# Patterns of childbearing in Russia
# 1994 - 1998

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by

**Annette Kohlmann and Sergey Zuev[1]**

## Abstract

In this paper we analyze the determinants of births in Russia in the 1990s and the changes in their effects since the 1980s and factors influencing fertility intentions in the 1990s. In the first part, based on the current social and economic situation in Russia, specific hypotheses for different parities (realized and intended fertility) are developed and subsequently tested by using logistic regression methods. On the basis of the Russian Longitudinal Monitoring Survey (RLMS) we find that the social differentiation that took place in Russia in the 1990s resulted in an increasing importance of economic conditions for a first, second or third birth. The same applies to parity-specific intentions.

# 1. Introduction

Russia - like all Eastern Europe countries – has experienced tremendous political, social and demographic changes during the past decade. While the political and social changes were connected to the breakdown of the Soviet system in one way or another, demographic changes could be observed long before the period of change started at the end of the 1980s. Since the post-war period, there had been a slow decrease in Russian fertility: The total period fertility in Russia in 1950 was clearly above the natural reproduction level at 2.79, it then dropped to 2.52 in 1960, to 1.99 in 1970 and to 1.89 in 1980. In the 1980s, a temporary increase in the TFR took place (up to 2.05 in 1985) followed by a brief stabilization period (1990: 1.89). A strong drop then followed and resulted in a TFR of 1.34 in 1995 (Zakharov 1999:298) and 1.23 in 1997 (Kharkova/Andreev 2000: 212). The tremendous decline in fertility, especially between 1990 and 1995 (a 29% decline over 5 years or a 34.6% decline in the period between 1985 and 1995), led Russian demographers to call it a 'population crisis' or even a 'demographic catastrophe' (Zakharov 1999:293). Such language was not only a result of the decline in the TFR, but was also based on the fact that in 1991/92 the net reproduction rate in Russia fell below 1 (and has remained below this level up to now). The Russian population has a continuously negative natural growth rate like most of the Western European populations.

Analyses by Kharkova & Andreev based on the Russian Microcensus of 1994 revealed that the sharp decrease is especially a result of a drop in second births (50%) and, to a smaller extent, also a drop in third births (27%; Kharkova/Andreev 2000: 212). This reduction appears to be an effect of an intended restriction in family size since the mean age at first birth is low compared to other European countries (1993/1994: 22.4 years, Zakharov 1999: 306). In fact, the mean age for all birth orders *decreased* between 1979 and 1993/1994 except for a brief increase in 1986/1987, (Zakharov & Ivanova 1996: 49, 73) which is contrary to the trend in most Western countries. Therefore, one can assume that at least some sort of deliberate disruption of the childbearing process by women in their reproductive ages took place in the beginning of the 1990s, and this can not be interpreted as only a postponement effect.

The fertility decline can be explained by several competing, but not mutually exclusive arguments[2]. While the economic crisis at the beginning of the 1990s is assumed to have at least a postponing, if not reducing effect on fertility. Another explanation of the fertility development is to see it as an adjustment process in which Eastern European demographic behavior converges on the pattern observed in Western Europe. Similar to the latter approach, theorists of the second demographic transition assume that the adjustment relates not only to demographic behavior, but especially to non-economic aspects like values and attitudes. According to this argument, the decrease in fertility is a result of a modernization and secularization process that leads to individualized, and therefore less child-centered, attitudes and reduces fertility behavior. While the first mentioned approach sees fertility development in Russia during the past decade rather as a 'catastrophe', the latter two see it rather as a 'normalization' process.

A further Russia-specific argumentation results from an exclusively demographic phenomenon: In the beginning of the 1980s, pronatalist policy measures were introduced in the former Soviet Union. They consisted of a partly paid maternity leave (at first one year, later three years) as well as a housing policy that supported families with three and more children (Zakharov/Ivanova 1996:48). These pronatalist measures led to early childbearing and a shortening of birth intervals. Therefore, according to this argument it is assumed that the low fertility in Russia during the 1990s can be traced back, at least partially, to the increase and anticipation of fertility in the 1980s.

From literature (Kharkova & Andreev 2000; Kohler & Kohler 1999; Vishnevsky 1996; Zakharov 1999; Zakharov & Ivanova 1996) it seems that all of these arguments have some empirical basis. Therefore, we do not try to test each of these hypotheses in this paper, but aim more modestly at specifying in some detail the determinants of specific parities in current Russia. We analyze (i) the determinants of births in the 1990s and the changes in their effects since the 1980s and (ii) factors influencing fertility intentions in the 1990s. Based on the Russian Longitudinal Monitoring Survey (RLMS) we analyze in detail the probability of giving a first,

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[2] For a general overview of arguments (and literature) concerning the explanation of the drop in fertility in Central and Eastern European Countries since the end of the 1980s see Kohler & Kohler 1999:2f.

second or third birth for the respondents using logistic regression models. A second part of our analysis focuses on the intention to have a first, second or third birth. Our examination concentrates on the approach mentioned above, namely that the changed socioeconomic framework of fertility decisions might play an important role in the drop in fertility. This implies that we investigate the effects of purely demographic factors as well as of economic and psychological variables.

S. Zakharov has suggested to the authors (in private discussions) that childbearing in Soviet Russia (prior to 1990) was characterized by the following features[3]:

- The first birth was a very specific event. It depended only on age and was practically not influenced by any other characteristics.
- The second birth was a deliberate decision and therefore was determined by factors internal and external to a family.
- The third birth was a very rare event about which no specific assumptions can be made a priori.

The changes in the social welfare system during and after the breakdown of the Soviet system is well documented (Lokshin 1999; Lokshin et al. 2000; Standing 1996). In Soviet times, social policy was connected to employment. Social differentiation according to wages was very low. Due to the universal employment of almost every Soviet citizen (men and women equally), access to childcare services as well as social benefits (maternal and infant health care, child allowances) were secure. During the 1990s, the introduction of a market economy with liberalized prices was accompanied by a breakdown of the social welfare system. There was an (undocumented) increase in unemployment, extremely low wages (especially for state employees) mostly below the subsistence minimum, discontinued subsidizing of prices and a reduction in enterprise-based social benefits. All of this led to increased inequality and mass impoverishment. The fact that unemployed persons did not

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[3] One has to keep in mind that analyses of fertility in the Soviet period exclusively concentrated on descriptive work. DaVanzo (1996:xiii) points to the fact that "Russian researchers were discouraged from studying behavioral and social causes of demographic phenomena" which explains the focus on description and measurement in past Russian demographic research. Therefore, we can rely only on rather crude information on determinants of births in the past Soviet system.

automatically receive unemployment benefits (less than 13% of the unemployed persons in Russia were eligible for it in 1994; Standing 1996:237) shows that the situation of the Russian population in the 1990s was very insecure.

On this background, some hypotheses can be developed with regard to possible changes in fertility determinants. In general, we assume that the same arguments apply to realized births as well as to the intention to give birth.

We make the following hypotheses:

H1:     *The first birth should be determined only by the age of the respondents.*

The social changes described above should imply that fertility decisions are met with great caution. Since giving birth to a child is irreversible and since the conditions for raising children are very insecure, having a child is very risky. Nevertheless there is (still) a strong disapproval of deliberate childlessness in Russia (Vishnevsky 1996:9). Since social norms normally evolve rather slowly, we do not expect that the pattern of having at least one birth in a family will change so easily. Therefore, we assume that the first birth is only a matter of time in the population under consideration. This supposition is supported by the fact that the reduction in fertility did not affect all parities equally, but concentrated on the second and third births (see above).

H2:     *The second birth should depend on demographic as well as economic and psychological variables.*

Due to the social stratification which has taken place in Russia after the transition to a market economy in the 1990s, the birth of a second child should have become – more than ever before – a product of (subjectively rational) choice.[4]

H2 can be differentiated as follows:

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[4] Admittedly, it has to be kept in mind that the use of contraceptives in Russia is somehow restricted because they are expensive. There is also limited accessibility to contraceptives (Popov 1996:95).

*H2a:   Married persons should have a higher probability of (intention of) giving birth than non-married persons.*

This assumption relates to several arguments: On the one hand, we assume that married persons have better economic resources since both partners may have an income. Married persons also have a higher probability of having regular sexual intercourse than single, divorced or widowed persons and therefore should have a higher propensity to give birth. A third argument for H2a is that a strong norm against extramarital births prevails in Russia. The number of extramarital births has increased during the past years (Lokshin, Harris & Popkin 2000:2185), nevertheless this can be interpreted as a consequence of couples splitting up rather than a deliberate decision of women towards being single with a child.

