

# Новейшие тенденции рождаемости в России в свете существующих демографических теорий



NATIONAL RESEARCH  
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INSTITUTE OF  
DEMOGRAPHY

**Сергей В. Захаров**  
**Институт демографии**  
**НИУ ВШЭ**

**[szakharov@hse.ru](mailto:szakharov@hse.ru)**

Международный семинар  
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объяснению»  
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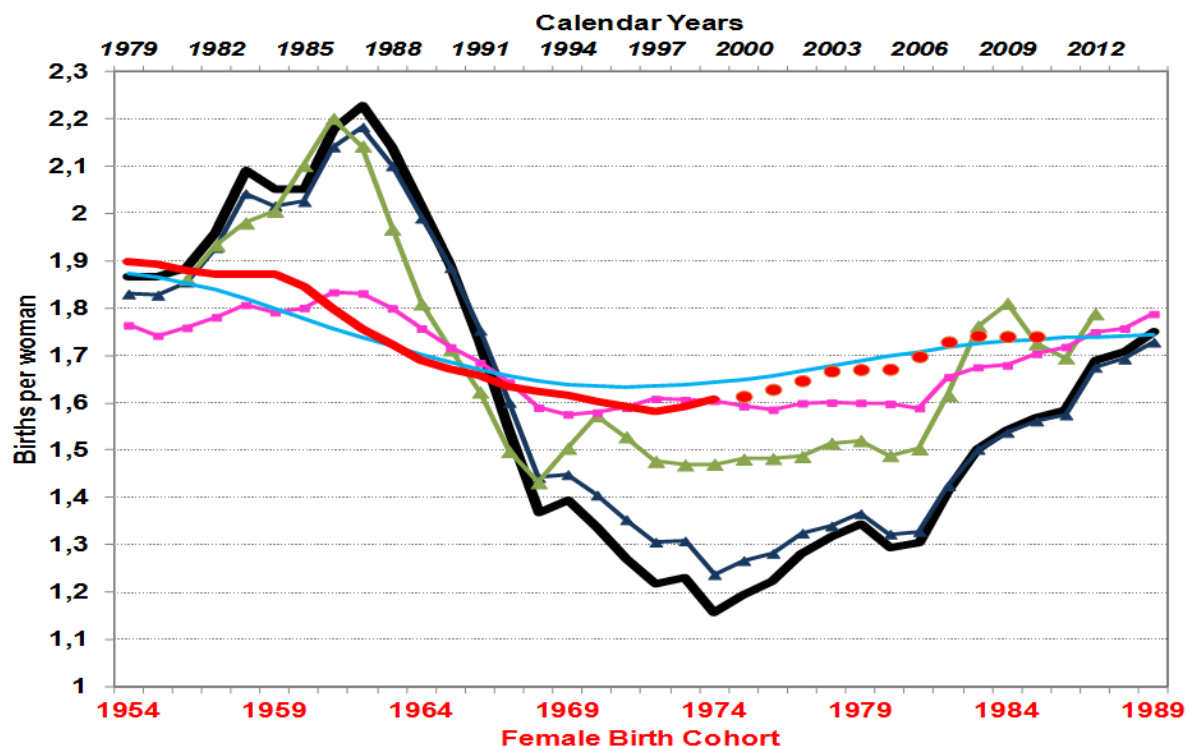
**Повышается ли рождаемость  
в России?**

**СМОТРИМ В ИСТОРИКО-  
СТАТИСТИЧЕСКИЙ  
МИКРОСКОП**

# Indicators of Period and Cohort Total fertility

(average number of births to a woman by age 50):

Russia, female birth cohorts 1954-1985 (extrapolation with fixed ASFR as of 2014), period 1979-2014

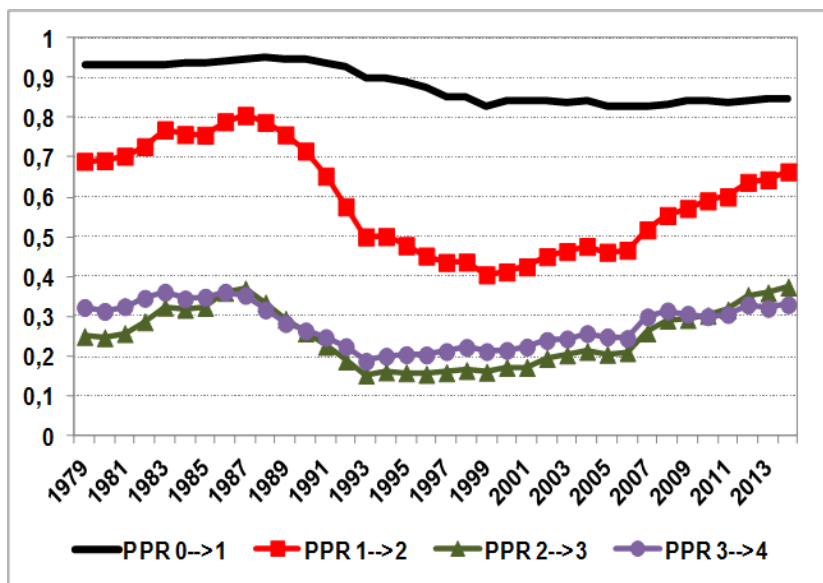


- PTFR (обычный КСР для календарных лет)
- ▲ Parity-adjPTFR (табличный КСР, т.е. с учетом числа уже рожденных детей)
- ▲ Age-adjPTFR (КСР, скорректированный B-F method)
- Mean Birth Order (COP, веса - коэффициенты рождаемости по очередности)
- Coh\_StPTFR (КСР, стандартизованный с помощью CTFR\_act и CTFR\_exp)
- CTFR\_act (итоговая рождаемость поколений, факт)
- CTFR\_exp (итоговая рождаемость поколений, ожид с учетом данных 2014 г.)

