

# **Rural welfare in Russia: the changing patterns of urban-rural disparities and its determinants**

*John V.C. Nye  
Maxim Bryukhanov  
Sergiy Polyachenko*

## **Abstract**

What tendencies of rural development may be inferred from the decades of transition? Many works are devoted to Russian urban problems; however, works on the socio-economic development of rural areas are scarce. We analyze factors and tendencies of urban-rural income gap, using data of 24 rounds (1994-2015) of the Russia Longitudinal Monitoring Survey (RLMS-HSE) and the data of Federal State Statistics Service (GKS). The data sets of RLMS-HSE indicate positive trends of various socio-economic indicators. For instance, the share of individuals who have drinking experiences decreases. Some positive, but heterogeneous trends are found in welfare indicators. For villages, we document a decreasing trend of the statements about negative financial changes. On the other hand, in the case of urban type settlements the share of individual, stating the ability of families to save for large purchase decrease. Individuals in villages and rural-type settlements show a positive trend of statements the family is able to save for abroad. Interestingly enough a lot of indicators of subjective well-being demonstrate positive and significant trends both in villages and rural-type settlements. This is the case of perception of welfare, rights and respect, positive economic expectations and satisfaction with job. Contrary to the main tendency, the fear of the job loss rises in villages, while uncertainty about finding a job decreases significantly in rural-type settlements. More and more people decrease gardening and cattle breeding activities in villages. Positive trends are found in the case of schooling, professional occupation growth and computerization. Data suggests that basic life utilities have a positive trend of improvement, gaps between urban and rural areas decreases in time. For the youngest cohort of workers (aged < 30) we document a sharp decrease in average returns to university education. Overall gaps of socio-economic indicators between urban and rural areas also decrease.

**Keywords:** RLMS-HSE, Federal State Statistics Service, rural development, urban-rural gaps.

## 1. Introduction

Russia has experienced substantial changes in wealth during transitions (Лилия Николаевна Овчарова and Попова 2013; Л Н Овчарова et al. 2014). Starting from collapse of Soviet Union Russian economy was in recession ended with the crisis of 1998 and national currency denomination. The time path of per capita family log-income in post-soviet Russia is a *J*-shaped curve suggesting short decline period with following long period of recovery (see Figure 1).

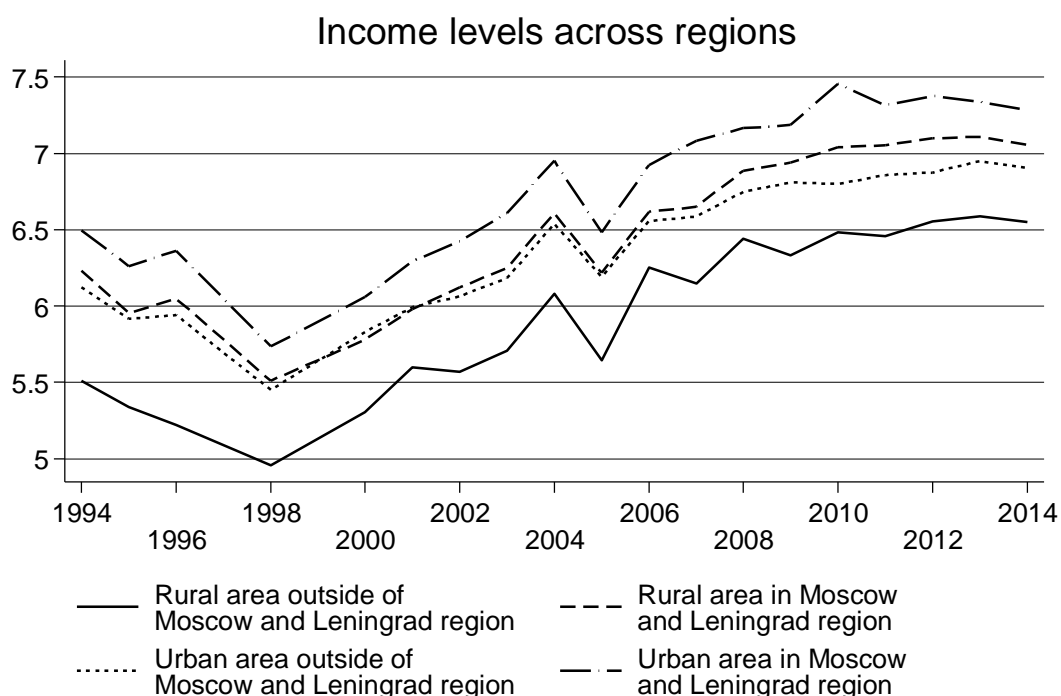


Figure 1: Time path of per capita family income in Russia across urban and rural locations in and outside of Moscow and St. Petersburg regions<sup>1</sup>.

On the Figure 1 we can observe almost identical time-paths of per capital household log-income developing at different levels across urban and rural areas in- and outside of Moscow and Leningrad regions. In this study, our aim is to describe urban-rural income in Russia and discuss

<sup>1</sup> Authors own calculations derived from Russia Longitudinal Monitoring Survey (RLMS-HSE): <https://www.hse.ru/en/rlms/>

possible reasons of existing state of the art. Besides the facts showed in the Figure 1, there are anecdotal evidences on disadvantages of living in rural areas of post-soviet Russia, however, to our knowledge we are among the first to perform formal investigation on the issue.

The regional inequality is typical for majority of economies and it varies by size depending on countries stage of development (Williamson 1965). Major share of spatial inequality generated at the early stages of economy development due to disproportions in allocation of production and points of economic growth. However, further economic development leads to convergence of regions and reduction of gaps. There are numerous empirical evidences of U-shape relationship between regional inequality and economic development in India (Das and Barua 1996), China (Wan, Lu, and Chen 2006) and many other countries (Lessmann 2014). However, spatial inequality might be considered not only in terms of inter-regional inequality, but also in terms of urban-rural disproportions (Hatton and Williamson 1991)

Nye et.al. (K. K. Chua et al. 2015) performing comparative analysis of urban-rural income gap across developing countries of Asia (Figure A 1) documented large heterogeneity among those countries ranging from about 60% in 2002 China to only 4% in Nepal. In particular, in Philippines persistent of gap in low qualified labor compensation rates over In our work we find the large urban-rural gap in Russia comparable to those described in the work of Nye and his colleagues (K. K. Chua et al. 2015).

We find in average a large rural-urban wage gap in Russia comparable to most developing countries. However, there we observe substantial decline in rural-urban decline during 1994-2014, which is not typical to majority of developing countries (K. K. Chua et al. 2015). In addition, we document improvements in the set of well-being indicators.

## ***2. Literature***

Typically the findings about rural development are concentrated around several issues. The first issue concerns development of major socio-economic indicators, considerations of the determinants of trends. In this context the evolution of trends of payoffs from fundamental factors of wages (such as returns from schooling) are also under current investigations. The second issue concern comparative issues between rural areas and some more developed areas, for example, between rural and urban areas. These aspects cover different indicators of disparities (for example, urban rural gaps), wage premiums of employment in cities.

The rural development is subject to close investigations in the EU and in the US (Leigh and Blakely 2016), but works concerning Russian experience are quite scarce. In the early year of transition Ogloblin&Brock (2006) indicates facts about low level of wages in rural areas, especially of those who generate income from works on their own land, significant gender wage gaps. They cover the following years: 2002, 2003, 2004, and also found significant premium for education in rural areas. Interestingly, their findings are partially in line with facts about educational returns in China (De Brauw and Rozelle 2008). Overall, the Russian government development program<sup>2</sup> also points out the problem of low levels of comfort of living conditions, which cause migration out of rural areas.

One of the pioneering works attempting to measure true urban and rural wage gap was the one of Timothy Hatton and Jeffrey Williamson (Hatton and Williamson 1991). Authors documented – once controlled for prices, rent and non-monetary extras that farming workers receiving in rural areas – the gap between urban and rural wages falls from widely reported in the literature over 50% to as low as 9-13%. Having poorly performing region or sector leads to increase in inequality of that region or sector compared to better performing ones (Wan and Zhou 2005). Authors argued that inequality across location within rural areas is tightened to inequality between urban and rural areas and leads, among other things, to wealth gap between

---

<sup>2</sup> <http://static.government.ru/media/files/41d47baf642258e68c1b.pdf>

urban and rural areas. In authors' estimations, geography explains about 40% of gap across villages in the available sample. The issue of urban and rural gap is one of the key problems in development economics. The disproportion in wage between urban and rural settlements also were investigated in the Philippines, where urban-rural gap is considered higher than in majority of Asian countries (C. Chua et al. 2014). In their study, authors find that schooling, skills and experience account for the most of variation in urban and rural differences in wage. (C. Chua et al. 2014) express the idea that rural workers invest in their human capital less compared to those who were born in urban areas or immigrated there, however authors do not provide any clear evidences for it.

The problem of urban and rural income gap also emerged in China. Su and Heshmati (Su and Heshmati 2013) investigated the problem on the data of 2000-2009 and showed that education level and occupation type largely define inequality between urban and rural wages. Basing on the set of Mincer-type regression, authors documented increase in urban-rural wage gap over time and in rural areas, it increases even faster because of discrimination, occupational segregation and difference in educational level. They also point out that age also influences income, but only in rural areas. The final remark they make is that both urban and rural family characteristics (i.e. marriage, household size etc.) effect income. However, some authors claim that urban-rural income gap in China is overestimated because of lack of some essential data (Xue and Gao 2012).

The precise calculations of urban-rural real per capita consumption expenditure (RCPE) gap in Vietnam were made by (Nguyen et al. 2007) on Vietnamese data. Their calculations suggested that comparing consumption expenditure of 10th percentile of distribution was about 43% lower in rural areas comparing to urban in 1993. The difference was even larger for the 90th percentile of consumption expenditure distribution for the same year. The same indicators for 1998 were about 80% and 156% for 10th and 90th percentiles of RCPE distribution, which suggests that RCPE in urban areas were growing faster during 1993-1998.

Despite, the fact that the scope of the literature consider mostly developing countries, the problem of urban-rural disparities also exist in developed countries such as US. Yankow (Yankow 2006) attempted to investigate the reasons for higher wage rates in urban areas. Among others, this work is especially interesting, because of its focus on the developed country. He documented that variation of individual characteristics explain about 19 percent of wage difference between urban and rural areas. However, employing panel data and fixed effects method he shows that about 66 percent of urban-rural wage differences are due to attracting workers with higher unmeasured skills to urban areas. Recently, Gould (Gould 2007) conducted a study of reasons for wage rates differences between urban and rural areas in developed country. In his work, author considers wage differences in US using 1979-1998 data. He shows that wage differences in urban and rural areas for blue-collar workers in the US conditioned upon labor force quality (i.e. education, experience etc.), but not location itself. However, the situation is different for white-collar workers; they are paid better in urban areas regardless of their competences. In addition, the authors documented that accumulated during work-time human capital (i.e. experience) in urban areas could be transferred to rural areas within white-collar set occupations, but it not true for blue-collar ones.

Russian urban-rural wealth disparity also documented in the literature. Gerry, Nivorozhkin and Rigg (Gerry, Nivorozhkin, and Rigg 2008) use complimentary approach – they study urban-rural gap in poverty reduction in Russia of 2000-2004. In their work, authors used RLMS unbalanced panel data for respective years. They regressed poverty on classical household characteristics: area type, gender, individual age, marital status, number of children, total household size, the highest educational achievement and year dummies. Using pooled data set authors documented positive and highly statistically significant correlation of living in rural area and probability of getting into poverty. Moreover, the key result they brought to the table is that for the period of 2000-2004 urban population of Russia enjoyed 78.6% decline in poverty, while rural experienced only 47.3%. Theses finding allowed authors to make the key point of

“realization” of poverty in Russia reflected in the name of the article. Similar studies were conducted in African countries (Sahn and Stifel 2003; Zhang 2006). Interestingly, using NOBUS 2003 data Nivorozhkon and colleagues (Nivorozhkin et al. 2010) showed that the size of settlement is negatively correlated with the subjective measure of well-being. Differences in perceptions about economic insecurity were analyzed by Linz&Semykhina (Linz and Semykina 2010). They covered periods: 1995–1998 and 2000-2004. They documented that significant differences were detected, but workers characteristics explained very small parts of it.

### ***3. The data and analysis***

Using two sources of data – Federal State Statistics Service (GKS) and Russia Longitudinal Monitoring Survey (RLMS-HSE) – we calculated time path and urban-rural income gaps in Russia and document tendencies of development of socio-economic indicators.

In Figure A 2 we present calculations based on GKS data adjusting income to price of 1995 using deflators provided by GKS. From Figure A 2 we can observe almost identical time-paths of per capital household log-income developing at different levels across urban and rural areas. Data presented on Figure A 2 suggest sharp decline in urban-rural gaps. Doing the same exercise using RLMS-HSE data leads us to the result showed in Figure A 3. As we can observe from Figure A 3, there are some evidences of decrease in urban-rural gap. However, the result is less robust and the gap itself is more volatile in the course of time. In the next step, we adjusted income levels reported in RLMS-HSE for the costs of living across Russian regions. In Figure A 4 we present urban-rural income gaps calculated on RLMS-HSE data adjusted for costs of living. From Figure A 4 we can observe decline on urban-rural income gap of the dynamics similar to those observed on GKS data.

