

# Impact of internal migration on cohort fertility: Case of Russia

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**Research Questions:** Fertility of Russian women with different migration history: how does it vary?  
How does internal migration is associated with cohort fertility of Russian women?

## Introduction

In general migration flows go from less developed regions to more developed ones, which usually means moving from the area with relatively high fertility to the area with lower fertility.

In that case the adaptation to fertility norms of the receiving territories implies decrease in fertility among migrants (Blau, 1992; Dubuc, 2012).

Also, migration and having a child are competing events (Hugo, 1993). The negative influence of migration on fertility grows higher with increasing costs of move.

On the other hand, fertility of the migrants from the high fertility regions often still stays higher when compared to the natives (Yeter, Stichnoth 2013, Cygan-Rehm, 2013).

All these findings refer to international migration, but should also be true for internal one.

Russian regions are highly heterogeneous in terms of both economic and demographic development.

Our estimations on the basis of the Census-2010 data show that about 60% of Russian women with children had their first child born after the last of the moves that had already happened to them.

For these women their whole childbearing career is affected by migration.

## Data and method

The study is based on the Russian population Census-2010 micro data, which is a relatively new and very promising data source for demographic studies. Access to the micro data has been provided by Rosstat since 2013\*.

### Sample under research:

28.2 million of women born in 1950-1976 in Russia  
(i.e. aged 30-60 at the moment of Census).

Age cohorts are evenly represented, the share of each of them varies from 2.8% to 4% of the total sample size.

### Characteristics extracted for each woman:

- number of children born
- name of birth region
- name of residence region
- type of the settlement at the Census moment

To perform regression analysis we shifted to the file where one case stood for one possible combination of all the parameters under review and at that we weighted cases to take account of the group sizes.

Size of the final sample came to 227,289 observations.

Basing on this sample we estimated a set of simple linear models, where cohort fertility served as dependent variable, and distance of migration and fertility levels in the regions of origin and destination were included into the list of explanatory variables.

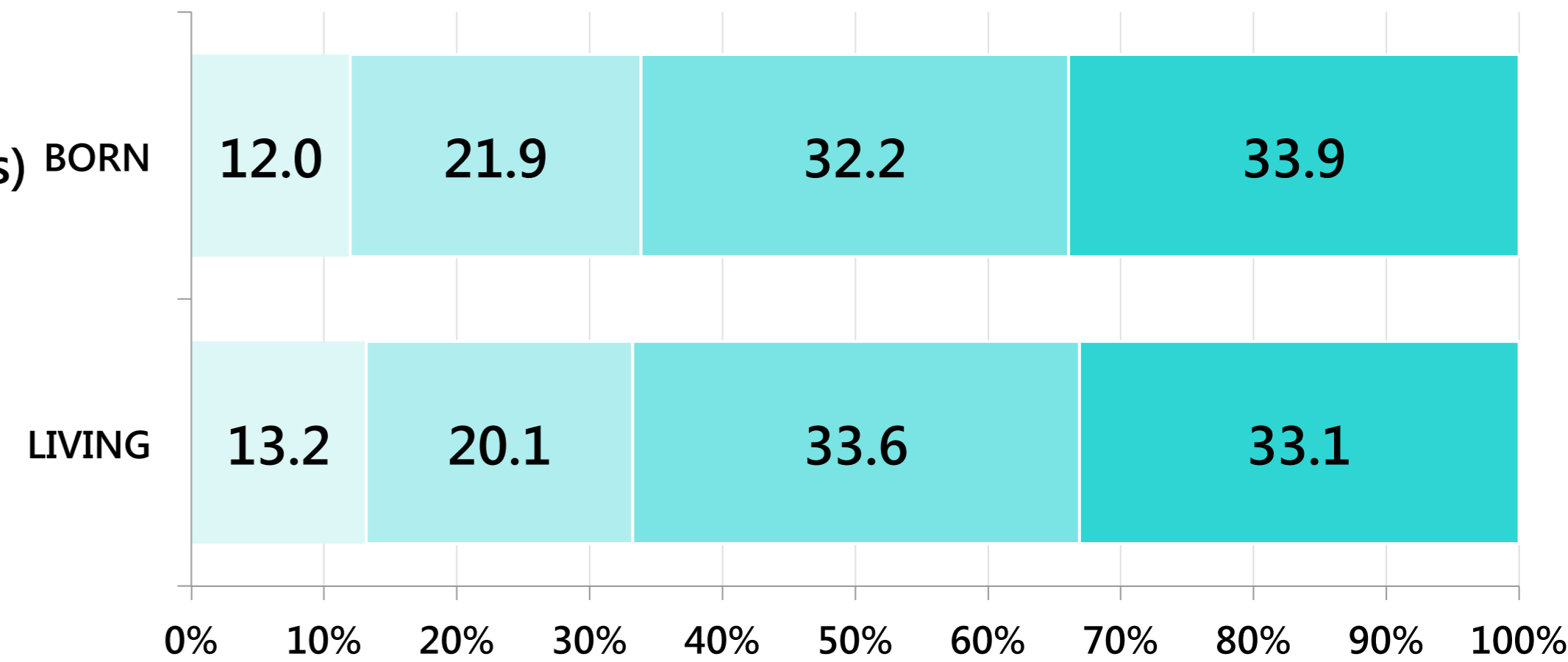
\*Visit [http://www.gks.ru/free\\_doc/new\\_site/perepis2010/croc/perepis\\_itogi1612.htm](http://www.gks.ru/free_doc/new_site/perepis2010/croc/perepis_itogi1612.htm) to find the data.

