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FAMILY BENEFITS AND POVERTY: THE CASE OF RUSSIA

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FAMILY BENEFITS AND POVERTY: THE CASE OF RUSSIA[3]

25 years have passed since the beginning of market reforms in Russia. Like other post-soviet countries, in the early 1990s Russia faced a period of sharp decline in real household incomes. Then a gradual growth of population well-being began. However, income inequality was deep throughout this time. The poverty headcount is still over 10% on average and differs a lot among territories and socio-demographic groups. Russian poverty has certain specifics: there is a high risk of poverty for young working families with children.

This paper analyses the effectiveness of family benefits from various perspectives. We consider their impact on the poverty of families with children, using the concepts of absolute, relative and subjective poverty. The study is based on pooled and panel household data from the Russia Longitudinal Monitoring Survey – Higher School of Economics (RLMS HSE), 2003-2015. We model the influence of child benefits on the probability of being poor and estimate various econometric models. Other controlled factors influencing recipient household risk of poverty include the type of settlement, family structure, education and employment.

The results are robust and show the negative influence of family benefits on household risk for absolute and relative poverty. However, the subjective perception of poverty is positively correlated with benefits. The study also shows leakage and significant gaps in coverage in the system of family benefits. Overall, the study reveals the low effectiveness of family benefits in Russia and indicates a need for improved targeting.

JEL Classification: I38 – Government Policy; Provision and Effects of Welfare Programs

Keywords: child benefits; means-tested benefits; categorical benefits; poverty; absolute poverty; relative poverty; subjective poverty; Russia.

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Introduction

25 years have passed since the beginning of market reforms in Russia. Like other post-soviet countries, in the early 1990s Russia faced a period of sharp decline in real household incomes. Then a gradual growth of population well-being began. However, income inequality was deep throughout this time. The poverty headcount is still over 10% on average and differs a lot among territories and socio-demographic groups. Russian poverty has a distinctive quality: there is a high risk of poverty for young working families with children. According to the Russian Federal State Statistical Service (Rosstat), 34% of all Russian families had children under 16 years in 2014. Among poor families this share was 63% (Rosstat 2015: 32).

In Russia, as in many other countries, the system of social protection includes family benefits (officially called "family and maternal benefits"). They are numerous and varied in type. Some of them are provided by the federal budget or the Social Security Fund; they include prenatal and maternity benefits, lump-sum childbirth benefits and child care allowances for children under 18 months. Others are paid by regional budgets, and among them is an allowance for children under 16 (18) years from poor families (or child allowance) which is the main benefit for children over 18 months. These benefits can differ for single-mothers, multi-child families, children of members of the armed services, children of fathers avoiding alimony payments, etc.

All the benefits paid by the federal budget or the Social Security Fund are not means-tested: households with children can be eligible regardless of their incomes. The level of child care allowances for children under 18 months differs according to the mother's previous earnings, though it has a certain ceiling. An alternative to the federal benefits for children under 18 months, the regional nursing benefits for children over 18 months are means-tested, so not all families with children are eligible. Regional authorities choose the recipients according to family incomes and set the size of the nursing benefit. The real value of the regional nursing benefits varies considerably across the country. For example, in 2015 the minimum size of the regional child benefit was equal to 90 rubles per month (in Altay Republic), while in Moscow its values ranged between 1500 and 2500 rubles per month depending on the age of the child (Rosstat). That is why the benefits can be more or less attractive for potential recipients, leading to inequality in take-up.

The share of Russian children under 16 receiving at least one type of benefit has significantly declined from 45% in 2007 to 29% in 2014 (Rosstat). This trend in overall caseload

may reflect the mean income growth of households or it may indicate the system's inefficiency. While the poverty level in Russia has reduced from 13.3% to 11.2% during the same period (2007 to 2014), the share of families with children among poor households has grown from 49.8% to 62.9% (Rosstat). That is why it is important to assess an impact of family benefits on the well-being of Russian families with children using recent data and comparing the results with previous studies.

The aim of this paper is to analyse the effectiveness of family benefits in Russia using the most recent data from the Russia Longitudinal Monitoring Survey (RLMS-HSE)[4]. We consider the impact of benefits on the absolute, relative and subjective poverty of families with children, since this impact could be different depending on the measures of poverty. We also distinguish between benefits for children under and over 18 months. This division was not used in previous research on family benefits based on the RLMS-HSE data. The benefits for children under 18 months are mostly of the social insurance type and are aimed at compensating for the mother's previous earnings while the benefits for children over 18 months are provided within social assistance and are means-tested. It could be expected that they have a different influence on family poverty. We use econometric analysis to estimate the probability of poverty for individuals in families with children depending on their receipt of family benefits, controlling for other determinants of poverty.

Literature Review

Social protection issues have been investigated in numerous research papers. In particular, family benefit effects on poverty were revealed in papers by Arcanjo et al., 2013; Bradshaw, 2012; Denisova et al., 2000; Jäntti, Danziger, 1994; Notten and Gassmann, 2008; Ovcharova et al., 2010; Popova, 2014; Tamborini, Cupito, 2012; Van Lancker et al., 2015; and Van Lancker, Van Mechelen, 2014. Scholars agree that family benefits reduce child poverty. For instance, Jäntti and Danziger (1994), comparing family benefits and child poverty in Sweden and the USA, conclude that the broad coverage and generous volumes of benefits in Sweden have resulted in a significant reduction of child poverty regardless the household characteristics. Arcanjo et al. (2013), in their paper based on data from Italy, Poland, Portugal and Spain, note that family benefits influence child poverty and general poverty. However, the impact of these

[4] Russia Longitudinal Monitoring survey, RLMS-HSE, conducted by National Research University "Higher School of Economics" and ZAO "Demoscope" together with Carolina Population Center, University of North Carolina at Chapel Hill and the Institute of Sociology RAS. (RLMS-HSE web sites: http://www.cpc.unc.edu/projects/rlms-hse, http://www.hse.ru/org/hse/rlms)

benefits is rather small. Tamborini and Cupito (2012) analysed a specific programme of family benefits – US Social Security – and concluded that this particular type of benefit reduces the risk of poverty especially for families headed by women, notably widows.

At the same time, researchers do not agree which type of benefit is the most efficient. For example, Bradshaw (2012) is a passionate proponent of categorical benefits praising their efficiency and social justice. Based on a broad international study of family benefits the author argues that means-tested benefits are often focused on the poorest households, and many eligible families do not actually get them. Means-tested benefits are inefficient horizontally and vertically. Bradshaw analyses separately family benefits in CEE and CIS countries including Russia where means-tested family benefits are widespread. In addition to the shortages of means-tested schemes, the author indicates the low values of family benefits in the CEE/CIS region. That is why the benefits are not sufficient to help families rise above poverty line. Bradshaw places Russia 8th among 21 countries from this region, based on the level of child protection.

Van Lancker and Van Mechelen (2014) analyse how the focus of family benefits (on the lowest income groups or on relatively well-off groups) correlates with child poverty. They argue that the focus of family benefit on the poorest groups is associated with more significant poverty reduction. But this is true first of all for the countries where not all the families are eligible for benefits. In general, countries most successful in child poverty reduction combine targeting with a universal approach – all the families with children get benefits, but those in greatest need get more.

Van Lancker et al. (2015) use similar methodology to investigate the benefits for single mothers. They conclude that benefits targeting single mothers reduce the risk of poverty of these particular families.

In Russia the changes in the policy on child benefit provision which occurred in 1997 motivated scholars to analyse their effects. Denisova et al. (2000) confirmed that the introduction of means-tested schemes in the regions improved the targeting of child benefits. The probability of getting benefits increased for poor families. However, the reduction of benefit amounts expanded child poverty. In the authors' opinion, the crucial element of benefit targeting in Russia was the ability of regional and local authorities to implement the scheme, regardless of its type.