Next, In order to compare urban and rural income of Russian households we use Household Survey by GKS. We deflate quarterly reported household monthly income using quarterly consumers price index (for goods and services) provided by Russian Federal Service of Statistics<sup>3</sup>. In order to obtain per capita family income we divide deflated value of family income on the number of family members where available. In those rounds where the number of family members was not reported we use number of family members that was available during the survey. However in the rounds where both indicators available these numbers coincide in around

---

<sup>3</sup> [http://www.gks.ru/free\\_doc/new\\_site/prices/potr/tab-potr1.htm](http://www.gks.ru/free_doc/new_site/prices/potr/tab-potr1.htm)



99% of cases. Next, we calculate average per capita household income for the period of 2003-2015 for urban and rural settlement for each region of Russia<sup>4</sup> and report them in Table 1

*Table 1 Average income per capita and cumulative average growth rates for 2003-2015<sup>5</sup>*

Region	Average income per capita	CARG	Average income per capita	CARG	CAGR ratio
	Urban		Rural		
Altai Region	12,554.57P	1.43%	8,198.21P	1.86%	130.67%
Altai Republic	11,715.52P	2.00%	9,194.71P	1.51%	75.28%
Amur Region	12,847.41P	1.99%	11,338.98P	2.33%	116.87%
Arkhangelsk Region	17,337.88P	1.57%	12,200.64P	2.04%	130.22%
Astrakhan Region	14,077.47P	1.90%	9,657.17P	2.06%	108.34%
Belgorod Region	11,265.45P	1.99%	9,249.17P	2.34%	117.36%
Bryansk Region	9,707.14P	1.92%	7,302.70P	2.41%	125.35%
Chechen Republic	9,013.14P	2.40%	8,149.87P	1.35%	56.36%
Chelyabinsk Region	13,612.38P	1.78%	9,849.80P	2.22%	124.22%
Chita Region	13,356.05P	1.69%	8,369.82P	2.49%	147.61%
Chukotka Autonomous District	21,618.64P	1.44%	12,423.11P	1.47%	102.57%
Chuvash Republic	8,623.79P	1.68%	7,156.77P	2.24%	133.30%
Irkutsk Region	14,312.41P	1.25%	9,442.44P	2.30%	184.33%
Ivanovo Region	10,497.76P	2.54%	9,550.55P	2.04%	80.36%
Jewish Autonomous Region	15,380.54P	1.57%	10,587.88P	2.10%	133.97%
Kabardino-Balkaria Republic	9,898.24P	2.29%	6,767.53P	2.68%	116.59%
Kaliningrad Region	10,448.83P	1.48%	7,095.71P	1.62%	109.16%
Kaluga Region	12,240.38P	1.65%	9,729.39P	2.18%	132.14%
Kamchatka Region	23,605.67P	1.80%	17,605.64P	1.57%	86.82%
Karachay-Cherkess Republic	9,792.51P	2.05%	7,961.96P	1.86%	90.54%
Kemerovo Region	11,546.30P	1.86%	9,068.89P	2.22%	119.34%
Khabarovsk Region	19,526.14P	1.46%	10,565.58P	2.15%	147.59%
Kirov Region	11,641.49P	1.86%	8,147.96P	2.18%	116.81%
Komi Republic	15,975.58P	1.74%	12,970.48P	2.39%	137.30%
Kostroma Region	10,862.61P	1.71%	9,025.27P	2.07%	121.20%
Krasnodar Region	10,647.76P	2.00%	8,281.66P	2.29%	114.66%
Krasnoyarsk Region	16,689.82P	1.30%	12,629.13P	1.34%	102.92%
Kurgan Region	10,731.02P	1.95%	7,094.57P	2.26%	115.71%
Kursk Region	9,155.50P	2.08%	7,500.02P	2.74%	131.55%
Leningrad Region	11,558.15 P	1.74%	-	-	-
Lipetsk Region	12,883.56P	0.86%	8,452.25P	2.03%	235.23%

<sup>4</sup> We define regions in the borders of Federal subjects of Russian Federation within its internationally recognized borders (Resolution 68/262 adopted by the General Assembly 2014) excluding temporary occupied parts of Ukraine – Autonomous Republic of Crimea and city of Sevastopol (Resolution 71/204 adopted by the General Assembly 2016).

<sup>5</sup> Authors own calculations drawn from GKS data available at <http://obdx.gks.ru/>.

<b>Region</b>	<b>Average income per capita</b>	<b>CARG</b>	<b>Average income per capita</b>	<b>CARG</b>	<b>CAGR ratio</b>
Magadan Region	16,014.39P	2.36%	12,066.83P	2.17%	92.22%
Mari El Republic	9,234.97P	1.90%	6,412.75P	2.72%	143.09%
Moscow	17,797.04 P	1.65%	-	-	-
Moscow Region	11,350.38P	1.82%	8,079.93P	1.87%	102.80%
Murmansk Region	22,606.00P	1.45%	19,584.16P	1.83%	125.81%
Nizhny Novgorod Region	10,406.54P	2.10%	8,427.94P	2.49%	118.79%
Novgorod Region	12,909.66P	1.99%	7,518.46P	2.72%	136.76%
Novosibirsk Region	10,697.56P	1.65%	7,732.25P	2.39%	144.66%
Omsk Region	10,813.97P	1.69%	8,404.18P	2.16%	128.02%
Orenburg Region	11,565.45P	1.53%	7,512.99P	2.37%	154.45%
Oryol Region	12,664.02P	1.87%	9,967.43P	2.39%	128.24%
Penza Region	9,576.37P	1.80%	7,963.70P	1.54%	85.48%
Perm Region	11,692.19P	1.80%	7,339.80P	2.18%	121.39%
Primorsky Krai	14,561.71P	1.61%	10,954.09P	2.19%	135.55%
Pskov Region	11,348.69P	1.94%	8,961.09P	1.67%	86.25%
Republic of Adygea	12,544.34P	2.09%	10,241.47P	2.59%	123.64%
Republic of Bashkortostan	11,798.06P	1.80%	8,037.84P	3.05%	169.17%
Republic of Kalmykia	8,369.83P	1.96%	7,167.07P	2.24%	114.21%
Republic of North Ossetia-Alania	9,588.92P	2.26%	7,933.61P	2.27%	100.53%
Republic of Tatarstan	10,208.91P	2.10%	6,777.68P	2.56%	121.55%
Rostov Region	10,719.06P	2.00%	7,671.56P	2.03%	101.31%
Ryazan Region	8,982.67P	1.38%	7,499.67P	2.24%	162.43%
Saint Petersburg	18,653.21 P	1.81%	-	-	-
Sakhalin Region	17,700.69P	1.66%	11,673.56P	2.03%	122.83%
Samara Region	12,854.95P	1.71%	9,445.03P	1.61%	94.61%
Saratov Region	9,146.64P	1.60%	5,961.72P	1.82%	114.00%
Smolensk Region	7,463.98P	2.13%	6,291.51P	2.17%	101.87%
Stavropol Region	10,655.02P	2.25%	7,604.45P	1.88%	83.20%
Sverdlovsk Region	12,794.01P	1.77%	10,582.56P	1.91%	107.68%
Tambov Region	8,857.24P	1.74%	7,314.91P	1.78%	102.49%
The Republic of Buryatia	9,459.93P	1.97%	7,268.32P	2.28%	115.82%
The Republic of Dagestan	6,232.26P	1.98%	4,245.54P	2.15%	108.59%
The Republic of Ingushetia	4,157.81P	0.58%	3,500.65P	1.04%	178.76%
The Republic of Karelia	13,880.54P	1.62%	10,648.51P	2.03%	125.23%
The Republic of Khakassia	13,609.67P	1.90%	8,602.51P	2.18%	114.57%
The Republic of Mordovia	9,176.50P	1.58%	6,339.78P	2.22%	141.00%
The Republic of Sakha (Yakutia)	21,342.67P	1.38%	14,957.70P	2.11%	153.41%
Tomsk Region	13,763.62P	1.63%	11,673.34P	1.85%	113.59%
Tula Region	10,692.80P	1.48%	9,584.92P	1.66%	111.77%

Region	Average income per capita	CARG	Average income per capita	CARG	CAGR ratio
Tver Region	13,298.05P	2.14%	10,416.19P	2.11%	98.74%
Tyumen Region	22,692.97P	0.80%	13,713.20P	0.22%	27.55%
Tyva Republic	12,530.27P	2.06%	8,415.76P	2.25%	109.19%
Udmurt Republic	14,034.74P	2.09%	9,467.53P	2.05%	98.00%
Ulyanovsk Region	10,367.77P	2.34%	6,727.39P	2.21%	94.25%
Vladimir Region	11,698.73P	2.28%	8,441.14P	2.29%	100.47%
Volgograd Region	10,432.80P	1.90%	8,544.76P	2.45%	129.05%
Vologda Region	14,417.89P	1.46%	10,635.94P	1.78%	122.35%
Voronezh Region	10,129.11P	1.72%	7,767.73P	2.59%	151.06%
Yaroslavl Region	11,334.71P	1.52%	9,390.68P	1.92%	126.20%

From Table 1 we can observe, that on average during the time of observations the lowest per capita income in rural area was observed in The Republic of Ingushetia (3,500.65 P), The Republic of Dagestan (4,245.54 P) and Saratov regions (5,961.72 P). Contrary, the highest income per capita we observe in The Republic of Sakha (Yakutia) (14,957.70 P), Kamchatka Region (17,605.64 P) and Murmansk Region (19,584.16 P). In terms of per capita family income in urban area among the most laggard are The Republic of Ingushetia (4,157.81 P), The Republic of Dagestan (6,232.26 P) and Smolensk Region (7,463.98 P) and the most advanced are Murmansk Region (22,606.00P), Tyumen Region (22,692.97P) and Kamchatka Region (23,605.67P)

In addition, we calculate quarterly cumulative average growth rate (CAGR) of per capita household income over the period of observation. CAGR provide us with insights on how income was growing on average each period between two points in time. Formally, CAGR can be calculated as follows:

$$CAGR = \left[ \frac{Income_T}{Income_1} \right]^{\left(\frac{1}{T}\right)} - 1$$

Where,  $Income_T$  denotes per capita family income in the last period,  $Income_1$  denotes per capita family income in the first period and  $T$  denotes number of periods.

As we can observe from the data provided in Table 1 on average per capita household income was significantly higher in urban areas. The excess of urban income ranges from about

9% in Ivanovo Region to more than 80% in Khabarovsk Region. However, we observe tendency to decrease in income differential. In order to measure this tendency we employ CAGR ration which is ratio of CAGR in rural area to the one in urban are. Values of CAGR ratio show that rural income in vast majority of Russian regions was growing significantly faster comparing to urban settlements except for Stavropol Region, Ivanovo Region, Tver Region, Kamchatka Region, Samara Region, Magadan Region, Penza Region, Pskov Region, Tyumen Region, Ulyanovsk Region, Altai Republic, Karachay-Cherkess Republic, Udmurt Republic, Chechen Republic. Among the slowest growing regions are Tyumen Region (0.22%) The Republic of Ingushetia (1.04%) and Krasnoyarsk Region (1.34%). The fastest growing regions are Novgorod Region (2.72%), Kursk Region (2.74%) and Republic of Bashkortostan (3.05%).

Next, we inspect demographic and other socio-economic differentials between urban and rural areas. Data suggests that, starting form 1950 the natural increase (per 1000 individuals) declines steadily over time. The difference in urban and rural areas is rather stable in time, though, it has a tendency to increase recently (Figure A 5). Life expectancy of men (Figure A 6) increases steadily, however, the difference between urban and rural areas in life expectancy of men also rises, though very modestly. Life expectancy of females (Figure A 7) rises in urban and in rural areas, the difference between life expectancies is rather stable in time.

Child mortality and maternal mortality decline (Figure A 8 and Figure A 9). Starting from 1990 the differences in migration inflows steadily growth. Migration out of rural areas is quite strong. Almost in all periods after 2000 the net inflow is negative (Figure A 10), indicating that migration out of rural areas is greater than migration into rural areas.

Besides, we document differences in other social-economic indicators. Interestingly we observe declining differences in:

- Life satisfaction (Figure A 11).
- Satisfaction with material conditions (Figure A 11).

It is worth noting that difference in concerns about basics goods rises (Figure A 11), indicating that in rural areas people start to concern about the fact that they are not be able to have the bare essentials in the next 12 months. Differences about wealth perception (Figure A 11) are fluctuating around zero.

Differences in economic expectations and changes in material conditions are falling (Figure A 12), indicating a modest increase in consumer welfare and consumer confidence in future conditions. However, differences in ability to save rises (Figure A 12), on the other hand, these differences are not large. Overall urban-rural differences in indicators of satisfaction with labor markets activities are falling. This is true for:

- Work satisfaction (Figure A 13).
- Satisfaction with work conditions (Figure A 13).
- Satisfaction with income (Figure A 13).
- Satisfaction with opportunities (Figure A 13).