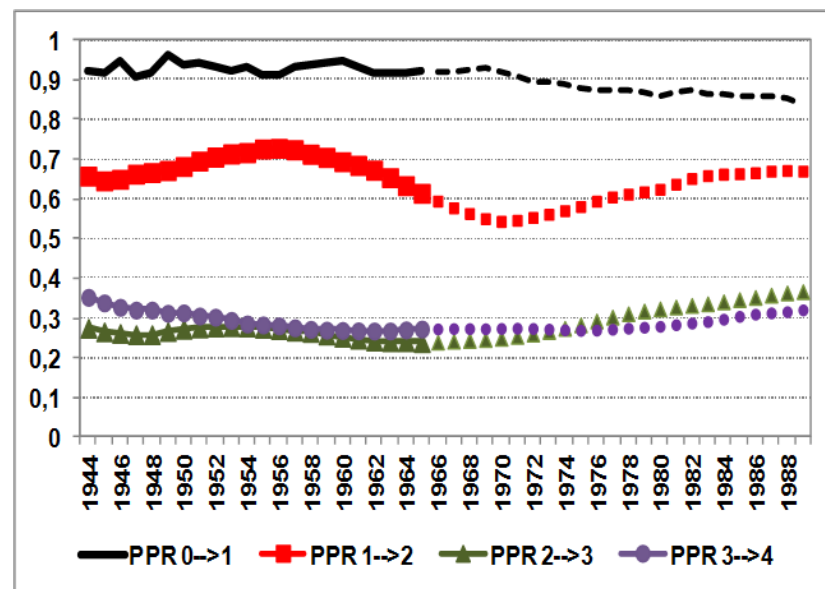
Source: Author's calculations and estimates based on unpublished official Rosstat data

# Parity Progression Ratios by age 50: Russia, period 1979-2014, female birth cohorts 1944-1989 (projections for cohorts born in 1966 and later)

Period



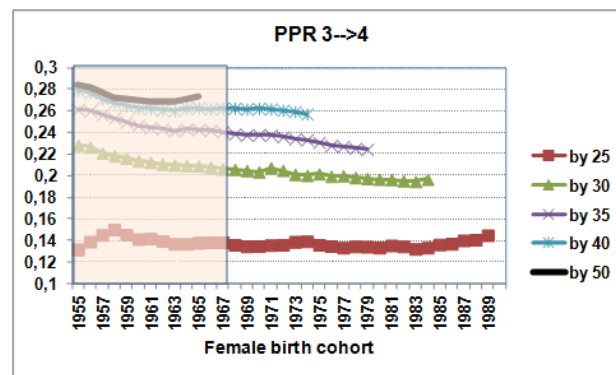
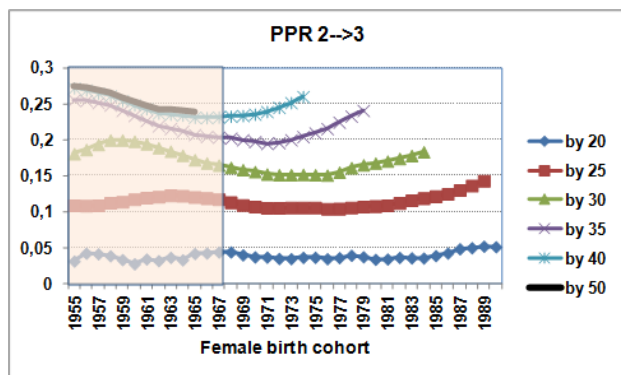
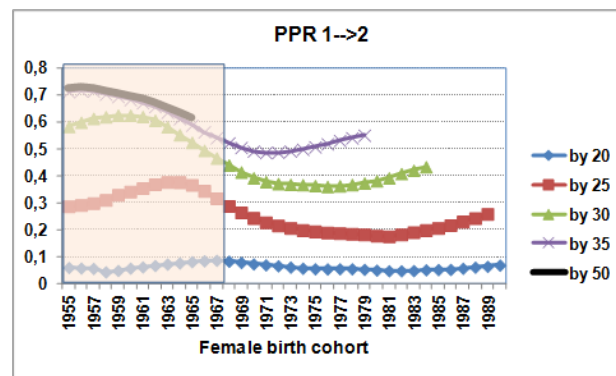
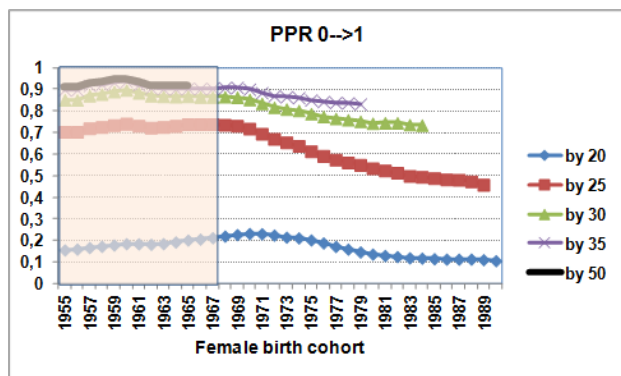
Cohort



\* Экстраполяция для когорт после 1971 г.р.: сплайн-функции 4-6 порядка для средних темпов изменений  $Q_i(x)$ , фактически наблюдаемых в 2012-2014 гг. Коэффициенты детерминации регрессионных уравнений ( $R^2$ ) превышают 95% для вероятностей первых рождений и 99% для вторых и последующих рождений.