Notten and Gassmann (2008) study a later period, from 2000, when means-tested

schemes became widespread in Russian regions, to 2004. However, their findings were similar. The authors note that from 2000 more children (including children from poor families) started to receive benefits. Nevertheless, for Russia they regard a universal scheme as more efficient than a means-tested scheme (because of leakage and the gaps in coverage that were pervasive). They explain the gaps and leakages by the novelty in the system of child allowances where elements of means-testing were introduced. From the authors' viewpoint, the amounts of benefits matter most of all (Notten and Gassmann, 2008, p. 260).

According to the research by Ovcharova et al. (2010), the type of child benefit is important with regard to poverty reduction. Social security benefits (such as prenatal and maternity benefits, and child care allowances for children under 18 months) are more effective in mitigating poverty than social assistance benefits (such as benefits for children over 18 months). The authors mention certain shortcomings of the Russian family benefit system. When a child reaches 18 months the amount of family benefits falls abruptly, and the income shortage could be compensated only by the employment of both parents. Besides this, regional variation in the amounts of family benefits increases the observed difference in poverty risks. The research is based on the data from a special representative survey of Russian families conducted in 2004 and 2007. The authors use a specific methodology constructing 'model families' and assessing all the indicators with regard to these typical households.

Popova (2014) compares family benefit systems in Russia, Sweden, Germany, Belgium and Great Britain using micro-simulation models. For Russia she derives data from RLMS-HSE, 2010. She argues that the Russian system of family benefits, if transferred to any of the considered European countries, would not be less effective in fighting child poverty than the local systems. The main problem of the Russian system is insufficient financing rather than design. A better option for the design is a combination of categorical and means-tested benefits (as in the Great Britain and Belgium).

Investigating child benefits in Russia, also using RLMS-HSE data for 2010, Popova notes that those benefits are not well targeted; in particular they are associated with serious leakages. Better targeting and increasing the amount of benefits could have reduced child poverty even with the same level of financing. Like Ovcharova et al., Popova criticizes the variation of regional benefits. In the author's opinion, significant regional variations are not efficient (regional authorities do not adopt the best practices of their neighbours) and they are problematic from the viewpoint of social justice. The author therefore suggests a universal scheme of family benefits for the whole country with the same benefit amount adjusted to regional prices (Popova,

2013).

Many of these authors (Arcanjo et al., 2013; Popova, 2014; Van Lancker et al., 2015; and Van Lancker, Van Mechelen, 2014) used the concept of relative poverty (in particular, 60% of the median equivalised disposable income). Jäntti and Danziger (2014) set the poverty line at 40% of the median equivalised disposable income . The concept of absolute poverty is mostly used by the authors (Notten and Gassmann, 2008; Ovcharova et al., 2010; Popova, 2013) investigating child poverty in Russia (subsistence minimum serves as the poverty line in this case), and by Tamborini and Cupito (2012) in their research based on the US data.

Absolute, relative and subjective poverty issues were investigated by Goedhart et al., 1977; Ravallion, Lokshin, 2002; Kalugina, Najman, 2003; Burdyak, Popova, 2007 and Mareeva, Tikhonova, 2016.

The definition of subjective poverty was introduced by Goedhart et al. (1977). Using this notion, Ravallion and Lokshin (2002) studied the connection between absolute and subjective poverty in Russia with the data from the RLMS-HSE. They reveal a significant correlation between incomes and subjective poverty. However, income level is not the only factor explaining subjective poverty. There are other determinants of subjective poverty, among them health status, educational background, employment, assets, average income in the place of residence, and the perceptions of future welfare. Kalugina and Najman (2003), using the same data, assess the impact of employment status on absolute and subjective poverty in Russia. They find that multiple employment significantly reduces the probability of absolute and subjective poverty.

Tikhonova and Mareeva (2016) studied Russian poverty perception. They consider interrelations between absolute, relative and subjective poverty. The authors note that Russians' assessment of the poverty threshold depends on their region and place of residence. The correlation observed between the subjective poverty threshold and the official subsistence minimum is weak. That is because the subsistence minimum is defined by regional authorities autonomously with regard to their economic resources and policy priorities. As a result, the variation of subsistence minimums between regions is significant, even for regions with similar living costs, types of population settlement etc. Investigating the interrelations between relative and subjective poverty in Russia, the authors note that the poverty line in public minds is 73.7% of the median per-head income. This level is higher than scholars normally use as a definition of subjective poverty – 40-60%. Mareeva and Tikhonova suggest using 70-75% of the median income as the threshold of subjective poverty in Russia.

Burdyak and Popova (2007) use the data from the Leningrad region to compare absolute, relative and subjective poverty. Their study shows that absolute poverty is typical for families with children while relative and subjective poverty is more widespread among pensioners. According to their estimates, child poverty depends first of all on parental incomes, and on interfamily cash transfers, insurance benefits and pensions. The demographic structure of the family, parental educational background and their positions in the labour market also influence child poverty but to a lesser degree.

Data and Methods

This study is based on pooled and panel household data from the RLMS-HSE. This is a nationally representative survey; data have been collected since 1992. The RLMS-HSE survey satisfies all the standards for the ethical treatment of participants.

We use the data from years 2003-2015. We have chosen this particular period because before 2003 the survey questionnaire included only one question on child benefits which gave no detailed information on different types of benefits. Since 2003, the data show sums of benefits for children under 18 months and over 18 months separately.

RLMS-HSE monitors households and their individual members. The representative sample of households for 2003-2015 consists of 60,648 observations; the representative sample of individuals is 159,496 observations. Among them, there are 21,985 observations of families with children under 18 (on average, 1,691 households in each wave) and 84,786 observations representing individual members of families with children (on average, 6,522 individuals in each wave). Among families with children, 2,375 include children under 18 months and 20,869 include children over 18 months. Among the individuals, 10,942 belong to families with children under 18 months and 80,490 belong to families with children over 18 months.

We analyse only families with children and their members, including children. We use household data, and individual data, matching individuals and their respective households to assess various types of poverty at the individual level.

We consider two aggregated types of benefits: (A) all benefits for children under 18 months, including care allowances for these children, and (B) all benefits for children over 18 months, including the nursing benefits for children over 18 months which are most widespread in Russia today. Type A benefits are mostly contributory and partly categorical; some of them are lump-sums and most of the others positively correlating with the mother's previous earnings, though the latter have a ceiling. These benefits are set at the federal level. In contrast, type B

benefits are paid by regional budgets and are usually means-tested. Type B benefit values differ between regions depending on their budget. Nevertheless, on average in 2003-2015 type B benefits are 4 times smaller than type A benefits. As our data show, the average share of type A benefits in recipient household incomes recently reached 15%, while the average share of the type B benefits was about 5%.

The child benefits received by households in different years were all estimated in 2015 prices, in thousand rubles. If the members of the household declared themselves non-recipients of child benefits, the size of the benefits was set to zero. We analyse descriptive statistical data to reveal variations in the characteristics of households that receive family benefits of both types and households that get no benefits. Then we use econometric analysis to assess the impact of child benefits on the absolute, relative and subjective poverty of families with children, and their members.

Since the respondents are inclined to underestimate their incomes, we compared the declared income of a household with the sum of all the incomes of the members of household. That is, we used one general question about the aggregate family income and a number of questions about the specific types of incomes of all family members such as wages, pensions, allowances and other monetary incomes. We also included in the total family income all the incomes in-kind estimated in money terms by the respondents themselves. Then we took the maximal value as that household's income.