*H2b:   The higher a person's subjective well-being is, the higher their probability of (intention of) giving birth should be.*

In order to analyze economic determinants of (the intention to give) births, we concentrate on the subjectively perceived economic situation. The reason for this is that due to inflation and to the inaccurate information on income because of the widely spread 'informal economy' (Standing 1996: 238), analyses based on wages are biased.
Nevertheless, we assume that persons with more resources should be better able to afford the expenses of an additional (second) child than persons who perceive themselves as poor.

*H2c:   The more insecure the (economic) future is, the lower the probability of (intention of) giving birth should be.*

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Nevertheless, Russia is still characterized by a "stable abortion culture" (Popov 1996:84, see also Stloukal 1999), which means that people can control the risk of giving birth.

This hypothesis is based on the assumption that individuals are risk-averse, i.e. the more risky they perceive the consequences of certain actions, the more they will try to choose other actions with lower risks.[5]

*H2d:  The higher the psychological well-being of individuals, the higher the probability of (intention of) giving birth .*

This hypothesis relates to a current general satisfaction that includes all aspects of life and does not refer only to economic or social aspects. We assume that the greater this satisfaction, the better the conditions for coping with additional burdens on the one hand, but also the better the conditions in order to experience additional joy from children.

The last two hypotheses deal with aspects of opportunity costs. These include effects of participation in the labor force as well as features of human capital.

*H2e:  The higher one's education, the lower the probability of (intention of) giving birth.*

*H2f:  Employed women[6] should have a lower probability of (intention of) giving birth than non-employed women.*

Both hypotheses should be particularly important for Russian women, who experienced massive changes on the labor market during the past years. Even if there is a low official unemployment level in Russia (Standing 1996:235), the results of giving up employment are – even in the case of very low incomes – disastrous for families. There is only one situation in which withdrawal from the labor market does

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[5] This assumption is not self-evident: There could also be the possibility that individuals try to reduce their uncertainty by having children (Friedman, Hechter & Kanazawa 1994). This relates especially to the uncertainty within the partnership. In the Russian case, uncertainty concerning economic aspects in life should prevail and therefore we assume that a tendency towards avoiding risks dominates.
[6] Our empirical analysis is based exclusively on the female sample of the RLMS. This has two reasons: (i) The used data set covers information on childbearing only for women and (ii) it can be assumed that for women fertility decisions have more visible and more important consequences than for men.

not lead to (further) impoverishment of the family: this is the case if the employer does not pay salaries on a regular basis and therefore no loss of income results.[7]

As we stated above, determinants of (the intention of) giving birth to a third child were not clear in the former Soviet Union. Therefore, we can only suppose that this should be a very rare event, and due to the deterioration of social and economic conditions it should occur even less often than in Soviet times. We assume that the above mentioned effects of determinants of second birth also play a role with regard to third birth. In fact, the (perceived) economic situation should be even more important for decisions and attitudes on third-order childbearing.

## 2. Data

Our empirical analyses are based on the Russian Longitudinal Monitoring Survey (RLMS) conducted by the Russian State Statistical Bureau, the Russian National Scientific Research Center of Preventive Medicine, the University of North Carolina at Chapel Hill, USA, and the Institute of Sociology, Russian Academy of Science. It was funded by the World Bank, the Agency for International Development, the National Science Foundation, and the National Institutes of Health. The RLMS is a household-based survey aimed at measuring the effects of Russian reforms on the economic well-being of households and individuals. It contains eight rounds, each taken in a separate year.

Our first intention was to analyze fertility dynamics over the years 1992 – 1998. To this end we chose data from rounds 2, 5, 7, and 8, corresponding approximately to the years 1992, 1994, 1996, and 1998. It turned out that the separate samples were very small and that there was no remarkable difference in age-specific fertility schedules. Therefore, we combined the data from rounds 5, 6, 7 and 8 into one sample. We have excluded the data of round 2 from consideration since the

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[7] In further empirical analyses (not displayed here), effects of the duration of unpaid work were included. Due to a high number of missing cases for this variable, the number of cases in the overall analyses dropped radically and the results turned out to be biased. Therefore, we excluded this variable from our analyses and we do not even take it into consideration in formulating the hypotheses.

questionnaire in this round differs from the questionnaires of rounds 5 – 8. For the same reasons we also did not take into consideration rounds 1, 3 and 4.

The combined sample corresponds to the years 1994 to 1998 (see Table 2.1) and contains information about 8415 female respondents aged between 15 and 40 years.

**Table 2.1: Interview periods and number of respondents**

| Round | Started | Finished | Number of respondents | |
| | | | In the first year | In the second year |
|---|---|---|---|---|
| 5 | 11.1994 | 01.1995 | 2133 | 95 |
| 6 | 10.1995 | 12.1995 | 2091 | 0 |
| 7 | 10.1996 | 12.1996 | 2050 | 0 |
| 8 | 10.1998 | 01.1999 | 2039 | 7 |

**Total number of respondents** 8415

To confirm that the obtained sample really represents childbearing in Russia, we compared fertility in age groups as presented in the annual Russian report on population statistics (see Figure 2.1).

**Figure 2.1: The contribution of the various age groups to total fertility (%):
↘ - calculated from our sample. Data from the seventh annual**



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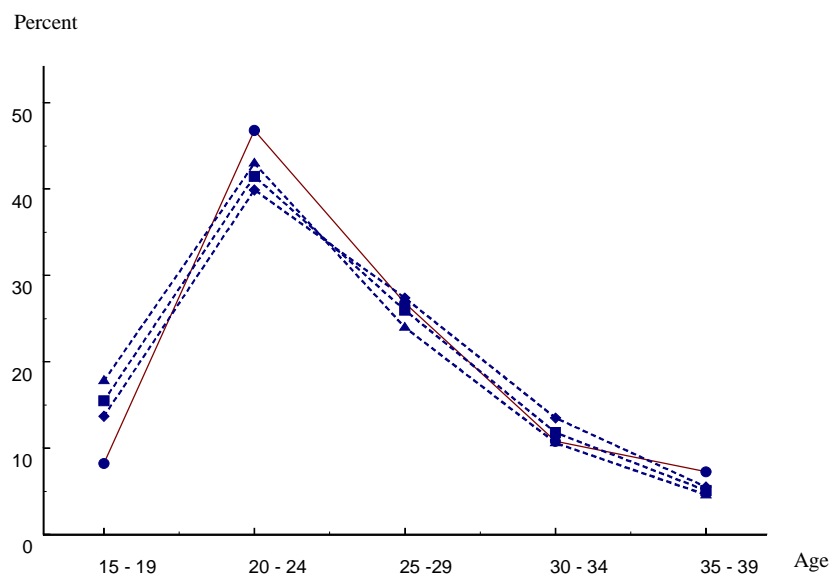
The dependent variables in our analyses are "birth in the last 12 months" and "intention to give birth". The first variable is coded 0 or 1 according to the respondent's answer to the question: *Have you given birth in the last 12 months?* The second variable is based on the respondent's answer to the question: *Do you want to have (another) baby?* The analyses are restricted to female respondents. Descriptive statistics for these variables are given in Tables 2.2 and 2.3.

**Table 2.2: Number of respondents who had given birth in the last 12 months**

| Birth in last 12 months | | Number of respondents | Percent |
|---|---|---|---|
| **First birth** | No | 2677 | 91.09 |
| | Yes | 262 | 8.91 |
| **Second birth** | No | 2297 | 95.11 |
| | Yes | 118 | 4.89 |
| **Third birth** | No | 2005 | 98.82 |
| | Yes | 24 | 1.18 |

**Table 2.3: The number of respondents who intended to have another child**

| Intention to give birth | | Number of respondents | Percent |
|---|---|---|---|
| **First birth** | No | 1062 | 42.13 |
| | Yes | 1459 | 57.87 |
| **Second birth** | No | 1217 | 55.52 |
| | Yes | 975 | 44.48 |
| **Third birth** | No | 1770 | 90.72 |
| | Yes | 181 | 9.28 |

For both dependent variables, we carried out separate logistic regressions (as described in Section 3 below) for first, second and third births (parities 0, 1, and 2). In accordance with the hypotheses in Section 1, we consider the influence of the following factors on the dependent variables.

1. **Ag** is the respondent's age group, given as

Ag=1 for 15 – 20 years,
Ag=2 for 21 – 25 years,
Ag=3 for 26 – 30 years,
Ag=4 for 31 – 35 years,
Ag=5 for 36 – 40 years.

