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## Factors of Economic Behavior of Population in Regional Labor Market

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**Abstract:**

*The article is devoted to research into one branch of behavioral economics - peculiarities of economic decision-making by population in the labor market in the context of the Russian regions. Interregional and intraregional migration has been identified as one of the most significant consequences of economic decisions taken by the population.*

*Migration, in turn, is as an important factor in regional economic development resulting in a redistribution of the labor force and affecting regional and local labor markets. It has been assumed that the desire to improve their material well-being forces economically active people to move to more economically developed territories, which allowed the authors to build a methodology for studying the economic behavior of the population, based on an assessment of regional disparities and account of the features of regional labor market.*

*Within the framework of the methodology, the authors have proposed several socio-economic indicators which are based on statistical, analytical and comparative methods and can be used to reveal socio-economic stratification of population in regional aspect. It has been found out that the pattern of economic behavior of labor force in regional markets is determined by differences in the structure of consumer spending in regional context.*

*As a result, the research methodology has enabled the authors to build the typology of the Russian Federation regions rating them according to their attractiveness for employable population.*

**Keywords:** cash income of population, inequality, labor market, region, Russia.

**JEL Classification:** O10, J01, J31.

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## **1. Introduction**

Today it is generally assumed that the so-called "behavioral economics" has been become increasingly relevant. This is an under investigated area of economic science which did not attract much attention from researchers and is expected to identify and analyze various factors that have a direct impact on economic decision-making by key economic agents, which, in turn, makes it possible to assess the influence of these factors on the long-term performance of the economic system. There is no doubt that one of the key economic agents is economically active population. Interregional and intraregional migration may be regarded as a significant consequence of economic decisions they make. Migration of the population appears to be an important factor in regional economic development and a result of existing socio-economic imbalances in present-day Russia which leads to a redistribution of the labor force, thus having a great impact on regional and local labor markets.

As a matter of fact, the competition between regions struggling to attract the most in-demand labor force has been exacerbating in recent years. In addition, it should be noted that territorial shift of the workforce is a complex and multifaceted process that has a direct impact on various aspects of the Russian society and the standard of living as well. Given this migration has objectively turned into an actual outcome of economic behavior of people in the labor market. At present a worker's behavior is formed under the influence, on the one hand, of the desire to implement a specific strategy of economic behavior based on internal structure of human interests, and on the other hand, of the potential of the labor market segment where this strategy is fulfilled. In other words, the opportunity depends on the interests of the segment which includes the employee. The urge to improve material well-being forces economically active people to move to more economically developed areas, since remuneration for similar skills and competencies vary greatly in different regions.

Identification of emerging trends in economic behavior in households with people of different sex, age and other characteristics can be achieved through quantitative comparisons which are based on statistical data on people's monetary incomes and their structure, wages and their correlation to the subsistence minimum, indicators of income differentiation of the population (Thalassinos and Pociovalisteanu, 2009). Data in this case are collected by means of regular formal and private household surveys. It should be mentioned that to compare the living standards of different types of households, it is necessary to comply with such a condition as the comparability of incomes. Consumer spending can be used for this purpose.

A wide body of research has been concerned with developing the rationale for economic behavior of population. In this respect it is worth mentioning some studies which examined the structure of household expenditure and poverty in the Republic of Belarus (Vashchilko, 2014), the structure of household consumption in Italy (Balli and Tiezzi, 2009), the motives which determine personal economic behavior (Fisher and Montalto, 2010; Dalbert and Umlauf, 2009; Breckova, 2016; Stroevea *et*

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*al.*, 2015), economic models of behavior and values (Allen *et al.*, 2005; Leiser, 2008; Danilina *et al.*, 2015; El-Chaarani, 2014; Pociovalisteanu and Thalassinou, 2008; Thalassinou *et al.*, 2012; Hagenars *et al.*, 1994; Morciano *et al.*, 2014; Duguleana and Duguleana, 2015).