Averaged observations of perceptions of rights and respect show quite strong volatility and blurred tendency.

For the purpose of the detailed analysis of dynamics differences of villages and urban-type settlements we explore the set of indicators, based on RLMS-HSE data set. In particular we computed indicators, according to Table B 1. Details about indicators are given in tables (Table B 2 - Table B 5). For each indicator we also calculated percentage increase,  $\text{delta\%} = (\text{the value in the end period} / \text{the value in the start period}) * 100 - 100$ .

Summarizing our findings, we should note the following:

1. Differences in income between urban and rural areas are falling. However, the imperfect of information on the costs of living makes the process of comparison very rough and imprecise.

2. Differences in major socio-economic variables as well as differences in individual satisfaction are falling, though they are not economically significant. Quite small differences in ability to save are rising in time.
3. Data suggests that overall indicators of schooling, subjective well-being and computerization of rural areas go up.
4. Males average returns to university education, decline. The sharp decline is documented in the case of young males (aged < 30 years, figure 1B). The sharp decrease in average returns to university is also observed in the case of young females (aged < 30 years, figure 2B).

#### ***4. Conclusion***

In this work we made an attempt to figure out major tendencies and factors of rural development in Russia during 2004-2015. In addition we try to make inference about differential in subjective estimation of wealth and household facilities.

Judging from the tendencies, almost all gap falls. Overall indicators of educational attainment, subjective well-being and computerization of rural areas increase.

Our study is in line with the study of Christopher Gerry and colleagues (Gerry, Nivorozhkin, and Rigg 2008; Linz and Semykina 2010; Nivorozhkin et al. 2010) in the way that we also emphasize regional contribution to observed gaps, as well as it is in line with the study of John Nye and colleagues (K. K. Chua et al. 2015). We contribute to the existing literature indicating positive tendencies which are observed in Russian rural areas.

Taking into account strong forces of migration out of rural areas we are unable to judge whether this tendency is the result of the survey or it is a systemized and holistic tendency. However, one way or another, more attention is needed to regional aspects (development of infrastructure, employment opportunities) of social planning of urban-rural socio-economic development in Russia.

## References

- Chua, Carl, Louie Limkin, John Nye, and Jeffrey G Williamson. 2014. "Urban-Rural Income and Wage Gaps in the Philippines: Measurement Error, Labor Market Failure, or Unequal Endowments?" In *ANGARA CENTRE FOR LAW AND ECONOMICS*. Quezon City.
- Chua, Karl Kendrick, Louie Limkin, John Nye, and Jeffrey Williamson. 2015. "Urban-Rural Income and Wage Gaps in the Philippines: Measurement Error, Unequal Endowments, or Factor Market Failure?" *Philippine Review of Economics* 52 (2): 1–21.
- Das, Sandwip Kumar, and Alokesh Barua. 1996. "Regional Inequalities, Economic Growth and Liberalisation: A Study of the Indian Economy." *The Journal of Development Studies* 32 (3). Taylor & Francis: 364–90.
- De Brauw, Alan, and Scott Rozelle. 2008. "Reconciling the Returns to Education in off-Farm Wage Employment in Rural China." Article. *Review of Development Economics* 12 (1). Wiley Online Library: 57–71.
- Gerry, Christopher J, Eugene Nivorozhkin, and John A Rigg. 2008. "The Great Divide: 'ruralisation' of Poverty in Russia." *Cambridge Journal of Economics* 32 (4). CPES: 593–607.
- Gould, Eric D. 2007. "Cities, Workers, and Wages: A Structural Analysis of the Urban Wage Premium." *The Review of Economic Studies* 74 (2). Oxford University Press: 477–506.
- Hatton, Timothy J, and Jeffrey G Williamson. 1991. "Wage Gaps between Farm and City: Michigan in the 1890s." *Explorations in Economic History* 28 (4). Elsevier: 381–408.

- Leigh, Nancey Green, and Edward J Blakely. 2016. *Planning Local Economic Development: Theory and Practice*. Book. Sage Publications.
- Lessmann, Christian. 2014. "Spatial Inequality and development—Is There an Inverted-U Relationship?" *Journal of Development Economics* 106. Elsevier: 35–51.
- Linz, Susan J, and Anastasia Semykina. 2010. "Perceptions of Economic Insecurity: Evidence from Russia." Article. *Economic Systems* 34 (4). Elsevier: 357–85.
- Nguyen, Binh T, James W Albrecht, Susan B Vroman, and M Daniel Westbrook. 2007. "A Quantile Regression Decomposition of Urban--Rural Inequality in Vietnam." Article. *Journal of Development Economics* 83 (2). Elsevier: 466–90.
- Nivorozhkin, Eugene, Anton Nivorozhkin, Ludmila Nivorozhkina, and Lilia Ovcharova. 2010. "The Urban--Rural Divide in the Perception of the Poverty Line: The Case of Russia." Article. *Applied Economics Letters* 17 (16). Taylor & Francis: 1543–46.
- Ogloblin, Constantin, and Gregory Brock. 2006. "Wage Determination in Rural Russia: A Stochastic Frontier Model." Article. *Post-Communist Economies* 18 (3). Taylor & Francis: 315–26.
- Resolution 68/262 adopted by the General Assembly. 2014. *Territorial Integrity of Ukraine*. United Nations.
- Resolution 71/204 adopted by the General Assembly. 2016. *Situation of Human Rights in the Autonomous Republic of Crimea and the City of Sevastopol (Ukraine)*. United Nations.
- Sahn, David E, and David C Stifel. 2003. "Urban--Rural Inequality in Living Standards in Africa." *Journal of African Economies* 12 (4). CSAE: 564–97.
- Su, Biwei, and Almas Heshmati. 2013. "Analysis of the Determinants of Income and Income Gap between Urban and Rural China." *China Economic Policy Review* 2 (1). World Scientific: 1350002.
- Wan, Guanghua, Ming Lu, and Zhao Chen. 2006. "The Inequality--Growth Nexus in the Short and Long Run: Empirical Evidence from China." *Journal of Comparative Economics* 34



- (4). Elsevier: 654–67.
- Wan, Guanghua, and Zhangyue Zhou. 2005. “Income Inequality in Rural China: Regression-Based Decomposition Using Household Data.” Article. *Review of Development Economics* 9 (1). Wiley Online Library: 107–20.
- Williamson, Jeffrey G. 1965. “Regional Inequality and the Process of National Development: A Description of the Patterns.” *Economic Development and Cultural Change* 13 (4). JSTOR: 1–84.
- Xue, Jinjun, and Wenshu Gao. 2012. “How Large Is the Urban-Rural Income Gap in China.” Inproceedings. In *World Economy Conference Organised by RCIE at the University of Washington, KIET, APEA, and UIBE, Seattle*.
- Yankow, Jeffrey J. 2006. “Why Do Cities Pay More? An Empirical Examination of Some Competing Theories of the Urban Wage Premium.” *Journal of Urban Economics* 60 (2). Elsevier: 139–61.
- Zhang, Yanhong. 2006. “Urban-Rural Literacy Gaps in Sub-Saharan Africa: The Roles of Socioeconomic Status and School Quality.” *Comparative Education Review* 50 (4). JSTOR: 581–602.
- Овчарова, Л Н, С С Бюрюкова, С А Тер-Акопов, and Е Г Варданян. 2014. “Что Изменилось В Доходах, Расходах И Потреблении Российского Населения.” *Мониторинг Доходов, Расходов И Потребления Российских Домохозяйств. М.: НИУ ВШЭ*.
- Овчарова, Лилия Николаевна, and Дарья Олеговна Попова. 2013. “Доходы И Расходы Российских Домашних Хозяйств: Что Изменилось В Массовом Стандарте Потребления.” *Мир России. Социология. Этнология* 22 (3). Федеральное государственное автономное образовательное учреждение высшего профессионального образования {\\guillemotleft}Национальный исследовательский университет {\\guillemotleft}Высшая школа экономики {\\guillemotright}.

## Appendix A

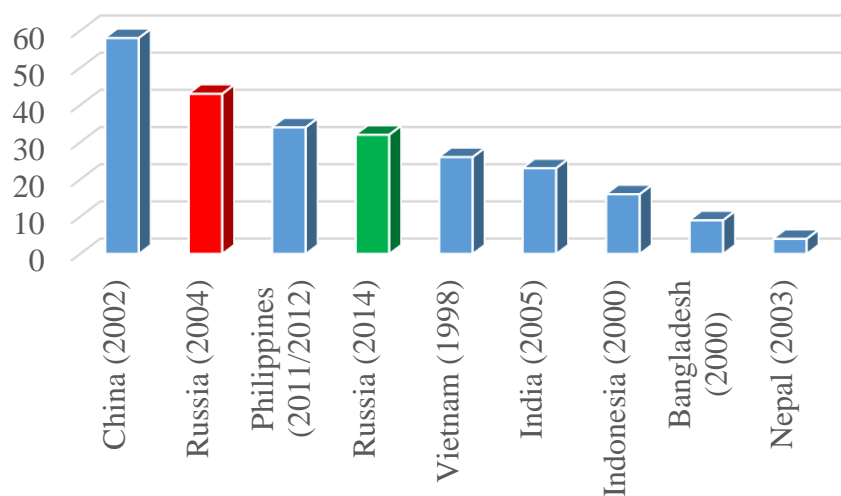


Figure A 1. Urban-rural gap in Russia compared to developing Asian countries described in Nye *et.al.* (K. K. Chua *et al.* 2015).

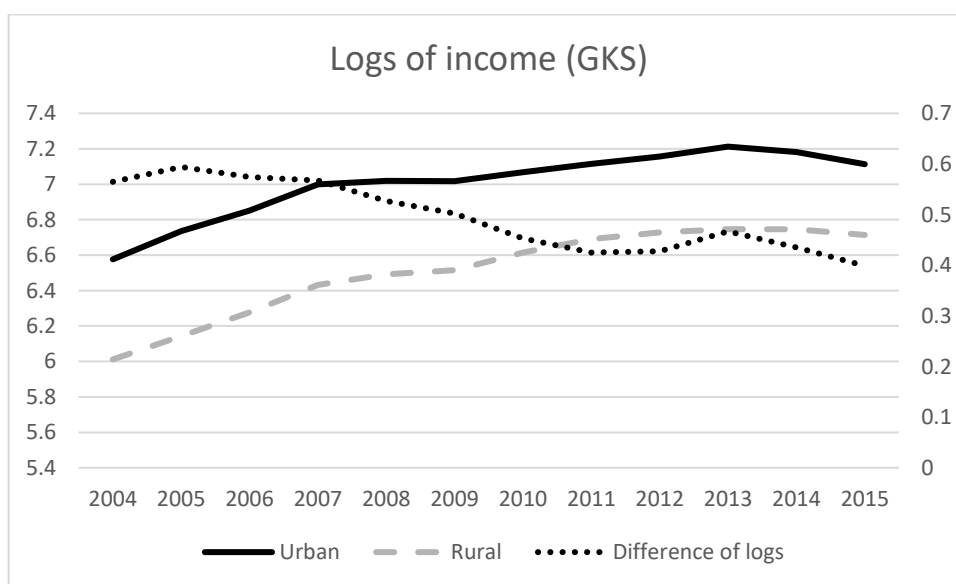


Figure A 2. Time path of deflated to 1995 price per capita family income in Russia across urban and rural locations<sup>6</sup>.

<sup>6</sup> Authors' calculations derived from Federal State Statistics Service  
[http://www.gks.ru/wps/wcm/connect/rosstat\\_main/rosstat/ru/statistics/publications/catalog/doc\\_1140096812812](http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/catalog/doc_1140096812812)

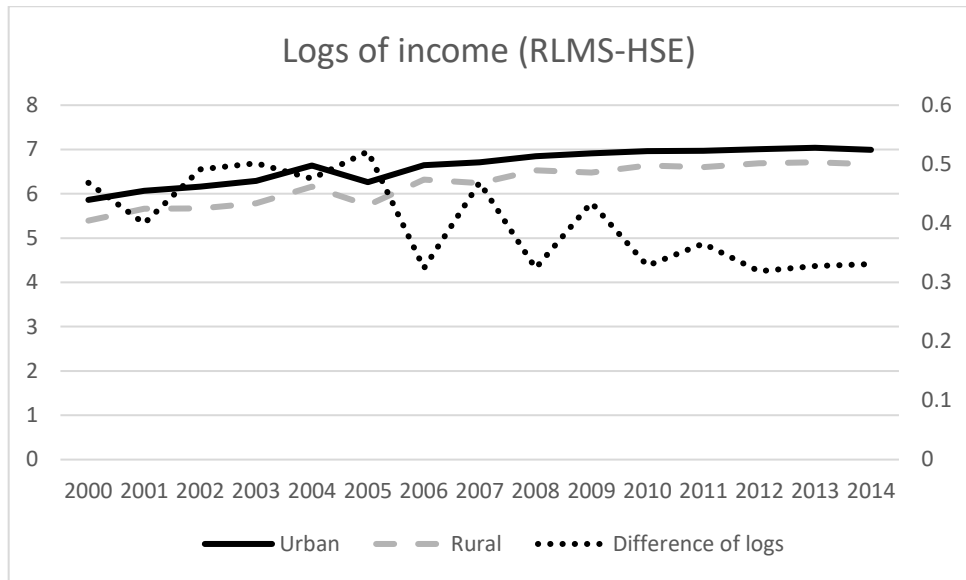


Figure A 3. Time path of deflated to 1995 price per capita family income in Russia across urban and rural locations (calculations based on RLMS-HSE data).