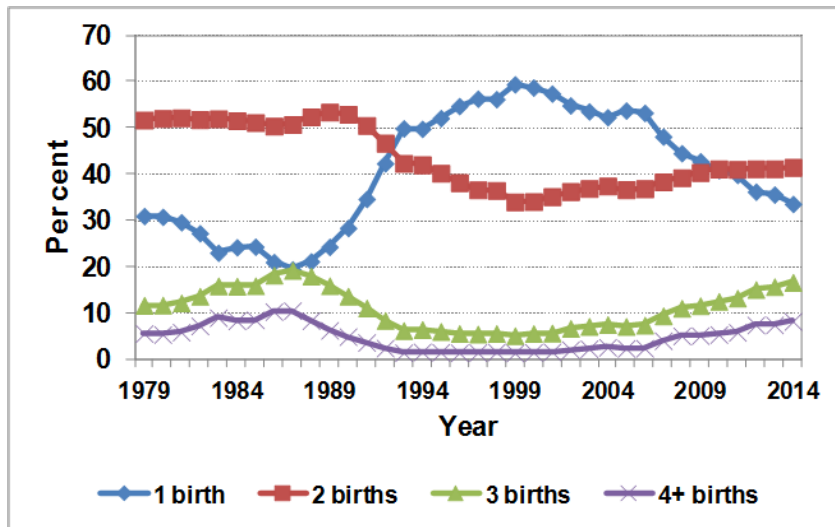
Source: Author's calculations and estimates based on Human Fertility Database and unpublished official Rosstat data

# Cumulated Parity Progression Ratios by Age 20, 25, 30, 35, 40, 50: Russia, female birth cohorts 1955-1994

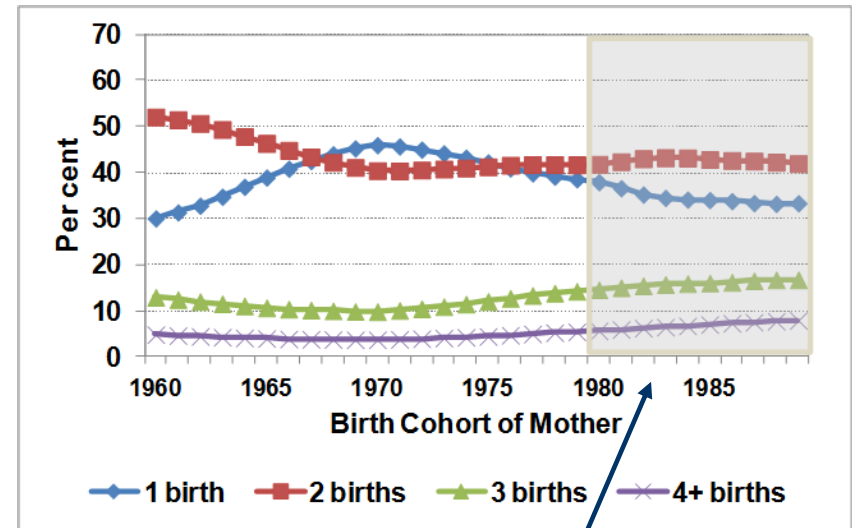


# Distribution of Mothers by Children Ever Born by age 50 (Women who give a birth at least to one child), Russia, period 1979-2014, cohorts 1960-1989, %