The fact is that when analyzing the consequences of migration and assessing their impact on regional labor markets Russian Federation authorities at the regional level do not attach great importance to changes in the economic behavior of labor force caused, on the one hand, by an extremely low money income which does not satisfy certain standard of needs accepted in modern Russian society, and on the other hand, a marked interregional socio-economic differentiation.

The first hypothesis of the study states that income differentiation determines the differentiation of consumer spending as well, which shapes consumer demand and consumer behavior of a certain population group in a regional market. The second hypothesis assumes that analysis of wages in different regions allows to establish features of economic behavior of population in the Russian Federation regions and, accordingly, the direction of labor migration flows.

## **2. Methodology**

Some of the most important determinants that shape the economic behavior of the population are income level and structure. Analysis of personal disposable income makes it possible to establish the pattern and proportion of current expenses on consumption of goods and services, purchase of durable goods, and share of savings in households' distribution. Households adjust their economic behavior regarding increasing uncertainty in employment (wages, respectively) and income.

Even though certain experience has been accumulated by Russian economic science in investigation of income and socio-economic differentiation, numerous studies devoted to assessments of the scale of regional stratification according to living standards of the population provide a rather contradictory picture. An important point to make is that the methodology used for studying the household economic behavior with due regard to peculiarities of regional labor markets is, first, supposed to investigate disproportions of regional development. And the results of the research largely depend on the method of evaluation. The authors proposed several socio-economic indicators which can be applied to reveal the socio-economic stratification of the population by regions based on statistical, analytical and comparative methods. Objective methods of assessing socio-economic differentiation applied in the paper are tied with consumption and income.

It has been found out that along with data showing the dynamics of monetary income and sources of its formation, the size and structure of labor remuneration, it is necessary to assess several additional socio-economic indicators such as the Gini coefficient and the coefficient of funds (decile coefficient), distribution of

population by value of per capita monetary income in the regions. The analysis of these indicators should provide a more complete picture of the socio-economic situation in the Russian regions. The economic behavior of the population examined from this perspective, as well as the comprehensive analysis of its essential factors, can become the main component in monitoring of the socioeconomic situation of the Russian regions which should result in more valid management decisions to enhance economic processes, level out living standards and solve social problems at the municipal level.

With the aim to identify the patterns of economic behavior the research employed data from a survey of household budgets in the Russian Federation in 2010-2015, conducted by Rosstat (Federal State Statistics Service) in the regions on a regular basis.

### **3. Findings and Discussion**

The authors' primary concern was to assess the dynamics of the size and structure of money income of the economic agents. As a rule, the dynamics of personal income tends to directly depend on the economic situation in the region where the economic agent is located.

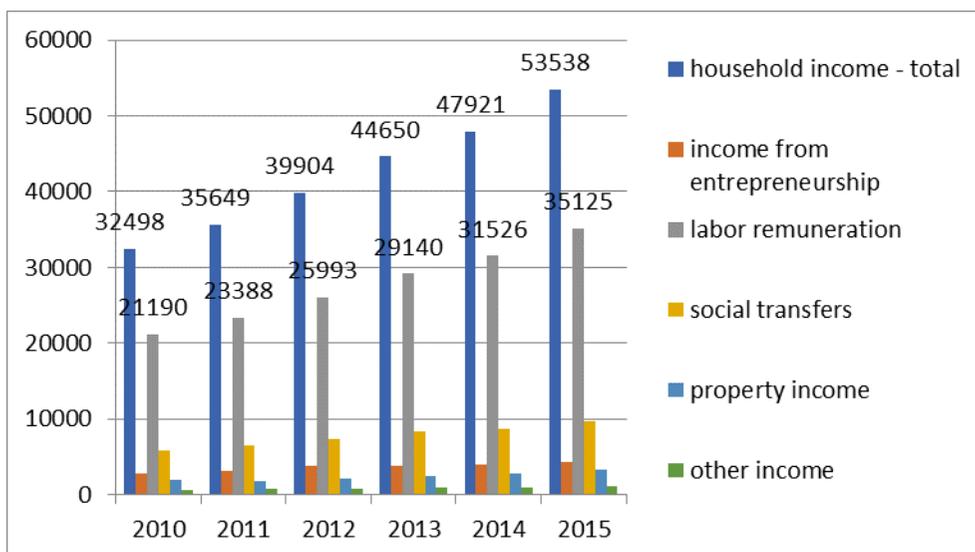
The main results obtained for the analysis of the dynamics of money income of the Russian Federation residents in 2010-2015 are shown in Figure 1. In general, the dynamics of nominal cash income in the period under analysis is characterized by a stable positive trend regarding all indicators that make up the structure of money income. The growth of monetary income in 2015 amounted to 64.74% compared to 2010.

