

RESOURCES FOR FERTILITY AND PARENTING IN RUSSIA

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Abstract

Growing negative demographic trends in Russia makes the search for ways to mitigate them ever more topical. Today the authorities are implementing a range of measures aimed at boosting fertility. The number of births and the “quality” of parenting depend on a whole number of factors. We describe these factors as resources for fertility and parenting.

The paper presents the results of content analysis of Russia’s Demographic Policy Concept and analysis of official regional statistics for 2015-2016. We carried out a correlational analysis between the total fertility rate and variables that describe fertility and parenting resources.

Our results are the next: 1) Russia recognises economic, infrastructural, reproductive, temporal, informational resources for fertility and parenting; 2) Russian regions are noticeably differentiated as regards the presence and use of these resources; 3) there is no correlation between regional birth rates and indicators that show the presence and use of these resources.

Our results show that the differentiation of Russian regions by the availability and use of fertility and parenting resources is not linked to regional fertility differentiation. This raises questions about the effectiveness of increasing and further using such resources as demographic policy measures.

Key words: resources for fertility and parenting, Russian regions, differentiation, correlational analysis

JEL Code: J11, J18

Introduction

Russia is now facing adverse demographic trends: for example, in 2016, for the first time in the last few years, Federal State Statistics Service (Rosstat) reported the natural population decline. For the first time in the last 10 years, the growth trend of the total fertility rate has been disrupted. Between 2015 and 2017, the number of women of fertile age decreased by 1.7% while in the 20-34 age group this reduction was even more dramatic – by 5.2%.

These increasingly negative trends mean that the Russian government will have to make some significant adjustments to its policy to address these issues. Nowadays the Russian government implements a complex of measures to stimulate fertility rates. In addition to the current fertility-stimulating policy, a monthly benefit has been recently introduced to be paid to families for their first child if their per capita income is less than one-half of the monthly subsistence minimum. The amount of this benefit equals the monthly subsistence minimum of each region. The benefit will be paid since 2018 from the government's and President's reserve funds (Mogilevskaya, Kopalkina, & Tkachev, 2017).

Such extreme measures, on the one hand, demonstrate how serious the demographic situation really is and, on the other hand, they show a lack of clear vision of how these problems should be handled. One promising approach to demographic regulation could be the resource-based approach, which focuses on the complex of factors that affect fertility rates as well as the quality of parenting. Hereinafter we shall refer to these factors as resources for fertility and parenting. These resources are the conditions that provide the desired demographic result, that is, the sufficient quality and quantity of the human capital.

Resources for fertility and parenting can be found on different levels: state, regional, family, or individual. State resources are the socio-economic conditions that enhance fertility and the quality of parenting in the country. Regional resources correspond to the region's infrastructure for fertility stimulation and parenting support (for example, well-equipped maternity clinics, children's hospitals, kindergartens, institutions for children's supplementary education, sports organizations, recreation facilities for organization of school holidays and activities for children). The potential of a family or a person for having and raising children includes their economic or material conditions, temporal resources, reproductive health, and the availability and use of information sources that ensure the possibility of quality parenting. All these factors are important for a family to ensure high-quality child care and parenting. Furthermore, resources of a family or a person are determined by their human capital, their reproductive and parenting attitudes, objectives, perceived benefits of parenting in comparison to other types of activity and so on. It should be noted that these attitudes and perceptions may affect the temporal resources that families or individuals have although time availability may also depend on other objective factors such as the work load.

The resource-based approach to parenting was discussed in a number of studies: for example, Lee and co-authors (Lee, McHale, Crouter, Hammer, & Almeida, 2017) investigated the temporal resources of families within the framework of the work-home resources model proposed by Brummelhuis (Brummelhuis & Bakker, 2012). Mowbray et al. (2000) analyzed

the availability of parenting resources for specific categories of women (Mowbray et al., 2000). Information resources as a fertility factor were considered by Siow-Li and his co-authors (Siow-Li, Tey, & Ng, 2017); socio-cultural resources, by Peri-Rotem (Peri-Rotem, 2016); and economic resources were in the focus of our previous research (Shubat & Bagirova, 2017).

