



Irina Denisova, NES and CEFIR  
Marina Kartseva, CEFIR  
May 2017

# Intergenerational Mobility of Russian Households

To understand the nature of income inequality one needs to know how persistent the inequality is across generations. The same inequality levels could conceal different intergenerational mobility. We utilize the Russian Longitudinal Monitoring Survey (RLMS-HSE) to find out how large intergenerational mobility in Russia is as measured by income, educational and occupational mobility. We find that although a sizeable upward intergenerational educational mobility, there is a pronounced occupational immobility and a low level of intergenerational income mobility. Indeed, the position of children in the income distribution is highly correlated with the income position of their parents, especially their mothers.



Sizeable and non-decreasing inequality in Russia poses a threat to social stability and long-term sustainability. Inequality in Russia has remained high throughout the transition period, and even slightly increased in the 2000s; the Gini inequality index rose from 0.397 in 2001 to 0.416 in 2014. The ratio of average incomes of the highest decile to those of the lowest decile also increased from 13.9 to 16 during this same period. This income gap is driven primarily by the gap between incomes of the top decile and all of the others: the top decile is estimated to have thirty percent of total monetary income in the economy. Furthermore, income inequality originates in earnings inequality: the top decile of wage earners gets thirty five percent of total wage earnings in the economy.

A key question is how persistent the inequality is, given that the same inequality levels could conceal different intergenerational mobility. In particular, social stability is challenged when income inequality is stable across generations, or put differently; there is little intergenerational mobility. Economic developments of the last 25 years seem to increase the risks of getting this problem in Russia.

## Data and research methodology

We employ Russian Longitudinal Monitoring Survey (RLMS-HSE) to find out how large intergenerational mobility in Russia is as measured by income, educational and occupational mobility (Denisova and Kartseva, 2016). The RLMS-HSE questionnaires in 2006 and 2011 contain questions on dates of birth, education and occupation of the father and mother of the respondent when the respondent was 15 years old.

To study occupational and educational mobility, we use the subsample of respondents of 25-55 years old and utilize the information on education and occupation of the respondent and his/her parents. We then estimate whether the

parental education level predicts the probability that children have a university degree, a secondary or a junior professional degree.

To study intergenerational occupational mobility, we estimate influence of parental occupation on the probability that the child works as a manager, a professional, a technician or professional associate, a clerk, a qualified worker or an unskilled worker.

To study the child-parent income correlation based on RLMS is trickier. There is a panel component in RLMS but it is not long enough to study intergenerational mobility directly since we for most cases are not able to observe both parents and children during their working ages. To overcome the problem we impute wages for parents. In particular, we choose respondents aged 25-35 (children) in 2006 (and 2011). We then identify respondents born in the period 1945-1961 (1945-1966 for children in 2001) ('parents') and use the labor market information for this group as of 1995 (2001 as robustness check) to impute parental wages. We estimate a wage equation (separately for males and females) on the sample of 'parents' and then use the estimated returns (coefficients) and the reported age and education of respondent's mother and father to impute wages of respondent's parents.

We follow Björklund and Jantti (1997) to estimate the child-parent correlation of earnings based on the equation:

$$\text{delta} = \beta_0 + \beta_1 X + \beta_2 \text{delta\_father} + \beta_3 \text{delta\_mother} + \varepsilon$$

where  $\text{delta} = \log(\text{wage}/\text{average wage in respective sample})$ ,  $X$  – age, education, settlement type, region. Standard errors are clustered on primary sampling unit.

## Intergenerational educational mobility

Our analysis shows that the education of parents, high professional (university) and secondary



professional in particular, is a major determinant of children's education. Moreover, there are clear signs of upward educational mobility across generations for both males and females: the coefficients in the transition parent-child matrix are significantly higher above the diagonal (Table 1).

Table 1. Father-child education matrix

		Education of children					
		Incomplete secondary	Second (10-11)	Junior profess	Secondary profess	University and more	
Father's education		<i>Females</i>					
		Incomplete second	0.09	0.12	0.34	0.30	0.15
		Secondary (10-11)	0.03	0.09	0.26	0.35	0.27
		Junior professional	0.03	0.09	0.28	0.34	0.26
		Secondary professional	0.01	0.06	0.16	0.36	0.41
		University and more	0.01	0.05	0.08	0.20	0.66
		<i>Males</i>					
		Incomplete second	0.06	0.13	0.55	0.16	0.10
		Secondary (10-11)	0.02	0.13	0.47	0.21	0.17
		Junior professional	0.03	0.10	0.52	0.19	0.16
Secondary professional	0.02	0.11	0.33	0.21	0.33		
University and more	0.00	0.11	0.21	0.13	0.55		

Source: Authors' calculations based on RLMS

The probability to have a university degree is 2.4 percentage points higher if the mother's education is at university level (as compared to secondary school), and 2.1 percentage points higher if the father's degree is at university level (as compared to secondary school). A secondary professional degree of parents also increases the probability of a child getting a university degree by about 1 percentage point. The probability of having secondary professional degree decreases if the father or mother has a university degree.