However, it should be noted that income structure has remained stable and unchanged. For example, the major part of income accounts for labor remuneration (2010 - 65,2%, 2011 - 65,61%, 2012 - 65,14%, 2013 - 65,26%, 2014 - 65,79%, 2015 - 65,61%), social transfers rank second (about 18% during the period under study), income from entrepreneurship comes third (the value varies in the range of 7.9-9.4%), the fourth place is occupied by property income (5- 6% for the entire period). Other types of income account for 2%.

Nevertheless, such a stable tendency observed for the share of each type of income to remain unchanged in the overall structure of household income is only characteristic for the Russian Federation overall, whereas regions display significant deviations from the overall structure of income across the country (Table 1). In the Central Federal District, the city of Moscow occupies the leading position in terms of income formation by means of labor remuneration (48.2%), although the city displays the lowest values for social transfers, property income and other income. In contrast, the Kursk Region occupies top positions in income from business and

property. The Moscow Region is an obvious leader in ‘other income’ category (42,9%).

**Figure 1.** Dynamics of money income of the Russian population in 2010-2015 (billion rubles).



**Table 1.** Data on the share of household money income in the Russian Federation members in 2015.

| Federal District            | Value | Income from entrepreneurship | Labor remuneration      | Social transfers            | Property income                          | Other income             |
|-----------------------------|-------|------------------------------|-------------------------|-----------------------------|--|--------------------------|
| Central Federal District    | Max   | Kursk Region (12,4%)         | Moscow (48,2%)          | Orel Region (25,4%)         | Kursk Region (3,2%)                      | Moscow Region (42,9%)    |
|                             | Min   | Moscow Region (4,4%)         | Bryansk Region (25,6%)  | Moscow (12,8%)              | Moscow (5,3%)                            | Moscow (19,6%)           |
| North-West Federal District | Max   | Arhangelsk Region (8,3%)     | Murmansk Region (58,1%) | Republic of Karelia (31,1%) | Saint Petersburg (7,9%)                  | Leningrad Region (28,9%) |
|                             | Min   | Saint Petersburg (1,7%)      | Novgorod Region (36,4%) | Saint Petersburg (16,2%)    | Leningrad (3,7%) and Pskov Region (3,7%) | Murmansk Region (8,3%)   |
|                             | Max   | Krasnodar                    | Republic                | Republic of                 | Krasnodar                                | Republic of              |

