.25 children less than those with a secondary technical (general professional) education. The latter, in turn, had 0.22 children less than those with a full secondary education, while for the cohorts born in the first half of the 1950s, these differentials were about 0.22 and 0.15, respectively (Table 10). The restructuring of the Russian population in the direction of a higher educational status is monotonic, and this long-term tendency undoubtedly plays an important role in maintaining Russian fertility at a very low level, facilitating its further reduction.

Table 10: Completed cohort fertility by education level, and proportion of women with specified level of education in birth cohorts. Russia, 2002 Census

Birth cohort	All	Higher professional (15 or more years)	General professional (12–13 years)	Full secondary (10–11 years)	General and lower (9 and less years)
Cohort completed fertility, 2000 Census					
1948–1952	1.85	1.57	1.78	1.91	2.40
1953–1957	1.88	1.60	1.83	1.99	2.45
1958–1962	1.83	1.56	1.80	2.00	2.33
1963–1967*	1.73	1.47	1.72	1.94	2.20
Percentage of women with a specified education					
1948–1952	97.5**	20.0	37.7	29.3	10.5
1953–1957	97.5**	21.2	39.3	30.4	6.6
1958–1962	97.0**	22.7	40.5	29.6	4.2
1963–1967	96.5**	24.1	41.2	27.3	3.9

Source: Fertility. Results of the All-Russian 2002 Census of the Population. Volume 12, Rosstat. Moscow, 2005.

Note: *To the actual number of children born by the census of 2002 is added the expected number according to the current fertility statistics for 2002–2004.

**The deviation from 100% is due to students in the final years of higher education and those who have interrupted their education (unified in the official category of “incomplete higher education”), and also on account of those who have not stated their educational level.

Summarising the short examination of the dynamics of social structures and social differentials in fertility, it is not possible to conclude that over the last two decades they acted in their totality to reduce fertility in Russia. Less advanced social and ethnic groups of the population have been dynamically transforming the character of their fertility in the direction of vanguard reference social groups: urban residents of Russian ethnicity with low fertility. At the same time, women with higher educational levels and the lowest fertility not only increased their proportion in the Russian population, but also decreased their fertility the most rapidly. As a result, the gap has increased between

the desired number of children in a family, maintained in surveys of public opinion at the same level, and the actual level of fertility. The maximum dissatisfaction with the number of children in their families, according to the data of RusGGS-2004 is expressed by urban females with a higher education (Maleva and Sinyavskaya 2006).

6. Principal conclusions

1. There is no doubt that the fertility of the cohorts born in the 1970s and 1980s will be lower than that of those of the 1960s. In this regard, Russia does not stand out against the background of developed nations.

2. The ageing of fertility in Russia is proceeding at a slower pace, in comparison with other countries, and even with the countries of Central and Eastern Europe. Whether this should be considered an advantage or not is a question for the future. The “younger” model of family today gives more room for manoeuvre tomorrow. Partners beginning childbearing at relatively early ages have a greater temporal distance (time) for the re-examination of plans with regard to second and third births than those starting at age 30, as has become popular in western countries.

3. Based on the current values of PTFR (1.35 in 2004), we can expect to lose about 0.5 children per woman for the cohorts born in 1980–1981, as compared to the cohort of 1960–1961 which is reaching post-childbearing ages with 1.81 children per woman. On the other hand, there is some evidence to suggest that this reduction may be less significant. First, in the last four years, fertility in Russia has been increasing, primarily at ages over 25. Second, as is well known, PTFR values are underestimated because of changes in timing as fertility ages. The Bongaarts-Feeney adjustment gives a better estimate of the fertility level, at 1.5 (Partnership 2003) (Appendix, Table 19), provided that the compensating rise of fertility at older ages will be at the same level as we have now. However, this estimate also seems too pessimistic. The mean order of birth (weighted with order-specific PTFR), although it fell from 1.8 in the 1980s to 1.6 at the beginning of the 1990s, has remained the same over the last twelve years (Fig.15, Appendix, Table 19). Since childlessness in Russia is low and does not currently display an evident tendency to increase, we would propose that this may well be the best estimate of completed fertility of the cohorts which are now of childbearing age. If we extrapolate the age-specific rates and apply the tempo of changes recorded in the period 1999–2004 to obtain the estimates for generations, we would also get the same result: 1.6 children per woman may be expected for the cohorts born in 1980–1981 (Table 11). It is interesting to note that in one of the variants of the “Conception of

Demographic Policy to 2015/2025”, developed by the Ministry of Health and Social Development of Russia and available to demographic experts, it says that as a result of the initiation of measures to stimulate fertility, an increase in the TFR to the level of 1.6–1.7 is expected by 2015. As was shown above, these figures may be taken to be fully probable and well-founded. Moreover, they reflect the agreed opinion of Russian specialists with differing ideological positions. The question impossible to answer now is this: What will be the role of timing and quantum effects under the influence of policy? The stabilization of cohort completed fertility at the level of 1.6 children is completely realistic but it is not known if it is possible to rely on an increase in fertility higher than this value.

4. If the transformation of the age pattern of fertility continues at the present pace, there is virtually no chance for Russia, within the next 10–15 years, to arrive at the age profile of fertility observed in Western countries. For the generation of women born in 1980–1981, our projection for the mean age at childbearing is about 27.1, which is 2 years higher than in the generation of 1960–1961. However, even this value is still behind the levels which are characteristic of the cohorts born in Western countries in the middle of the 1960s (28 years).