2. **Concnd** indicates the respondent's answer to the question *How concerned are you about the possibility that you might not be able to provide yourself with the bare essentials in the next 12 months?*

Concnd=1 if a respondent is very concerned,
Concnd=2 : a little concerned,
Concnd=3 : both yes or no,
Concnd=4 : not too concerned,
Concnd=5 : not at all concerned,
Concnd=7 : does not know,
Concnd=8 : refuses to answer.

3. **EcnRk** is the respondent's assessment of the economical status of her family on a scale with nine levels with 1 corresponding to perceiving the family as being very poor and 9 corresponding to perceiving the family as being very rich.

EconRk=97: does not know,
EconRk=98: refuses to answer.

4. **Educ** describes the educational level of the respondent:

Educ=1 corresponds to professional courses, schools at factories (PTU, FZU) but no secondary education,
Educ=2: PTU with secondary education or technical trade school,
Educ=3: technical, medical, music, pedagogical, art school,
Educ=4: institute, university, academy and higher certificates.

5. **StLif** indicates the respondent's answer to the question *To what extent are you satisfied with your life in general at the present time?*

StLif=1 if a respondent is not at all satisfied,
StLif=2: less than satisfied,
StLif=3: both yes or no,
StLif=4: rather satisfied,
StLif=5: fully satisfied,
StLif=7: does not know,
StLif=8: refuses to answer.

6. **Work** relates to the labour force participation of the respondent.

> Work=1 if a respondent works,
> Work=2 if a respondent is on maternity leave, on leave in order to take care of a child under 3 years old or if she is on any other paid or unpaid leave,
> Work=3 if a respondent does not work,
> Work=7: does not know,
> Work=8: refuses to answer.

7. **Marsta**[8] describes the marital status of the respondent

> Marsta=1 if the respondent has never been married,
> Marsta=2 if the respondent is married,
> Marsta=3 if the respondent is divorced and not remarried,
> Marsta=4 if the respondent is a widow(er).

The distributions for all respondents across factor levels are shown in Table 2.4.

It should be noted that due to data limitations, we are not able to test all the hypotheses for actual fertility behaviour (birth in the last 12 months). The state of a respondent at the interview may differ from the state before the birth of a child. Therefore, we consider in this analysis only four independent variables that should be rather robust to changes: age, education, work, and marital status.

In the case of labour force participation (work), changes might have occurred as a result of the birth of a child. In this case, we can control for changes: If a respondent did not work before giving birth to a child, then she will hardly start to work after that event. On the other hand, if a respondent has worked before giving birth and stopped work after the event, then she belongs to the category Work=2 (see above). Thus, we can compare the probabilities of giving birth for employed and unemployed women.

The marital status of the respondent might also have changed because of the birth of a child. Since there is no information available on marital history, we can not (really) control for that. It is obvious that women who are single after giving birth to a child have also been single before that birth because of the definition of category 1 in this variable. In all other cases the order of events is not clear. We assume that this (causality) problem arises especially for first births but to a lesser extent for second and third births.

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[8] For the variable Marsta no categories for non-response were given..

**Table 2.4 Distribution of the independent variables across factor levels**

| Variable | Level | Number | Percent | Cumulative percent |
|---|---|---|---|---|
| | 1 | 1850 | 21.98 | 21.98 |
| | 2 | 1655 | 19.67 | 41.65 |
| **Age** | 3 | 1520 | 18.06 | 59.71 |
| | 4 | 1557 | 18.5 | 78.22 |
| | 5 | 1833 | 21.78 | 100 |
| | Missing | 0 | 0 | 0 |
| | 1 | 4818 | 57.25 | 57.25 |
| **Level of** | 2 | 1769 | 21.02 | 78.28 |
| **Concern** | 3 | 660 | 7.84 | 86.12 |
| | 4 | 636 | 7.56 | 93.68 |
| | 5 | 294 | 3.49 | 97.17 |
| | Missing | 238 | 2.83 | 100 |
| | 1 | 765 | 9.09 | 9.09 |
| | 2 | 1143 | 13.58 | 22.67 |
| | 3 | 1826 | 21.7 | 44.37 |
| | 4 | 1887 | 22.42 | 66.8 |
| | 5 | 1835 | 21.81 | 88.6 |
| **Economic rank** | 6 | 456 | 5.42 | 94.02 |
| | 7 | 161 | 1.91 | 95.94 |
| | 8 | 33 | 0.39 | 96.33 |
| | 9 | 8 | 0.1 | 96.42 |
| | Missing | 301 | 3.58 | 100 |
| | 1 | 996 | 11.84 | 11.84 |
| | 2 | 1242 | 14.76 | 26.6 |
| **Education** | 3 | 2108 | 25.05 | 51.65 |
| | 4 | 1282 | 15.23 | 66.88 |
| | Missing | 2787 | 33.12 | 100 |
| | 1 | 2338 | 27.78 | 27.78 |
| | 2 | 5006 | 59.49 | 87.27 |
| **Marital status** | 3 | 658 | 7.82 | 95.09 |
| | 4 | 92 | 1.09 | 96.19 |
| | Missing | 321 | 3.81 | 100 |
| | 1 | 2148 | 25.53 | 25.53 |
| | 2 | 2951 | 35.07 | 60.59 |
| **Satisfaction with** | 3 | 1939 | 23.04 | 83.64 |
| **Life** | 4 | 913 | 10.85 | 94.49 |
| | 5 | 257 | 3.05 | 97.54 |
| | Missing | 207 | 2.46 | 100 |
| | 1 | 4274 | 50.79 | 50.79 |
| **Work** | 2 | 676 | 8.03 | 58.82 |
| | 3 | 3305 | 39.28 | 98.1 |
| | Missing | 160 | 1.9 | 100 |

These problems do not apply for the analysis of the intention to give birth. Therefore we use all independent variables, including the subjective assessment of the situation of the respondent.

## 3. Method

For both analyses we use a logistic regression model, i.e. for a (0,1) random variable $Y$,

$$\ln(odds) = \beta_0 + \sum \beta_k X_k,$$

where

$$odds = \frac{\Pr(Y = 1)}{1 - \Pr(Y = 1)},$$

and $X_k$, $k = 1, 2, ..., N$, are dummy variables indicating the various levels our basic factors defined above.

In order to use this model, we created new variables according to the following rule. Let $Z$ be a variable from the above list of independent variables, and let this variable take values $J = 1, 2, \ldots, L$. For each level $J=1, 2,...,L$ we created a binary variable:

$$ZJ = \begin{cases} 1 \ if \ Z = J, \\ 0 \ if \ Z \neq J. \end{cases}$$

For example, for the variable Ag we have five new binary variables Ag1, Ag2, …, Ag5, where K=1,2,…5, AgK=1 if the respondent's age belongs to age group K (Ag=K), otherwise AgK=0.

Note that this procedure replaces missing values by 0. For instance, if the respondent's educational level is not defined in the sample, then Educ1=Educ2=Educ3=Educ4=0. This means that the educational level is unknown.

We could exclude such cases from our analysis. However, as a result we would obtain a very small sample for our analysis.

To keep as many cases as possible in our sample, we created one more level for each variable. Let variable $Z$ take values $J=1, 2, \ldots, L$. If the value of $Z$ is unknown, we define it as $L+1$. For example, according to this heuristic we now have five binary variables for the variable Educ: Educ1, Educ2, ..., Educ5, where Educ5=1 if the respondent's educational level is not recorded, otherwise Educ5=0. Therefore, we created a *superfluous* variable for each factor except factor Age. Its value is always known.

We present the results of calculations in an odds ratio form with respect to the odds corresponding to the first level of each variable (baseline level). If there are no data for this level, as occurs for Ag1 in the analysis of third birth, then the next level is chosen as a baseline level, i.e. Ag2 in this example. Besides this, if odds ratios or coefficients for some levels of a variable are absent in a figure or in a table, it means that the corresponding sub-sample is not sufficient for the calculation of their effects.

## 4. Probability of birth

The results of our data processing are given in Tables 4.1 to 4.3 and in Figures 4.1 to 4.3. The tables present the values of the logistic model coefficients, significance levels, and confidence intervals. The figures present the respective odds ratio.

In H1 we hypothesized that first birth in Russia solely depends on the age of the respective woman. This assumption can clearly be rejected. The probability of first births is largest for ages 21 to 25 (significance level 6%) and smallest for ages 36 to 40 (significance level 10%), but other effects are also significant, as we will describe below.

It appears that already the probability of a first birth also depends on variables representing human capital. Women with a high education (university level) and women who are (currently) not working have a higher probability of having experienced a first birth during the past year than women with a lower education (significance level 5%) and women who are (still) working (significance level 1%).