|                                 |     |                                     |                                   |                                |   |  |
|---------------------------------|-----|-------------------------------------|-----------------------------------|--------------------------------|---|--|
| Southern Federal District       |     | Territory (13,7%)                   | of Kalmykia (33,6%)               | Kalmykia (29,9%)               | Territory (4,1%), Volgograd Region (4,1%)               | Adygea (49,1%)                           |
|                                 | Min | Republic of Kalmykia (5,2%)         | Republic of Adygea (23,7%)        | Krasnodar Territory (15,2%)    | Republic of Kalmykia (1,8%)                             | Volgograd Region (28,3%)                 |
| North-Caucasus Federal District | Max | Republic of Dagestan (27,2%)        | Stavropol Territory (29,0%)       | Republic of Ingushetia (29,1%) | Stavropol Territory (4,4%)                              | Republic of Dagestan (50,5%)             |
|                                 | Min | Chechen Republic (7,5%)             | Republic of Dagestan (10,6%)      | Republic of Dagestan (11,1%)   | Chechen Republic (0,2%)                                 | Republic of North Ossetia-Alania (34,8%) |
| Volga Federal District          | Max | Republic of Bashkortostan (12,6%)   | Republic of Mordovia (39,1%)      | Republic of Mordovia (26,8%)   | Chuvash Republic (6,5%)                                 | Perm Territory (39,5%)                   |
|                                 | Min | Udmurt Republic (4,3%)              | Republic of Bashkortostan (28,5%) | Republic of Tatarstan (15,3%)  | Orenburg Region (3,1%)                                  | Republic of Mordovia (23,1%)             |
| Ural Federal District           | Max | Sverdlovsk Region (10,9%)           | Tyumen Region (62,1%)             | Kurgan Region (29,0%)          | Sverdlovsk Region (5,5%)                                | Sverdlovsk Region (31,7%)                |
|                                 | Min | Tyumen Region (7,2%)                | Sverdlovsk Region (35,1%)         | Tyumen Region (15,5%)          | Kurgan Region (4,2%)                                    | Tyumen Region (10,4%)                    |
| Siberian Federal District       | Max | Republic of Khakassia (14,4%)       | Krasnoyarsk Territory (51,7%)     | Republic of Tyva (32,4%)       | Irkutsk Region (6,0%) and Kemerovo Region (6,0%)        | Omsk Region (36,8%)                      |
|                                 | Min | Novosibirsk Region (3,5%)           | Altai Territory (29,5%)           | Republic of Buryatia (18,9%)   | Republic of Buryatia (2,1%) and Republic of Tyva (2,1%) | Republic of Tyva (10,3%)                 |
| Far Eastern                     | Max | Republic of Sakha (Yakutia) (14,5%) | Chukotka Autonomous District      | Kamchatka Territory (22,2%)    | Magadan Region (5,9%)                                   | Primorsky Territory (34,0%)              |

|                          |     |                                     |                             |                                      |                                   |                            |
|--------------------------|-----|-------------------------------------|-----------------------------|--------------------------------------|-----------------------------------|----------------------------|
| Federal District         |     |                                     | (77,5%)                     |                                      |                                   |                            |
|                          | Min | Chukotka Autonomous District (1,1%) | Primorsky Territory (37,4%) | Chukotka Autonomous District (15,2%) | Jewish Autonomous District (2,7%) | Magadan Region (1,8%)      |
| Crimean Federal District | Max | Republic of Crimea (21,2%)          | Sevastopol (29,2%)          | Republic of Crimea (25,3%)           | Sevastopol (1,5%)                 | Sevastopol (30,8%)         |
|                          | Min | Sevastopol (16,1%)                  | Republic of Crimea (27,5%)  | Sevastopol (22,4%)                   | Republic of Crimea (1,2%)         | Republic of Crimea (24,8%) |

*Source: Regions of Russia. Socio-economic indicators 2016.*

In the North-West Federal District, the Murmansk Region (58.1%) has the highest share of income generation by means of wages, although this region ranks lowest in relation to "other income" (this category is led by the Leningrad Region). St. Petersburg residents generate the largest share of income from property (7.9%), but lag all the other regions of the North-West Federal District with respect to income from business activities and social payments (the largest value of this indicator in the income structure - 31, 1% is found in the Republic of Karelia).