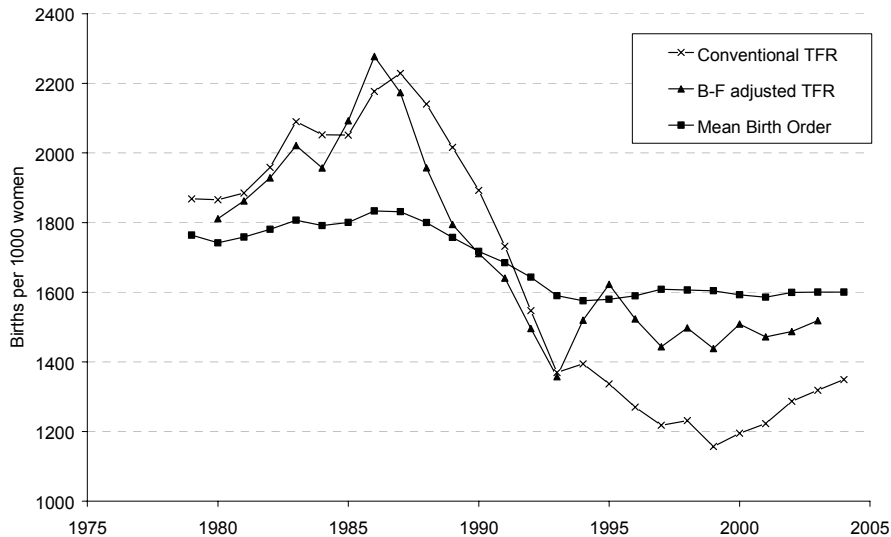
5. Estimating the proportion of childless women for the birth cohorts of the 1980s is scarcely reliable, since major changes are now taking place in the timing of fertility. Nevertheless, it should not exceed 15% in the generation of the 1980s, but more likely will be a lower proportion. For the generations born in the 1970s it can be estimated as a maximum of 10%.

Table 11: Actual and projected cohort fertility, Russia: female birth cohorts 1960–1981

Birth cohorts	Age in 2004	The number of children actually born by 2005, per woman	Completed fertility based on the age-specific rates observed in 2004		Completed fertility based on trends in change of age-specific rates observed in 1999–2004.	
			Number of children per woman	Compared with the cohort 1960–61	Number of children per woman	Compared with the cohort 1960–61
1960–1961	43	1.82	1.82	-	1.82	-
1965–1966	38	1.63	1.66	-0.16	1.66	-0.16
1970–1971	33	1.41	1.55	-0.27	1.58	-0.23
1975–1976	28	1.05	1.45	-0.37	1.54	-0.27
1980–1981	23	0.54	1.37	-0.45	1.60	-0.21

Source: Author's estimates

Figure 15: Conventional PTFR, PTFR adjusted by Bongaarts-Feeney method, and Mean Order of Birth, Russia, 1979–2004



Source: Author's calculations.

Many neo-traditional features of fertility and nuptiality remain in today's Russia, if one compares the present situation not with the previous Soviet period but with the contemporary situation in Western countries: early marriage and relatively young age at birth of the first child; low prevalence of deliberate childlessness; and, a fast pace in achieving the ultimate family size. The traditional goal among women is still that of the role as mother, and this still prevails over career and educational self-realisation. Although these features, which distinguish Russia from developed nations, are still undergoing change, they will persist into the next one to two decades. At the same time, the completed fertility of actual and hypothetical cohorts differs very little from the average European level.

Many observers believe that the situation concerning Russian fertility is just a reflection of severe socio-economic conditions (low income, inefficient social policy etc.). In my view, however, this is a simplification, and moreover is not very useful for the goals of demographic forecasting.

Profound changes are taking place in the reproductive behaviour of Russians. New attitudes and perceptions, which we do not yet know well, towards family, marriage, partnership, age of beginning and completing childbearing, and family planning are emerging as a mass phenomenon. However, what we now know allows us to believe that the fertility pattern in Russia is most likely undergoing a major transformation which lies within the main course of fertility evolution in the developed countries and which is named the Second Demographic Transition. If this assumption is correct, Russia would scarcely be expected to return to the past timing model of fertility, characteristic of the 1970s and 1980s, and, in contrast to the divergence we had in the 1970s and 1980s, the convergence of Russia towards the Western countries, though lagging behind, will become the future of Russian fertility.

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APPENDIX

**Table A1: Completed cohort and period total fertility in Russia
(female birth cohorts 1841–1970, calendar years 1896–2005)**

Birth cohorts	Cohort completed fertility	Calendar years *	Period total fertility
1841–1845	6.84		
1846–1850	6.90		
1851–1855	7.08		
1856–1860	7.11		
1861–1865	7.12		
1866–1870	7.20	1896–1900	7.30
1871–1875	6.96	1901–1905	7.12
1876–1880	6.85	1906–1910	7.17
1881–1885	6.20	1911–1915	6.30
1886–1890	5.49	1916–1920	5.23
1891–1895	5.50	1921–1925	6.16
1896–1900	5.23	1926–1930	6.38
1901–1905	4.59	1931–1935	4.51
1906–1910	3.66	1936–1940	4.74
1911–1915	2.82	1941–1945	2.60
1916–1920	2.46	1946–1950	2.89
1921–1925	2.25	1951–1955	2.86
1926–1930	2.20	1956–1960	2.67
1931–1935	2.15	1961–1965	2.33
1936–1940	2.01	1966–1970	2.03
1941–1945	1.91	1971–1975	2.01
1946–1950	1.85	1976–1980	1.93
1951–1955	1.89	1981–1985	2.02
1956–1960	1.87	1986–1990	2.08
1961–1965	1.73 **	1991–1995	1.48
1966–1970	1.60 **	1996–2000	1.22
1971–1975	1.52 **	2001–2005	1.30

Source: Zakharov 2006a (updated).

Note: *Calendar years are the years when the generations indicated in the left part of the table reach the age of 30.