We used equivalised household incomes to control for different sizes and compositions of families (there is an economy of scale typical for large families, and also members of the family consume more or less according to their ages). We used a modified OECD scale to estimate equivalised household incomes.

Absolute poverty means that a household's monetary income is too law to serve its basic needs such as food, clothing and housing. The absolute poverty line for each household was set as the sum of subsistence minimums of all the members of the household. In Russia, subsistence minimums are set at the regional level and differ also for children, working-age population and pensioners. So for each household in our sample we calculated their own subsistence minimum depending on the region of residence and the household's composition. All the members of a household were regarded as poor in a certain year if the aggregate monetary income did not exceed the poverty line in this particular year.

The concept of relative poverty sets a certain standard of poverty as the share of the

medium individual income of the society. Usually, the relative poverty line is set at 40%, 50% or 60% of the median income. Applying this approach to our sample, 24% of individuals are considered poor if we use the 60% threshold, while 28% of individuals are poor in terms of absolute poverty. That is why we used the additional relative poverty line at the level of 70% of median income (as in Mareeva and Tikhonova (2016)).

The concept of subjective poverty means that a person is regarded as poor if she feels poor. In this paper we use the "economic welfare question" from the RLMS-HSE questionnaire: *"And now, please imagine a nine-step ladder where at the bottom, on the first step, are the poorest people, and on the highest step, the ninth, are the richest. On which step of the nine steps are you personally standing today?"* To assess subjective poverty, we also used different thresholds – grades 3, 4 and 5 on the scale of subjective welfare. Individuals placing themselves on the defined step of the ladder or higher, were regarded as non-poor.

Descriptive Statistics

We aggregate our data to see how the absolute and relative values of the benefits of both types changed during the observed period. Figure 1 shows the dynamics of average type A and B child benefits values from 2003 to 2015, in 2015 prices.

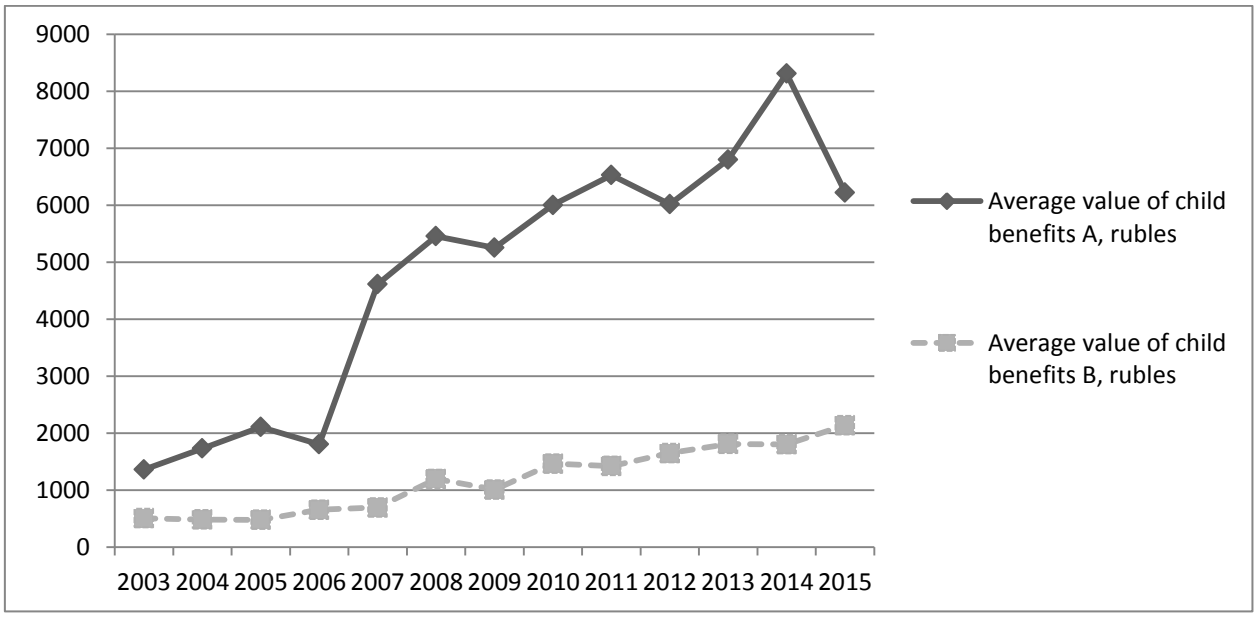

Fig. 1. Average values of child benefits A and B (in rubles, 2015 prices)

The average value of type B benefits demonstrates a gradual growth, while the value of type A benefits (for children under 18 months) has been increasing non-monotonically with a decline in 2015. Similar dynamics can be observed in the average and median shares of benefits

in household incomes (Figures 2 and 3). Comparing the dynamics of the average and median shares of type A benefits in household incomes shows that the fall of the share of benefits is greater among better-off families.