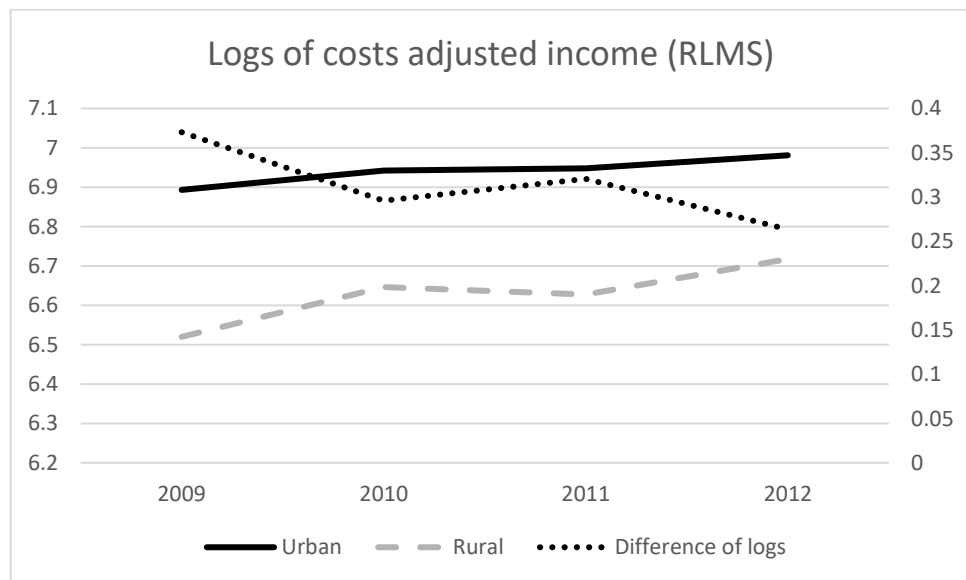


Figure A 4. Time path of deflated to 1995 price and regionally adjusted per capita family income in Russia across urban and rural locations (calculations based on RLMS-HSE data).

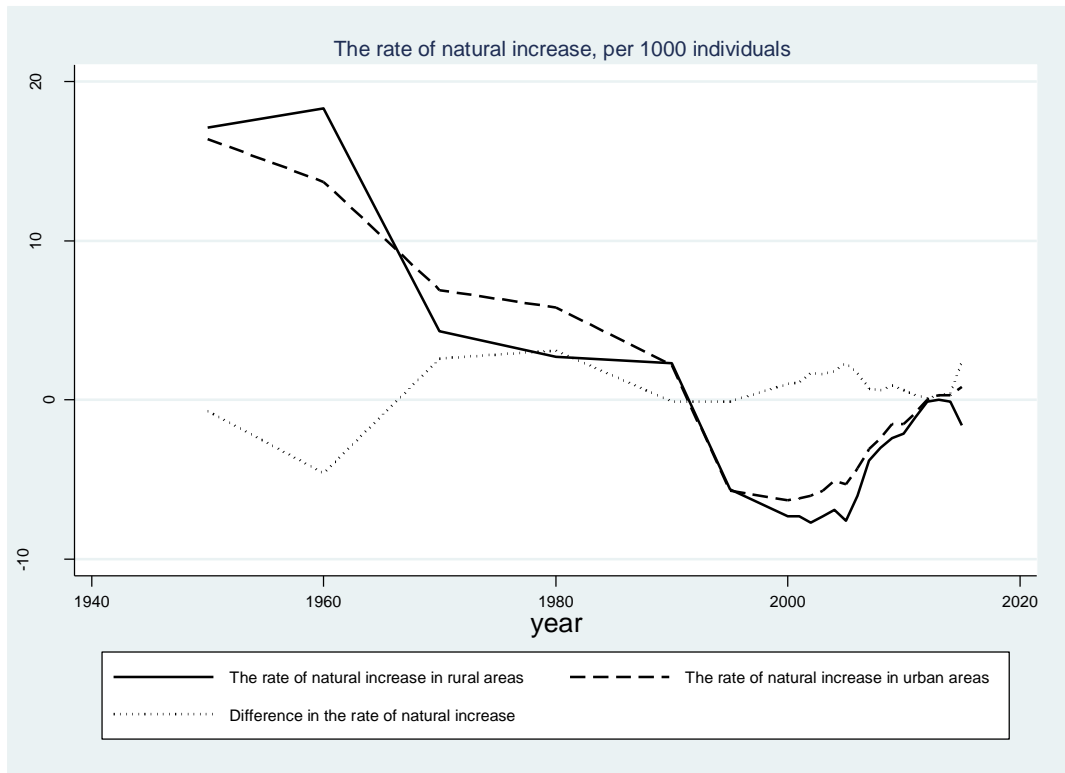


Figure A 5. The rate of natural increase in Russia (per 1000 individuals).

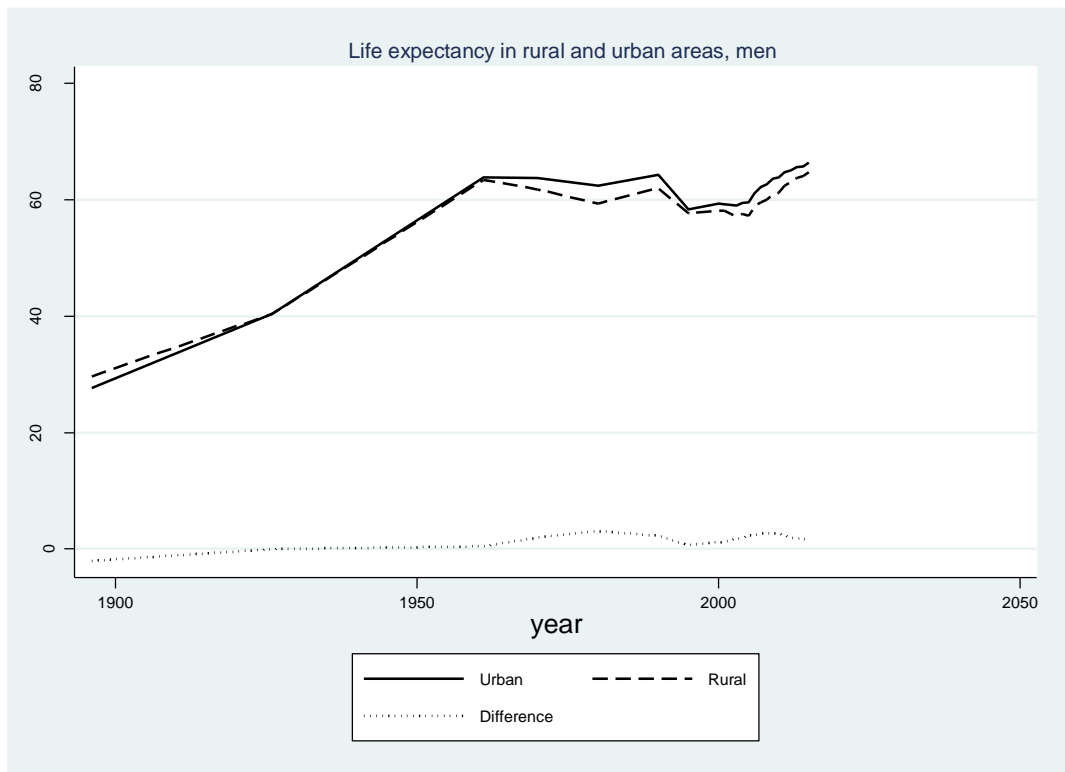


Figure A 6. Life expectancy in Russia (men, per 1000 individuals).

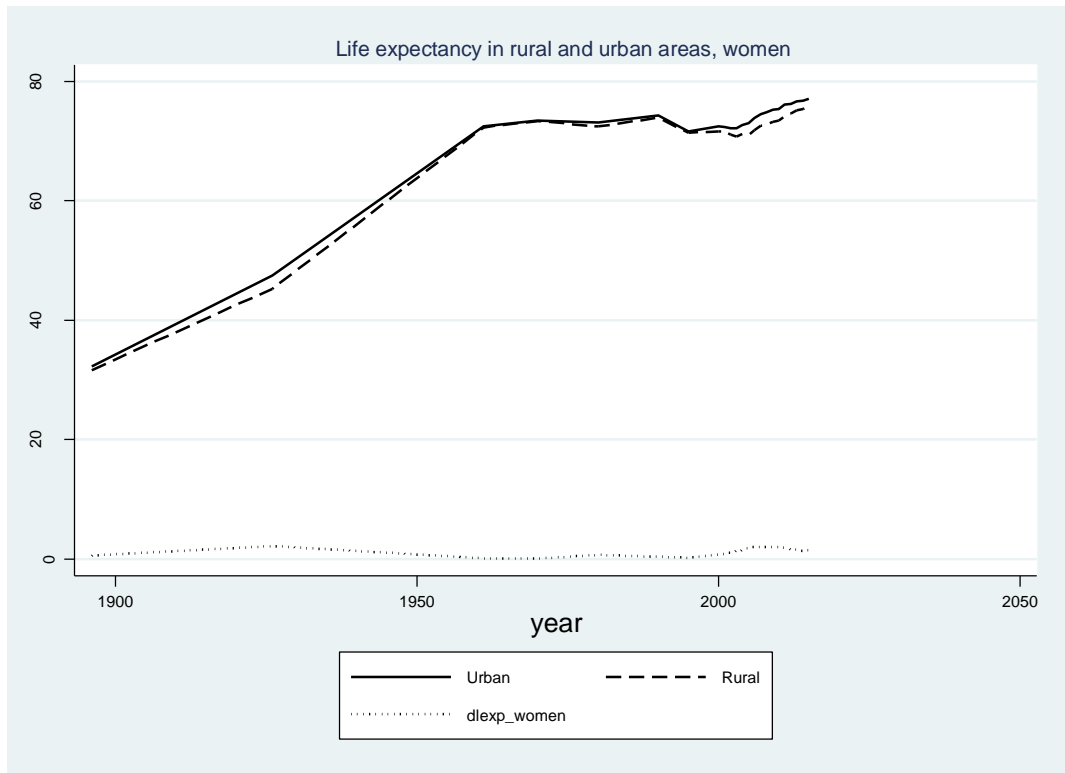


Figure A 7. Life expectancy in Russia (women, per 1000 individuals).

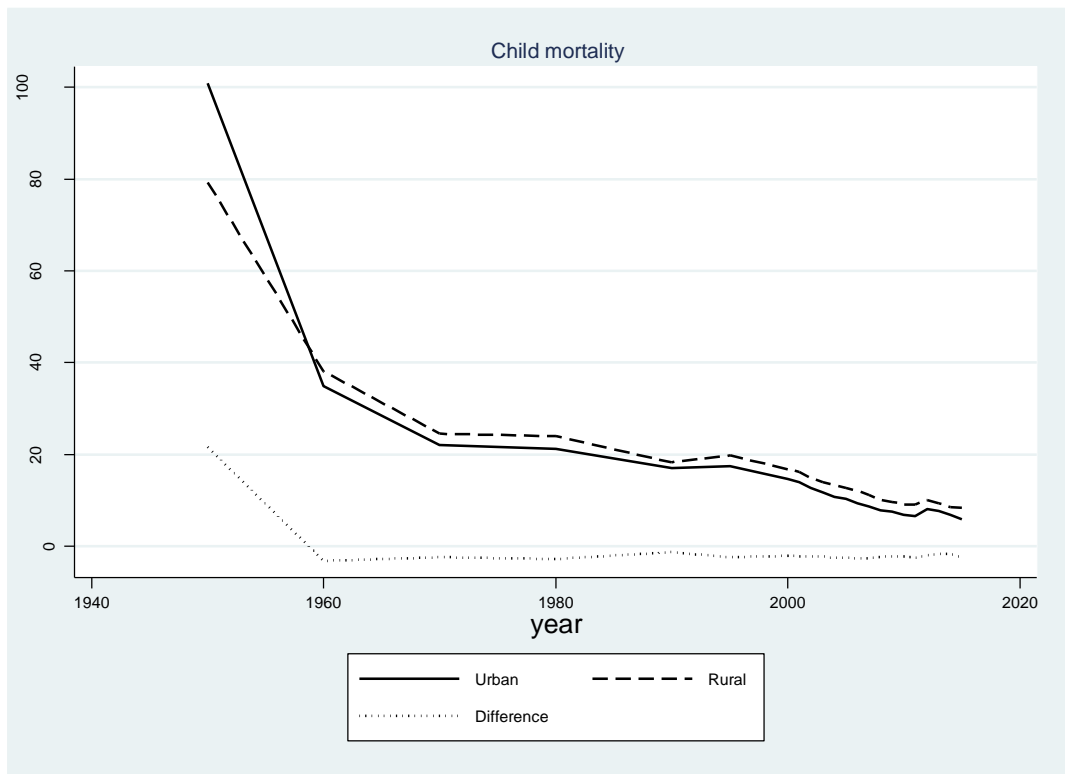


Figure A 8. Child mortality in Russia (per 1000 births).