** Preliminary estimate.

Table A2: Distribution of women by number of children ever born by age 50 (in %) and the average number of children (per woman), Russia, female birth cohorts 1868–1968

Birth cohorts	Number of children								Total	Average number of children
	0	1	2	3	4	5	6	7+		
Before 1874	5.0	2.5	2.9	4.8	6.5	8.2	9.3	60.8	100.0	7.11
1874–1878	5.3	3.1	3.2	5.9	7.3	10.2	10.1	54.9	100.0	6.79
1879–1883	5.5	3.8	5.0	7.1	8.1	11.6	10.5	48.4	100.0	6.39
1884–1888	6.0	4.4	6.3	8.1	9.1	12.1	10.6	43.4	100.0	6.05
1889–1893	6.5	5.5	8.7	9.8	10.0	12.3	10.7	36.5	100.0	5.57
1894–1898	6.8	6.5	9.3	10.0	11.1	12.1	10.3	33.9	100.0	5.37
1899–1903	7.7	8.0	11.6	12.2	12.3	11.2	9.5	27.5	100.0	4.86
1904–1908	9.4	11.5	15.0	15.0	12.6	10.5	8.2	17.8	100.0	4.04
1909–1913	11.3	17.3	21.4	17.1	11.4	8.1	4.8	8.6	100.0	3.06
1914–1918	12.5	21.0	24.2	16.5	9.7	6.3	3.7	6.1	100.0	2.68
1919–1923	14.1	23.7	27.3	15.5	8.0	4.9	2.6	3.9	100.0	2.33
1924–1928	11.8	22.5	32.4	16.4	7.4	4.3	2.1	3.1	100.0	2.28
1929–1933	9.5	23.2	37.5	15.8	6.2	3.6	1.7	2.5	100.0	2.21
1934–1938	8.0	26.0	42.1	13.8	4.4	2.7	1.2	1.8	100.0	2.07
1939–1943	7.9	27.3	43.4	12.9	3.7	2.3	1.0	1.5	100.0	1.99
1944–1948	8.1	29.9	45.1	11.0	2.7	1.5	0.6	1.1	100.0	1.85
1949–1953	7.1	27.7	47.9	12.3	2.6	1.4	0.5	0.5	100.0	1.86
1954–1958*	6.7	26.5	48.6	13.5	2.6	1.3	0.4	0.4	100.0	1.88
1959–1963*	7.5	29.0	49.3	10.5	2.1	1.2	0.2	0.2	100.0	1.77
1964–1968*	8.5	37.0	43.8	8.0	1.5	1.0	0.1	0.2	100.0	1.61

Source: Zakharov 2006b.

Note: *Preliminary estimate.

Table A3: Final parity progression ratios for women by age 50, Russia, female birth cohorts 1868–1968 (per 100)

Births cohorts	0 → 1	1 → 2	2 → 3	3 → 4	4 → 5	5 → 6	6 → 7
Before 1874	95.0	97.4	96.9	94.6	92.3	89.5	86.7
1874–1878	94.7	96.7	96.5	93.3	91.2	86.4	84.5
1879–1883	94.5	96.0	94.5	91.7	89.7	83.5	82.2
1884–1888	94.0	95.3	93.0	90.3	87.9	81.7	80.4
1889–1893	93.5	94.1	90.1	87.6	85.6	79.3	77.3
1894–1898	93.2	93.0	89.3	87.1	83.5	78.5	76.7
1899–1903	92.3	91.3	86.2	83.2	79.7	76.8	74.3
1904–1908	90.6	87.3	81.0	76.6	74.3	71.2	68.5
1909–1913	88.7	80.4	70.0	65.8	65.3	62.3	64.2
1914–1918	87.5	76.0	63.6	61.0	62.4	60.9	62.2
1919–1923	85.9	72.4	56.1	55.6	58.8	57.0	60.0
1924–1928	88.2	74.4	50.6	50.6	55.9	54.3	58.8
1929–1933	90.4	74.3	44.2	46.8	55.4	53.2	58.5
1934–1938	92.1	71.8	36.2	42.3	56.4	52.6	59.9
1939–1943	92.1	70.4	33.0	39.7	56.5	52.1	60.1
1944–1948	91.9	67.5	27.3	34.3	53.4	50.6	62.5
1949–1953	92.9	70.2	26.5	28.9	48.0	41.7	59.8
1954–1958*	93.3	71.6	27.2	25.8	46.8	40.9	58.3
1959–1963*	92.5	68.6	22.4	26.1	43.2	37.5	51.5
1964–1968*	91.5	59.6	19.6	25.2	43.1	36.7	50.0

Source: Zakharov 2006b.

Note: *Preliminary estimate.

Table A4: Distribution of women at first continuous marriage by ever born children (in %) and the average number of children (per woman): Russia, female marriage cohorts 1920–1984

Marriage cohorts	Possible years of birth*	Number of children					Total	Average number of children
		0	1	2	3	4+		
1920–1924	1900–1904	4.7	6.1	6.7	14.9	67.7	100.0	4.70
1925–1929	1905–1909	5.4	6.6	14.2	17.8	56.0	100.0	4.24
1930–1934	1910–1914	5.3	9.4	20.8	18.2	46.3	100.0	3.74
1935–1939	1915–1919	5.3	14.0	25.4	19.4	35.8	100.0	3.38
1940–1944	1920–1924	5.3	15.5	30.2	20.5	28.5	100.0	3.08
1945–1949	1925–1929	5.3	15.4	35.2	21.6	22.5	100.0	2.68
1950–1954	1930–1934	4.8	18.2	42.2	19.2	15.6	100.0	2.41
1955–1959	1935–1939	4.1	20.4	46.9	17.0	11.6	100.0	2.26
1960–1964	1940–1944	4.3	24.9	50.4	13.0	7.4	100.0	2.03
1965–1969	1945–1949	4.0	25.8	52.4	12.0	5.8	100.0	1.97
1970–1974	1950–1954	3.3	23.9	54.5	13.2	5.1	100.0	1.99
1975–1979	1955–1959	3.4	20.9	56.9	14.1	4.7	100.0	2.01
1980–1984**	1960–1964	4.4	26.3	55.6	10.8	2.9	100.0	1.85

Source: Zakharov 2006b.

Note: * Based on the assumption that the average age at first marriage is 20.

** Preliminary estimate by the 10th year of first continuous marriage. One may expect that completed fertility for this marriage cohort would be 1.9. The proportion of infertile women will most likely remain the same, and the proportion of women with two children will slightly grow to 56–57%.