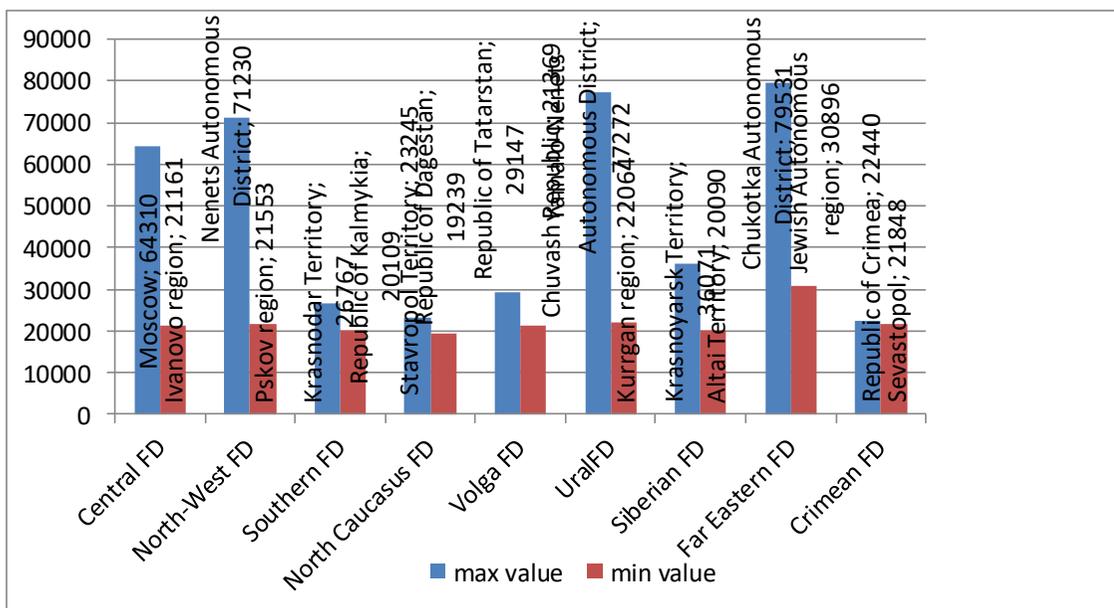
In the Southern Federal District, the Republic of Kalmykia holds the leading positions in generating income from labor remuneration (33.6%) and social payments (29.9%), while being distinguished by relatively low income from business and property (the highest values in these two categories are displayed by the Krasnodar Territory). The Republic of Adygea is a leader in "other income" category (about 50%). In the Volga Federal District, the Republic of Mordovia occupies the top positions in the formation of income through labor remuneration (39.1%) and social payments (26.8%), while the Republic of Bashkortostan has the largest share of income from business (12.6%).

Turning to the North Caucasus Federal District, it is possible to single out the Republic of Dagestan, where income is mainly generated from entrepreneurial activities (27.2%) and other income (50.5%). The Stavropol Territory is playing the lead about labor remuneration (29.0%) and property income. In the Siberian Federal District, the Krasnoyarsk Territory stands out in terms of labor remuneration (51.7%), whereas the Republic of Tyva compares favorably in terms of social benefits (at the same time lagging in property income and other income). In the Ural Federal District, the population of the Sverdlovsk Region generates the highest share of revenues from entrepreneurial activity, property income and other income, while the residents of the Tyumen Region get most of their income through labor remuneration (62.1%). In the Crimean Federal District Sevastopol and the Republic of Crimea display approximately equal values for labor remuneration, social payments and other income.

Concerning the Far Eastern Federal District mention should be made of the Chukotka Autonomous District which is noted for extremely high values of labor remuneration (77.5%) in income structure significantly exceeding the national average. In addition to the Chukotka Autonomous District, the Tyumen Region is the only region approaching the all-Russian value of labor remuneration in the income structure.

Since labor remuneration is the main source of personal income in the Russian Federation, we have carried out a comparative study of wages across regions and analyzed its correlation with the subsistence minimum (Figure 2). The Chukotka Autonomous District, the Yamalo-Nenets Autonomous District in the Tyumen Region, the Nenets Autonomous District as part of the Arkhangelsk Region, Moscow and the Krasnoyarsk Territory entered the top five in terms of the payroll amount. Moreover, the absolute leader (the Chukotka Autonomous District) exceeds the average value of labor remuneration in the Russian Federation by 134.7%. It has also been found out that the minimum amount of payroll wages in all districts has approximately the same value - 21,000 rubles (with the only exception of the Chukotka Autonomous District - 30,896 rubles).