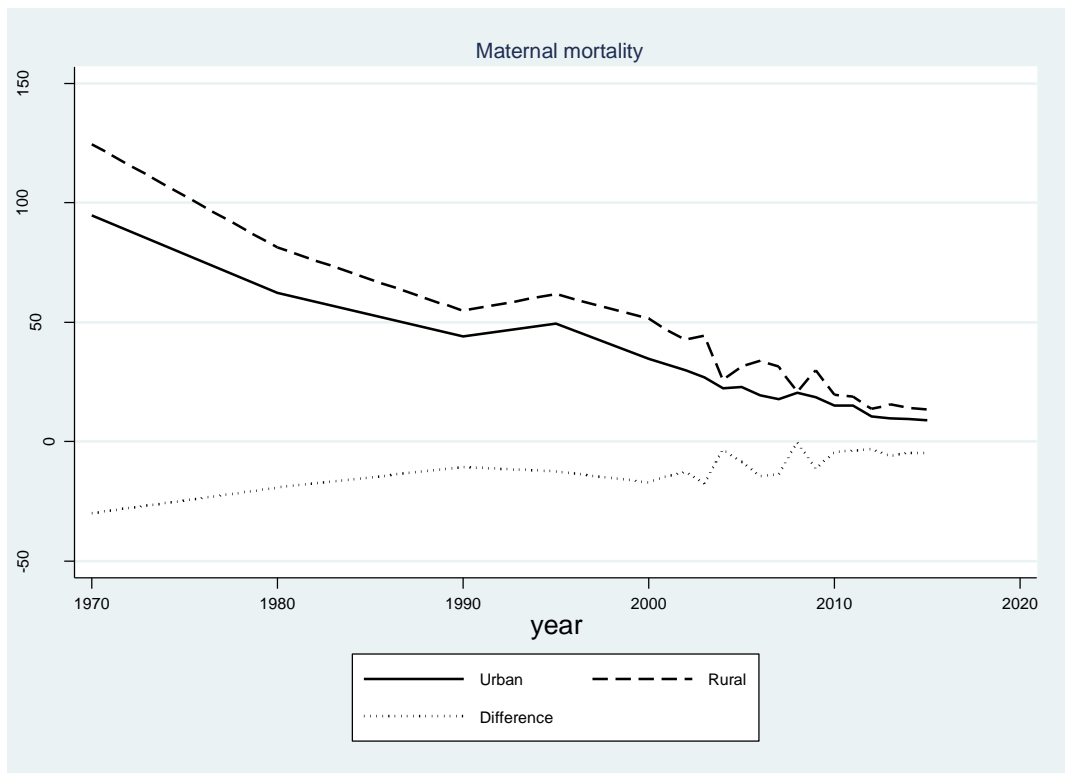


Figure A 9. Maternal mortality in Russia (per 100 000 births).

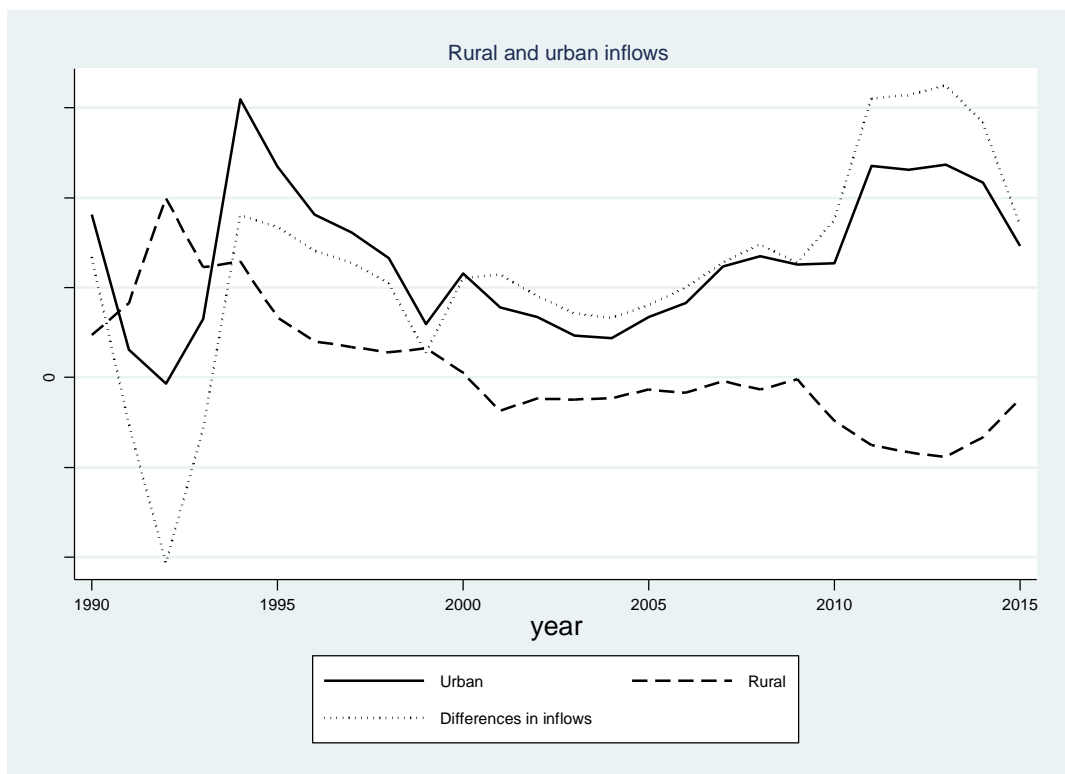


Figure A 10. Rural and urban migration net inflows.

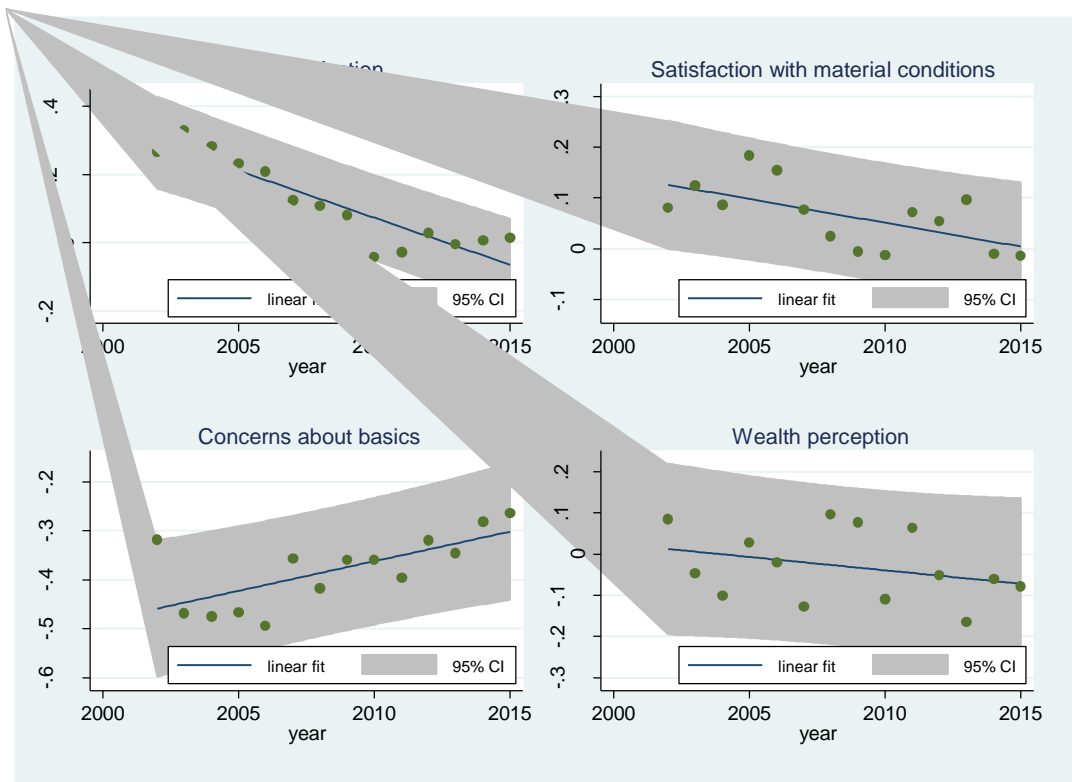


Figure A 11. Urban-rural differential in selected socio-economic indicators.

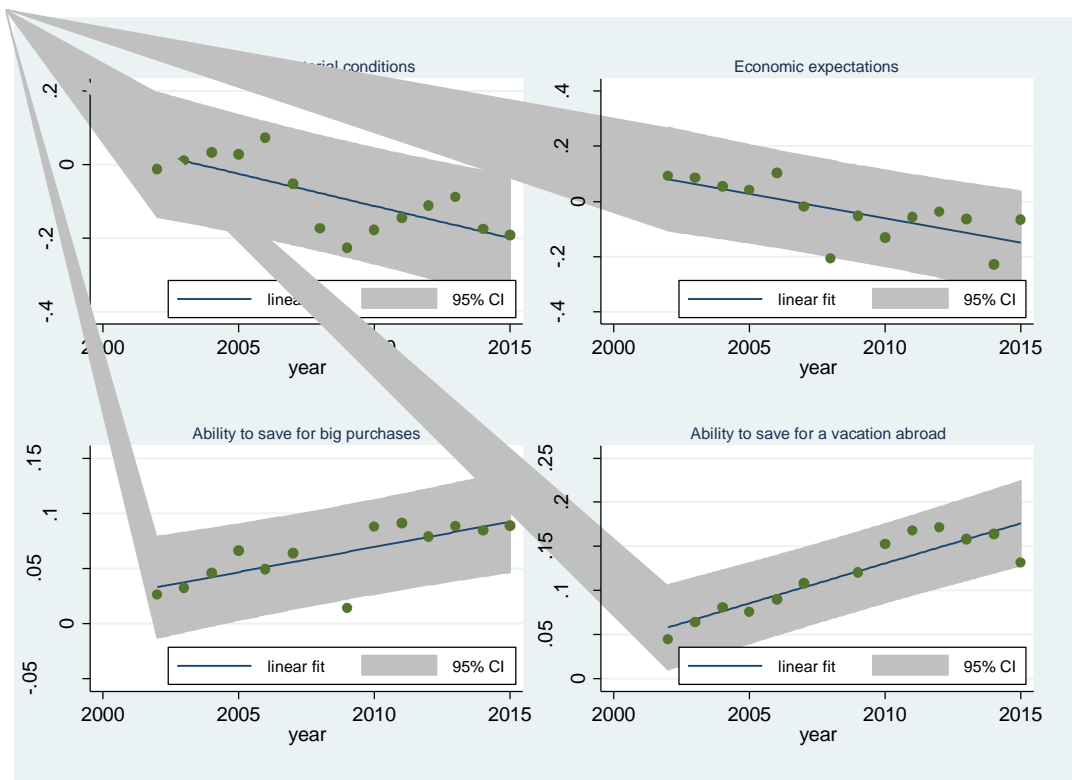


Figure A 12. Urban-rural differential in selected socio-economic indicators.



Figure A 13. Urban-rural differential in satisfaction with labor market activities.



## Appendix B

Table B 1. The set of indicators and corresponding RLMS questions.