Period



Cohort

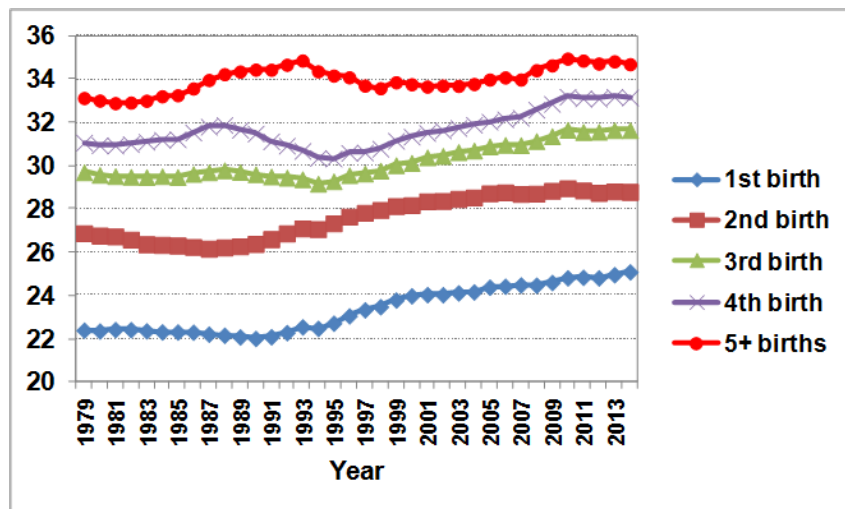


Projection for women aged 25-34 in 2015

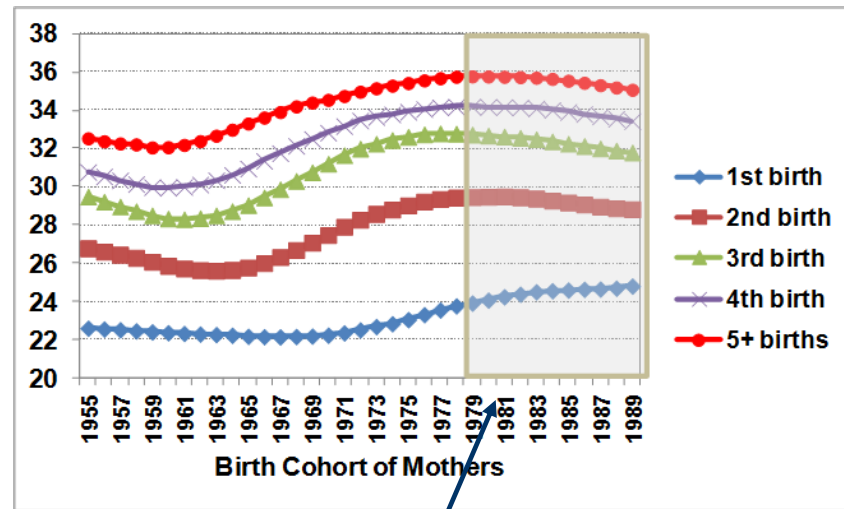
Source: Author's calculations and estimates based on Human Fertility Database and unpublished official Rosstat data

# Mean Age of Mothers at Birth: Russia, period 1979-2014, cohorts 1955-1989

Period



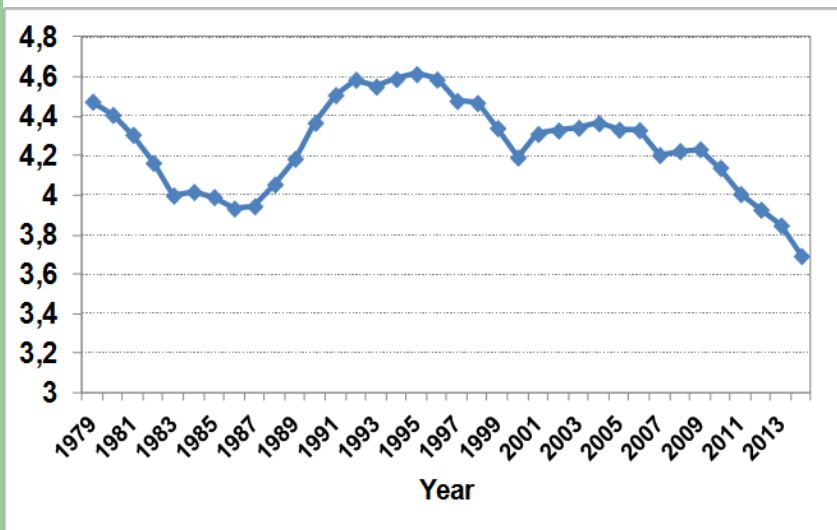
Cohort



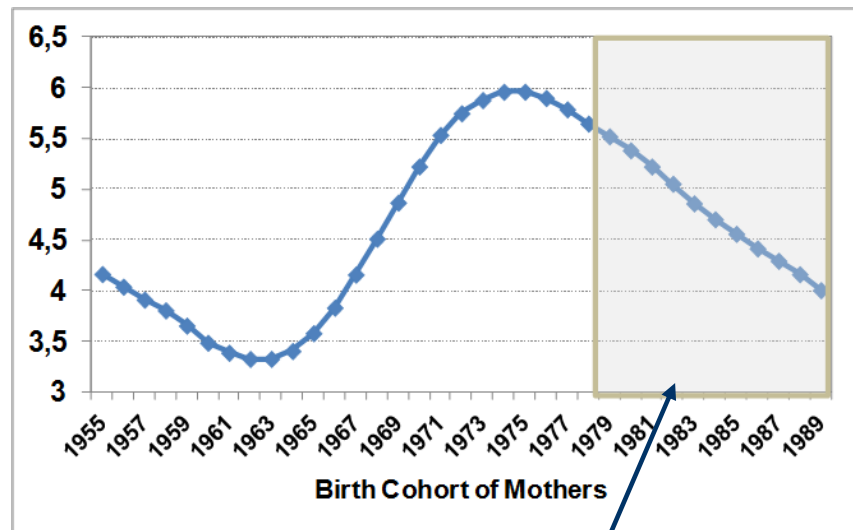
Projection for women aged  
25-34 in 2015

# Mean Interval Between First and Second Births, (fertility life table technique), years: Russia, period 1979-2014 and cohorts 1955-1989