## Intergenerational correlation of occupations

There are signs of sizeable occupational rigidity between generations, especially for the top two occupational groups (managers and professionals). The probability that a child works in the same occupational group is the highest for parents-professionals: it is 40% for fathers-professionals and 35% for mothers-professionals. Surprisingly, it is also rather high for parents employed as skilled workers – about 20%. These patterns survive controlling for other variables.

## Income mobility

The correlation of parent-child wages measured for 2006 data are presented in Table 2. The results point to the sizeable average intergenerational rigidity of relative wages: the wage elasticity of children's wages with respect to parental wages is about 0.4. This is at the level of the intergenerational wage rigidity in the US (Solon 1999).

There is sizeable gender asymmetry in the rigidity: we observe a high and significant correlation of son-mother wages, but an insignificant correlation of son-father wages. There is no significant correlation of daughter-parents wages.

Table 2. Parent-child income correlations, 2006

	Children's wage (deviation from sample average) 2006			
	1995 ?s		2001 ?s	
	<i>Total sample</i>			
Father's wage (deviation from sample average)	0.451* [1.97]	0.396* [1.72]	0.534*** [2.86]	0.271 [1.57]
Mother's wage (deviation from sample average)		0.408*** [2.97]	0.414*** [2.96]	0.389*** [3.09]
				0.302** [2.58]
		<i>Males</i>		
Father's wage (deviation from sample average)	0.308 [0.95]	0.28 [0.81]	0.437 [1.44]	0.137 [0.43]
Mother's wage (deviation from sample average)		0.469*** [2.88]	0.488*** [2.99]	0.432** [2.62]
				0.387** [2.37]
		<i>Females</i>		
Father's wage (deviation from sample average)	0.188 [0.47]	0.149 [0.38]	0.175 [0.60]	0.11 [0.36]
Mother's wage (deviation from sample average)		0.188 [0.47]	0.149 [0.38]	0.168 [0.87]
				0.07 [0.32]

Source: Authors' calculations based on RLMS

## Conclusion

Generational poverty stemming from low intergenerational income mobility is a threat for sustainable development in any country. The economic and social development in transition seems to increase the risks of having this problem in Russia. Our estimates show that although there is sizeable upward intergenerational educational mobility in Russia, there is a pronounced occupational immobility, and low level of intergenerational income mobility. Indeed, the



position of children in the income distribution is highly correlated with the income position of their parents, especially mothers. These findings are worrisome signals important for the design of policies of sustainable development.

## References

Bjorklund, Anders; and Markus Jantti, 1997. "Intergenerational Income Mobility in Sweden Compared to the United States," *American Economic Review*, 87(5), 1009–18.

Denisova, Irina; and Marina Kartseva, 2016, "Intergenerational Mobility of Russian Households", *mimeo*

Solon, Gary, 1999. "Intergenerational Mobility on the Labor Market," Chapter 29 in *Handbook of Labor Economics*, Vol.3 edited by O.Ashenfelter and D.Card , 1761-1800.



## Marina Kartseva

Centre for Economic and Financial Research  
mkartseva@cefir.ru  
www.cefir.ru

Marina Kartseva has graduate degrees in physics and in economics (from the New Economic School). She is a Senior Economist at the Center for Economics and Financial Research in Moscow. Her main research interests are in labor, income distribution and policy impact evaluation.



## Irina Denisova

New Economic School  
Centre for Economic and Financial Research  
idenisova@cefir.ru  
www.cefir.ru

Irina Denisova received her undergraduate degree from Moscow State University and her PhD from the University of Manchester (UK). She is an Assistant Professor at the New Economic School and a Lead Economist at the Center for Economics and Financial Research in Moscow. Her main research interests are in labor, income distribution and health economics.

## [freepolicybriefs.com](http://freepolicybriefs.com)

---

The Forum for Research on Eastern Europe and Emerging Economies is a network of academic experts on economic issues in Eastern Europe and the former Soviet Union at BEROE (Minsk), BICEPS (Riga), CEFIR (Moscow), CenEA (Szczecin), KEI (Kiev) and SITE (Stockholm). The weekly FREE Network Policy Brief Series provides research-based analyses of economic policy issues relevant to Eastern Europe and emerging markets.