The name of the indicator	RLMS-HSE Question	Answers
Health status	Tell me, please: How would you evaluate your health?	Very good 1 Good 2 Average - not good, but not bad 3 Bad 4 Very bad 5 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of smokers	Do you now smoke?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of individuals with drinking experience	Now I'm going to list various alcoholic beverages, and you, tell me please, which of these you drank in the last 30 days and, for those you drank, how many grams you usually consumed in a day? Home made alcohol	<i>numeric</i>
The share of individuals with drinking experience	Now I'm going to list various alcoholic beverages, and you, tell me please, which of these you drank in the last 30 days and, for those you drank, how many grams you usually consumed in a day? Vodka	<i>numeric</i>
Economic expectations	Do you think that in the next 12 months you and your family will live better than today or worse?	You will live much better 1 You will live somewhat better 2 Nothing will change 3 You will live somewhat worse 4 You will live much worse 5 DOESN'T KNOW 7 REFUSES TO ANSWER 8
Perception of welfare	And now, please imagine a nine-step ladder where on the bottom, the first step, stand the poorest people, and on the highest step, the ninth, stand the rich. On which step of the nine steps are you personally standing today?	From 1 ( Lowest step) to 9 ( Highest step)

<b>The name of the indicator</b>	<b>RLMS-HSE Question</b>	<b>Answers</b>
Perception of rights	And now, please imagine a nine-step ladder where on the bottom, the first step, stand people who are completely without rights, and on the highest step, the ninth, stand those who have a lot of power. On which of the nine steps are you personally standing today?	From 1 ( Lowest step) to 9 ( Highest step)
Perception of respect	And now another nine-step ladder where on the lowest step stand people who are absolutely not respected, and on the highest step stand those who are very respected. On which of the nine steps are you personally standing today?	From 1 ( Lowest step) to 9 ( Highest step)
Concern about provision of basic goods	How concerned are you about the possibility that you might not be able to provide yourself with the bare essentials in the next 12 months?	Very concerned 1 A little concerned 2 Both yes and no 3 Not too concerned 4 Not at all concerned 5 DOESN'T KNOW 7 REFUSES TO ANSWER 8
Percentage of employment in public sector	Is the government the owner or co-owner of your enterprise or organization?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
Percentage of employment in foreign companies	Tell me, please: Is your enterprise or organization owned or co-owned by foreign firms or foreign individuals?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
Percentage of workers who are owners of the enterprise where they work	Are you personally an owner or co-owner of the enterprise where you work?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
Percentage of workers doing entrepreneurial job	In your opinion, are you doing entrepreneurial work at this job?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8

<b>The name of the indicator</b>	<b>RLMS-HSE Question</b>	<b>Answers</b>
Uncertainty about finding a job	Imagine this unpleasant scenario: for some reason, the enterprise or organization where you work closes down tomorrow and consequently, all of the workers will be laid off. How certain are you that you will be able to find equally good work as your present job?	Absolutely certain 1 Fairly certain 2 Both yes and no 3 Fairly uncertain 4 Absolutely uncertain 5 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The fear of job loss	How concerned are you that you might lose your job?	Very concerned 1 A little concerned 2 Both yes and no 3 Not very concerned 4 Not concerned at all 5 DOESN'T KNOW 7 REFUSES TO ANSWER 8
Satisfaction with job	Tell me, please: How satisfied or unsatisfied are you with your job in general	Absolutely satisfied 1 Mostly satisfied 2 Neutral 3 Not very satisfied 4 Absolutely unsatisfied 5 Doesn't know 7 Refuses to answer 8
The share of individuals who ever try to run an own business	Tell me, please: Have you ever tried to organize your own enterprise or begin your own business?	Never tried . 1 Tried, but nothing came of it 2 Tried and succeeded 3 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of individuals involved in gardening activity	Tell me, please: In the last 12 months did you raise something on your plot to sell or trade	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
the share of individuals involved in cattle breeding	Tell me, please: In the last 12 months did you raise cattle, poultry, fish, or other animals for sale	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8

<b>The name of the indicator</b>	<b>RLMS-HSE Question</b>	<b>Answers</b>
the share of individuals lending flats	Tell me, please: In the last 12 months did you rent out an apartment, room, summer house, garage, car	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
the share of individuals lending money	Tell me, please: In the last 12 months did you place money in a bank to earn interest, offer money in loans for interest	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
the share of individuals doing extra job for money	Tell me, please: In the last 12 months did you perform services for pay, for example, offering people rides in a car, repairing household appliances or cars, taking a job remodeling apartments, tutoring, watching children for pay	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of employed individuals	Let's talk about your primary work at present. Tell me, please:	You are currently working 1 You are on paid leave (maternity leave or taking care of a child under 3 years of age) 2 You are on another kind of paid leave 3 You are on unpaid leave 4 You are not working 5

<b>The name of the indicator</b>	<b>RLMS-HSE Question</b>	<b>Answers</b>
The share of employed individuals	And one more question. In finishing this part of our interview, please look at this list. Read it carefully and say which answer best describes your primary occupation at the present time. Choose only one answer.	A high school or vocational school student 01 A university or technical school student 02 Unable to work for health reasons, disabled 03 Retired and not working 04 On maternity leave 05 On official leave for looking after a child under 3 years old, not interrupting employment 06 A housewife, caring for other family members, raising children 07 Temporarily not employed for other reasons and looking for a job 08 Temporarily not employed for other reasons and not looking for a job 09 A farmer 10 An entrepreneur 11 Working at an enterprise, organization, collective farm, state farm, or cooperative 12 Working at other than an enterprise, organization, collective farm, state farm, or cooperative 13 Other, specify 14 Doesn't know 97 Refuses to answer 98

The name of the indicator	RLMS-HSE Question	Answers
The share of top ISCO occupations	Professional group by ISCO- 88	<ol style="list-style-type: none"> <li>1. Legislators, senior officials and managers</li> <li>2. Professionals</li> <li>3. Technicians and associate professionals</li> <li>4. Clerks</li> <li>5. Service workers and shop and market sales workers</li> <li>6. Skilled agricultural and fishery workers</li> <li>7. Craft and related trades workers</li> <li>8. Plant and machine operators and assemblers</li> <li>9. Elementary occupations</li> <li>0. Armed forces</li> </ol>
The share of individuals with university degree and higher degrees	Educational group	<ol style="list-style-type: none"> <li>1. 0- 6 grade</li> <li>2. 7-8 grade</li> <li>3. 7-8 grade plus vocational school</li> <li>4. Complete secondary education</li> <li>5. College degree</li> <li>6. University degree</li> </ol>
The averaged years of schooling	I would like to ask you a few questions about your education. What grade level in school did you complete?	<i>numeric</i>
The averaged years of schooling	How many years did you study in professional courses, e.g., tractor driving, chauffeuring, typing, accounting?	<i>numeric</i>
The averaged years of schooling	How many years did you study in vocational training school without secondary education?	<i>numeric</i>
The averaged years of schooling	How many years did you study in vocational training school with secondary education, technical trade school?	<i>numeric</i>
The averaged years of schooling	How many years did you study in technical community college, medical, music, pedagogical, art training school?	<i>numeric</i>

<b>The name of the indicator</b>	<b>RLMS-HSE Question</b>	<b>Answers</b>
The averaged years of schooling	How many years did you study in institute, university or academy?	<i>numeric</i>
The averaged years of schooling	How many years did you study in post-graduate course, residency?	<i>numeric</i>
The share of PC users (at home)	In the last 12 months have you used a personal computer at home?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of PC users (at work)	In the last 12 months have you used the Internet at home?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of mobile phone owners	Do you personally have cell phone?	Yes 1 No 2 Several family members use one 6 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households who have a computer	Does your family have a desktop computer?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households who have a laptop	Does your family have a portable computer – notebook, laptop?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households with low speed Internet connection	Does your family have low modem internet connection, through common telephone line, mobile telephone, GPRS modem?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households with broadband Internet connection	Does your family have high-speed internet connection – through cable, DSL telephone line, for example “Stream”, satellite, 3G mobile phone, UMTS, Wi-Fi, Wi-max?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8



<b>The name of the indicator</b>	<b>RLMS-HSE Question</b>	<b>Answers</b>
The share of households with sewerage	Tell me, please: In your home is there central sewerage?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households who have a telephone	Tell me, please: In your home is there telephone?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households with hot water supply	Tell me, please: In your home is there hot water supply?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households with gas supply	Tell me, please: In your home is there metered, not bottled, gas?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of household who have a car	Does your family have a domestic Car?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of household who have a car	Does your family have a foreign Car?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households who have a truck	Does your family have a truck?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households who have a motorcycle or other vehicle	Does your family have a motorcycle, motor scooter, motor boat?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8
The share of households who have a tractor	Does your family have a tractor or mini-tractor?	Yes 1 No 2 DOESN'T KNOW 7 REFUSES TO ANSWER 8

Table B 2. The set of individual indicators, urban-type settlements.

The content of the indicator	The name of the indicator	The averaged value of the indicator (start date)	The averaged value of the indicator (end date)	Start date	End date	The growth rate	The character of dynamics	The value of the b-coefficient of the trend	P-value	Significance
Health and lifestyle	Health status	3.24	3.35	1994	2015	103.39	Increase	5.94	0.80	Insignificant
Health and lifestyle	The share of smokers	0.26	0.17	1994	2015	67.18	Decrease	-158.34	0.00	Significant
Health and lifestyle	The share of individuals with drinking experience	0.29	0.11	1994	2015	38.74	Decrease	-94.61	0.00	Significant
Welfare	The share of families who can buy a new house	0.1	0.05	2002	2015	47.63	Decrease	-91.41	0.00	Significant
Welfare	The share of families who can save for large purchases	0.1	0.08	2002	2015	82.6	Decrease	-68.37	0.02	Significant
Welfare	The share of families who can save for abroad	0.04	0.06	2002	2015	146.92	Increase	92.38	0.08	Significant
Welfare	Concern about provision of basic goods	3.01	3.15	1994	2015	104.36	Decrease	-13.4	0.03	Significant
Welfare	The estimation of negative changes in financial situation of family	2.41	2.54	2001	2015	105.28	Increase	7.56	0.58	Insignificant
Subjective wellbeing and	Economic expectations	1.82	2.24	1994	2015	123	Increase	13.45	0.00	Significant

<b>The content of the indicator</b>	<b>The name of the indicator</b>	<b>The averaged value of the indicator (start date)</b>	<b>The averaged value of the indicator (end date)</b>	<b>Start date</b>	<b>End date</b>	<b>The growth rate</b>	<b>The character of dynamics</b>	<b>The value of the b-coefficient of the trend</b>	<b>P-value</b>	<b>Significance</b>
satisfaction										
Subjective wellbeing and satisfaction	Perception of welfare	2.55	3.77	1994	2015	147.87	Increase	9.91	0.00	Significant
Subjective wellbeing and satisfaction	Perception of rights	2.06	3.61	1994	2015	174.89	Increase	10.04	0.00	Significant
Subjective wellbeing and satisfaction	Perception of respect	4.1	4.93	1994	2015	120.11	Increase	11.16	0.00	Significant
Subjective wellbeing and satisfaction	Life satisfaction	1.81	2.84	1994	2015	156.87	Increase	11.67	0.00	Significant
Subjective wellbeing and satisfaction	The fear of job loss	1.65	1.56	1994	2015	94.73	Decrease	-5.31	0.46	Insignificant
Subjective wellbeing and satisfaction	Satisfaction with job	1.09	1.56	2002	2015	142.2	Increase	17.79	0.00	Significant
Subjective wellbeing and satisfaction	Uncertainty about finding a job	1.68	1.14	1994	2015	67.99	Decrease	-18.27	0.00	Significant
Labor specifics	Percentage of employment in public sector	0.33	0.19	1994	2015	59.08	Decrease	-94.54	0.00	Significant

<b>The content of the indicator</b>	<b>The name of the indicator</b>	<b>The averaged value of the indicator (start date)</b>	<b>The averaged value of the indicator (end date)</b>	<b>Start date</b>	<b>End date</b>	<b>The growth rate</b>	<b>The character of dynamics</b>	<b>The value of the b-coefficient of the trend</b>	<b>P-value</b>	<b>Significance</b>
Labor specifics	Percentage of employment in foreign companies	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC
Labor specifics	Percentage of workers who are owners of the enterprise where they work	0.1	0.01	1994	2015	13.17	Decrease	-168.79	0.00	Significant
Labor specifics	Percentage of workers doing entrepreneurial job	0.04	0.01	1994	2015	28.7	Decrease	-539.39	0.00	Significant
Labor specifics	The share of individuals who ever try to run an own business	0.03	0.05	1998	2015	159.28	Decrease	-32.36	0.76	Insignificant
Labor specifics	The share of individuals involved in gardening activity	0.1	0.1	2000	2015	97.24	Decrease	-48.31	0.31	Insignificant
Labor specifics	The share of individuals involved in cattle breeding	0.12	0.1	2000	2015	78.54	Decrease	-29.36	0.56	Insignificant
Labor specifics	The share of individuals lending flats	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC
Labor specifics	The share of individuals lending	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC

The content of the indicator	The name of the indicator	The averaged value of the indicator (start date)	The averaged value of the indicator (end date)	Start date	End date	The growth rate	The character of dynamics	The value of the b-coefficient of the trend	P-value	Significance
	money									
Labor specifics	The share of individuals doing extra job for money	0.03	0.02	2000	2015	80.61	Decrease	-206.17	0.02	Significant
Labor specifics	The share of employed individuals	0.46	0.43	1994	2015	91.87	Increase	22.73	0.48	Insignificant
Labor specifics	The share of employed in agriculture	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC
Labor specifics	The share of top ISCO occupations	0.08	0.1	1994	2014	125.92	Increase	279.33	0.00	Significant
Education	The averaged years of schooling	8.42	10.63	1995	2015	126.23	Increase	8.02	0.00	Significant
Education	The share of individuals with university degree and higher degrees	0.11	0.2	1994	2015	174.9	Increase	149.66	0.00	Significant
Computer use and telecommunication	The share of PC users (at home)	0.15	0.22	2000	2015	145.1	Increase	108.41	0.00	Significant
Computer use and telecommunication	The share of PC users (at work)	0.24	0.31	2006	2015	126.46	Increase	144.46	0.00	Significant
Computer use and telecommunication	The share of mobile phone owners	0.39	0.74	2004	2015	191.77	Increase	19.92	0.00	Significant

Table B 3. The set of individual indicators, villages.