Period



Cohort

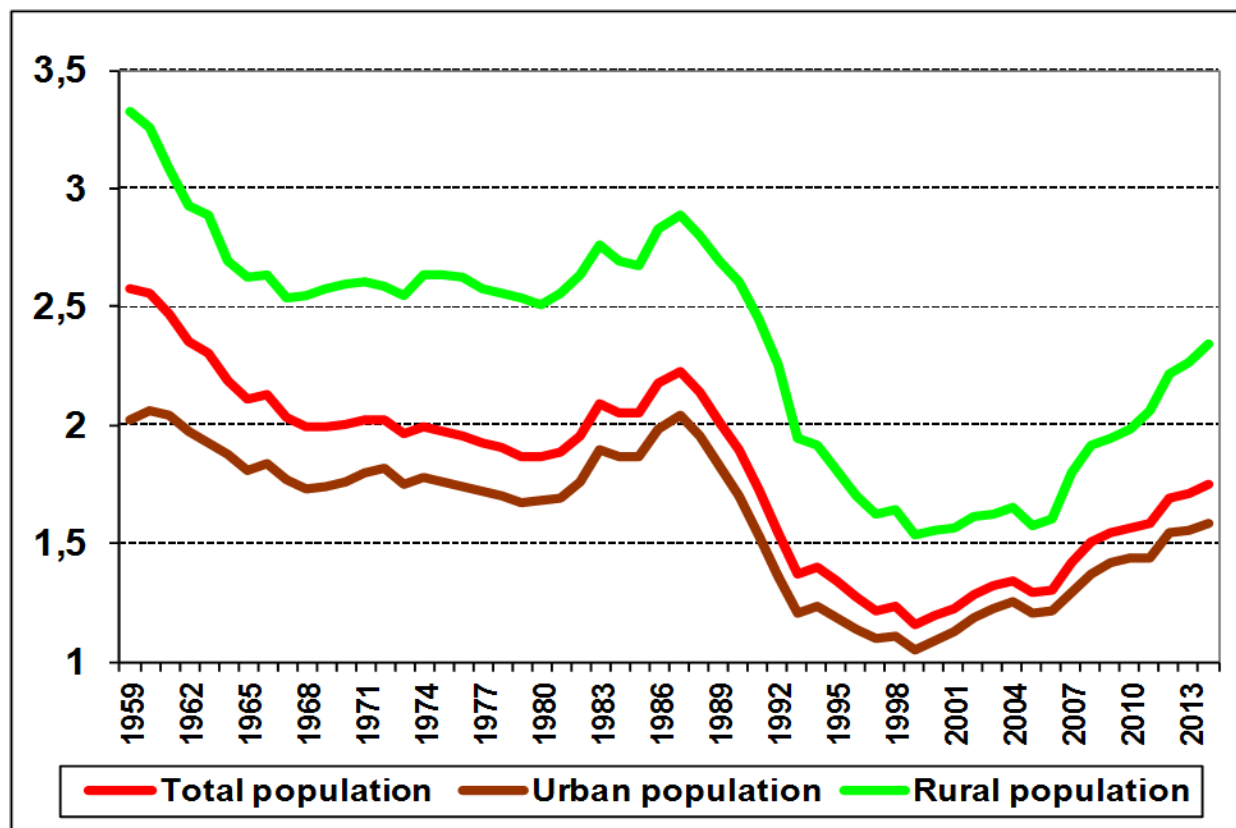


**Projection for women aged  
25-34 in 2015**

Source: Author's calculations and estimates based on Human Fertility Database and unpublished official Rosstat data



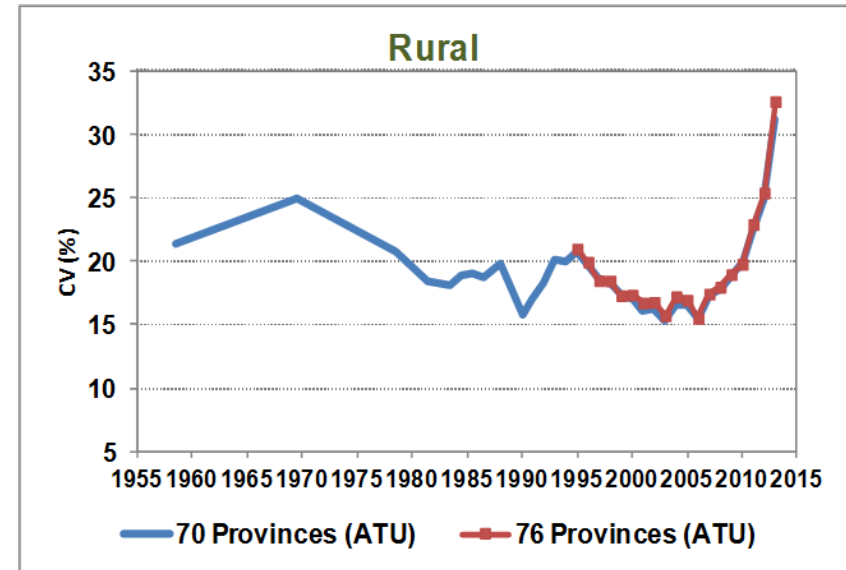
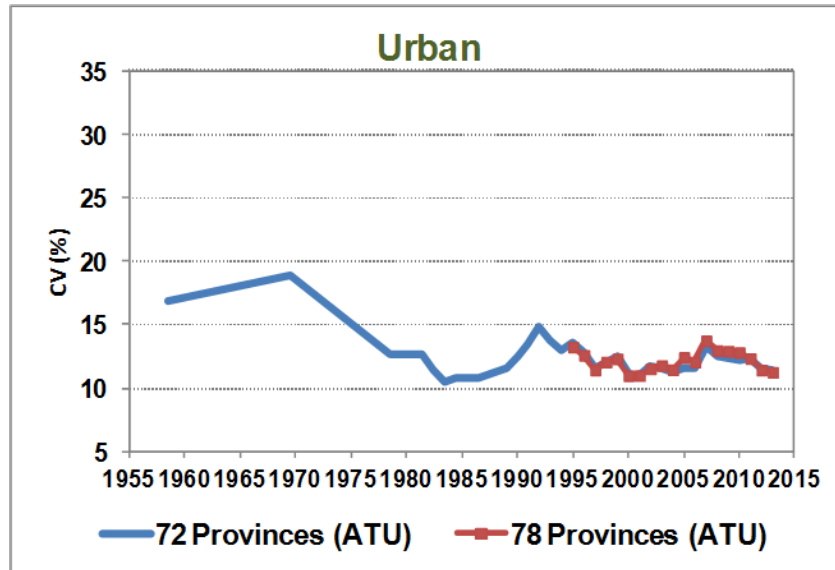
# Total Fertility Rate: All Russia, and Urban and Rural Subpopulations, 1959-2014



Source: Author's calculations based on Avdeev et Monnier (INED,1996), and published and unpublished ROSSTAT data.