Table A5: Parity progression ratios for women at first continuous marriage, Russia: female marriage cohorts 1920–1984 (per 100)

Marriage cohorts	Possible years of birth*	0 → 1	1 → 2	2 → 3	3 → 4
1920–1924	1900–1904	95.3	93.6	92.5	87.7
1925–1929	1905–1909	94.6	92.1	83.9	79.7
1930–1934	1910–1914	94.4	89.2	75.6	71.7
1935–1939	1915–1919	94.5	85.2	68.5	64.8
1940–1944	1920–1924	94.6	83.6	61.9	58.3
1945–1949	1925–1929	94.7	83.7	55.6	51.0
1950–1954	1930–1934	95.2	80.9	45.2	44.8
1950–1959	1935–1939	95.9	78.7	37.9	40.6
1960–1964	1940–1944	95.7	74.0	28.8	36.3
1965–1969	1945–1949	96.0	73.1	25.4	32.6
1970–1974	1950–1954	96.7	75.3	25.1	27.9
1975–1979	1955–1959	96.6	78.4	24.8	25.0
1980–1984**	1960–1964	95.6	72.4	19.8	21.2

Source: Zakharov 2006b.

Note: * Based on the assumption that the average age at first marriage is 20.

** The preliminary estimate by the 10th year of marriage. It is expected that by the 20th year of marriage, PPR0 will not change, PPR1 will increase to 73–75, and PPR3 and PPR4 will also grow to 22–24.

Table A6: The average number of children born alive and those who survive to ages 1, 10, 15 and 20: Russia, female birth cohorts 1841–1970

Birth cohorts	Born alive	Out of them survive to age:			
		1	10	15	20
1841–1845	6.84	4.52	3.19	3.09	2.99
1846–1850	6.90	4.57	3.23	3.13	3.02
1851–1855	7.08	4.71	3.33	3.23	3.11
1856–1860	7.11	4.76	3.39	3.29	3.13
1861–1865	7.12	4.81	3.47	3.35	3.17
1866–1870	7.20	4.93	3.59	3.47	3.26
1871–1875	6.96	4.86	3.56	3.42	3.22
1876–1880	6.85	4.88	3.58	3.45	3.23
1881–1885	6.20	4.48	3.30	3.18	2.97
1886–1890	5.49	4.01	2.96	2.87	2.68
1891–1895	5.50	4.03	3.01	2.93	2.72
1896–1900	5.23	3.83	2.92	2.85	2.65
1901–1905	4.59	3.37	2.63	2.58	2.44
1906–1910	3.66	2.71	2.16	2.13	2.08
1911–1915	2.82	2.16	1.79	1.77	1.76
1916–1920	2.46	2.01	1.77	1.76	1.75
1921–1925	2.25	1.99	1.88	1.87	1.86
1926–1930	2.20	2.03	1.97	1.97	1.95
1931–1935	2.15	2.04	2.01	2.00	1.99
1936–1940	2.01	1.95	1.92	1.92	1.91
1941–1945	1.91	1.85	1.84	1.83	1.82
1946–1950	1.85	1.80	1.78	1.78	1.77
1951–1955	1.89	1.84	1.83	1.82	1.81
1956–1960	1.87	1.82	1.81	1.80	1.79
1961–1965*	1.71	1.68	1.66	1.66	1.65
1966–1970*	1.56	1.53	1.52	1.52	1.50

Source: Zakharov 2003 (updated).

Note: * Preliminary estimate.

Table A7: The distribution of women by number of live born daughters reaching age 28 (in %) and the average number of daughters reaching age 28 per woman: Russia, female birth cohorts 1868–1968

Birth cohorts	No daughters								Total	Average number of daughters
	1	2	3	4	5	6	7+			
Before 1874	25.1	29.4	24.7	13.9	5.3	1.3	0.2	0.0	100.0	1.50
1874–1878	25.6	29.3	24.2	13.7	5.4	1.5	0.2	0.0	100.0	1.49
1879–1883	27.6	29.8	23.2	12.8	5.0	1.4	0.2	0.0	100.0	1.43
1884–1888	29.1	29.9	22.4	12.2	4.8	1.3	0.2	0.0	100.0	1.39
1889–1893	31.5	30.2	21.2	11.2	4.4	1.2	0.2	0.0	100.0	1.32
1894–1898	32.0	30.1	20.8	11.1	4.5	1.3	0.2	0.0	100.0	1.31
1899–1903	34.0	30.2	19.6	10.2	4.3	1.3	0.3	0.0	100.0	1.26
1904–1908	38.6	30.9	17.5	8.3	3.4	1.1	0.2	0.0	100.0	1.11
1909–1913	44.8	32.1	14.6	5.6	2.1	0.7	0.1	0.0	100.0	0.91
1914–1918	45.2	32.7	14.1	5.2	2.0	0.7	0.2	0.0	100.0	0.89
1919–1923	44.1	33.9	14.4	4.9	1.8	0.6	0.2	0.0	100.0	0.89
1924–1928	39.7	36.3	16.3	5.1	1.8	0.6	0.1	0.0	100.0	0.96
1929–1933	37.4	38.4	17.1	4.8	1.6	0.5	0.1	0.0	100.0	0.97
1934–1938	36.8	40.6	16.9	3.9	1.2	0.4	0.1	0.0	100.0	0.94
1939–1943	37.2	41.2	16.6	3.5	1.1	0.4	0.1	0.0	100.0	0.92
1944–1948	38.7	42.1	15.6	2.6	0.7	0.2	0.1	0.0	100.0	0.86
1949–1953	37.4	42.8	16.5	2.5	0.5	0.2	0.0	0.0	100.0	0.87
1954–1958*	36.7	43.0	17.0	2.6	0.5	0.1	0.0	0.0	100.0	0.88
1959–1963*	38.4	43.2	15.9	2.0	0.4	0.1	0.0	0.0	100.0	0.83
1964–1968*	41.5	43.1	13.5	1.5	0.3	0.1	0.0	0.0	100.0	0.76

Source: Zakharov 2003 (updated).

Note: *Preliminary estimate.