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The educational effect might be caused by a postponement of fertility by women with a higher education. Similar results have appeared for other countries indicating that an institutional effect is operating (a longer stay in educational institutions leads to later transition into parenthood, see the discussions for Germany in Blossfeld & Huinink 1989 and Blossfeld, Huinink & Rohwer 1991). Moreover, the effect of female labour force participation on first birth is a clear result of the ongoing social differentiation processes in Russia. While in Soviet times nearly 90% of working-age women were active on the labour market (Lokshin 1999:1) and therefore no specific pattern of effects of female labour force participation on fertility could arise, the increasing number of women who were unemployed during our period of observation leads to a differentiation in fertility decisions. With respect to this effect, the reduction in the availability and the increased costs of childcare facilities might be critical.

The marital status of the respondents also influences the probability of occurrences of a first birth as expected. Married women have a higher probability of giving birth to a first child than any other women. As we argued in Section 1, there might be several reasons for this relationship including economic, demographic and normative aspects. Nevertheless, from these data, it is not clear whether the occurrence of a pregnancy led to marriage or whether the women intended to give birth only within a marriage. Therefore, we rephrased our conclusion: never married women have a lower probability of giving birth to a first child.

The same problem also arose for the subjective measures of economic and psychological well-being. Therefore, they were dropped in the analysis of actual fertility behaviour.

With regard to second birth, we assumed that its occurrence should depend on a number of demographic, economic and psychological variables. It turned out, that – considering the omission of variables on subjective expectations – only labour force participation has a significant effect on the occurrence of a second birth. Women who were currently not working had a significantly higher probability of having given

birth to a second child in the preceding 12 months than women who were working. These effects seem to be persistent for all parities, even third births.[9]

It appears that Russian women who are not gainfully employed invest instead in giving birth to additional children. On first sight this contradicts the observation gained from a general description about the economic situation of families in Russia: One could assume that in order to save themselves from impoverishment women would somehow try to combine labour force participation with childcare. In any case, we are not able to control for economic background characteristics in this analysis. It might be that women who do not participate in the labour market possess enough economic resources – due to the income of their partners – to leave the labour market and still provide a financial basis for having children.

**Figure 4.1: Odds ratio for the probability of giving birth for different age groups**
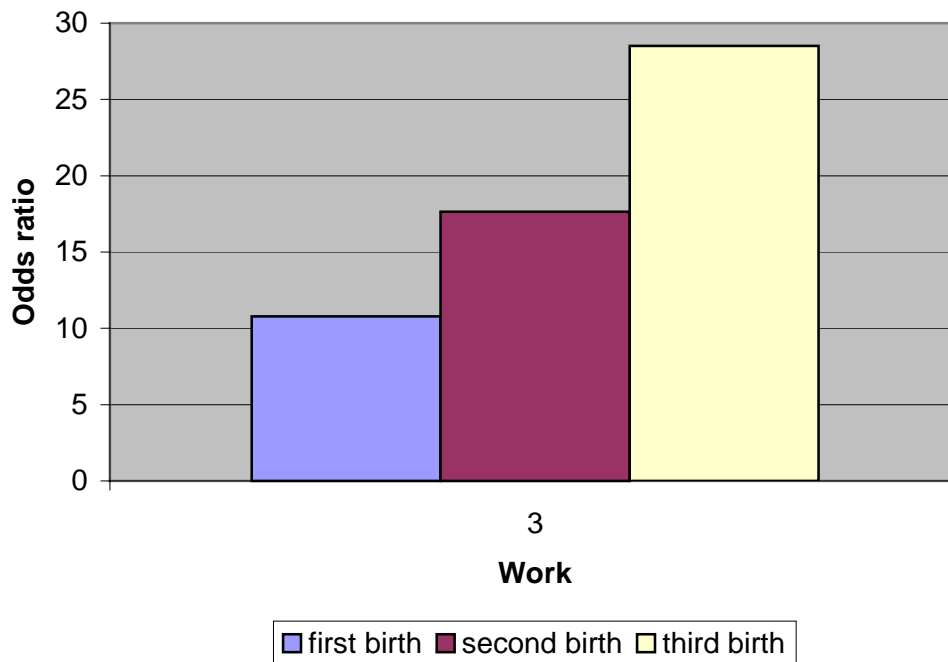


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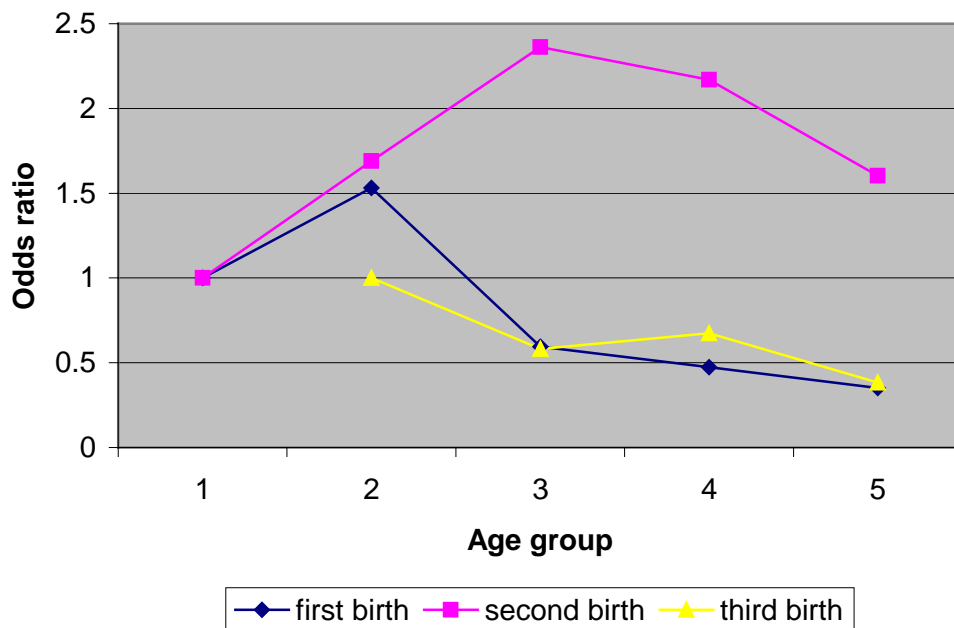
[9] It should be kept in mind that the number of respondents that have experienced birth of a third child is extremely low, so interpretations should be done carefully.

**Figure 4.2: Odds ratio for the probability of giving birth for different education levels**
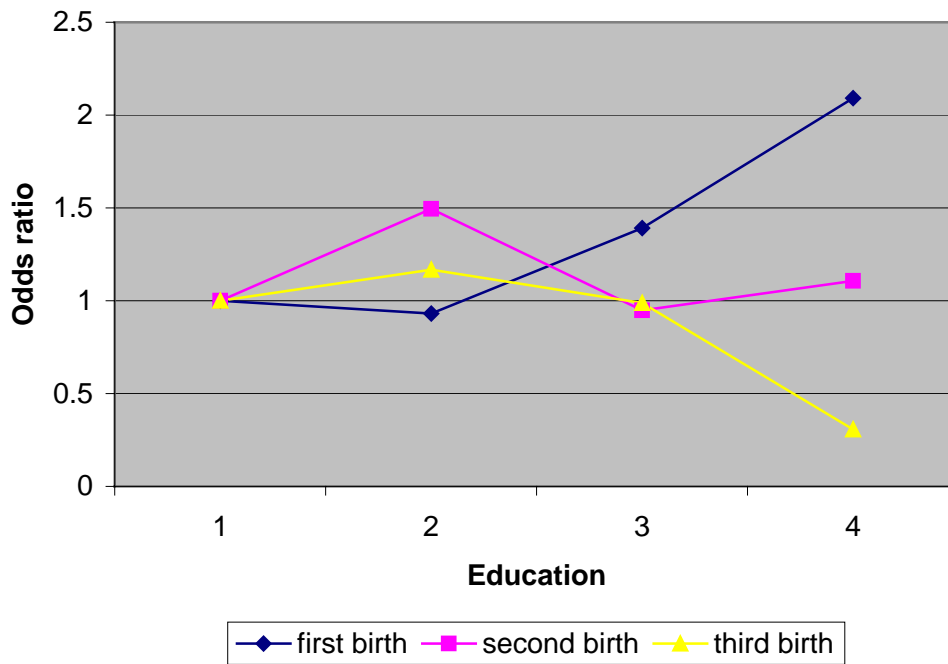