## Typology of Russian regions and direction of internal migration flows

Picture: Sample structure by region types, percent of women (top – region of birth, bottom – region of living)

To describe regional fertility differences we use the following typology:

- Capital regions (lowest fertility, 4 regions) BORN  
Low average number of children (1.28-1.53) & high age of motherhood
- Low fertility (20 regions) LIVING  
Average number of children per woman 1.28-1.59
- Medium fertility (23 regions) LIVING  
Average number of children per woman 1.60-1.73
- High fertility (33 regions) LIVING  
Average number of children per woman 1.74-2.91

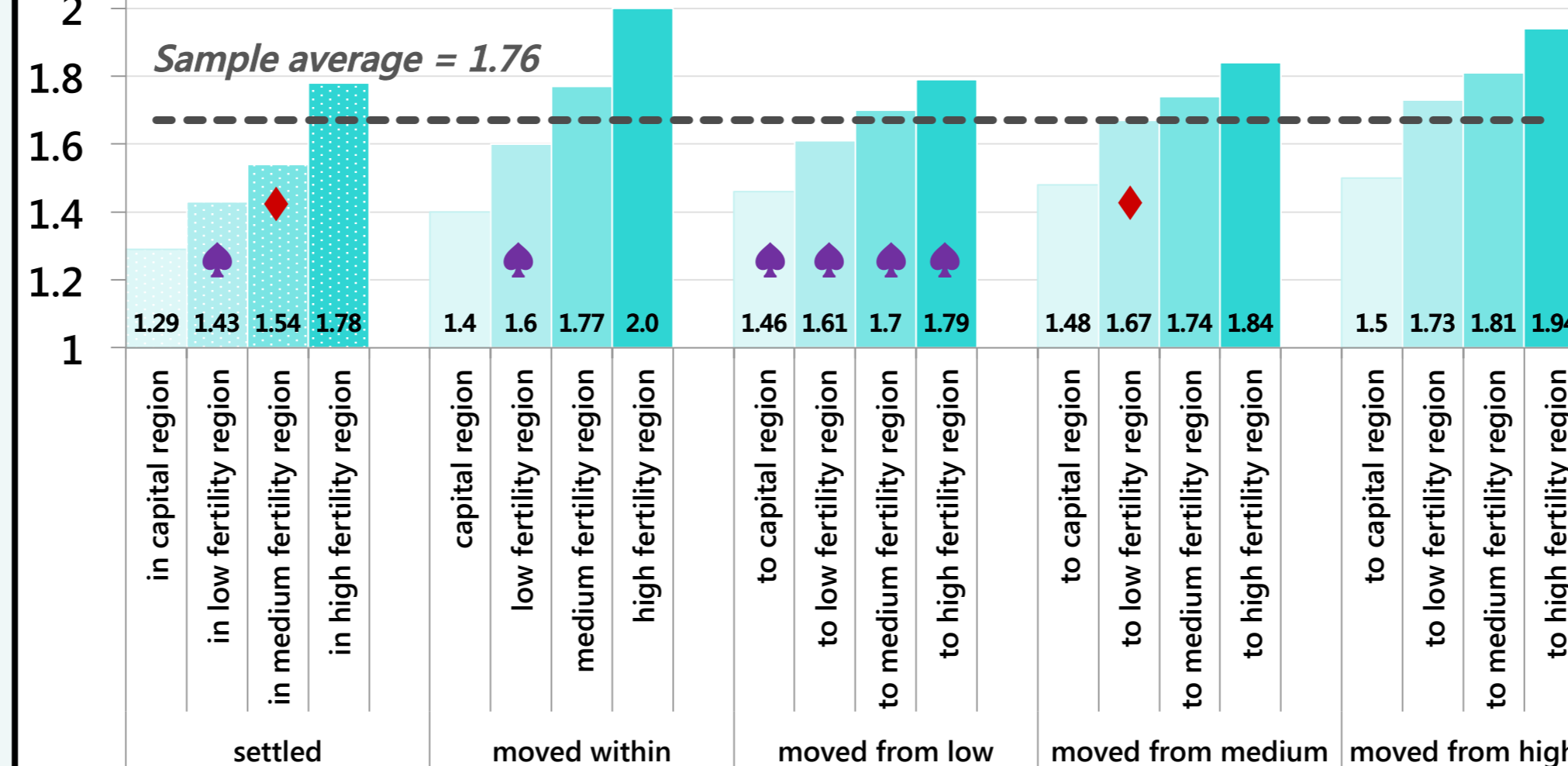


→ Overall 43% of women in the sample have been living in the same place since birth, and 34.2% of women migrated within their birth region.

→ Proportion of those who have never migrated by the time of observation increases in younger cohorts.

## Average group estimates and regression analysis results

Picture: Average fertility of women with different migration biographies



- Experience of migration within birth region is positively correlated with fertility. Generally settled women have one of the lowest fertility level within each group.  
For example, check columns marked with ♠ in the Picture.
- Women who moved to the regions with "1 step" lower fertility still have more children, than those who have never migrated.  
For example, check columns marked with ♦ in the Picture.
- The higher fertility in the destination region, the higher fertility of migrated women.  
Check any set of bars, except for the very right one.

- Moving to the high fertility regions is associated with the strongest positive shift in average number of children in all groups of women.
- Moving out of the birth region is combined with the fertility reduction only when women head to the regions with substantially lower fertility compared to those in their native territories (high → to low, medium → to capitals).