The content of the indicator	The name of the indicator	The averaged value of the indicator (start date)	The averaged value of the indicator (end date)	Start date	End date	The growth rate	The character of dynamics	The value of the b-coefficient of the trend	P-value	Significance
Health and lifestyle	Health status	3.1	3.32	1994	2015	107.01	Increase	75.57	0.00	Significant
Health and lifestyle	The share of smokers	0.22	0.23	1994	2015	106.37	Increase	51.74	0.45	Insignificant
Health and lifestyle	The share of individuals with drinking experience	0.33	0.14	1994	2015	43.37	Decrease	-105.02	0.00	Significant
Welfare	The share of families who can buy a new house	0.06	0.05	2002	2015	84.87	Decrease	-219.12	0.11	Insignificant
Welfare	The share of families who can save for large purchases	0.09	0.08	2002	2015	87	Increase	8.96	0.91	Insignificant
Welfare	The share of families who can save for abroad	0.01	0.04	2002	2015	378.73	Increase	232.45	0.00	Significant
Welfare	Concern about provision of basic goods	3.22	3.26	1994	2015	101	Decrease	-18.46	0.10	Insignificant
Welfare	The estimation of negative changes in financial situation of family	2.5	2.56	2001	2015	102.25	Decrease	-23.51	0.09	Significant
Subjective wellbeing and	Economic expectations	1.69	2.04	1994	2015	121.06	Increase	16.02	0.00	Significant

The content of the indicator	The name of the indicator	The averaged value of the indicator (start date)	The averaged value of the indicator (end date)	Start date	End date	The growth rate	The character of dynamics	The value of the b-coefficient of the trend	P-value	Significance
satisfaction										
Subjective wellbeing and satisfaction	Perception of welfare	2.35	3.24	1994	2015	137.79	Increase	14.12	0.00	Significant
Subjective wellbeing and satisfaction	Perception of rights	1.91	3.25	1994	2015	170.41	Increase	12.14	0.00	Significant
Subjective wellbeing and satisfaction	Perception of respect	3.9	4.75	1994	2015	121.82	Increase	12.4	0.00	Significant
Subjective wellbeing and satisfaction	Life satisfaction	1.65	2.66	1994	2015	160.93	Increase	13.15	0.00	Significant
Subjective wellbeing and satisfaction	The fear of job loss	1.34	1.33	1994	2015	99.09	Increase	31.46	0.00	Significant
Subjective wellbeing and satisfaction	Satisfaction with job	1.1	1.25	2002	2015	113.75	Increase	21.16	0.00	Significant
Subjective wellbeing and satisfaction	Uncertainty about finding a job	1.39	1.12	1994	2015	80.7	Decrease	-20.87	0.18	Insignificant
Labor specifics	Percentage of employment in public sector	0.26	0.19	1994	2015	70.58	Decrease	-158.05	0.01	Significant

The content of the indicator	The name of the indicator	The averaged value of the indicator (start date)	The averaged value of the indicator (end date)	Start date	End date	The growth rate	The character of dynamics	The value of the b-coefficient of the trend	P-value	Significance
Labor specifics	Percentage of employment in foreign companies	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC
Labor specifics	Percentage of workers who are owners of the enterprise where they work	0.09	0.00	1994	2015	3.05	Decrease	-213.52	0.00	Significant
Labor specifics	Percentage of workers doing entrepreneurial job	0.02	0.01	1994	2015	49.7	Decrease	-572.22	0.16	Insignificant
Labor specifics	The share of individuals who ever try to run an own business	0.01	0.02	1998	2015	184.03	Increase	938.77	0.01	Significant
Labor specifics	The share of individuals involved in gardening activity	0.13	0.06	2000	2015	47.59	Decrease	-125.85	0.00	Significant
Labor specifics	The share of individuals involved in cattle breeding	0.19	0.09	2000	2015	45.55	Decrease	-133.05	0.00	Significant
Labor specifics	The share of individuals lending flats	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC
Labor specifics	The share of	EIC								



The content of the indicator	The name of the indicator	The averaged value of the indicator (start date)	The averaged value of the indicator (end date)	Start date	End date	The growth rate	The character of dynamics	The value of the b-coefficient of the trend	P-value	Significance
	individuals lending money		EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC
Labor specifics	The share of individuals doing extra job for money	0.02	0.05	2000	2015	209.86	Increase	278.18	0.05	Significant
Labor specifics	The share of employed individuals	0.37	0.35	1994	2015	96.19	Increase	134.94	0.00	Significant
Labor specifics	The share of employed in agriculture	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC	EIC
Labor specifics	The share of top ISCO occupations	0.05	0.07	1994	2014	142.87	Increase	463.39	0.00	Significant
Education	The averaged years of schooling	7.08	9.4	1995	2015	132.91	Increase	7.32	0.00	Significant
Education	The share of individuals with university degree and higher degrees	0.05	0.1	1994	2015	210.67	Increase	277.33	0.00	Significant
Computer use and telecommunication	The share of PC users (at home)	0.06	0.19	2000	2015	298.19	Increase	100.52	0.00	Significant
Computer use and telecommunication	The share of PC users (at work)	0.15	0.26	2006	2015	177.92	Increase	70.83	0.00	Significant
Computer use and telecommunication	The share of mobile phone owners	0.23	0.74	2004	2015	321.45	Increase	17.33	0.00	Significant

Table B 4. The set of household indicators, urban-type settlements.

The content of the indicator	The name of the indicator	The averaged value of the indicator (start date)	The averaged value of the indicator (end date)	Start date	End date	The growth rate	The character of dynamics	The value of the b-coefficient of the trend	P-value	Significance
Computer use and telecommunication	The share of households who have a computer	0.34	0.4	2009	2015	118.38	Increase	41.37	0.24	Insignificant
Computer use and telecommunication	The share of households who have a laptop	0.05	0.41	2009	2015	754.75	Increase	15.9	0.00	Significant
Computer use and telecommunication	The share of households with low speed Internet connection	0.05	0.21	2009	2015	467.69	Increase	32.86	0.00	Significant
Computer use and telecommunication	The share of households with broadband Internet connection	0.13	0.4	2009	2015	302.07	Increase	23.73	0.00	Significant
Computer use and telecommunication	The share of households who have a telephone	0.48	0.35	1994	2015	73.22	Decrease	-66.82	0.00	Significant
Living conditions	The share of households with sewerage	0.45	0.58	1994	2015	129.08	Increase	71.76	0.00	Significant
Living conditions	The share of households with hot water supply	0.41	0.46	1994	2015	113.16	Increase	51.53	0.04	Significant
Living conditions	The share of households with gas supply	0.85	0.8	2003	2015	93.32	Decrease	-86.88	0.01	Significant
Vehicle ownership	The share of household who have a car	0.3	0.44	2006	2015	145.63	Increase	45.27	0.01	Significant
Vehicle ownership	The share of households who have a bus	0.01	0.03	1995	2015	213.56	Increase	58.34	0.64	Insignificant

<b>The content of the indicator</b>	<b>The name of the indicator</b>	<b>The averaged value of the indicator (start date)</b>	<b>The averaged value of the indicator (end date)</b>	<b>Start date</b>	<b>End date</b>	<b>The growth rate</b>	<b>The character of dynamics</b>	<b>The value of the b-coefficient of the trend</b>	<b>P-value</b>	<b>Significance</b>
Vehicle ownership	The share of households who have a track	0.03	0.02	1994	2015	73.22	Decrease	- 201.08	0.21	Insignificant
Vehicle ownership	The share of households who have a motorcycle	0.14	0.02	1994	2015	16.53	Decrease	- 166.29	0.00	Significant

Table B 5. The set of household indicators, villages.

<b>The content of the indicator</b>	<b>The name of the indicator</b>	<b>The averaged value of the indicator (start date)</b>	<b>The averaged value of the indicator (end date)</b>	<b>Start date</b>	<b>End date</b>	<b>The growth rate</b>	<b>The character of dynamics</b>	<b>The value of the b-coefficient of the trend</b>	<b>P-value</b>	<b>Significance</b>
Computer use and telecommunication	The share of households who have a computer	0.24	0.37	2009	2015	154.3	Increase	39.98	0.01	Significant
Computer use and telecommunication	The share of households who have a laptop	0.04	0.32	2009	2015	889.02	Increase	18.9	0.00	Significant
Computer use and telecommunication	The share of households with low speed internet connection	0.06	0.28	2009	2015	491.76	Increase	24.14	0.00	Significant
Computer use and telecommunication	The share of households with broadband internet connection	0.05	0.22	2009	2015	454.42	Increase	31.87	0.00	Significant
Computer use and telecommunication	The share of households who have a telephone	0.22	0.33	1994	2015	151.12	Increase	83.99	0.00	Significant
Living conditions	The share of households with sewerage	0.19	0.23	1994	2015	117.09	Increase	160.26	0.00	Significant
Living conditions	The share of households with hot	0.09	0.22	1994	2015	243.87	Increase	99.44	0.00	Significant

<b>The content of the indicator</b>	<b>The name of the indicator</b>	<b>The averaged value of the indicator (start date)</b>	<b>The averaged value of the indicator (end date)</b>	<b>Start date</b>	<b>End date</b>	<b>The growth rate</b>	<b>The character of dynamics</b>	<b>The value of the b-coefficient of the trend</b>	<b>P-value</b>	<b>Significance</b>
	water supply									
Living conditions	The share of households with gas supply	0.33	0.58	2003	2015	176.9	Increase	41.73	0.00	Significant
Vehicle ownership	The share of household who have a car	0.29	0.45	2006	2015	155.83	Increase	43.62	0.00	Significant
Vehicle ownership	The share of households who have a bus	0.02	0.04	1995	2015	228.3	Increase	587.7	0.00	Significant
Vehicle ownership	The share of households who have a track	0.02	0.08	1994	2015	308.07	Increase	322.08	0.00	Significant
Vehicle ownership	The share of households who have a motorcycle	0.2	0.05	1994	2015	26.38	Decrease	-115.83	0.00	Significant

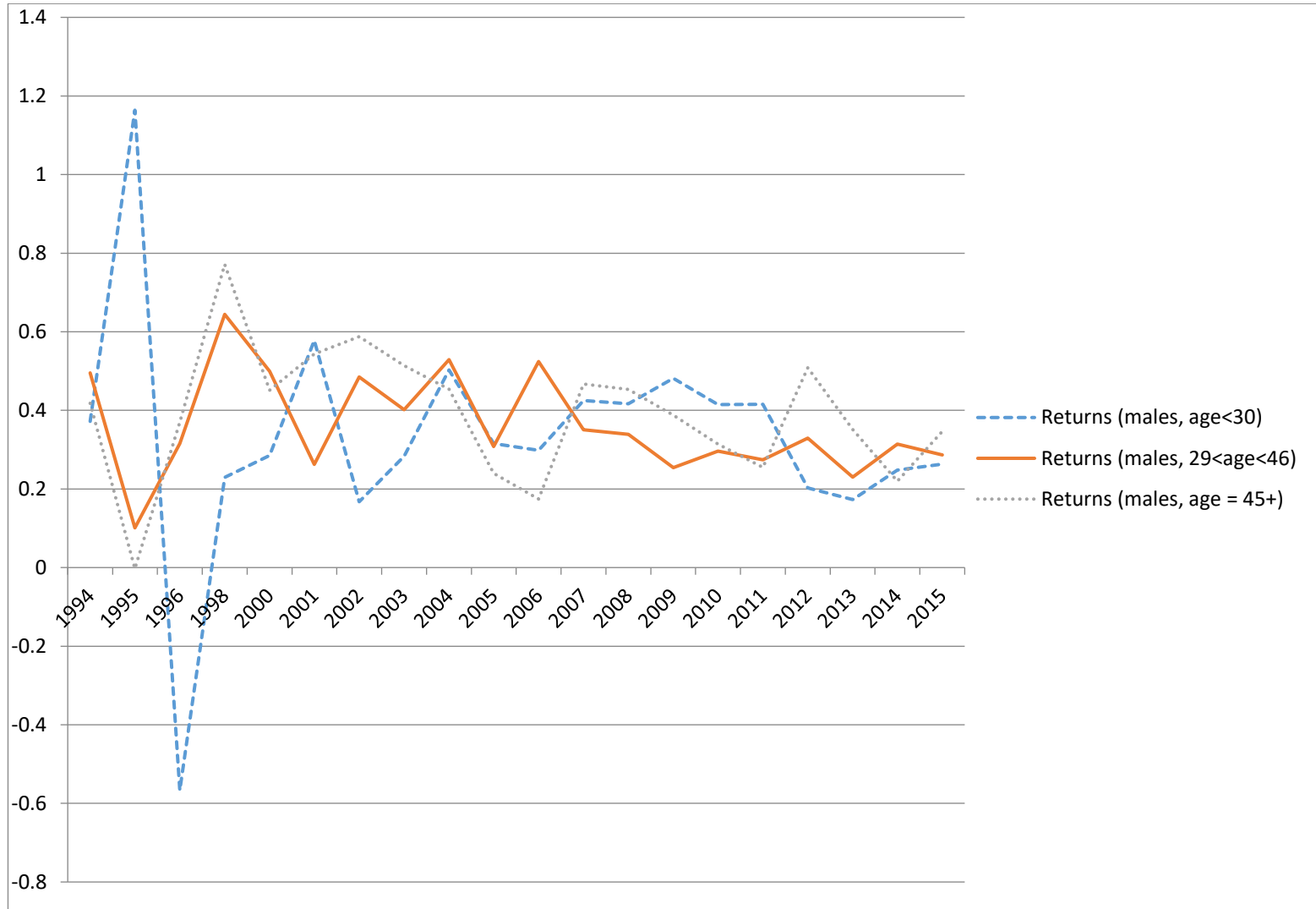


Figure 1 B. Average returns to university education. Males. Ordinary least squares estimates.