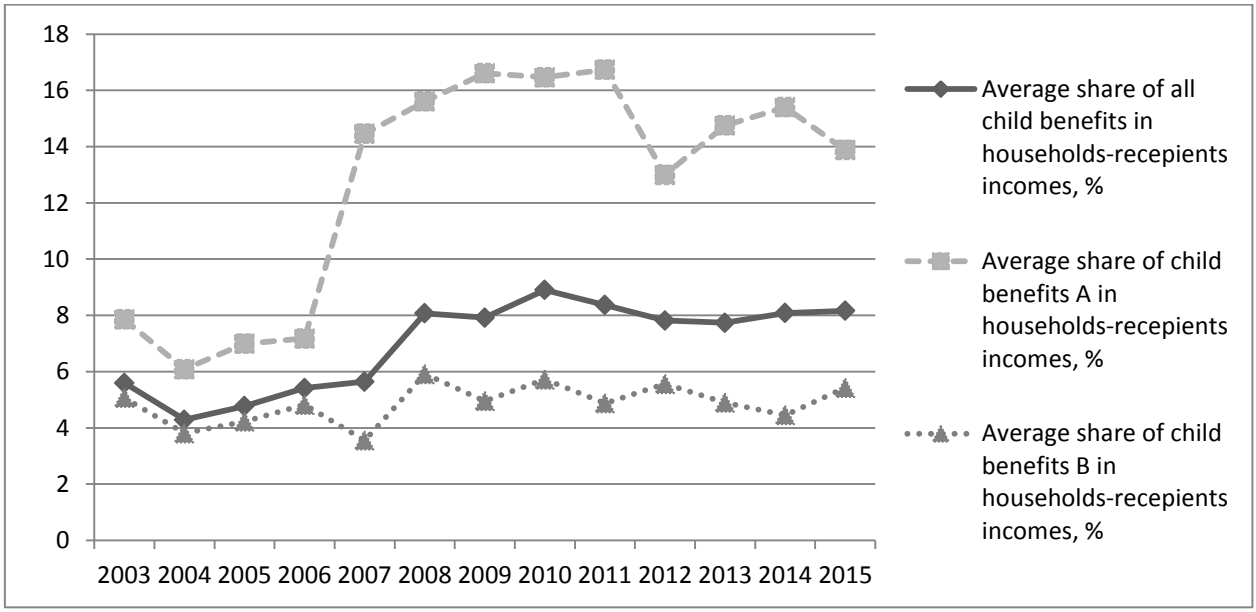

Fig. 2. Average share of child benefits in household-recipients incomes, %

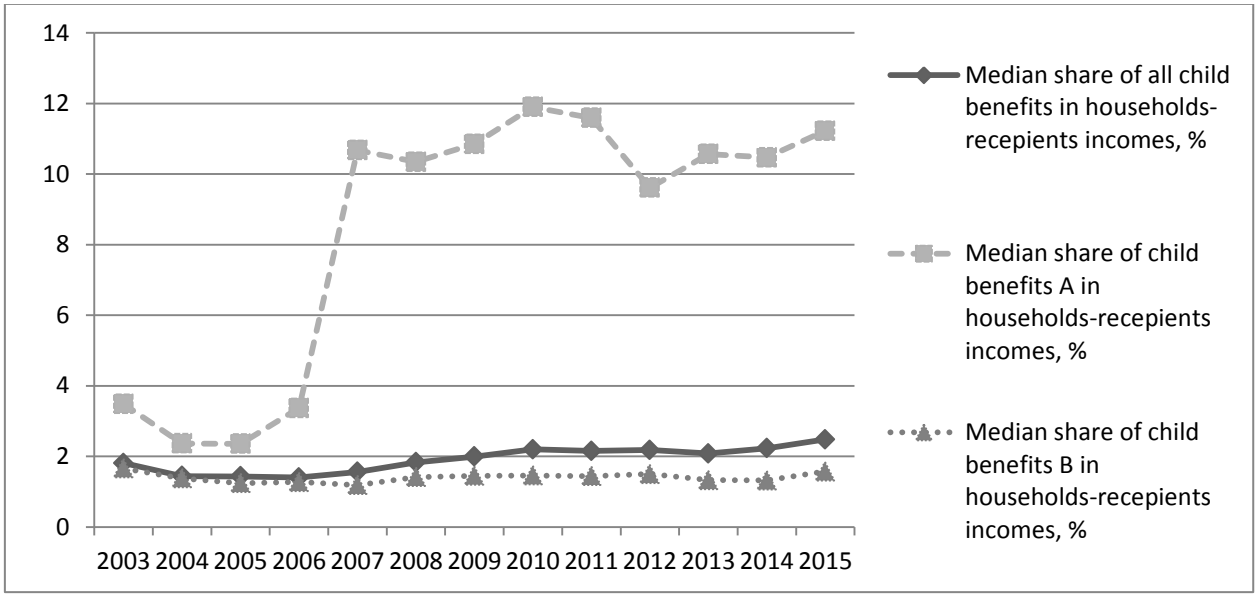

Fig.3. Median share of child benefits in household-recipients incomes, %

In 2015, the average share of type A benefits in household incomes was about 14%, and the median share was 11.2%. In the same year, type B benefits accounted for 5.7% of household incomes on average; for half of the recipients the share of type B benefits was less than 1.6% of their incomes, making this form of assistance almost negligible.

In 2007, one can observe a sharp increase in the absolute value of type A benefits, and a

spike in its share of household income. The most significant benefit of type A is the care allowance for children under 18 months which depends on the mother's previous earnings. It is necessary to find out whether income growth causes the observed increase in benefits. However, as Figure 4 shows, the average per capita household income changed gradually in 2006-2007.

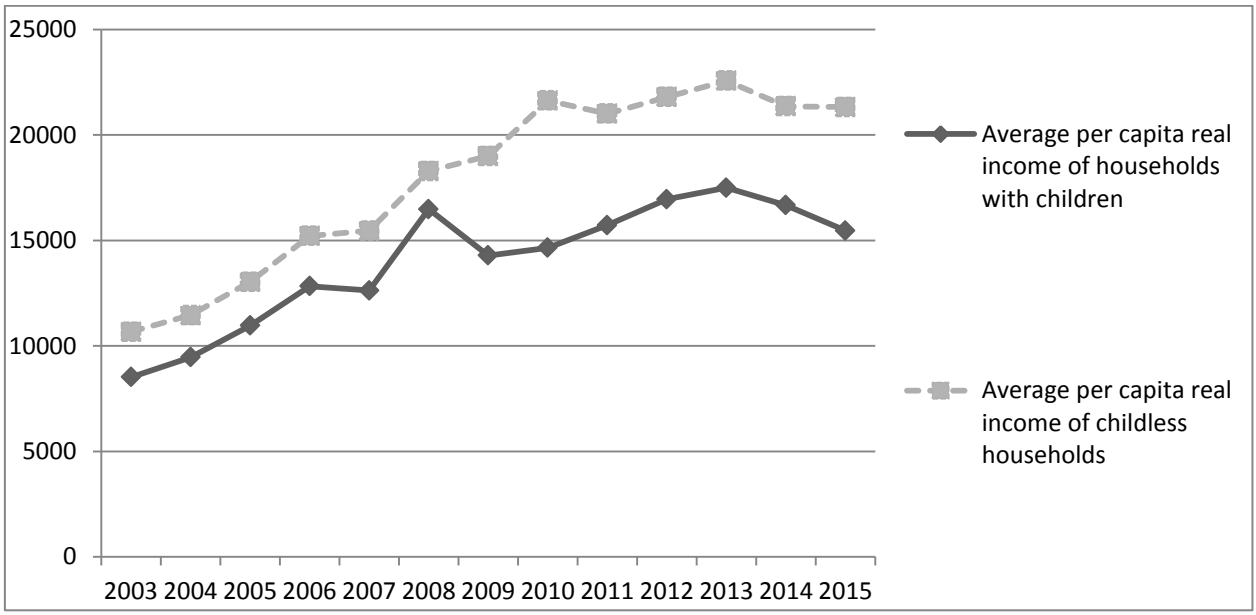

Fig. 4. Average household per capita real income (in rubles, 2015 prices)

The reason for the growth in type A benefits is institutional: in 2007 amendments to Federal law № 81 'On state benefits for citizens with children' were adopted. The ceiling for prenatal and maternity benefits was augmented from 16,125 rubles to 23,400 rubles per month. The level of the child care allowance for children under 18 months was set to range between 1,500 rubles and 6,000 rubles per month instead of the previous universal sum of 700 rubles. The real value of type A benefits changed dramatically, making these allowances a substantial part of household incomes.

Figure 5 demonstrates the dynamics of the share of household-recipients of child benefits among all the households with children and among the groups with children under and over 18 months.

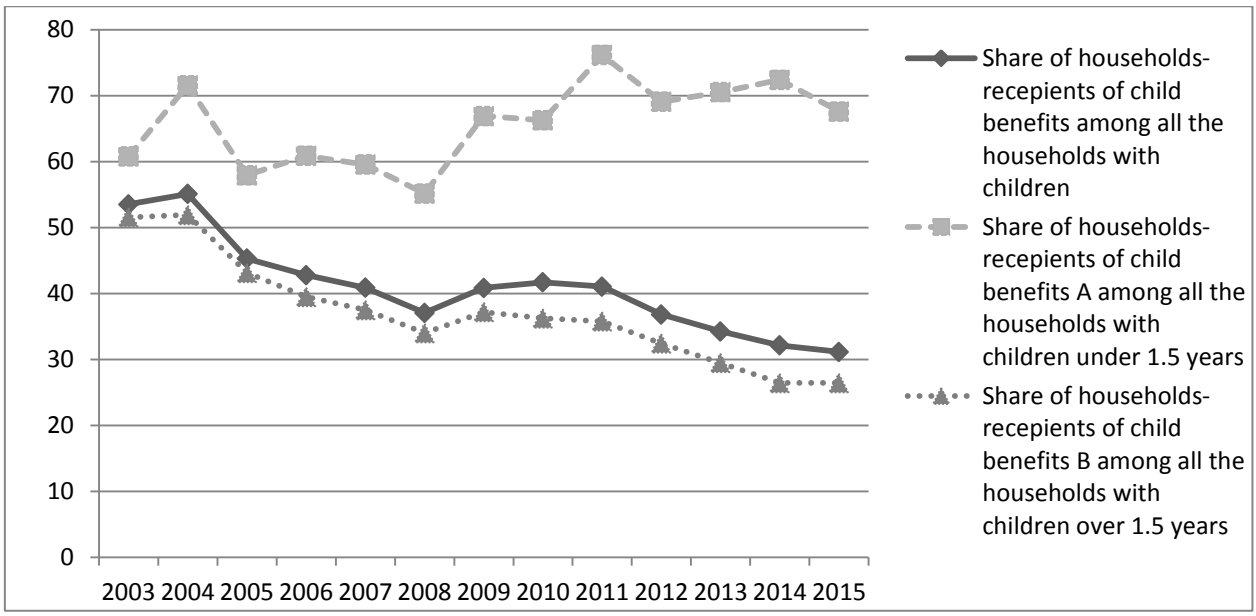

Fig. 5. Household – recipients of child benefits as share of all households with children, %