**Figure 4.3: Odds ratio for the probability of giving birth for unemployed respondents**

**Table 4.1: Probability of giving birth to a first child (logistic regression coefficients)[10]**

| Variable | Coefficient | Standard Error | Significance Level | 95% Confidence Interval | |
|---|---|---|---|---|---|
| **Ag2** | 0.4265 | 0.2289 | 0.0620 | -0.0222 | 0.8752 |
| **Ag3** | -0.5184 | 0.3525 | 0.1410 | -1.2094 | 0.1726 |
| **Ag4** | -0.7448 | 0.5540 | 0.1790 | -1.8306 | 0.3410 |
| **Ag5** | -1.0475 | 0.6052 | 0.0830 | -2.2336 | 0.1386 |
| **Educ2** | -0.0706 | 0.3788 | 0.8520 | -0.8129 | 0.6718 |
| **Educ3** | 0.3306 | 0.3302 | 0.3170 | -0.3166 | 0.9779 |
| **Educ4** | 0.7378 | 0.3727 | 0.0480 | 0.0073 | 1.4683 |
| *Educ5* | 0.2859 | 0.3141 | 0.3630 | -0.3297 | 0.9015 |
| **MarSta2** | 3.0763 | 0.2328 | 0.0000 | 2.6201 | 3.5325 |
| **MarSta3** | 0.9998 | 0.7212 | 0.1660 | -0.4137 | 2.4133 |
| **Work2** | 5.2571 | 0.3634 | 0.0000 | 4.5449 | 5.9693 |
| **Work3** | 2.3771 | 0.3167 | 0.0000 | 1.7563 | 2.9979 |
| **Constant** | -6.7630 | 0.4681 | 0.0000 | -7.6805 | -5.8455 |

**Table 4.2: Probability of giving birth to a second child (logistic regression coefficients)**

| Variable | Coefficient | Standard Error | Significance Level | 95% Confidence Interval | |
|---|---|---|---|---|---|
| **Ag2** | 0.5248 | 0.6438 | 0.4150 | -0.7370 | 1.7866 |
| **Ag3** | 0.8596 | 0.6530 | 0.1880 | -0.4202 | 2.1394 |
| **Ag4** | 0.7744 | 0.6710 | 0.2480 | -0.5407 | 2.0895 |
| **Ag5** | 0.4725 | 0.7523 | 0.5300 | -1.0020 | 1.9470 |
| **Educ2** | 0.4020 | 0.3855 | 0.2970 | -0.3537 | 1.1576 |
| **Educ3** | -0.0540 | 0.3753 | 0.8860 | -0.7896 | 0.6816 |
| **Educ4** | 0.1009 | 0.4092 | 0.8050 | -0.7010 | 0.9029 |
| *Educ5* | 0.4285 | 0.3856 | 0.2660 | -0.3273 | 1.1842 |
| **MarSta2** | 0.8346 | 0.5483 | 0.1280 | -0.2401 | 1.9094 |
| **MarSta3** | -0.7942 | 0.7994 | 0.3210 | -2.3611 | 0.7727 |
| **Work2** | 4.4308 | 0.4748 | 0.0000 | 3.5002 | 5.3615 |
| **Work3** | 2.8706 | 0.4846 | 0.0000 | 1.9208 | 3.8204 |
| **Constant** | -7.1068 | 0.9919 | 0.0000 | -9.0508 | -5.1628 |

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[10] From now on, all parameters of *superfluous* variables (see Section 3) are marked by Italics.

**Table 4.3: Probability of giving birth to a third child (logistic regression coefficients)**

| Variable | Coefficient | Standard Error | Significance Level | 95% Confidence Interval | |
|---|---|---|---|---|---|
| Ag3 | -0.5408 | 0.6456 | 0.4020 | -1.8061 | 0.7246 |
| Ag4 | -0.3930 | 0.6309 | 0.5330 | -1.6295 | 0.8435 |
| Ag5 | -0.9576 | 0.7270 | 0.1880 | -2.3825 | 0.4674 |
| | | | | | |
| Educ2 | 0.1553 | 0.7830 | 0.8430 | -1.3794 | 1.6901 |
| Educ3 | -0.0127 | 0.7464 | 0.9860 | -1.4756 | 1.4502 |
| Educ4 | -1.1830 | 1.1741 | 0.3140 | -3.4842 | 1.1183 |
| *Educ5* | 0.9097 | 0.6863 | 0.1850 | -0.4355 | 2.2549 |
| | | | | | |
| Work2 | 4.3650 | 1.0706 | 0.0000 | 2.2666 | 6.4633 |
| Work3 | 3.3500 | 1.0511 | 0.0010 | 1.2899 | 5.4101 |
| | | | | | |
| Constant | -6.7155 | 1.2787 | 0.0000 | -9.2217 | -4.2092 |

## 5. Intention to give birth

The results of the analyses of determinants of intentions on giving birth to (another) child are given in Tables 5.1 to 5.3 and in Figures 5.1 to 5.7. Again, the tables present the values of the logistic model coefficients, confidence levels, and confidence intervals; the figures present the respective odds ratios. In contrast to the results documented in Section 4, the following analyses also take into consideration (current) subjective expectations of the respondents towards the future.

Again, with respect to a *first birth*, we get significant effects not only for the age of the respondent, but also for a number of other determinants. Women between 21 and 30 years have a significantly higher probability (1% level) of intending to give birth to a first child than younger women, while women in the oldest age cohort (36 to 40 years) have a significantly lower probability (5% level).

Moreover, it turns out that the intention to give first birth is lower the higher the self-ranking of the respondents on an economic well-being scale. Taking the respondents who consider themselves as poorest as a reference group, respondents in the next four categories have a somewhat similar but lower probability of intended

first birth (not significant). Persons in a middle position on this economic scale show significantly lower intentions of giving birth to a first child (5% and 10% level). These effects are much stronger than those on the lower economic levels. Persons who consider the economic situation of their family as rather good, do not show a consistent pattern of intentions towards a first birth (not significant).

These results clearly show that there is no simple linear relationship between the subjective assessment of the economic situation of the family and the probability of intending a first birth. Instead, we observe a U-curve that is similar to other European countries, in which especially poor persons and well-situated persons intend to have (more) children rather than persons in a middle-range economic situation.

By contrast, another subjective measure reveals a straightforward pattern: The higher the general satisfaction of the respondent with her life, the higher the probability of intending the birth of a first child. These results are all significant (1% or 5% level). It appears that satisfaction with general life circumstances leads to an improved ability to cope with problems connected to childbirth and childrearing, or at least a more positive view of the respondents on their ability to achieve it.

Just as in the analyses of realized first births, married women show a significantly higher probability of intending to have a first child than other women (1% level). This might indicate that in fact, the birth of children in Russia is still intended to happen in a 'well-ordered' context.

Variables relating to human capital and opportunity costs of the respondents do not play a significant role in the dependent variable. Indeed, there are slightly reducing effects of education and of being unemployed, but these are not significant. With respect to expectations of the respondents about their future ability to cope with economic constraints (Concnd), no clear picture evolves: The effects are very low and are altogether not significant.

Regarding the intention to have a *second child*, some similarities with intention to have a first child arise. Again, the age of the respondent has some impact on the dependent variable: Women aged from 21 to 25 years show a significantly higher probability (5% level) and women from 36 to 40 years have a significantly lower probability (1 % level) of intended birth of a second child. Another similarity is that again the higher the general satisfaction with life, the higher the probability of

intending to have a second child (significant on 1% or 5% level). A further parallel is that marital status does have an impact on the dependent variable. Married women as well as divorced (and not remarried) women show a significantly higher probability of wanting a second child than single women (1% level and 10% level). The effect for divorced women could be interpreted as their intention to enter a new partnership which might be consolidated by investing in marriage-specific capital, i.e. a further child that is born in a new steady relationship (Becker, Landes & Michael 1977).

Apart from these similarities, some differences occur. The intention of giving birth to a second child is again influenced by the subjective economic ranking of the respondents. However, it turns out that the higher the subjective economic ranking, the higher the intention to give birth to a second child (significant at 5% level). The (subjectively experienced) increase in economic resources in fact leads to stronger intentions to have a second birth. Another distinct feature is that – as in the analyses on the realization of births – labour force participation of women reduces the intention of giving birth to a second child: Women who are not working have a higher probability of an intended second child than women who are working.

The intention of giving birth to a *third child* also depends on age, general satisfaction with life and labour force participation. The economic rank of the family as well as the marital status of women are no longer important. While the latter is easily understandable (according to literature, most of the births in Russia occur within wedlock and therefore higher parities should also be born within a marriage), the former is quite interesting. It seems that parents do not consider their economic situation when intending a third birth (which should be a strong economic burden). Anyhow, intentions do not consequently lead to respective fertility behaviour and we can assume that the realization of that intention depends very much on the actual economic resources of the family. Unfortunately, we were not able to control for this in the analysis of the birth of a third child (see Section 4).