Regional variations of TFR in rural areas has exceeded the levels of the end of the 1970s and even the 1950s. The urban population has returned to normal values.

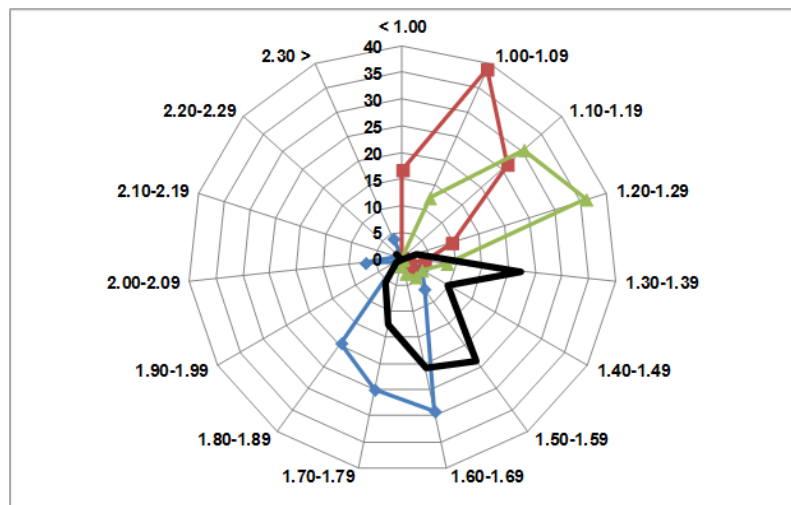
## Coefficient of regional variation of TFR for *Urban* and *Rural* subpopulations of Russia's provinces, 1959-2013 (Chechen R. and Ingush R. are excluded)



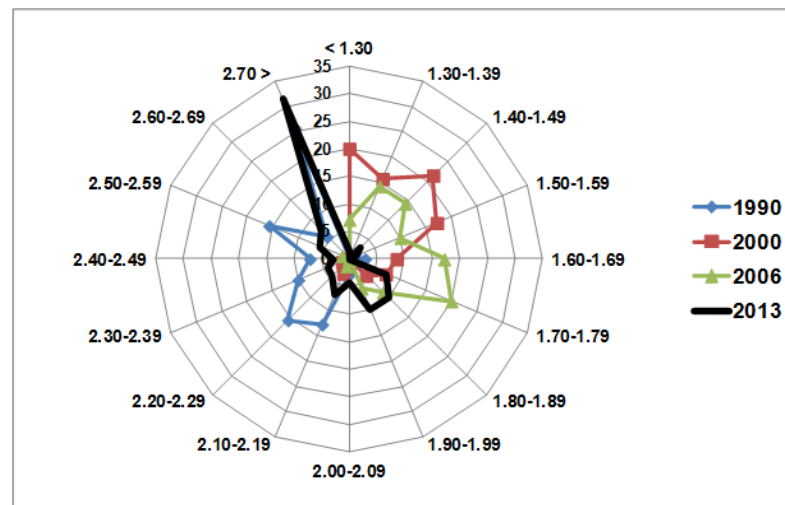
Source: Author's calculations based on published and unpublished ROSSTAT data.

# Distribution of Russian regions by the value of TFR in 1990, 2000, 2006 and 2013 (territorial units by the administrative division before 1991 without Chechnya and Ingushetia), %

## Urban



## Rural



**Demographic policy, launched in 2007, had unequal response in Russia's regions. Demographic and socioeconomic conditions associated with fertility increase dramatically changed.**

- Significant increase of inter-regional variation in TFR, especially among people living in rural areas;
- TFR has increased more significantly in those regions where fertility previously remained relatively high compared with other regions;
- Higher increase rates of TFR we find in regions with higher concentration of ethnic groups with fertility higher than the average, and where the level of education is below the average for Russia;
- Very weak link (or lack thereof ) between the increase of TFR and economic parameters for regional development, as well as different economic situation of families with children.

# General conclusions (1):

- **Pronatalist policy does not bring any positive changes in relation to the birth of the firstborn. There are doubts about the long-term effects of policies in improving the likelihood of second births. At the same time, the policy apparently prompted an increase in the probability of the third and fourth births.**
- **Pronatalist policy caused a reduction in the intervals between births, and in particular the interval between the first and second birth close to historic lows.**
- **In recent years, the process of increasing age of motherhood braked sharply and is likely that the mother's age at birth of second and subsequent children started to decline.**

# General conclusions (2):

- **Pronatalist policy has a positive response first of all among the social and ethno-demographic groups that either have not yet forgotten the historical experience of high fertility, or for whatever reasons (religious, in particular) continue to be guided by the ideals of a large family.**
- **In the long run we can hardly rely on a such mechanism for increasing or maintaining the birth rate in the country.**
- **Strengthening the demographic heterogeneity of the regions, social and ethnic groups has more negative than positive points. It is well known that the growing confrontation between the poor regions with high fertility and rich regions with low birth rates is always a great challenge for society and the economy.**