While the share of recipients of type A benefits was more or less stable over the 13 years (presumably, it depends mostly on the share of small children among all families with children), the share of recipients of type B benefits has declined gradually from 52% in 2003 to 27% in 2015. From Figures 4 and 5 one could suppose that the share of recipients of type B benefits is negatively correlated with household incomes. First, fewer and fewer households can pass the regional means-test necessary for eligibility. Second, the higher the family income, the lower the probability that the family will apply for child benefits because of time and moral costs.

The next step is to reveal the variations in the characteristics of households that receive child benefits and households that get no benefits. Table 1 shows the differences between the indicators characterizing these two groups of households. In the first part of the table we compare characteristics of the families with children under 18 months that receive type A benefits with those of families with children under 18 months that do not get type A benefits (regardless of type B benefits). The second part of the table is identical to the first one, but includes only families with children over 18 months which receive and do not receive type B benefits (regardless of type A benefits).

The household-recipients of child benefits have, on average, lower incomes than the families that do not get benefits. Apart from this, there is a difference in household composition. The families without type B benefits are characterized by a larger fraction of employed persons and pensioners (women over 55 years old, men over 60 and all those respondents of both genders who said that they received pension). All the families without benefits are characterized by their relatively small share of children. This explains their relatively high equivalised and per capita

incomes.

Tab. 1. Child benefits and households characteristics (results of t-test), %

Indicators	Indicator's value for household-recipients of child benefits	Indicator's value for households with children which do not get benefits	Difference between household-recipients and those that do not get benefits	Number of observations
I. Benefits for children under 1.5 (A benefits)				
Families with children under 1.5				
Household equivalised[1)] income per capita, rubles***	24021.33	28171.31	-4149.98	2326
Average per capita household income, rubles***	13161.72	15463.97	-2302.25	2326
Average total household income, rubles***	60084.09	70549.32	-10465.23	2326
Average share of employed members in household, %	41.49	42.59	-1.1	2359
Average share of children in household, %***	38.58	36.72	1.86	2360
Average share of pensioners in household, %	8.22	9.13	-0.91	2360
II. Benefits for children over 1.5 (B benefits)				
Families with children over 1.5				
Household equivalised income per capita, rubles***	19508.76	27496.86	-7988.1	20374
Average per capita household income, rubles***	11111.22	16291.27	-5180.05	20374
Average total household income, rubles***	46122.23	60977.72	-14855.49	20374
Average share of employed members in household, %***	37.68	45.38	-7.7	20746
Average share of children in household, %***	39.46	35.91	3.55	20754
Average share of pensioners in household, %***	11.03	12.42	-1.39	20754

Notes: Calculations based on 2003-2015 RLMS-HSE pooled data. All the money values in 2015 prices.

Difference between indicators for two types of families was confirmed and is

*- significant at 10%-level

**- significant at 5%-level

***- significant at 1%-level

1) Equivalence scale - modified OECD scale

Table 2 shows the division of households between those who get or do not get family benefits in relation to certain characteristics such as poverty (in absolute terms), type of settlement, household type, and parental education. Based on the χ^2 coefficient, we can define the statistically significant correlations between categorical variables. Here we test a number of hypotheses on the lack of correlation between receiving child benefits and the mentioned indicators.

Tab. 2. Child benefits and households characteristics (results of χ2-test), % by row

Indicator	Families who get benefits	Families who get no benefits
I. Benefits for children under 1.5 (A benefits)		
All households with children under 1.5	67.58	32.4
Poverty* **		
Non-poor households	67.24	32.76
Poor households	70.1	**29.9**
Type of settlement* **		
Regional centre	66.98	33.02
City (not a regional centre)	67.86	32.14
Small town	50	50
Village	71.77	28.23
Household's type* **		
Two-parent family	67.3	32.7
Single parent (also with other relatives)	71.33	28.67
Other types	65.2	34.8
Mother's education* **		
Mother has university degree	63.49	36.51
Mother has no university degree	69.92	30.08
Father's education **		
Father has university degree	61.81	38.19
Father has no university degree	68.09	31.91
Indicator Families who get benefits Families who get no benefits		
II. Benefits for children over 1.5 (B benefits)		
All households with children over 1.5	36.35	63.65
Poverty* **		
Non-poor households	**28.52**	71.48
Poor households	54.65	**45.35**
Type of settlement* **		
Regional centre	26.98	73.02
City (not a regional centre)	32.85	67.15
Small town	35.56	64.44
Village	53.77	46.23
Household's type* **		
Two-parent family	35.66	64.34

Single parent (also with other relatives)	39.57	60.43
Other types	33	67
Mother's education* **		
Mother has university degree	25.28	74.72
Mother has no university degree	43.03	56.97
Father's education* **		
Father has university degree	24.31	75.69
Father has no university degree	40.42	59.58

Notes: Calculations based on 2003-2015 RLMS-HSE pooled data. Correlation between variables was confirmed and is
*- significant at 10%-level
**- significant at 5%-level
***- significant at 1%-level

There are more child benefits recipients among villagers than among city and town inhabitants. Type B benefits are highly represented in single-parent households. Parental university education levels are negatively correlated with receiving child benefits. [5]

Table 2 also illustrates the gaps in coverage and leakages in the system of child benefits (the corresponding figures are underlined). Namely, 29% of all non-poor households with children over 18 months get benefits, while 45% of poor households get no benefits. Here we concentrate our attention on type B benefits because these benefits are means-tested and presumably should reduce poverty as they are targeted at poor families.

Consider the gaps in coverage and leakages in type B benefits system in dynamics (Fig.6).

[5] The results of the tests above should be considered with care, as they depend on the number of observations on families with children in each wave of the survey. These numbers fluctuate between 1,185 in 2005 and 2,357 in 2011.