The aim of this study is to investigate the availability and usage of resources for fertility and parenting in Russian regions and to find the possible correlations between these indicators and fertility rates.

1 Data and Methods

In our study we analyzed the following data:

1. The text of the Concept of the Demographic Policy until 2025 (The Concept of the Demographic Policy, 2007). This document sets the core fertility indicators in the country; describes the policy principles and implementation guidelines; and specifies the measures necessary to ensure the realisation of the policy objectives.

2. The current statistical data on the available resources for fertility and parenting in Russian regions and their usage (Data from the Single Inter-departmental Information, 2015-2016). We created a set of specific empirical indicators for each of constituting the resources, corresponding to eleven variables based on the data published annually by Rosstat:

- for economic resource - GRP per capita and housing provision (per person);
- for infrastructural resource - kindergarten provision (provision of pre-school childcare, number of kindergarten places per 1,000 children) and enrolment of children in after-school programs (percentage of the total number of children aged 5-18);
- for reproductive resource - disease incidence (per 1,000 people), abortions among women of reproductive age and abortions per 100 births;
- for temporal resource - youth employment (aged 20-29), levels of total and female unemployment;
- for informational resource - Internet access (percentage of households with it).

In our study we applied the following methods and data analysis procedures:

1. To create a list of resources for fertility and parenting we conducted a content analysis of the up-to-date version of the Concept of Demographic Policy.

2. To find the correlation between the availability of certain resources and fertility rates in Russian regions we used Spearman rank correlation. The choice of this coefficient was

determined by the characteristics of our primary data: in most cases outliers occurred in the distributions and a considerable deviation from the normal distribution was observed.

3. In order to characterize the differentiation of Russian regions according to the availability and usage of resources for fertility and parenting, we calculated and interpreted the Gini coefficient, the decile ratio of differentiation (ratio of the ninth decile to the first) and the minimax ratio. For more accurate results, three differentiation indicators were calculated. A number of economic studies pointed out that the Gini coefficient is not sensitive enough to reflect the actual income inequality (Berrebi & Silber, 1987).

4. In our analysis we grouped heterogeneous indicators through z -standardization of the original data. The resulting z -scores have a mean of zero and a standard deviation of 1.

2 Results

Our findings can be summarized as follows:

1. In Russia, there are the following types of officially recognized resources for fertility and parenting: economic, infrastructural, reproductive, temporal and informational. Table 1 illustrates the measures outlined by the Concept for each resource type.

Tab. 1: Resources for fertility and parenting and the corresponding measures outlined in the Concept of Demographic Policy of Russia

Resource type	Measures to stimulate fertility and support parenting
Economic	<ul style="list-style-type: none"> – Development of the system of allowances and benefits to increase fertility; – Increasing affordability of housing for families with children
Infrastructural	<ul style="list-style-type: none"> – Development of the network of pre-school child care institutions; – Enhanced material and technical support of maternity and child welfare services
Reproductive	<ul style="list-style-type: none"> – Provision of affordable and high-quality medical care to improve the reproductive health of women and men; – Development of assisted reproductive technologies
Temporal	<ul style="list-style-type: none"> – Promotion of employment of mothers with under-age children to enable them to combine their family and childcare duties with professional activity; – Promotion of flexible work strategies (working from home, part-time jobs) for better work-life balance
Informational	<ul style="list-style-type: none"> – Propaganda of the value of families with children; – Promotion of marriage and family life (positive images of married couples with children)

Source: authors' research

2. Our study of the relationship between the variables has shown that variables correlate within each resource, although the degrees of correlation may vary. For instance, there is a positive but weak correlation between the variables corresponding to the infrastructural and economic resources: when the value of one variable went up, the value of the other also tended to do so. The degree of correlation between variables of the temporal and reproductive resources varies from moderate to strong; the correlation was positive in all the cases.