Table A8: Age-specific birth rates and completed cohort fertility, Russia: female birth cohorts 1880–1969

Birth cohorts	Live-born children per 1,000 women at age:							Completed fertility*
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	
1880–1884	55	217	257	267	245	164	67	6.4
1885–1889	48	185	234	241	207	138	59	5.6
1890–1894	48	186	218	274	216	114	44	5.5
1895–1899	41	189	300	244	167	99	23	5.3
1900–1904	30	219	298	177	166	49	9	4.7
1905–1909	37	224	196	195	77	40	6	3.9
1910–1914	36	151	211	86	72	28	2	2.9
1915–1919	32	182	97	106	68	18	2	2.5
1920–1924	31	85	162	108	54	13	1	2.3
1925–1929	12.8	128.6	160.3	95.1	36.7	8.7	0.5	2.21
1930–1934	21.2	140.4	150.9	80.5	32.4	7.3	0.4	2.17
1935–1939	13.3	154.4	131.5	72.6	30.4	5.9	0.3	2.04
1940–1944	28.9	157.5	112.8	62.5	20.7	4.2	0.2	1.93
1945–1949	23.4	146.9	112.5	59.2	24.0	4.9	0.2	1.84
1950–1954	27.6	157.8	105.4	61.4	22.4	2.5	0.1	1.89
1955–1959	32.9	158.3	115.0	55.1	11.5	2.3**	0.1**	1.88**
1960–1964	39.8	164.0	102.5	30.6	11.8**	2.3**	0.1**	1.76**
1965–1969	45.0	158.0	66.4	39.5	13.6**	2.3**	0.2**	1.63**

Source: Zakharov 2006c.

Note: * Per woman. ** Preliminary estimate.

Table A9: Mean age of women at childbearing and contribution of age groups to the completed cohort fertility, Russia: female birth cohorts 1880–1969.

Birth Cohorts	Mean age at childbearing	Contribution of age group (in %):							Total
		15–19	20–24	25–29	30–34	35–39	40–44	45–49	
1880–1884	32.2	4.3	17.1	20.2	21.0	19.3	12.9	5.2	100.0
1885–1889	32.1	4.3	16.7	21.0	21.7	18.6	12.4	5.3	100.0
1890–1894	31.8	4.4	17.0	19.8	24.9	19.6	10.3	4.0	100.0
1895–1899	30.8	3.9	17.8	28.2	23.0	15.7	9.3	2.1	100.0
1900–1904	29.7	3.2	23.1	31.4	18.7	17.5	5.2	0.9	100.0
1905–1909	28.8	4.7	28.9	25.3	25.2	9.9	5.2	0.8	100.0
1910–1914	28.3	6.2	25.8	36.0	14.6	12.3	4.8	0.3	100.0
1915–1919	28.0	6.4	36.1	19.2	21.0	13.4	3.6	0.3	100.0
1920–1924	28.7	6.7	18.8	35.7	23.7	12.1	2.8	0.2	100.0
1925–1929	27.9	2.9	29.0	36.2	21.5	8.3	2.0	0.1	100.0
1930–1934	27.3	4.9	32.4	34.8	18.6	7.5	1.7	0.1	100.0
1935–1939	27.1	3.3	37.8	32.2	17.8	7.4	1.4	0.1	100.0
1940–1944	26.2	7.5	40.6	29.1	16.2	5.4	1.1	0.1	100.0
1945–1949	26.5	6.4	39.9	30.6	15.3	6.5	1.3	0.0	100.0
1950–1954	26.2	7.3	41.8	28.0	16.3	5.9	0.7	0.0	100.0
1955–1959*	25.7	8.8	42.2	30.6	14.7	3.1	0.6	0.0	100.0
1960–1964*	24.9	11.4	46.8	29.2	8.7	3.3	0.6	0.0	100.0
1965–1969*	24.6	14.2	49.7	20.9	10.5	3.9	0.7	0.1	100.0

Source: Zakharov 2006c.

Note: *Preliminary estimate.

Table A10: Age-specific birth rates and PTFR, Russia: 1895–2004

Years	Live-born children per 1,000 women at age:							PTFR*
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	
1895–1899	48	262	355	359	234	158	67	7.4
1900–1904	46	258	349	353	230	155	66	7.3
1905–1909	44	226	340	344	224	151	65	7.0
1910–1914	43	218	311	335	218	147	63	6.7
1915–1919	31	175	223	238	145	98	42	4.8
1920–1924	34	211	277	278	193	131	56	5.9
1925–1929	38.6	237.5	312.3	306.8	215.2	141.0	65.3	6.58
1930–1934	35.1	181.6	217.6	199.8	176.7	98.1	54.6	4.82
1935–1939	36.0	191.9	230.9	186.0	164.8	98.3	41.2	4.75
1940–1944	22.3	118.1	139.8	133.4	103.0	71.9	25.0	3.07
1945–1949	18.6	131.0	144.7	104.8	84.5	42.5	12.2	2.69
1950–1954	15.4	146.2	187.2	112.9	70.9	36.3	6.3	2.88
1955–1959	23.6	147.0	164.8	118.6	65.1	22.1	3.0	2.72
1960–1964	24.7	156.9	143.5	91.6	48.7	15.6	1.8	2.41
1965–1969	25.2	147.0	115.5	75.7	35.8	11.7	1.3	2.06
1970–1974	30.6	153.2	112.1	65.2	32.2	8.0	0.8	2.01
1975–1979	36.4	157.8	107.3	58.3	23.9	6.9	0.5	1.96
1980–1984	44.5	161.9	108.6	57.0	21.4	4.2	0.4	1.99
1985–1989	49.0	166.7	114.6	61.8	24.9	5.1	0.2	2.11
1990–1994	51.9	135.7	76.2	36.8	14.4	3.2	0.2	1.59
1995–1999	37.0	102.2	66.6	31.5	11.0	2.2	0.1	1.25
2000–2004	27.5	94.1	74.1	40.9	14.5	2.6	0.1	1.28

Source: Zakharov 2006c.

Note: *Per one woman.