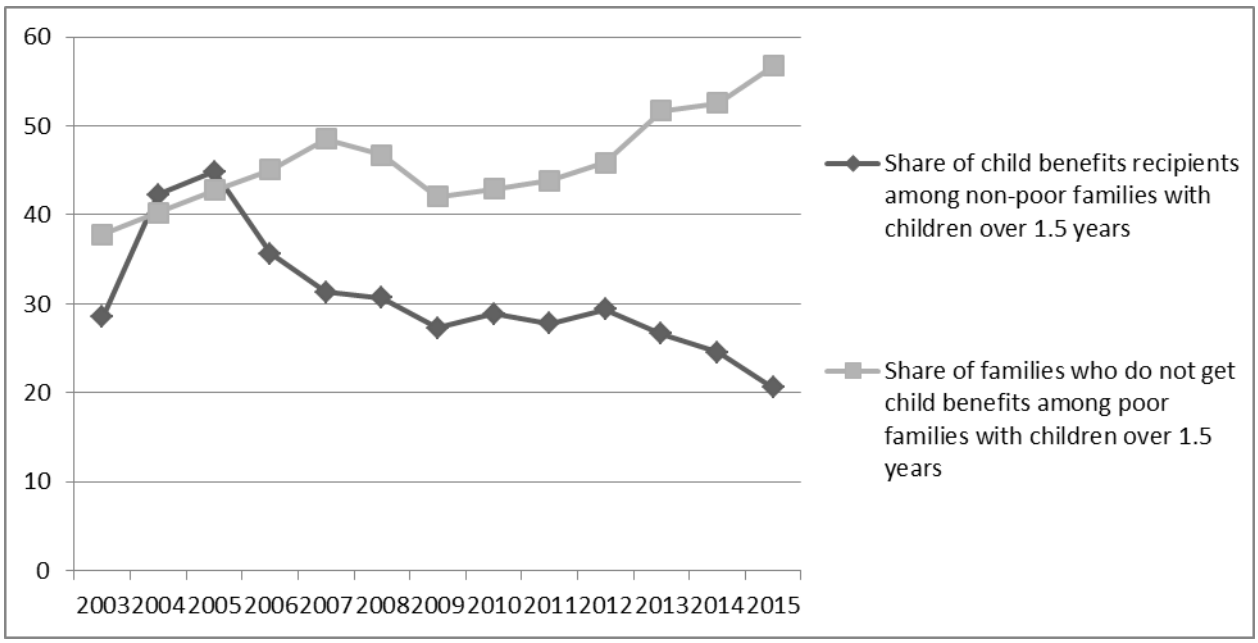

Fig.6. Gaps in coverage and leakages in child benefits system, benefits type B (%)

Figure 6 shows that during the period the share of leakages gradually decreased (to 25.8% in 2015), while the share of gaps in coverage increased and reached 56.8% in 2015. While the leakages in the child benefit system can be partly explained by the intentional pro-natal policies of governmental and regional authorities, the gaps might indicate that not all poor families apply for benefits or even know about their existence.

Figure 7 demonstrates the division of all Russian families with children over 18 months with regard to their absolute poverty status and their receipt of child benefits. From 100% of all families with children over 18 months, 18% are non-poor recipients of child benefits and 15% are poor families without benefits. Thus, the leakages observed in the child benefit system in Russia exceed the gaps in coverage. However, we think that the gaps are the most important issue, since this type of benefit is means-tested and is presumably aimed at the poorest families.

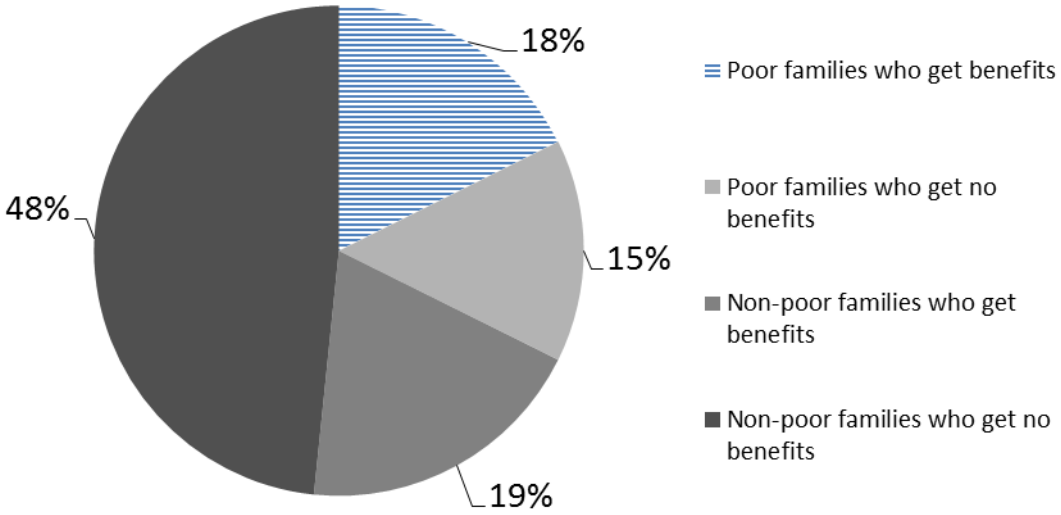

Fig.7. Absolute poverty and child benefits B among Russian families with children over 18 months (%)

Overall, the average values reveal correlations between benefits, poverty indicators and other household characteristics. This allows us to build models of the influence of family benefits on household poverty.

Regression Analysis and Results

We model the influence of child benefits on the probability of absolute, relative and subjective poverty, using the data from the RLMS-HSE on individuals from families with children from the years 2003-2015. Among 84,315 individuals in our sample 76,831 provided information about their incomes, and 55,830 assessed their well-being using a scale where 1 is the lowest and 9 is the highest. The subsample for the models of absolute and relative poverty includes 76,831 observations; subsample for the model of subjective poverty consists of 55,830 observations.

For each type of poverty – absolute, relative and subjective – we estimate the individual's probability of poverty using a pooled logistic model and a panel logistic model with random effects. Other controlled factors influencing the risk of poverty for the recipients' household include the type of settlement, family structure, education and employment (for descriptive data on the variables see Appendix).

The definitions of absolute, relative and subjective poverty used in this paper were discussed above in the 'Data' section. The child benefits received by households in different years were all estimated in 2015 prices, in thousand rubles. If the members of the household declared themselves as non-recipients of child benefits, the size of the benefits was set equal to

zero.

Unfortunately, we could not use the fixed-effects specification of the panel logistic model because our dependent variable (the probability of poverty) had insufficient variation. Namely, most individuals stay poor (or non-poor) during the whole period of observation. However, as we work with individual data on a great number of people for 13 years the panel model with individual effects is appropriate from a theoretical viewpoint. All in all, two specifications of the logistic model such as pooled and panel with individual effects allow us to compare the results since we use the same explanatory variables. We also added dummy-variables for years from 2004-2015 (2003 is the base year) which let us control for the fixed effects induced by policy changes (as in 2007).

The results of the model estimates are illustrated in the Tables 3, 4 and 5.

All 16 regression models estimated are statistically significant. The panel model of absolute poverty and all the models of relative poverty show significant coefficients at the variables of type A and B benefits. The coefficients are all negative, so the benefits of both types reduce the probability of absolute and relative poverty.

The probability of subjective poverty does not show significant correlation with type A benefits. Only the pooled logistic model with the 3rd step as a poverty threshold gives us a significant and positive coefficient at the variable 'A Benefits'. However, there are three significant and positive coefficients at the variable 'B Benefits' in the models with different poverty thresholds (pooled and panel models). This result indicates that the receipt of type B benefits reduces the subjective perception of a person's well-being.

The estimates of the coefficients of the control variables confirm the predictable influence of poverty determinants. The smaller the type of settlement, the higher the probability of absolute and relative poverty. Single parenthood and the share of children in the household increase the poverty probability for all types of poverty – absolute, relative and subjective. On the contrary, parental education, and the share of employed members in the family reduces the risk of all types of poverty.