As all the correlations we found were positive, we calculate new variables characterizing the availability of specific resources in each region. We *z*-standardized our variables and then calculated the mean values for each resource type. Thus, we obtained consolidated estimates of resource availability for each region. Although these figures are quite hard to interpret, they can be used in our further analysis. For example, the analysis of correlation between the availability of different resources for fertility and parenting (based on the average standardized estimates) has shown the following:

- there is a positive correlation between the economic and infrastructural resources (the higher is the availability of one resource, the higher is that of the other);
- the temporal resource negatively correlates with the infrastructural and economic resources (the higher is the availability of the temporal resource, the lower is that of the economic and infrastructural resources);
- the infrastructural resource positively correlates with the reproductive resource (Table 2).

Tab. 2: Correlation between the levels of availability of resources for fertility and parenting in Russian regions

Resource type		Reproductive resource	Infrastructural resource	Economic resource	Temporal resource
Informational resource	Spearman's rho	-0.137	0.056	0.175	-0.011
	Sig. (2-tailed)	<i>0.221</i>	<i>0.617</i>	<i>0.115</i>	<i>0.919</i>
Reproductive resource	Spearman's rho		0.391	0.211	0.006
	Sig. (2-tailed)		<i>0.000</i>	<i>0.057</i>	<i>0.956</i>
Infrastructural resource	Spearman's rho			0.461	-0.442
	Sig. (2-tailed)			<i>0.000</i>	<i>0.000</i>
Economic resource	Spearman's rho				-0.682
	Sig. (2-tailed)				<i>0.000</i>

Source: authors' research

3. Our analysis has also shown that Russian regions differ considerably in most variables. For instance, the minimax ratio varied between 1.4 and 25.6 times; the decile ratio of differentiation, between 1.2 and 3.3; and the Gini coefficient, between 0.044 and 0.319 (see Table 3).

Tab. 3: Differentiation of Russian regions according to resource variables

Resource type	Indicator	Maximum- minimum ratio	Decile coefficient of differentiation	Gini coefficient
Economic	GRP per capita	18.3	3.3	0.319
	Housing provision	2.4	1.4	0.079
Infrastructural	Kindergarten provision	5.3	1.6	0.107
	Enrolment of children in after-school programs	3.6	1.8	0.133
Reproductive	Disease incidence	2.9	1.6	0.112
	Abortions among women of reproductive age	5.8	2.7	0.201
	Abortions per 100 births	7.1	2.4	0.178
Temporal	Youth employment	1.8	1.2	0.045
	Unemployment	18.9	2.5	0.241
	Female unemployment	25.6	2.8	0.260
Informational	Internet access	1.4	1.2	0.044
Total Fertility Rate		2.5	1.3	0.074

Source: authors' calculations

Such heterogeneity of indicators means that while some regions enjoy high levels of resource availability, others seem to be lacking in certain resources. At the same time fertility rates in Russian regions differ significantly (Table 3). These findings led us to take a closer look at the correlation between fertility rates and the availability of resources for fertility and parenting in Russian regions.

4. Our correlation analysis did not provide sufficient evidence to prove the correlation between resource availability and fertility rates. The majority of resource variables do not correlate with the total fertility rate. Spearman's rank correlation coefficients were quite low and in some cases statistically insignificant (Table 4).

Tab. 4: Spearman's rank correlation coefficients, measuring the correlation between the TFR and the availability of resources for fertility and parenting in Russian regions

Resource type	Indicator	Spearman's rho	Sig. (2-tailed)
Economic	GRP per capita	0.022	0.841
	Housing provision	-0.387	0.000
Infrastructural	Kindergarten provision	-0.042	0.707
	Enrolment of children in after-school programs	-0.167	0.134
Reproductive	Disease incidence	0.368	0.008
	Abortions among women of reproductive age	0.557	0.000
	Abortions per 100 births	0.374	0.003
Temporal	Youth employment	0.237	0.032
	Unemployment	0.346	0.000
	Female unemployment	0.295	0.001
Informational	Internet access	-0.104	0.352

Source: authors' calculations

3 Discussions

Our results show that the Concept of Demographic Policy contains a complete list of fertility resources. The Concept also describes a complex of ideological, economic, organizational, medical, administrative, and legal measures aimed at increasing fertility rates. This means that the concept of resource availability for fertility and parenthood in our country is declared at the state level. The resources listed in the Concept can be grouped according to their scale and level (state, region, family or individual levels).