- **Does Demographic Modernization in Russia make one step back?**

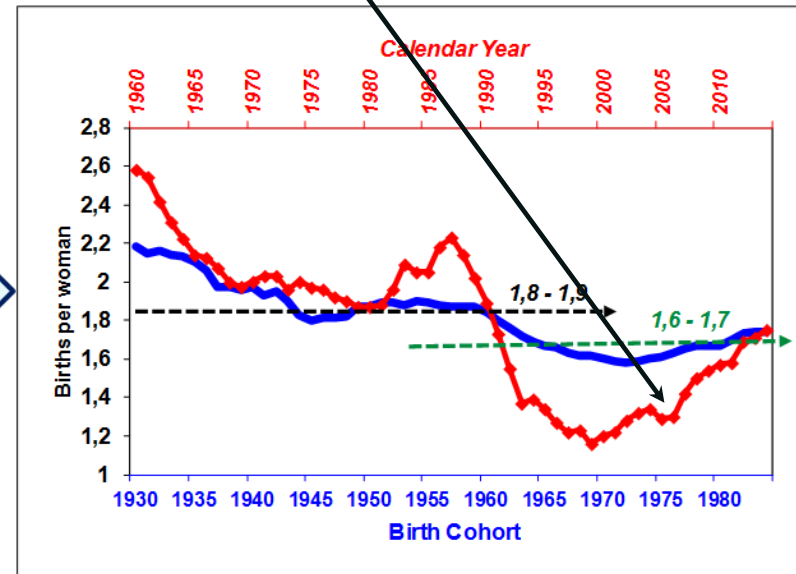
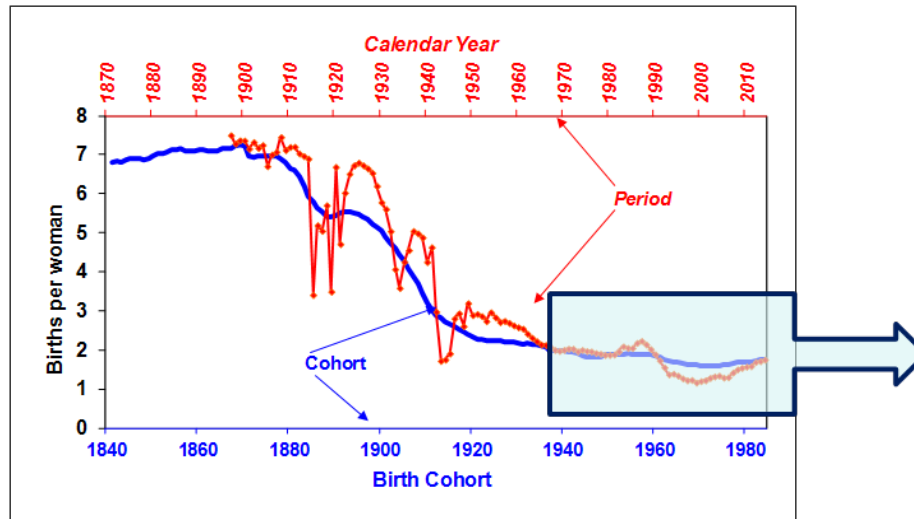
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# Completed Cohort and Period Total Fertility in Russia (average number of births to a woman by age 50): birth cohorts 1841-1984 (extrapolation with fixed ASFR as of 2014), period 1897-2014

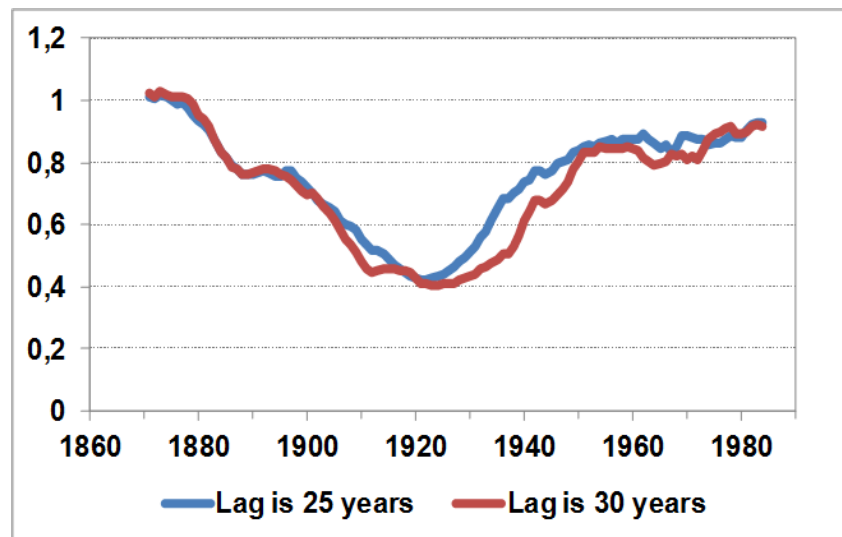
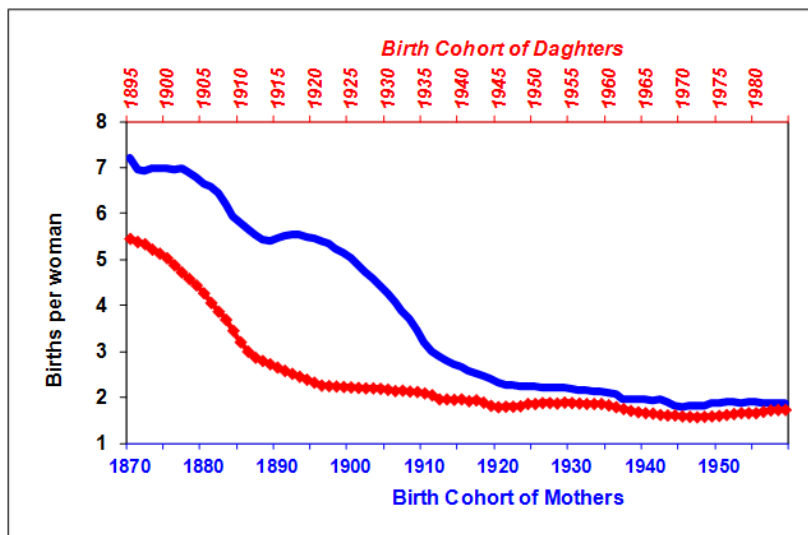
*New policy measures declared in 2006, and adopted in 2007*