Table A11: Mean age of women at childbearing and contribution of age groups to PTFR, Russia: 1895–2004

Years	Mean age at Childbearing	Contribution of age groups (in %):							Total
		15–19	20–24	25–29	30–34	35–39	40–44	45–49	
1895–1899	31.6	3.3	17.6	23.9	24.2	15.8	10.6	4.5	100.0
1900–1904	31.6	3.2	17.7	24.0	24.2	15.8	10.6	4.5	100.0
1905–1909	31.8	3.2	16.2	24.4	24.6	16.1	10.9	4.6	100.0
1910–1914	31.8	3.2	16.4	23.3	25.1	16.3	11.0	4.7	100.0
1915–1919	31.5	3.2	18.4	23.4	25.1	15.2	10.3	4.4	100.0
1920–1924	31.7	2.9	17.9	23.5	23.6	16.4	11.0	4.7	100.0
1925–1929	31.7	2.9	18.0	23.7	23.3	16.3	10.7	5.1	100.0
1930–1934	31.7	3.6	18.8	22.6	20.8	18.3	10.2	5.7	100.0
1935–1939	31.2	3.8	20.2	24.3	19.6	17.4	10.4	4.3	100.0
1940–1944	31.5	3.6	19.2	22.8	21.7	16.9	11.7	4.1	100.0
1945–1949	30.1	3.5	24.3	26.8	19.5	15.7	7.9	2.3	100.0
1950–1954	29.3	2.7	25.4	32.5	19.6	12.3	6.3	1.2	100.0
1955–1959	28.7	4.3	27.0	30.2	21.8	12.0	4.1	0.6	100.0
1960–1964	27.9	5.1	32.5	29.7	19.0	10.1	3.2	0.4	100.0
1965–1969	27.4	6.1	35.7	28.0	18.4	8.7	2.8	0.3	100.0
1970–1974	26.8	7.6	38.1	27.9	16.2	8.0	2.0	0.2	100.0
1975–1979	26.2	9.3	40.3	27.4	14.8	6.1	1.8	0.1	100.0
1980–1984	25.8	11.1	40.7	27.3	14.3	5.4	1.1	0.1	100.0
1985–1989	25.9	11.6	39.5	27.1	14.6	5.9	1.2	0.1	100.0
1990–1994	24.9	16.3	42.6	23.9	11.6	4.5	1.0	0.1	100.0
1995–1999	25.2	14.8	40.8	26.6	12.6	4.4	0.8	0.0	100.0
2000–2004	26.1	10.8	37.1	29.2	16.1	5.7	1.0	0.1	100.0

Source: Zakharov 2006c.

Table A12: Completed cohort fertility and contribution of mothers under age 26. Russia and 26 economically developed countries, female birth cohorts 1930–1931 to 1960–1961

Country*	Completed cohort fertility**				Contribution of mothers under 26 to the completed fertility (%)			
	1930–	1940–	1950–	1960–	1930–	1940–	1950–	1960–
	1931	1941	1951	1961	1931	1941	1951	1961
The Netherlands	2.65	2.20	1.89	1.84	31.3	48.2	48.4	30.6
Switzerland	2.18	2.06	1.79	1.77	36.4	51.8	47.9	35.0
Japan	2.40	2.01	2.02	1.80	51.8	47.5	48.4	37.2
Sweden	2.13	2.04	2.00	2.02	52.2	59.3	52.5	39.2
Finland	2.43	2.00	1.86	1.94	51.8	61.9	51.0	39.2
Denmark	2.36	2.23	1.90	1.89	56.3	65.0	60.0	40.2
Germany (West.)	2.16	1.94	1.69	1.59	43.0	57.0	55.5	41.5
Australia	3.08	2.75	2.33	2.11	51.3	60.6	57.9	43.4
Norway	2.51	2.43	2.09	2.09	46.1	61.3	60.3	43.6
Belgium	2.29	2.15	1.82	1.83	43.9	57.5	56.5	45.0
France	2.63	2.39	2.11	2.09	48.4	56.2	55.6	45.9
Spain	2.61	2.58	2.10	1.73	51.8	45.1
Italy	2.28	2.14	1.88	1.63	39.0	48.6	55.9	46.0
New Zealand	3.33	3.12	2.55	2.33	49.1	63.8	64.2	46.7
England and Wales	2.34	2.38	2.05	1.94	47.4	62.5	56.1	46.8
USA	3.20	2.68	2.01	2.02	59.9	71.2	59.8	52.6
Austria	2.35	2.05	1.84	1.67	44.1	60.1	62.0	53.3
Portugal	2.94	2.62	2.07	1.89	39.7	48.6	57.5	56.1
Greece	...	2.03	2.06	1.91	61.1	61.9
Federal Republic of Yugoslavia	2.48	2.37	2.26	2.25	...	62.5	64.0	62.6
Hungary	2.07	1.92	1.95	2.02	65.7	62.7	68.7	65.3
Russia	2.18	1.93	1.88	1.81	54.5	59.1	62.3	71.8
Slovakia	2.86	2.52	2.30	2.17	60.3	66.8	69.2	72.0
Germany (East)	2.21	1.97	1.80	1.80	...	68.1	70.0	74.0
Czech Republic	2.14	2.06	2.10	2.01	68.9	71.1	73.8	74.6
Romania	...	2.42	2.41	2.12	...	56.3	69.4	75.0
Bulgaria	2.09	2.08	2.04	1.90	69.2	73.4	77.9	81.0

Source: Recent demographic developments in Europe. 2000–2001. Council of Europe. Strasbourg; Frejka T., Calot G. Cohort reproductive patterns in low-fertility countries // *Population and Development Review*, Vol.27(1). 2001. P.103–132; Frejka T., Calot G. Cohort childbearing age patterns in low-fertility countries in the late 20th century: Is the postponement of births an inherent element? Paper presented at the IUSSP Seminar “International Perspectives on Low Fertility: Trends, Theories and Policies”. Tokyo, 21–23 March 2001. Also, calculations by author.

Note: * The countries are listed in ascending order based on contribution of mothers under age 26 to the completed fertility of the generation born in 1960–1961.