Our statistical analysis has demonstrated that availability of resources for fertility and parenting varies greatly across Russian regions. We found a negative correlation between the levels of resource availability, which means that nowadays none of the Russian regions are fully provided with the resources of all types. By and large, all Russian regions seem to be lacking in some resources while having sufficient levels of the others. For example, the lowest level of the infrastructural resource availability is found in Ingushetia. At the same time this region enjoys the highest level of the temporal resource availability. Another example is the Republic of Tyva, which has the lowest level of economic resource availability in the country and whose level of temporal resource availability is one of the highest. On the other hand, inhabitants of this region seem to have sufficient time for parenting. It should be noted that there are no regions in which all resources would be at a high or, on the contrary, low level. We also found considerable differentiation of Russian regions in specific indicators corresponding to certain elements of the resources.

The strongest negative correlation is observed between the economic and temporal resources, which can be explained by the fact that the high unemployment in this or that area is usually associated with the low living standards. We consider unemployment as a resource for fertility and parenting because unemployed people can devote their spare time to becoming parents and, consequently, to child care (provided by parents and grandparents). There is no doubt that such 'forced leisure' cannot be regarded as an absolutely valid indicator for measuring the temporal resource but in this research we can only rely on the official statistical data. It should be noted, however, that this negative correlation between the economic and temporal resources was discussed by Gary Becker, who believed that in the course of economic development time becomes an increasingly valuable resource. Thus, the cost of parental time allocated to child-rearing grows, which results in parents' choosing to have no more children (Becker, 1960).

It should be noted, that other correlations between different resource types in Russian regions were less pronounced. Further research is necessary to gain a more in-depth understanding of their relationship.

At the same time our results show that a more diversified approach to fertility stimulation and support of parenting is in demand in order to compensate for the lack of certain resources in Russian regions. Such policy will create a more balanced situation and enable the regions to realize their demographic potential more fully.

We did not find any significant correlation between fertility rates in regions and the availability of resources for fertility and parenting. This can be explained by the following reasons. Firstly, the incomplete validity of the indicators due to the limited amount of the official data provided by Rosstat. This list of indicators can by no means be regarded as complete. Improvements in statistical recording and broadening of the range objects for statistical observation will provide more opportunities for in-depth research of the problem. Secondly, quantitative parameters are not enough to assess the availability of resources for fertility and parenting in regions. For instance, we could assess the impact of the information resource only by analyzing the data on Internet access. It is possible to enhance our understanding of the impact of this resource if we also analyze its reproduction-related content. Thirdly, in our research we used only objective parameters of resource availability although subjective determinants can have an equal or perhaps even stronger impact on reproductive behaviour than objective ones (Bagirova & Shubat, 2012). Such subjective determinants include social norms of parenting and child care, social expectations about the number of children in the family, widely spread ideas about the advantages of parenting, and so on.

Conclusion

In general, our analysis has brought to light the potential of the resource-based approach to study fertility and parenting factors. At the same time we understand that the official statistical data are obviously not enough for accurate evaluation, which might lead to inadequate assumptions and, therefore, flawed policies.

Our analysis has again shown that there is a need for a more diversified policy to stimulate fertility and parenting in Russian regions. We believe that the two key objectives of this policy should be as follows: 1) replenishment of insufficient resources for fertility and parenthood in each the region; 2) stimulation of the birthrate through the activation of subjective determinants. To address the first objective, further research into the problems discussed in this article is required. The second objective requires monitoring of the population's perception of fertility and parenting. Such combined approach will allow us to develop relevant methods for improving the demographic and socio-economic situation in Russian regions, which varies significantly.

Acknowledgment

The article is processed as one of the outputs of the research project "Fertility and parenting in Russian regions: models, invigoration strategies, forecasts", supported by the President of Russian Federation, project no. NSh-3429.2018.6.

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