Regarding the age of the respondents, a monotonic effect emerges: The higher the age of a woman, the lower the probability of wanting another (third) child (significant at 5% and 1%). Again, as in the other analyses on intentions of giving birth to a further child, we also observe a monotonically increasing significant effect (10% and 5% level) of general satisfaction with life. Obviously, this relates

exclusively to the three highest levels of the satisfaction variable. It can be assumed that psychological well-being has to be on a very high level in order to lead the respondent to the intention of a third birth. Again, not being in the labour force strengthens the intention to give birth to a third child. The same effects of this variable for both dependent variables (intention to give birth to a second and to a third child) imply that non-working women may have a strategy of investing in their childbearing career rather than in their working career. Anyhow, we are not able to control whether this exclusion from the labour market is deliberate or if it is forced due to unfavourable labour market conditions.

**Figure 5.1: Odds ratio for the probability of intending to give birth for different age groups**



23
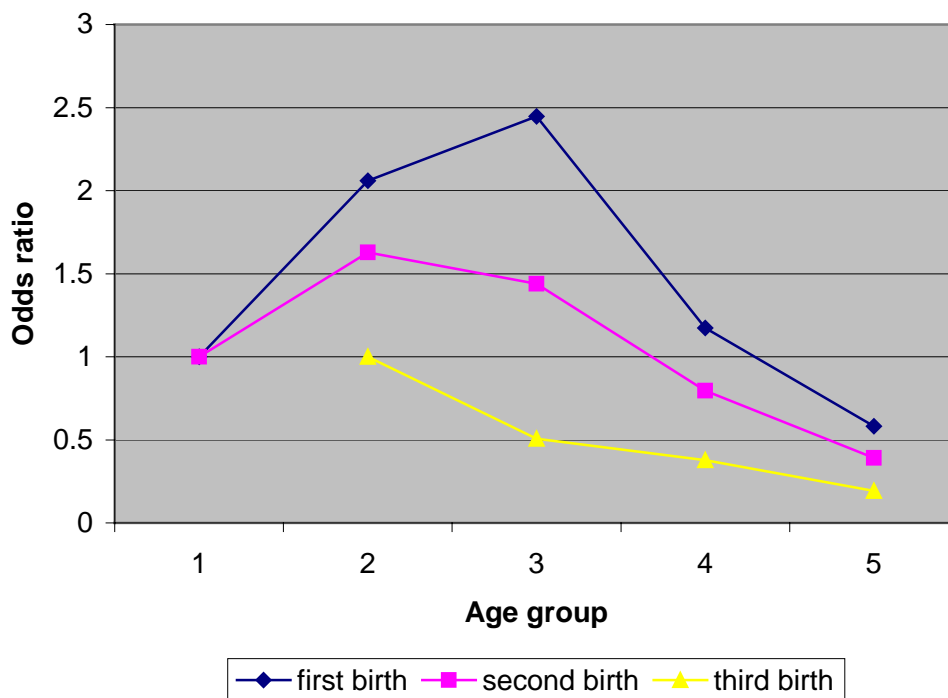
**Figure 5.2: Odds ratio for the probability of intending to give birth for unemployed respondents**
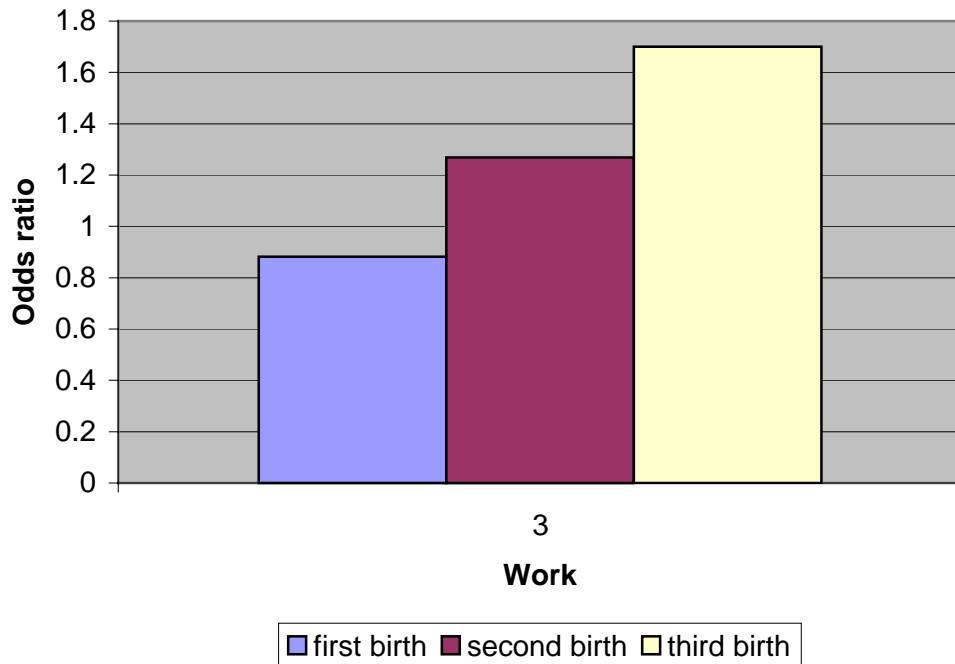


**Figure 5.3: Odds ratio for the probability of intending to give birth for different economical ranks**
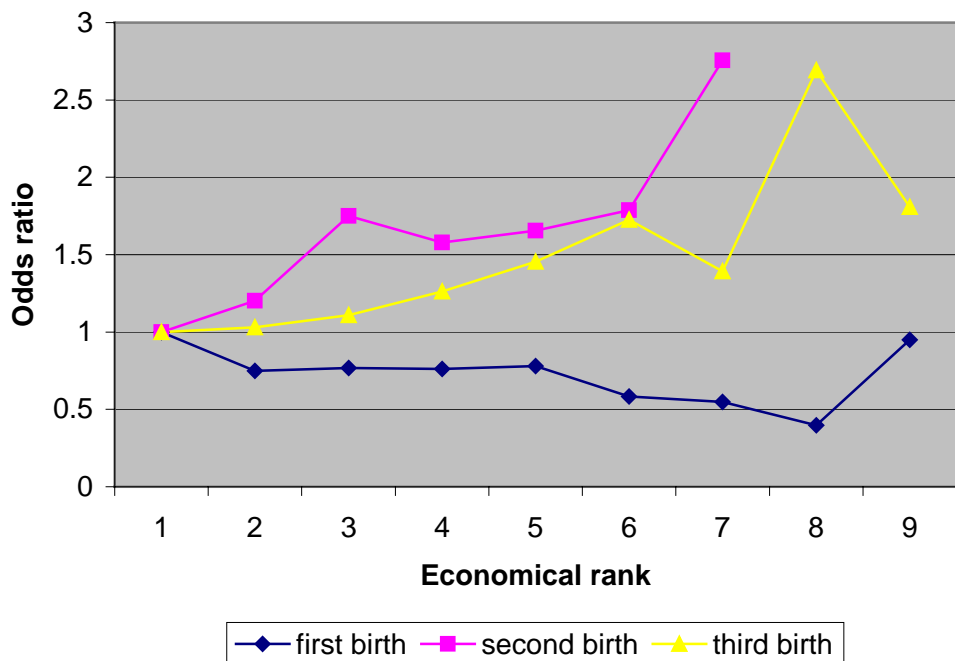
**Figure 5.4:** **Odds ratio for the probability of intending to give birth for different levels of satisfaction with life**
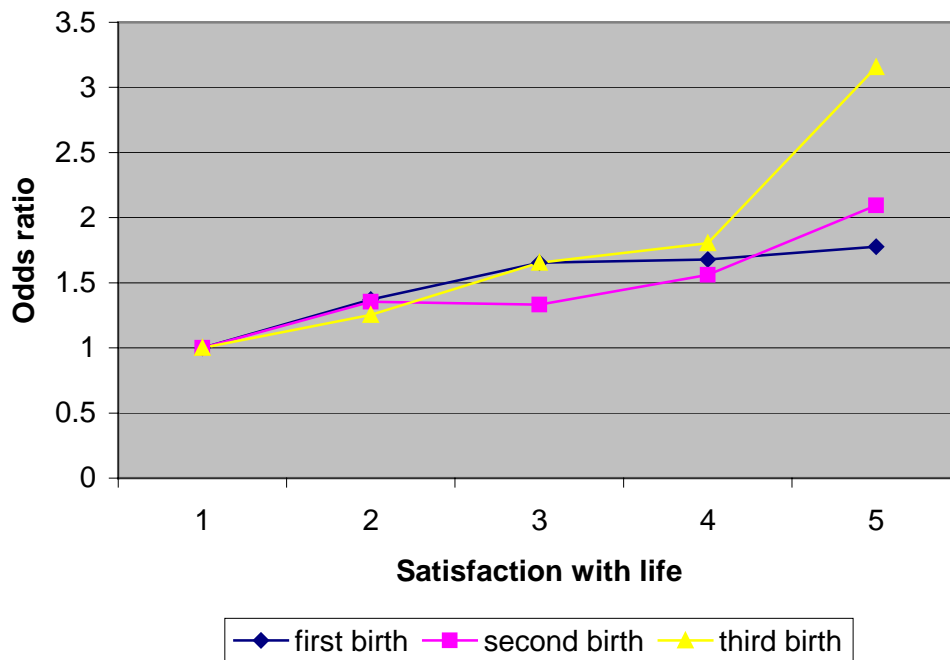