**Figure 2.** Payroll wages of employees in organizations across regions of the Russian Federation in 2015 (rub.)



The analysis of labor remuneration in all Russian Federation regions indicated that in 2015 the payroll wages of employees everywhere exceeded the level of the subsistence minimum established for the Russian Federation (9452 rubles for the fourth quarter of 2015).

Income inequality (payroll wages) in the Russian Federation regions and comparison with the subsistence level of the employable population in the regions allowed the authors to identify five groups of the Russian Federation members in terms of their appeal and attractiveness for labor force in regional and local labor markets (Table 2).

**Table 2.** Grouping of the Russian Federation members according to the ratio of payroll wages to minimum subsistence of employable population in 2015.

| Ratio of accrued wages of employees to the size of subsistence minimum of employable population, % |                  | Russian Federation member   |
|--|------------------|---|
| 1  | Less than 249,99 | Regions: Bryansk (231.64%), Vladimir (247.12%), Ivanovo (216.37%), Orel (241.08%), Smolensk (219.83%), Tver (245.10%), Pskov (198.26%), Kirov (222.45%), Ulyanovsk (249.14%), Kurgan (234.27%), the Jewish Autonomous Region (241.28%);<br>Republics: Karelia (243.95%), Kalmykia (241.49%), Dagestan (214.15%), Ingushetia (243.38%), Kabardino-Balkaria (211.37%), Karachay-Cherkess (227.19%), North Ossetia-Alania (235.02%), Chechen (239.39%), Mariy El (243.72%), Chuvash (249.78%), Altai (237.90%), Crimea (224.04%);<br>Altai Territory (213.72%), the city of Sevastopol (219.87%).  |
| 2  | 250-299,99       | Regions: Belgorod (298.57%), Voronezh (291.50%), Kursk (281.42%), Lipetsk (284.73%), Ryazan (278.55%), Tambov (255.92%), Tula (297.89%), Yaroslavl (289.95%), Arkhangelsk without the Autonomous Okrug (257.39%), Vologda (262.51%), Kaliningrad (273.64%), Novgorod (262.72%) %, Astrakhan (294.07%), Volgograd (260.80%), Rostov (257.87%), Nizhny Novgorod (294.20%), Orenburg (287.95%), Penza (265.96%) %, Samara (277.45%), Saratov (262.96%), Sverdlovsk (297.39%), Novosibirsk (260.67%), Amur (268.92%);<br>Republics: Adygeya (251.07%), Bashkortostan (292.54%), Mordovia (260.85%), Udmurtia (274.77%), Buryatia (294.03%), Tyva (285.88%);<br>Krasnodar Territory (267.00%), Stavropol Territory (272.29%), Perm Krai (278.29%), Zabaikalsky Territory (290.90%), Kamchatka Territory (299.40%), Primorsky Territory (256, 39%), the Khabarovsk Territory (266.64%). |
| 3  | 300-349,99       | Regions: Kaluga (310.60%), Murmansk (324.64%), Chelyabinsk (306.82%); Irkutsk (314.16%), Kemerovo (311.34%), Omsk (307.45%), Tomsk (310.85%);<br>Republics: Komi (321.23%), Khakassia (323.97%), Sakha (Yakutia) (333, 67%), Krasnoyarsk Territory (321, 29%).  |
| 4  | 350-399,99       | The Moscow region (350.43%), Moscow (391.23%), the Nenets   |

|   |               |   |
|---|---------------|---|
|   |               | Autonomous District as part of the Arkhangelsk Region (365.69%), the Leningrad Region (367.33%), the Republic of Tatarstan (351.17%), Tyumen Region without autonomous districts (351.55%), Magadan Region (360.26%).   |
| 5 | 400 and above | St. Petersburg (401.70%), the Khanty-Mansiysk Autonomous District - Ugra as part of the Tyumen Region (401.44%), the Yamalo-Nenets Autonomous District in the Tyumen Region (472.58%), the Sakhalin Region (430.86%), the Chukotka Autonomous District (457.63%). |