Source: Zakharov S.V. (2008). Russian Federation: From the first to second demographic transition. *Demographic Research*. Vol. 19, p.910 (<http://www.demographic-research.org/Volumes/Vol19/24/>). (Updated )

# Completed Cohort Fertility of Women Born in 1870-1960 and their Daughters Born in 1895-1985: Russia

## Daughters/Mothers Ratio with Mean Age at Birth as 25 and 30 years



# General conclusions:

**I invite us all to remember that demography explores "the reproduction of human generations."**

- **From this perspective, the current trends in Russia can summarize as follows:**
  - **The level of fertility in Russia remains far below the replacement level;**
  - **Generations of "daughters" still tend to have on average fewer children than the generations of "mothers".**

**Hence the general conclusion when viewed through a telescope will be the following: fertility in Russia continues to decline.**

# Новейшие тенденции рождаемости в России

**В КАКОЙ СТЕПЕНИ ОНИ  
ПРЕДСКАЗЫВАЮТСЯ ТЕОРИЕЙ?**

# Theories of Low Fertility

- **Demand or Rational Choice Theory / RCT** (Becker, Mincer...)
- **Risk Aversion Theory / RAT** (Davis, Beck...)
- **Theory of Postmaterialism or Second Demographic Transition Theory / SDT** (Inglehart, Lesthaeghe, Moors, van de Kaa...)
- **Gender Equity Theory / GET** (McDonald...)
- **Preference Theory /PT** (Наким)
- **Теория убывающей потребности в детях** (Борисов, Антонов, Медков...)

Thanks to *Fabián Slonomczyk and Anna Yurko* I have read Gary Becker's blog from June 5, 2006 (The Becker-Posner Blog)

- **Grappling with Russia Demographic Time Bomb-BECKER**

<http://www.becker-posner-blog.com/2006/06/page/2/>

# Gary Becker, 2006 (1)

- **‘But the most novel aspect of Putin's proposal is to give a cash bonus of over \$9000 to women who have a second child. This bonus is considerably larger than the annual earnings of a typical Russian worker, men or women, and it could be used for mortgage payments and for many other large outlays. Putin acknowledges that this program would require lots of money (perhaps 1 per cent of Russian GDP), but he claims that it is necessary in order to "change the attitude of the whole society to the family and its values".’**

*<http://www.becker-posner-blog.com/2006/06/page/2/>*

## Gary Becker, 2006 (2)

- **‘Will Putin's financial approach work? I believe it will in the sense that the program is likely to induce many more Russian women to have a second child. To be sure, other countries have tried to increase birth rates through financial incentives, and these programs have had only mixed success. Guy Larouque and Bernard Salanie have a very careful evaluation of the generous but extremely complex system of monthly child credits in France. Their estimates indicate that child subsidies to French women have raised France's total fertility rate by some 5 per cent, or by about +0.1.’**
- **‘I believe that his [Putin’s] plan would be quite effective, not only because it is generous, but also because the centerpiece is a cash bonus rather than a stream of monthly payments.’**



## Gary Becker, 2006 (3)

- ‘Bonuses are more effective probably because younger people are usually short of ready cash for big purchases, such as apartments and homes, cars, and other consumer durables. Such liquidity constraints are far more important in Russia than in the United States since the Russian financial sector is extremely primitive and undeveloped. The typical Russian family does not have credit cards, or access to commercial loans on homes or car purchases.
- *So the value of a large cash payment for having a second child is likely to be very appealing, especially to less educated women and other lower income families.’*

# Gary Becker, 2006 (4)

- ‘Extrapolating the French results would give a very large effect of the proposed Russian system of subsidies and bonuses on Russian fertility (based on an email from Bernard Salanie). Partly for reasons mentioned by Posner, the actual results are likely to be smaller, ***so I would guess that Russian fertility would increase by about 10-20 per cent from current levels, or from the present total fertility rate of 1.28 to perhaps as high as 1.55.***’
- ‘Since even this upper limit leaves Russian fertility far below the level (2.1) that would be sufficient to maintain its present population level, such a generous subsidy system is unlikely to revolutionize the way Russians view large families. Many of the factors that have led to small families, such as the high level of women education, expensive housing, and high divorce rates, would not be greatly affected by these baby subsidies.’

**Slonimczyk F., Yurko A. (2012, 2013, 2014) 'Assessing the Impact of the Maternity Capital Policy in Russia Using a Dynamic Model of Fertility and Employment'**

- **'The model allows us to obtain an estimate of the long-run effect of the MC program on fertility that is less prone to upward bias due to confounding factors or rescheduling of births. We found that the policy increases fertility by about 0.15 children per woman and leads to an increase of almost 12 percentage points in the share of households with two or more children. Simulation results suggest that much of the increase in birth rates post-2007 is due to rescheduling of births and not long-run increases in fertility.'**

## Chirkova S. (2013) Do Pro-natalist Policies Reverse Depopulation in Russia?

- 'I found a positive significant impact on the decision to have a second child, which is consistent with findings by Slonimczyk and Yurko (2013). *The probability of the second birth has increased* after the implementation [of the financial incentives] *by 2.2 percentage points*. These findings confirm the empirical results of the parental leave and child bonuses literature (Milligan (2005), Neyer and Andersson (2008), Lalive and Zweimller (2009). However, I also show that the effect is driven by the low-educated group of women who potentially belong to low-income group.'

**THANK YOU FOR YOUR ATTENTION!**