**Figure 5.5:** **Odds ratio for the probability of intending to give birth by different marital status**
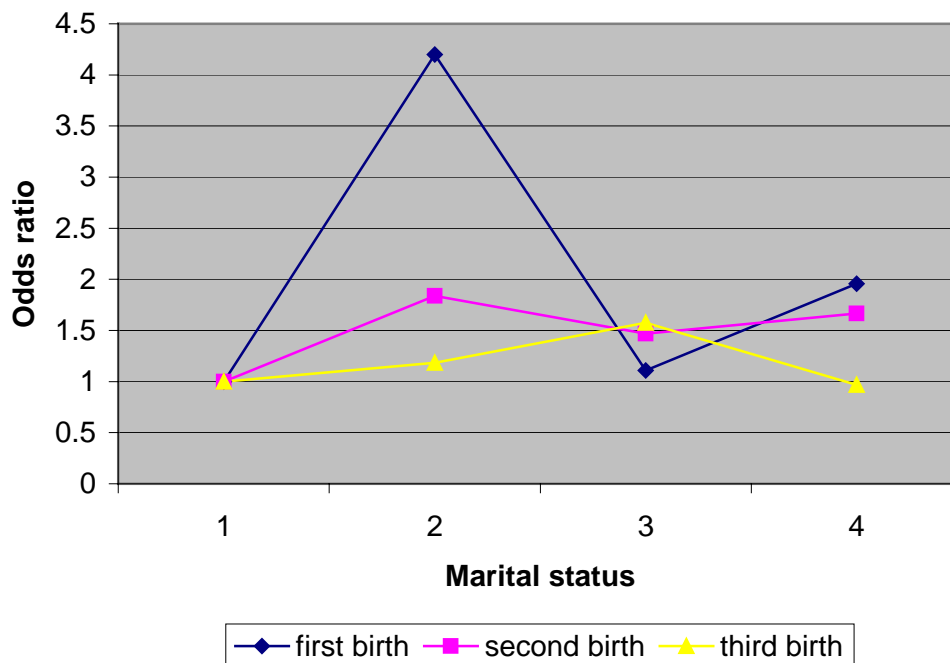
**Table 5.1:** Probability of intending to give birth to a first child (logistic regression coefficients)

| Variable | Coefficient | Standard Error | Significance Level | 95% Confidence Interval | |
|---|---|---|---|---|---|
| **Ag2** | 0.7224 | 0.1265 | 0.0000 | 0.4746 | 0.9703 |
| **Ag3** | 0.8948 | 0.2034 | 0.0000 | 0.4962 | 1.2933 |
| **Ag4** | 0.1606 | 0.2425 | 0.5080 | -0.3147 | 0.6359 |
| **Ag5** | -0.5408 | 0.2666 | 0.0420 | -1.0632 | -0.0183 |
| **EcnRk2** | -0.2893 | 0.2028 | 0.1540 | -0.6867 | 0.1081 |
| **EcnRk3** | -0.2655 | 0.1860 | 0.1530 | -0.6299 | 0.0990 |
| **EcnRk4** | -0.2717 | 0.1856 | 0.1430 | -0.6355 | 0.0922 |
| **EcnRk5** | -0.2490 | 0.1859 | 0.1800 | -0.6132 | 0.1153 |
| **EcnRk6** | -0.5403 | 0.2462 | 0.0280 | -1.0229 | -0.0577 |
| **EcnRk7** | -0.6015 | 0.3371 | 0.0740 | -1.2623 | 0.0592 |
| **EcnRk8** | -0.9227 | 0.8200 | 0.2600 | -2.5298 | 0.6844 |
| **EcnRk9** | -0.0524 | 1.2774 | 0.9670 | -2.5561 | 2.4513 |
| *EcnRk10* | -0.5515 | 0.3287 | 0.0930 | -1.1956 | 0.0927 |
| **Educ2** | 0.0050 | 0.2171 | 0.9820 | -0.4204 | 0.4304 |
| **Educ3** | -0.0552 | 0.1974 | 0.7800 | -0.4420 | 0.3316 |
| **Educ4** | -0.0371 | 0.2347 | 0.8740 | -0.4972 | 0.4229 |
| *Educ5* | -0.3244 | 0.1771 | 0.0670 | -0.6715 | 0.0227 |
| **StLif2** | 0.3156 | 0.1328 | 0.0170 | 0.0554 | 0.5759 |
| **StLif3** | 0.5029 | 0.1448 | 0.0010 | 0.2191 | 0.7867 |
| **StLif4** | 0.5187 | 0.1752 | 0.0030 | 0.1753 | 0.8622 |
| **StLif5** | 0.5750 | 0.2446 | 0.0190 | 0.0956 | 1.0545 |
| *StLif6* | 0.4783 | 0.5081 | 0.3460 | -0.5175 | 1.4742 |
| **Concnd2** | 0.1114 | 0.1170 | 0.3410 | -0.1180 | 0.3408 |
| **Concnd3** | -0.0023 | 0.1569 | 0.9890 | -0.3097 | 0.3052 |
| **Concnd4** | 0.1898 | 0.1616 | 0.2400 | -0.1269 | 0.5065 |
| **Concnd5** | -0.1524 | 0.2162 | 0.4810 | -0.5761 | 0.2713 |
| *Concnd6* | -0.2954 | 0.3579 | 0.4090 | -0.9969 | 0.4060 |
| **MarSta2** | 1.4348 | 0.1525 | 0.0000 | 1.1358 | 1.7338 |
| **MarSta3** | 0.1031 | 0.2890 | 0.7210 | -0.4632 | 0.6695 |
| **MarSta4** | 0.6718 | 1.1893 | 0.5720 | -1.6591 | 3.0027 |
| **Work2** | -0.6855 | 0.4970 | 0.1680 | -1.6596 | 0.2886 |
| **Work3** | -0.1259 | 0.1263 | 0.3190 | -0.3735 | 0.1217 |
| *Work4* | -1.5728 | 1.0996 | 0.1530 | -3.7280 | 0.5823 |
| **Constant** | 0.0472 | 0.2475 | 0.8490 | -0.4378 | 0.5323 |