*Source: Regions of Russia. Socio-economic indicators 2016.*

The results presented in Table 2 indicate that the last three groups of RF members are expected to be the most attractive ones for employable residents, because the indicator in question (ratio of payroll wages to minimum subsistence level of able-bodied population) exceeds 300%. Consequently, the economic agents will give priority to the following areas ranked in increasing order of ratio of payroll wages to minimum subsistence level: the Khanty-Mansiysk Autonomous District - Yugra in the Tyumen Region (401.44%), Petersburg (401.70%), the Sakhalin Region (430.86%), the Chukotka Autonomous District (457.63%), the Yamalo-Nenets Autonomous District in the Tyumen Region (472.58%).

Specific features of income differentiation process found both over time and across regions are supported by a quantitative evaluation of income inequality indicators. At present, two different counties of Russia are existent: one comprising the prevailing share of the population with more than 10 million poor people, the other consists of a very small section represented by large property owners (5% of the society members). Social polarization not only blocks economic reforms, but also threatens social security, contributes to the deterioration of the quality of life, causes changes in the public mood and economic behavior.

An analysis of data provided by Rosstat shows that those who either were middle-class or already rich have their income rising. The dynamics of the Gini coefficient clearly demonstrates the growth of income concentration in the hands of the more affluent sections of society. By way of comparison, in 1998 the Gini coefficient was 0.394, while by 2015 it has risen to 0.413. The coefficient of funds which indicates the border where social stability runs low and reflects the degree of social stratification has grown from 13.8 in 1998 to 15.7 times. We should make a note that the coefficient of funds is only 10.0 in the developed western countries. In addition, the methodology applied for calculating this indicator of stratification does not fully consider the income of high-income and marginal segments of society. Therefore, this coefficient is supposed to be much higher than formally recorded by the Russian statistics service. It is of interest to look at the results of the analysis of the Gini coefficient and the coefficient of funds performed for the Russian regions with some of the figures exceeding the all-Russian level (Table 3).

**Table 3.** *Inequality of population in individual regions of the Russian Federation in terms of monetary income in 2015.*

|                            | Gini coefficient | Coefficient of funds, times |
|----------------------------|------------------|-----------------------------|
| Tyumen Region              | 0,431            | 17,8                        |
| Moscow                     | 0,430            | 17,7                        |
| Nenets Autonomous District | 0,425            | 17,0                        |
| Perm Territory             | 0,424            | 17,0                        |
| St. Petersburg             | 0,416            | 16,1                        |
| Republic of Tatarstan      | 0,416            | 16,0                        |
| Krasnodar Territory        | 0,414            | 15,8                        |
| Republic of Bashkortostan  | 0,414            | 15,8                        |
| Samara Region              | 0,414            | 15,8                        |
| In Russia on the whole     | 0,413            | 15,7                        |

*Source: Regions of Russia. Socio-economic indicators 2016.*

However, due to equality in poverty some regions of the Russian Federation demonstrate low social tension. For example, the values of the Gini coefficient and the coefficient of funds in the city of Sevastopol in 2015 were 0.304 and 7.3 respectively, in the Republic of Crimea – 0.308 and 7.5, in the Republic of Karelia - 0.339 and 9.3, in the Tver Region - 0.340 and 9.3 , in the Pskov Region – 3.344 and 9.6, in the Chuvash Republic – 0.351 and 10.0, in the Kostroma Region – 0.354 and 10.3, in the Altai Republic – 0.355 and 10.4, in the Volgograd Region – 0.356 and 10. 4, in the Ivanovo region - 0.358 and 10.6, in the Karachay-Cherkess Republic – 0.359 and 10.6.