** Average number of children live born to a woman by age 50.

Table A13: Women in formal and informal unions according to 2002 Census, 1994 Microcensus, and Russian GGS (2004)

	Per 1,000 women at age:					
	18–19	20–24	25–29	30–34	35–39	40–44
<i>Microcensus, 1994</i>						
All "married"	237	565	751	799	797	771
Registered marriage	210	527	707	753	748	722
Unregistered marriage	27	38	44	46	49	49
Proportion of women in informal unions, %	11.4	6.7	5.9	5.8	6.1	6.4
<i>Census, 2002</i>						
All "married"	123	423	654	706	724	721
Registered marriage	83	343	561	623	657	663
Unregistered marriage	40	80	93	83	67	58
Proportion of women in informal unions, %	32.6	19.0	14.2	11.8	9.3	8.0
<i>GGG, 2004</i>						
All in partnership*	201	478	757	776	766	755
Marriage*	77	334	614	622	638	664
Cohabitation*	123	143	144	154	128	92
Proportion of women in informal unions, %	61.5	30,1	19,0	19,9	16,7	12,1

Source: Microcensus, 1994: (1995) *Состояние в браке и рождаемость в России (по данным микропереписи населения 1994 г.)*. State Commission on Statistics of Russia. Moscow; Census, 2002: (2004) *Итоги Всероссийской переписи населения 2002 г., Т.2 Возрастно-половой состав и состояние в браке*. Federal State Statistics Service. Moscow; GGS, 2004: Author's calculations.

Note: *Partners are living together in one household.

Table A14: Cumulative cohort fertility by specified ages per woman: Russia, female birth cohorts 1949–50, 1954–55, 1959–60, 1964–65, 1969–1986

Birth cohort	By age 20	By age 25	By age 30	By age 35	By age 40	By age 45	By age 50
1949–50	0.15	0.92	1.45	1.73	1.85	1.87	1.87
1954–55	0.17	0.95	1.49	1.81	1.88	1.89	1.90
1959–60	0.19	1.02	1.60	1.79	1.85	1.86	1.86*
1964–65	0.21	1.04	1.43	1.58	1.65	1.67*	
1969–70	0.26	0.94	1.27	1.47	1.57*		
1970–71	0.26	0.90	1.23	1.43			
1971–72	0.27	0.86	1.19				
1972–73	0.26	0.82	1.16				
1973–74	0.25	0.81	1.16				
1974–75	0.25	0.77	1.14				
1975–76	0.23	0.74	1.12				
1976–77	0.22	0.70					
1977–78	0.20	0.68					
1978–79	0.18	0.67					
1979–80	0.17	0.65					
1980–81	0.15	0.62					
1981–82	0.14						
1982–83	0.14						
1983–84	0.14						
1984–85	0.13						
1985–86	0.13						

Source: Author's estimates based on official birth registration statistics.

Note: **Preliminary estimate using data up to 2005.

Table A15: Age-specific birth rates and Total Fertility Rate, Russia: 1980, 1990–2006

Year	Age-specific birth rates (per 1,000 women)							TFR
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	
1980	43.7	157.8	100.8	52.1	17.4	4.9	0.4	1.89
1990	55.0	156.5	93.1	48.2	19.4	4.2	0.2	1.89
1991	54.2	145.9	82.7	41.5	16.5	3.7	0.2	1.73
1992	50.7	132.9	72.3	34.9	13.9	3.2	0.2	1.55
1993	47.3	119.1	63.7	28.8	11.0	2.5	0.2	1.37
1994	49.1	119.4	66.8	29.4	10.6	2.3	0.1	1.39
1995	44.8	112.7	66.5	29.5	10.6	2.2	0.1	1.34
1996	38.9	105.5	65.5	30.1	10.8	2.3	0.1	1.27
1997	35.8	98.0	64.8	31.2	10.8	2.2	0.1	1.22
1998	33.5	98.1	66.6	33.1	11.5	2.3	0.1	1.23
1999	28.9	91.8	63.7	32.2	11.1	2.2	0.1	1.16
2000	27.4	93.6	67.3	35.2	11.8	2.4	0.1	1.20
2001	27.3	93.1	70.2	38.0	12.9	2.4	0.1	1.22
2002	27.4	95.8	75.1	41.8	14.7	2.6	0.1	1.29
2003	27.6	95.1	78.3	44.1	16.0	2.7	0.1	1.32
2004	28.2	93.4	80.2	45.9	17.6	2.9	0.1	1.34
2005	27.5	86.8	77.9	45.5	17.8	3.0	0.2	1.29
2006	28.6	85.8	78.2	46.8	18.7	3.1	0.2	1.30

Source: (2006) The Demographic Yearbook of Russia. Federal State Statistics Service. Moscow.

Table A16: Contribution by age to TFR (%), Russia: 1980, 1990–2006

Year	Age groups					Total
	Under 20	20–24	25–29	30–34	35 and over	
1980	11.6	41.3	26.7	13.8	6.0	100.0
1990	14.6	41.6	24.7	12.8	6.3	100.0
1991	15.7	42.3	24.1	12.0	5.9	100.0
1992	16.4	43.1	23.6	11.3	5.6	100.0
1993	17.4	43.7	23.4	10.6	4.9	100.0
1994	17.7	43.0	24.0	10.6	4.7	100.0
1995	16.8	42.3	24.9	11.1	4.9	100.0
1996	15.4	41.7	25.8	11.9	5.2	100.0
1997	14.7	40.4	26.7	12.8	5.4	100.0
1998	13.7	40.0	27.2	13.5	5.6	100.0
1999	12.6	39.9	27.7	13.9	5.9	100.0
2000	11.5	39.3	28.3	14.8	6.1	100.0
2001	11.2	38.2	28.8	15.5	6.3	100.0
2002	10.6	37.2	29.2	16.2	6.8	100.0
2003	10.5	36.0	29.7	16.7	7.1	100.0
2004	10.5	34.8	29.9	17.1	7.7	100.0
2005	10.6	33.6	30.1	17.6	8.1	100.0
2006	10.9	32.8	30.0	17.9	8.4	100.0

Source: Author's calculations

Table A17: Mean age of men and women at registration of marriage (for those who married under 50 years of age), Russia: 1980–2004