Tab. 3. Econometric models estimates: absolute poverty

Dependent variables	Poverty probability	
	Pooled logistic model	Panel logistic model with random effects
Independent variables		
Benefits for children under 1.5 (A benefits, in thousand rubles per month)	-0.002	-0.017***
Benefits for children over 1.5 (B benefits, in thousand rubles per month)	0.007	-0.016**
Type of settlement (compared to regional center)		
City	0.339***	0.42***
Small town	0.685***	0.786***
Village	1.014***	1.43***
Household's type (compared to two-parent family)		
Single parent (also with other relatives)	0.256***	0.235***
Other types	0.355***	0.534***
Parents' education		
Mother or father has university degree	-0.756***	-0.873***
Household's composition		
Share of employed members	-2.83***	-3.672***
Share of children	0.718***	0.772***
Share of pensioners	-2.438***	-3.08***
2004	-0.157***	-0.206***
2005	-0.552***	-0.728***
2006	-0.454***	-0.576***
2007	-0.555***	-0.7***
2008	-1.094***	-1.477***
2009	-0.901***	-1.185***
2010	-0.902***	-1.199***
2011	-1.125***	-1.522***
2012	-1.254***	-1.709***
2013	-1.258***	-1.689***
2014	-1.191***	-1.589***
2015	-0.894***	-1.179***
Constant	0.98***	1.274***
Number of observations	76931	76931
Test statistics	LR chi2(23) = 16489.98 Prob > chi2 = 0.0000	Wald chi2(23) = 7116.75 Prob > chi2 = 0.0000
R2	Pseudo R2 = 0.1674	

Table 4. Econometric models estimates: relative poverty

Dependent variables	Poverty probability (poverty threshold - 40% of median income)		Poverty probability (poverty threshold - 50% of median income)		Poverty probability (poverty threshold - 60% of median income)		Poverty probability (poverty threshold - 70% of median income)	
	Pooled logistic model	Panel logistic model with random effects	Pooled logistic model	Panel logistic model with random effects	Pooled logistic model	Panel logistic model with random effects	Pooled logistic model	Panel logistic model with random effects
Independent variables								
Benefits for children under 1.5 (A benefits, in thousand rubles per month)	-0.033***	-0.058***	-0.029***	-0.057***	-0.024***	-0.046***	-0.031***	-0.056***
Benefits for children over 1.5 (B benefits, in thousand rubles per month)	-0.065***	-0.103***	-0.066***	-0.118***	-0.036***	-0.071***	-0.043***	-0.082***
Type of settlement (compared to regional center)								
City	-0.024	-0.073	0.238***	0.245***	0.409***	0.468***	0.534***	0.663***
Small town	0.699***	0.75***	0.835***	0.876***	0.946***	1.075***	0.964***	1.136***
Village	0.999***	1.206***	1.125***	1.466***	1.187***	1.641***	1.249***	1.822***
Household's type (compared to two-parent family)								
Single parent (also with other relatives)	0.181***	0.208***	0.243***	0.279***	0.288***	0.288***	0.312***	0.339***
Other types	0.067	0.124*	0.081**	0.101	0.037	0.106*	0.053	0.156**
Parents' education								
Mother or father has university degree	-0.581***	-0.591***	-0.696	-0.753***	-0.763***	-0.833***	-0.805***	-0.907***
Household's composition								
Share of employed members	-3.113***	-3.549***	-3.084	-3.648***	-2.951***	-3.59***	-2.825***	-3.702***
Share of children	0.046	-0.055	0.224	0.305**	0.216***	0.337***	0.372***	0.522***
Share of pensioners	-2.933***	-3.464***	-2.604	-3.007***	-2.252***	-2.496***	-1.898***	-2.356***
2004	-0.077	-0.104	-0.092	-0.112*	0.015	0.024	0.104**	0.153**

2005	-0.416***	-0.508***	-0.358	-0.434***	-0.205***	-0.246***	-0.1**	-0.11*
2006	-0.174***	-0.21***	-0.184	-0.209***	0.011	0.07	0.12**	0.228***
2007	-0.265***	-0.304***	-0.079	-0.065	0.067	0.132**	0.118**	0.222***
2008	-0.496***	-0.639***	-0.321	-0.402***	-0.091*	-0.101	0.076	0.137**
2009	-0.295***	-0.353***	-0.231	-0.256***	-0.11**	-0.107	0.059	0.136**
2010	-0.34***	-0.378***	-0.318	-0.356***	-0.121***	-0.098*	0.054	0.165***
2011	-0.576***	-0.663***	-0.414	-0.478***	-0.211***	-0.22***	-0.017	0.05
2012	-0.696***	-0.808***	-0.433	-0.498***	-0.173***	-0.161***	-0.008	0.083
2013	-0.777***	-0.841***	-0.499	-0.528***	-0.251***	-0.238***	-0.019	0.09
2014	-0.608***	-0.683***	-0.51	-0.542***	-0.221***	-0.171***	-0.067	0.041
2015	-0.839***	-0.977***	-0.625	-0.71***	-0.407***	-0.438***	-0.175***	-0.11*
Constant	-0.646***	-1.102***	-0.42	-0.852***	-0.267***	-0.732***	-0.165***	-0.542***
Number of observations	76931	76931	76931	76931	76931	76931	76931	76931
Test statistics	LR chi2(23) = 7554.44 Prob > chi2 = 0.0000	Wald chi2(23) = 4406.19 Prob > chi2 = 0.0000	LR chi2(23) = 10412.22 Prob > chi2 = 0.0000	Wald chi2(23) = 4406.19 Prob > chi2 = 0.0000	LR chi2(23) = 12569.23 Prob > chi2 = 0.0000	Wald chi2(23) = 4944.26 Prob > chi2 = 0.0000	LR chi2(23) = 14370.31 Prob > chi2 = 0.0000	Wald chi2(23) = 5446.41 Prob > chi2 = 0.0000
R2	Pseudo R2 = 0.1468		Pseudo R2 = 0.1548		Pseudo R2 = 0.1543		Pseudo R2 = 0.1553	

Table 5. Econometric models estimates: subjective poverty

Dependent variables	Poverty probability (poverty threshold – 3rd step of welfare ladder)		Poverty probability (poverty threshold – 4rth step of welfare ladder)		Poverty probability (poverty threshold – 5th step of welfare ladder)	
	Pooled logistic model	Panel logistic model with random effects	Pooled logistic model	Panel logistic model with random effects	Pooled logistic model	Panel logistic model with random effects
Independent variables						
Benefits for children under 1.5 (A benefits, in thousand rubles per month)	0.008*	0.0001	0.004	0.001	0.005	-0.0003
Benefits for children over 1.5 (B benefits, in thousand rubles per month)	0.009	-0.015	0.015**	-0.001	0.03***	0.029***
Type of settlement (compared to regional center)						
City	0.125***	0.155**	0.015	0.003	-0.114***	-0.147***
Small town	-0.407***	-0.424***	-0.411***	-0.424***	-0.442***	-0.475***