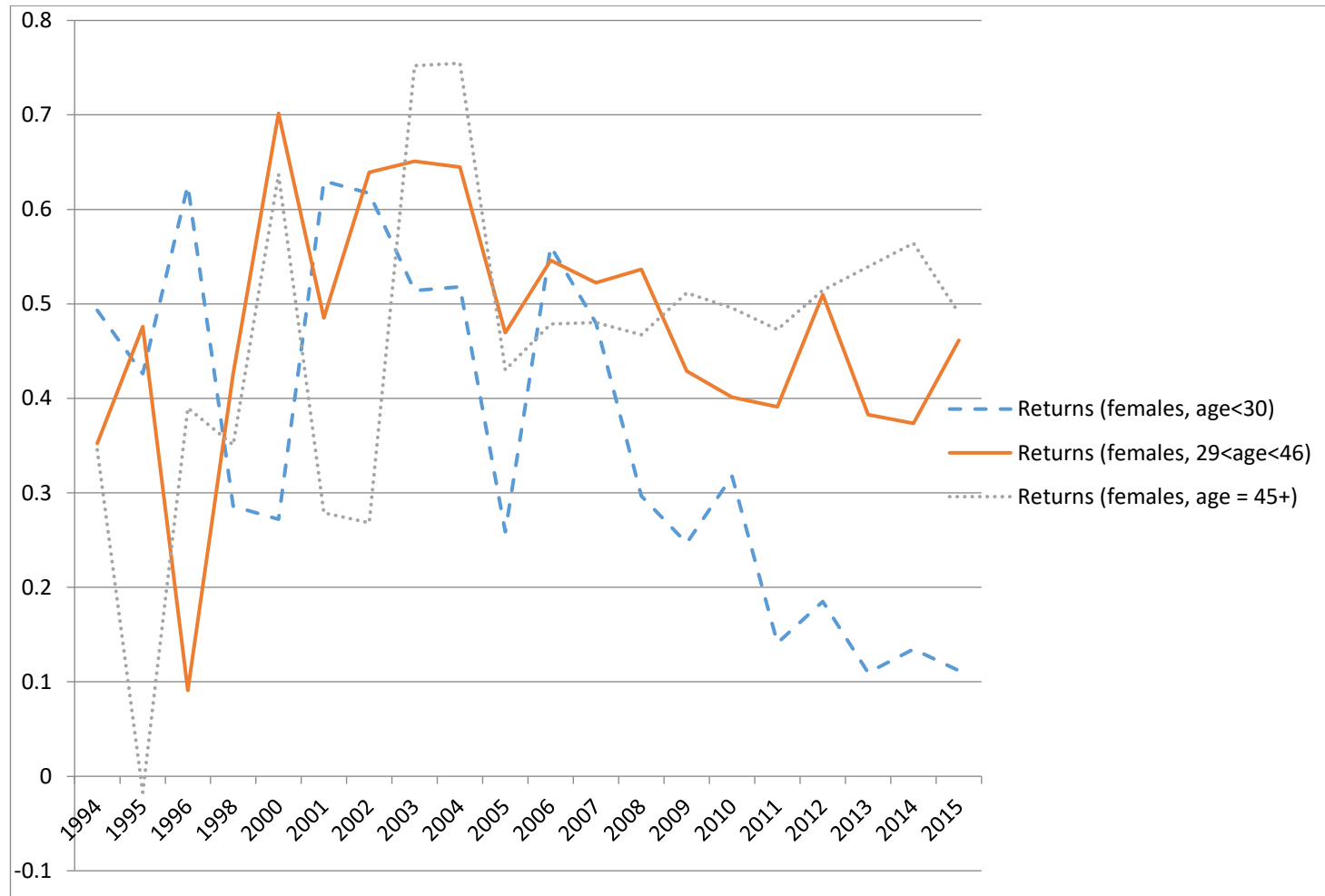


Figure 2 B. Average returns to university education. Females. Ordinary least squares estimates.

## **Appendix C – Oaxaca-Blinder decompositions**

Next, we decided to implement Blinder-Oaxaca decomposition, using the methodology and STATA implementation, developed by Ben Jann (Jann & others, 2008).

Six groups of predictors of urban-rural gaps are employed. The first group (Group 1) includes: average household age (predictor 1), its squared term (predictor 2), averaged share of male respondents in a household (predictor 3), number of household (family) members (predictor 4). The second group (Group 2) consists of the following indicators (calculated in terms of per family member): the share of people, who have university degrees (predictor 5), the share of people, who participated in on-job training (predictor 6). The third group (Group 3) includes employment aspects such as (also calculated in per family member terms): the share of employed respondents (predictor 7), the hours of work (predictor 8), the share of employed at firms with foreign ownership (predictor 9), the share of respondents who has top occupations (predictor 10) working experience (predictor 11) and its squared term (predictor 12). The fourth group (Group 4) consists of regional economic indicators such as number of vacancies (predictor 13) in the place of living and averaged individual income (predictor 14) in respondents' PSU. Group 5 includes index of utilities (predictor 15) and access to telephones (predictor 16). Group 6 includes travel costs (Predictor 17).

The set of dependent variables includes: logarithm of income per family member, household facilities, averaged (over non-missing responses in a family) subjective estimation of wealth. Results of Oaxaca-Blinder decomposition are presented in figure C1, and regression output is given in table C1, All regressions include time dummies (year fixed effects).



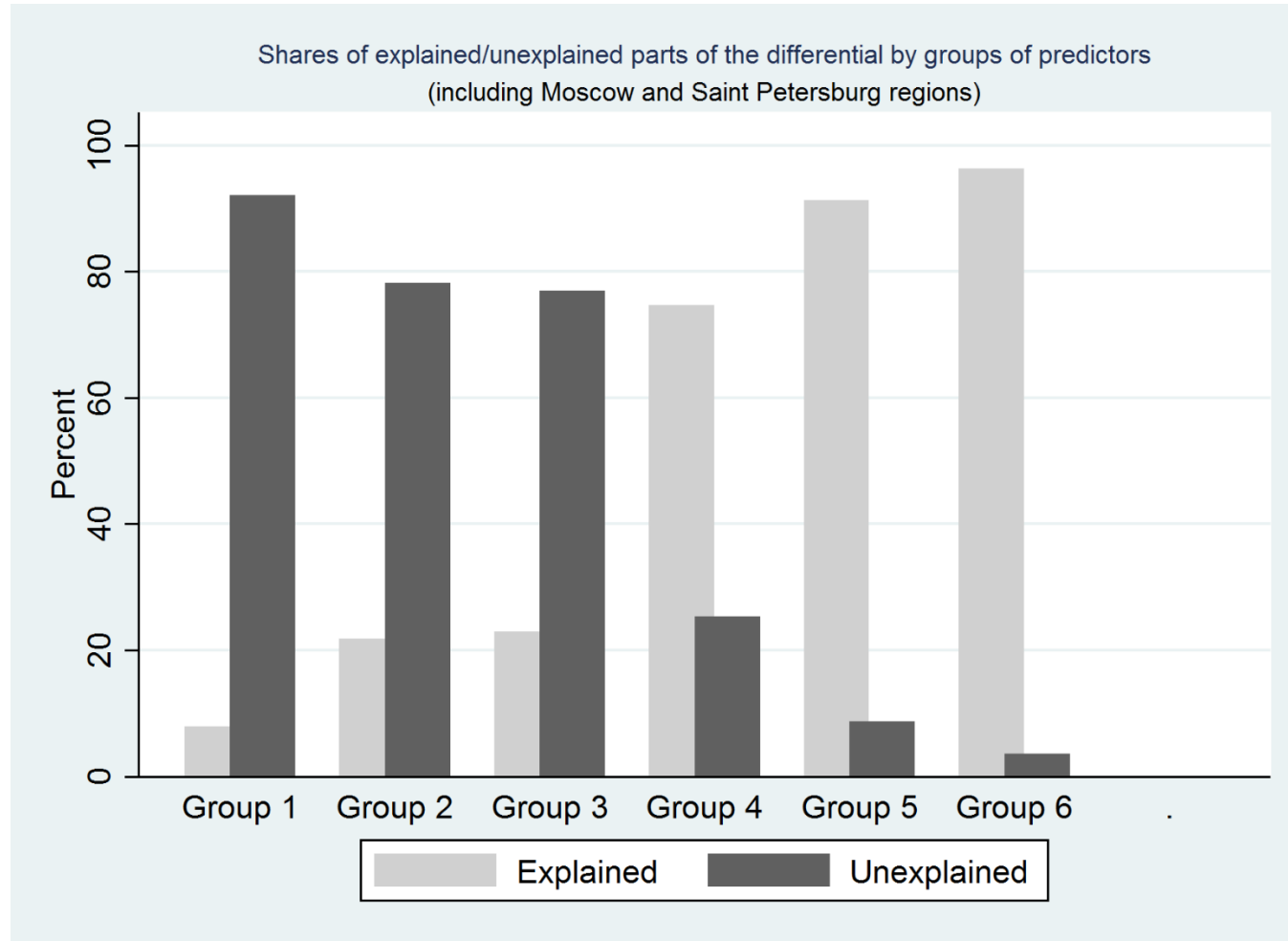
*Table C 1. Results of Oaxaca-Blinder Decomposition. Dependent variable – logarithm of income per family member (excluding Moscow and Saint Petersburg regions).*

	(1)	(2)	(3)	(4)	(5)	(6)
overall						
Urban	8.024*** (1988.79)	8.024*** (1988.79)	8.024*** (1988.79)	8.024*** (1988.79)	8.024*** (1982.79)	7.989*** (1459.59)
Rural	7.541*** (1013.58)	7.541*** (1013.58)	7.541*** (1013.57)	7.541*** (1012.28)	7.542*** (1010.54)	7.544*** (1008.08)
difference	0.483*** (57.01)	0.483*** (57.01)	0.483*** (57.01)	0.483*** (56.98)	0.482*** (56.81)	0.445*** (48.01)
explained	0.0544*** (13.92)	0.107*** (24.70)	0.114*** (25.11)	0.328*** (42.08)	0.391*** (36.34)	0.390*** (33.69)
unexplained	0.428*** (56.74)	0.376*** (51.90)	0.368*** (51.78)	0.155*** (17.10)	0.0912*** (8.01)	0.0546*** (4.55)
explained						
Group 1	0.0531*** (18.42)	0.0427*** (16.80)	0.0246*** (13.86)	0.0236*** (13.59)	0.0261*** (14.99)	0.0206*** (10.16)
Group 2		0.0629*** (29.49)	0.0423*** (23.66)	0.0392*** (23.34)	0.0369*** (22.57)	0.0294*** (16.75)
Group 3			0.0461*** (20.94)	0.0458*** (20.66)	0.0450*** (20.61)	0.0409*** (16.95)
Group 4				0.219*** (32.39)	0.194*** (28.85)	0.214*** (27.32)

	(1)	(2)	(3)	(4)	(5)	(6)
Group 5					0.0892*** (10.53)	0.0820*** (9.55)
distance						0.00220** (2.83)
unexplained						
Group 1	-0.162 (-1.59)	-0.0460 (-0.47)	0.0593 (0.58)	0.000557 (0.01)	-0.00907 (-0.09)	0.0762 (0.71)
Group 2		-0.0306*** (-8.44)	-0.0187*** (-4.04)	-0.0249*** (-5.52)	-0.0198*** (-4.44)	-0.0167*** (-3.39)
Group 3			-0.101*** (-4.52)	-0.0469* (-2.15)	-0.0309 (-1.43)	-0.0389 (-1.66)
Group 4				0.105*** (4.21)	0.176*** (7.08)	0.175*** (6.33)
Group 5					-0.0357 (-0.51)	-0.0519 (-0.57)
distance						0.0105 (0.90)
Constant	0.602*** (5.88)	0.465*** (4.67)	0.440*** (4.38)	0.154 (1.51)	0.0464 (0.38)	-0.0533 (-0.38)
<i>N</i>	38609	38609	38609	38589	38357	26193

*t* statistics in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



*Figure C1. Shares of decomposition depicted. Dependent variable – logarithm of income per family member (excluding Moscow and Saint Petersburg regions).*