Year	All marriages		First marriages	
	Men	Women	Men	Women
1980	26.3	24.3	24.3	22.4
1981	26.4	24.4	24.4	22.4
1982	26.4	24.4	24.3	22.4
1983	26.4	24.4	24.3	22.3
1984	26.4	24.4	24.1	22.2
1985	26.5	24.5	24.2	22.2
1986	26.9	24.8	24.3	22.3
1987	27.0	24.9	24.4	22.3
1988	26.9	24.8	24.3	22.2
1989	26.5	24.5	24.1	22.0
1990	26.2	24.1	24.0	21.9
1991	26.2	24.2	24.0	21.8
1992	26.3	24.2	23.9	21.7
1993	26.2	24.1	23.9	21.7
1994	26.4	24.4	24.0	21.8
1995	26.6	24.6	24.2	22.0
1996	26.9	24.8	24.4	22.2
1997	27.0	24.9	24.5	22.3
1998	27.1	25.0	24.7	22.3
1999	27.3	25.1	24.9	22.5
2000	27.6	25.4	25.1	22.6
2001	27.9	25.6	25.4	22.8
2002	28.2	25.8	25.7	23.0
2003	28.4	25.8	25.8	23.1
2004	28.7	26.1	26.1	23.3

Source: Author's calculations based on official statistics of marriages: before 1997 one-year-age marriage rates were used, since 1997 – rough estimates based on rates for –18, 18–24, 25–34, 35+ age groups (Since 1997 the Russian statistical agency uses only these unconventional age groups for tabulations).

Table A18: Mean age of women at birth by order, Russia: 1979–2006

Year	All births	1 st birth	2 nd birth	3 rd birth	4 th birth	5 th + birth
1979	25.79	23.03	27.41	30.14	32.02	35.61
1980	25.67	22.99	27.33	30.07	31.81	35.49
1985	25.78	22.92	27.13	30.04	31.53	34.56
1990	25.24	22.65	26.86	29.95	31.64	34.38
1995	24.79	22.67	26.91	29.85	31.55	34.29
2000*	25.76	23.54	27.88	30.88	32.48	34.57
2005*	26.56	24.12	28.94	31.62	33.01	34.96
2006*	26.64	24.21	29.08	31.71	33.13	34.99

Source: Author's calculations based on official birth registration statistics.

Note: *Estimates based on incomplete data are only for territories where local statistical agencies continue to tabulate data by single-age groups and birth order (for different years, tabulations cover from 63 to 75% of total births).

Table A19: Selected period total fertility indicators, Russia: 1979–2006

Year	Conventional period TFR by order of birth						Mean Birth Order	B-F adjusted PTFR
	PTFR_All	PTFR1	PTFR2	PTFR3	PTFR4	PTFR5+		
1979	1.868	0.966	0.634	0.149	0.051	0.068	1.764	...
1980	1.866	0.967	0.643	0.147	0.048	0.061	1.742	1.801
1985	2.051	0.964	0.758	0.214	0.060	0.055	1.801	2.090
1990	1.893	0.995	0.624	0.178	0.052	0.045	1.717	1.711
1995	1.337	0.802	0.387	0.098	0.029	0.021	1.580	1.625
2000*	1.195	0.701	0.358	0.092	0.026	0.018	1.593	1.509
2004*	1.340	0.769	0.420	0.105	0.029	0.018	1.602	1.561
2005*	1.287	0.737	0.405	0.100	0.028	0.017	1.601	...
2006*	1.296	0.746	0.407	0.100	0.027	0.016	1.592	...

Source: Author's calculations based on official birth registration statistics.

Note: * Estimates based on incomplete data are only for territories where local statistical agencies continue to tabulate data by single-age groups and birth order (for different years, tabulations cover from 63 to 75% of total births).

Table A20: Proportion of non-marital births: Russia, 1980, 1990, 1995–2006

Year	All ages,%	Per 100 mothers of each age group						
		15–19	20–24	25–29	30–34	35–39	40–44	45–49
1980	10.8	18.7	7.9	9.4	13.5	21.5	23.8	23.1
1990	14.6	20.2	11.0	11.8	17.3	25.5	34.8	36.5
1995	21.1	27.0	17.6	18.9	22.9	30.2	36.5	35.8
2000	28.0	41.0	25.6	24.7	26.4	31.2	34.9	36.8
2005	30.0	48.4	28.9	25.5	26.9	30.5	34.0	33.2
2006	29.2	47.2	28.2	24.6	26.4	29.9	34.2	34.1

Source: Author's calculations based on official statistics.

Table A21: Age-specific abortion rates per 1000 women of specified age group, and Total Abortion Rate per woman, Russia: 1991–2004

Year	15–19	20–34	35+	15–44	15–49	TAR	TAR†
1991	70	153	51	109	100	3.4	2.6
1992	68	149	44	103	95	3.2	2.4
1993	67	141	42	98	89	3.1	2.3
1994	64	135	37	92	82	2.9	2.2
1995	57	122	33	83	73	2.6	2.0
1996	51	120	30	80	69	2.5	1.9
1997	47	113	29	75	64	2.4	1.8
1998	43	106	27	70	60	2.2	1.7
1999	37	99	25	65	56	2.1	1.5
2000	36	98	24	64	54	2.0	1.5
2001	34	91	22	60	51	1.9	1.4
2002	33	87	21	58	49	1.8	1.3
2003	31	82	20	56	47	1.7	...
2004	30	79	20	54	46	1.6	...
2005	29	75	19	53	44	1.5	...
2006	29	66	18	48	40	1.4	...
2001/1991	0.49	0.60	0.44	0.55	0.51	0.55	0.54
2006/1991	0.41	0.43	0.35	0.44	0.40	0.41	...

Source: Author's calculations based on official statistics.

Note: TAR - Total Abortion Rate based on all abortions officially registered in the Russian Federation (including 'mini'-abortions by vacuum aspiration method performed up to 7th week of pregnancy, without hospitalization); TAR† - Total Abortion Rate, where 'mini'-abortions are excluded.