- Separate model estimated for the subsample of women moved out of their birth region shows a small decline in average number of children among those who moved farther than 500 kilometers from home. Generally estimation of expanded models showed that distance of moving has a very modest effect on fertility if the woman has already left her birth region.

All coefficients in the Table are significant at 0.01 level.

Table. Simple linear model estimations

	Unstandardized Coeff.	Standardized Coeff.
(Constant)	1.786	---
Year of birth	-.021	-.444
Rural living area	.452	.479
<b>Groups of women</b>		
Settled	in capital region	-.194
	in low fertility region	-.102
	in medium fertility region	-.072
	in high fertility region	-.208
Moved within	capital regions	-.154
	low fertility region	-.034
	medium fertility region	-.106
	high fertility region	.299
Moved from low	to capital region	-.125
	to low fertility region	-.018
	to medium fertility region	.057
	to high fertility region	.165
Moved from medium	to capital region	-.091
	to low fertility region	.103
	to medium fertility region	.037
	to high fertility region	.208
Moved from high	to capital region	-.042
	to low fertility region	.101
	to medium fertility region	.169
	to high fertility region	.302

## Conclusions and discussion

Generally in Russia internal migration is associated with higher fertility. The lowest fertility is observed among women continuously residing in the same place since birth.

### Why?

- In a country with high interregional inequality, internal migration might often lead to better life conditions and expand one's employment and marital opportunities.
- Language or cultural barriers do not exist or at least are lower for internal migration; adaptation is easier.
- As a result, migration and childbearing stop being competing events, but become complementary.

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## Acknowledgments

The research was carried out with joint support of the Basic Research Program of the National Research University Higher School of Economics and of the Russian Presidential Academy of National Economy and Public Administration.