Village	-0.061*	-0.135**	-0.085***	-0.119**	-0.155***	-0.171***
Household's type (compared to two-parent family)						
Single parent (also with other relatives)	0.54***	0.593***	0.404***	0.426***	0.379***	0.383***
Other types	0.344***	0.489***	0.075*	0.145**	0.148***	0.22***
Parents' education						
Mother or father has university degree	-0.667***	-0.818***	-0.492***	-0.591***	-0.365***	-0.448***
Household's composition						
Share of employed members	-0.633***	-0.755***	-0.212***	-0.5***	0.157***	-0.19**
Share of children	0.035	0.017	0.191**	0.029	0.123	-0.168
Share of pensioners	0.07	0.176	0.354***	0.411***	0.427***	0.458***
2004	-0.188***	-0.277***	-0.225***	-0.311***	-0.281***	-0.366***
2005	-0.124*	-0.139	-0.233***	-0.285***	-0.259***	-0.289***
2006	-0.184***	-0.244***	-0.203***	-0.281***	-0.204***	-0.236***
2007	-0.144**	-0.213**	-0.201***	-0.288***	-0.295***	-0.376***
2008	-0.317***	-0.402***	-0.361***	-0.489***	-0.404***	-0.48***
2009	-0.186**	-0.198**	-0.166***	-0.178***	-0.241***	-0.217***
2010	-0.174***	-0.255***	-0.223***	-0.336***	-0.143***	-0.174***
2011	-0.023	-0.051	-0.116**	-0.207***	-0.232***	-0.329***
2012	-0.107*	-0.167**	-0.132***	-0.234***	-0.288***	-0.405***
2013	-0.022	-0.016	-0.135***	-0.23***	-0.383***	-0.554***
2014	-0.08	-0.104	-0.126***	-0.22***	-0.236***	-0.327***
2015	-0.072	-0.102	-0.136***	-0.237***	-0.265***	-0.367***
Constant	-1.483***	-2.351***	-0.425***	-0.438***	0.568***	1.114***
Number of observations	55830	55830	55830	55830	55830	55830
Test statistics	LR chi2(23) = 1281.46 Prob > chi2 = 0.0000	Wald chi2(23) = 567.27 Prob > chi2 = 0.0000	LR chi2(23) = 1370.70 Prob > chi2 = 0.0000	Wald chi2(23) = 577.54 Prob > chi2 = 0.0000	LR chi2(23) = 1113.44 Prob > chi2 = 0.0000	Wald chi2(23) = 529.61 Prob > chi2 = 0.0000
R2	Pseudo R2 = 0.0299		Pseudo R2 = 0.0194		Pseudo R2 = 0.0146	

Discussion and Conclusions

This paper investigates the role of family benefits in the well-being of families with children in Russia. The analysis is based on data from RLMS-HSE, including the most recent data (2003-2015). We used individual and household data from the survey to estimate the share of poor and non-poor families receiving benefits among all the families with children. We distinguished between two types of benefits: (A) for children under 18 months, and (B) for children over 18 months. Since type A benefits are mostly of insurance nature and aimed to compensate for the mother's lost earnings, and type B benefits are a part of social assistance and means-tested, we could expect their different impact on family poverty. We also supposed that family benefits could influence various types of poverty (absolute, relative and subjective poverty) in different ways. We used a formal econometric analysis to reveal the impact of type A and B benefits on various types of the poverty of families with children, controlling for other determinants of well-being.

The results show that child benefits of both types reduce the probability of absolute poverty or have no significant effects (depending on the model specification) and reduce the relative poverty of Russian families with children. These results are in line with previous studies that showed the positive but weak impact of family benefits on the well-being of families in Russia (Bradshaw, 2012; Denisova et al., 2000). The model coefficient estimates show that numerous factors other than child benefits also determine absolute and relative poverty. Among them are the type of settlement, the family members' employment statuses, single parenthood, and parental education. Also, the presence of pensioners in a household provides certain hedges against absolute poverty.

For the probability of subjective poverty, the results are robust for a variety of model specifications and show no significant correlation with child benefits of type A. Type B benefits are positively correlated with subjective poverty if the poverty threshold is set at the 4^{th} or 5^{th} step of the welfare ladder (the ladder that has 9 steps starting from the poorest people (1) to the richest (9)). Therefore, recipients of type B (means-tested) benefits feel poor more often than recipients of type A (categorical) benefits. This result could be explained as a consequence of stigmatization, people feeling poor because they accept governmental aid. Among other factors influencing the risk of being poor, the share of pensioners in households with children increases the probability of subjective poverty. On the contrary, life in a smaller settlement reduces subjective poverty. Using the indicators of absolute and relative poverty gives opposite signs for the coefficients of those variables. Subjective poverty is strongly defined by existing perceptions

of life conditions, such as being a pensioner, which is generally associated with poverty. Child benefits (at least, means-tested benefits) seem to be a family characteristic that is perceived as an indicator of poverty. This fact could partially explain the low take-up of child benefits programmes.

Overall, the study reveals the low effectiveness of family benefits in Russia. Their role in supporting family incomes is still negligible, even after the benefits for children under 18 months were increased in 2007. Though the share of benefits for these children in family incomes has increased and reached 16-17% in 2007-2009, it went down to 14% in 2015 while real incomes in the country also declined. Almost 30% of poor families with children under 18 months do not get these benefits. Even with higher benefits for these children, we do not consider them to be effective in fighting poverty.

Despite the elements of means-testing introduced for regional child benefits, the whole system of child allowances in Russia is complex and ineffective. 45% of poor families with children over 18 months do not get child benefits, although these benefits are meant for poor families. This result corresponds to those demonstrated by Notten and Gassmann (2008), for the period 2000-2004. On the other hand, 29% of non-poor families with children over 18 months get these benefits (the leakages in family benefits system were also revealed in (Popova, 2013) for all types of benefits and for one particular year, 2010). Our analysis shows that the share of gaps in benefit coverage by for children over 18 months has been increasing recently. There are still gaps in coverage and leakages in the benefits system confirming its horizontal and vertical inequity. We could not say that benefits for children over 18 months, being means-tested, are better at mitigating poverty than benefits for children under 18 months, which depend on the mother's earnings and are universal. We do not agree with scholars who explain the shortcomings of the Russian family benefits system by its novelty (Notten and Gassmann, 2008), as we see that today it is no more effective than 15 years ago. The system of family benefits needs better targeting to reach the poorest households.

There are numerous possibilities to continue this research in the future. In particular, a detailed analysis of the characteristics of the poor families who get no family benefits, for both types of child benefits, is required. We could also distinguish between the families with one, two or more children as determinants of poverty. We have not addressed the issue of the possible interrelation between the types of household and the types of benefits which also needs to be investigated.

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Appendix

Descriptive statistics on individuals from households with children

	All families with children	Families with children under 1.5	Families with children over 1.5
Share of individuals, living in a household with certain characteristics, %			
Type of settlement			
1.Regional center	37.28	38.19	36.87
2. City	26.5	25.64	26.42
3. Small town	6.8	6.01	6.89
4. Village	29.41	30.16	29.82
Average type of settlement (1-4)	2.28 (1.24)	2.28 (1.25)	2.30 (1.24)
Household's type			
1. Two-parent family	72.28	74	71.79
2. Single parent (also with other relatives)	19.08	11.11	19.18
3. Other types	8.64	14.89	9.03
Average household's type (1-3)	1.36 (0.64)	1.41 (0.73)	1.37 (0.64)
Parents' education			
Mother or father has university degree	38.36 (48.63)	41.64 (49.30)	37.88 (48.51)
Household's composition			
Average share of employed members	42.17 (21.01)	41.05 (19.87)	41.72 (20.97)
Average share of children	35.94 (13.08)	38.13 (14.78)	36.5 (13.08)
Average share of pensioners	9.03 (14.35)	6.73 (11.15)	9.09 (14.41)
Share of individuals belonging to poor families, %			
Absolute poverty	33.85 (47.32)	38.8 (48.73)	34.03 (47.38)
Relative poverty			
Poverty line – 40% of median equivalised income	10.45 (30.60)	11.25 (31.60)	10.6 (30.78)
Poverty line – 50% of median equivalised income	15.92 (36.59)	16.86 (37.44)	16.15 (36.80)
Poverty line – 60% of median equivalised income	22.29 (41.62)	22.81 (41.96)	22.6 (41.82)
Poverty line – 70% of median equivalised income	29.09 (45.42)	29.57 (45.64)	29.45 (45.58)
Subjective poverty			
Poverty line – 3rd step of welfare ladder	13.04 (33.67)	13.56 (34.24)	13.15 (33.79)
Poverty line – 4rd step of welfare ladder	33.06 (47.04)	33.8 (47.31)	33.17 (47.08)
Poverty line – 5rd step of welfare ladder	57.87 (49.38)	60.05 (48.98)	57.83 (49.38)

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