**Table 5.2:** **Probability of intending to give birth to a second child (logistic regression coefficients)**

| Variable | Coefficient | Standard Error | Significance Level | 95% Confidence Interval | |
|---|---|---|---|---|---|
| **Ag2** | 0.4874 | 0.2485 | 0.0500 | 0.0005 | 0.9744 |
| **Ag3** | 0.3647 | 0.2545 | 0.1520 | -0.1342 | 0.8636 |
| **Ag4** | -0.2294 | 0.2619 | 0.3810 | -0.7428 | 0.2840 |
| **Ag5** | -0.9404 | 0.2749 | 0.0010 | -1.4792 | -0.4016 |
| **EcnRk2** | 0.1843 | 0.2054 | 0.3690 | -0.2183 | 0.5870 |
| **EcnRk3** | 0.5599 | 0.1925 | 0.0040 | 0.1827 | 0.9372 |
| **EcnRk4** | 0.4565 | 0.1990 | 0.0220 | 0.0666 | 0.8465 |
| **EcnRk5** | 0.5034 | 0.2022 | 0.0130 | 0.1071 | 0.8996 |
| **EcnRk6** | 0.5810 | 0.2639 | 0.0280 | 0.0637 | 1.0982 |
| **EcnRk7** | 1.0138 | 0.4113 | 0.0140 | 0.2077 | 1.8200 |
| ***EcnRk10*** | -0.5778 | 0.4955 | 0.2440 | -1.5490 | 0.3934 |
| **Educ2** | 0.1784 | 0.1729 | 0.3020 | -0.1604 | 0.5173 |
| **Educ3** | 0.0677 | 0.1564 | 0.6650 | -0.2388 | 0.3742 |
| **Educ4** | 0.0354 | 0.1716 | 0.8360 | -0.3009 | 0.3717 |
| ***Educ5*** | -0.0976 | 0.1765 | 0.5800 | -0.4435 | 0.2482 |
| **StLif2** | 0.3032 | 0.1232 | 0.0140 | 0.0618 | 0.5447 |
| **StLif3** | 0.2875 | 0.1421 | 0.0430 | 0.0090 | 0.5659 |
| **StLif4** | 0.4455 | 0.1859 | 0.0170 | 0.0811 | 0.8099 |
| **StLif5** | 0.7392 | 0.3351 | 0.0270 | 0.0825 | 1.3959 |
| ***StLif6*** | 0.7679 | 0.5766 | 0.1830 | -0.3621 | 1.8980 |
| **Concnd2** | -0.0478 | 0.1220 | 0.6950 | -0.2868 | 0.1913 |
| **Concnd3** | 0.1654 | 0.1825 | 0.3650 | -0.1923 | 0.5231 |
| **Concnd4** | 0.1554 | 0.1958 | 0.4270 | -0.2284 | 0.5391 |
| **Concnd5** | -0.0441 | 0.2732 | 0.8720 | -0.5796 | 0.4915 |
| ***Concnd6*** | 0.1633 | 0.9786 | 0.8670 | -1.7548 | 2.0814 |
| **MarSta2** | 0.6087 | 0.1966 | 0.0020 | 0.2234 | 0.9940 |
| **MarSta3** | 0.3841 | 0.2244 | 0.0870 | -0.0556 | 0.8239 |
| **MarSta4** | 0.5112 | 0.4176 | 0.2210 | -0.3073 | 1.3297 |
| **Work2** | 0.1070 | 0.1509 | 0.4780 | -0.1887 | 0.4027 |
| **Work3** | 0.2375 | 0.1119 | 0.0340 | 0.0182 | 0.4567 |
| **Constant** | -1.5922 | 0.3589 | 0.0000 | -2.2956 | -0.8889 |

**Table 5.3:** **Probability of intending to give birth to a third child (logistic regresion coefficients)**

| Variable | Coefficient | Standard Error | Significance Level | 95% Confidence Interval | |
|---|---|---|---|---|---|
| Ag3 | -0.6808 | 0.3118 | 0.0290 | -1.2918 | -0.0697 |
| Ag4 | -0.9761 | 0.3113 | 0.0020 | -1.5862 | -0.3660 |
| Ag5 | -1.6477 | 0.3269 | 0.0000 | -2.2885 | -1.0069 |
| | | | | | |
| EcnRk2 | 0.0297 | 0.3891 | 0.9390 | -0.7330 | 0.7923 |
| EcnRk3 | 0.1040 | 0.3568 | 0.7710 | -0.5954 | 0.8034 |
| EcnRk4 | 0.2333 | 0.3563 | 0.5130 | -0.4650 | 0.9316 |
| EcnRk5 | 0.3740 | 0.3594 | 0.2980 | -0.3304 | 1.0785 |
| EcnRk6 | 0.5456 | 0.4497 | 0.2250 | -0.3358 | 1.4270 |
| EcnRk7 | 0.3308 | 0.6055 | 0.5850 | -0.8561 | 1.5176 |
| EcnRk8 | 0.9902 | 0.8680 | 0.2540 | -0.7111 | 2.6915 |
| EcnRk9 | 0.5924 | 1.2912 | 0.6460 | -1.9382 | 3.1230 |
| *EcnRk10* | -0.3419 | 1.0929 | 0.7540 | -2.4839 | 1.8001 |
| | | | | | |
| Educ2 | 0.1308 | 0.3020 | 0.6650 | -0.4610 | 0.7227 |
| Educ3 | 0.2415 | 0.2744 | 0.3790 | -0.2964 | 0.7793 |
| Educ4 | 0.3545 | 0.3002 | 0.2380 | -0.2338 | 0.9428 |
| *Educ5* | 0.3105 | 0.2894 | 0.2830 | -0.2567 | 0.8778 |
| | | | | | |
| StLif2 | 0.2259 | 0.2288 | 0.3240 | -0.2226 | 0.6744 |
| StLif3 | 0.5039 | 0.2654 | 0.0580 | -0.0163 | 1.0241 |
| StLif4 | 0.5905 | 0.3285 | 0.0720 | -0.0533 | 1.2343 |
| StLif5 | 1.1494 | 0.5070 | 0.0230 | 0.1558 | 2.1430 |
| *StLif6* | 0.6769 | 1.1348 | 0.5510 | -1.5473 | 2.9012 |
| | | | | | |
| Concnd2 | 0.0417 | 0.2185 | 0.8490 | -0.3865 | 0.4699 |
| Concnd3 | 0.3614 | 0.3135 | 0.2490 | -0.2530 | 0.9758 |
| Concnd4 | -0.0955 | 0.3639 | 0.7930 | -0.8087 | 0.6178 |
| Concnd5 | -1.3788 | 0.7928 | 0.0820 | -2.9327 | 0.1752 |
| | | | | | |
| MarSta2 | 0.1693 | 0.7800 | 0.8280 | -1.3595 | 1.6981 |
| MarSta3 | 0.4536 | 0.8257 | 0.5830 | -1.1648 | 2.0720 |
| MarSta4 | -0.0319 | 1.0787 | 0.9760 | -2.1460 | 2.0822 |
| | | | | | |
| Work2 | -0.1752 | 0.2917 | 0.5480 | -0.7468 | 0.3965 |
| Work3 | 0.5309 | 0.1841 | 0.0040 | 0.1701 | 0.8918 |
| | | | | | |
| Constant | -2.2523 | 0.8915 | 0.0120 | -3.9997 | -0.5050 |

## 6. Conclusions

Our analyses have revealed some similarities and also some differences between the results for our two dependent variables[11].

In both analyses, first birth (realized and intended) is determined in the same way by the age of the respondents. Women at the beginning of their 20s have the highest probability of experiencing and intending a first childbirth, while women in the oldest age group (36 to 40 years) have the lowest probability. Another common feature is that being married seems to be important for childbearing as well as for attitudes concerning it. Things are different with regard to labour force participation: While the probability of a first birth increases if the respondent is unemployed, the intention is not dependent on that variable. According to these results, it seems that the labour force participation of women operates as an intervening restriction in the realization of intentions of first birth in Russia. Similarly, a high education has an effect on the realization of first births but not on the respective intention. This result matches the assumption that there are no basic differences in preferences for the birth of a first child according to the educational level of the respondents in Russia. The only differentiation occurs with the realization of these (general) intentions: Higher educated women move into parenthood later because of their longer stay in educational institutions than less educated women. Moreover, the intention to have a first child is reduced if the respondent ranks her family on a medium economic level and increases with enlarging general satisfaction with life. Since we were not able to analyze the effects of those variables on the realization of the birth of a first child, one can only speculate whether economic and psychological well-being of the respondents is important for the realization of birth intention.

With regard to the assumption in Hypothesis 1 (Section 1) the 'old' pattern of the exclusive dependence of first birth on the age of woman has changed: Economic aspects have especially gained importance for the transition to motherhood. Presumably, this is a result of the changed social and economic living conditions in Russia.

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[11] Since different sets of factors were used in the analyses of the two dependent variables, comparisons are problematic. Therefore, with regard to the following interpretation it should be kept in mind that

Regarding second birth, clear differences occur between factors that influence intentions and their realization: While the birth of a child is determined exclusively by the labour force participation of the mother, the intention is also determined by demographic, economic and psychological determinants. Therefore, Hypothesis 2 is confirmed only with respect to birth intentions. The hypotheses concerning second birth reported in Section 1 have some empirical correspondence for this dependent variable: Being married, unemployed, better off economically, and being satisfied with life leads to a higher probability of intending a second birth.

Regarding third birth, a similar observation can be made: While the realization of third birth depends only on the labour force participation of the mother, a higher probability of this event is additionally a result of the increasing age of the mother and of a greater satisfaction with life. In any case, the realization of this intention is an extremely rare event in our sample (see Table 2.2).

In general, from these analyses we conclude that at least the intention of giving birth to an (additional) child in Russia at the current time is a result of (more or less rational) considerations about the consequences of childbirth. We assume that this can be traced back to the changed social and economic conditions.

It is important to note that 2/3 of the respondents in our sample consider themselves to be below the middle level on a economic rank scale and only 14% of the women are satisfied with their life (Table 2.4). Taking into account the above mentioned effects (especially on childbearing intentions), it is not surprising that under these conditions fertility in Russia has declined so extremely in the recent past.

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there might be hidden effects of subjective variables that could not be captured in the analysis of realized births.

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