Investigation of differentiation in the standard of living is supposed to focus on distribution of the total volume of money income with breakdown to 20% groups. Examination of these data showed that the concentration of an increasingly large share of income in the hands of the "richest" entails a declining income of the "poor". At present the 5th group (with the largest income) accounts for almost half of all monetary income of the population (47.1%) in total income, while the money income of the lowest income group is only 5.3%. Therefore, the difference in the amount of income received by the first and fifth groups is 8.8 times for the Russian Federation overall. From regional perspective, the most significant difference in income is observed in Moscow (9.9 times), Nenets Autonomous District (9.4 times), Perm Territory (9.4 times), Tyumen Region (9.9 times), St. Petersburg (9.1 times). Currently, 40% of the population belonging to the two highest income groups have at their disposal 69.7% of total income, whereas 60% of the population (including the lowest income group) account for only 24.5% of the aggregate monetary income. In other words, 2/3 of the population have at their disposal less than a third of total income.

The examination of the distribution of the Russian population with respect to average per capita monetary income in 2015 confirms the fact that there is a significant socio-economic stratification in terms of income level. To illustrate, the share of population with income in the range of up to 10,000 rubles (at the level of

the subsistence minimum and even lower) was established at 14.2%, while the share of those with income over 45,000 rubles per month was 18,6%. With respect to the regions the largest share of population with income up to 10,000 rubles was recorded in the Republic of Kalmykia (42.5%), the Republic of Ingushetia (39.8%), the Republic of Tyva (39.2%). In contrast, the share of people with the same level of per capita income accounted for only 3.4% in Moscow and 8.4% in the Tyumen region. Most of the Russian population (44.7%) received income in the range of 10,0001 - 27,000 rubles per month. This social fact suggests that most households are characterized by an extremely low standard of living according to the level of average per capita cash income.

Wages and income differentiation determines differentiation of spending on consumer needs: the amount of food consumed and the purchase of non-food products in families with different income levels varies substantially. To put it in perspective, the households with the largest disposable resources accounted for 54.5% of consumer spending in 2015 regarding expenditures for the purchase of household goods, clothing and footwear, household appliances, health care, home care, recreation and transport, compared to 36, 6% in families with the lowest incomes. The latter who virtually cannot afford fish, fruits, meat and meat products consume on average 1.5-2 times less food products from each category than households with high and medium level of income. The energy value of daily diet proves this conclusion: in households with the lowest monetary income this figure is 2051 kcal per day or 79% of daily kilocalorie consumption in the consumer group with the largest disposable resources.

It is of considerable interest to undertake comparative analysis of minimal and reasonable Russian consumption standards of staple foodstuffs with actual average per capita consumption (Table 4).

**Table 4.** Consumption of food products in the Russian Federation (per capita per year, kg) in 2010-2015.

| Food products           | Rate of consumption |     | Actual consumption |       |
|-------------------------|---------------------|-----|--------------------|-------|
|                         | reasonable          | min | 2010               | 2015  |
| Bread products          | 115                 | 97  | 101                | 94,9  |
| Potatoes                | 105                 | 89  | 66                 | 57,6  |
| Vegetables              | 140                 | 110 | 96                 | 99,5  |
| Fruits and berries      | 75                  | 65  | 70                 | 70,7  |
| Meat and meat food      | 70                  | 54  | 79                 | 84,9  |
| Milk and dairy produce  | 360                 | 331 | 262                | 265,8 |
| Fish and fish products  | 18,2                | 18  | 21                 | 21,2  |
| Sugar and confectionary | 35,3                | 25  | 33                 | 30,7  |
| Eggs, pcs.              | 265                 | 234 | 221                | 218   |

*Source:* Socio-economic indicators of poverty 2016.

According to the data presented in Table 4, in the period under analysis, the actual consumption of food products corresponds to the minimum consumption rate. For

such food products as vegetables, milk and dairy products and eggs the consumption is still lower than even the lowest consumption rates on account for regular price rises. Nevertheless, it should be noted that household consumption of fish and fish products, meat and meat products at the level of consumption rate may be explained, by the availability of these food stuffs, as well as by changes in the quality of life.

Examination of the structure of consumer spending showed that in 2015 there was an increase in spending on food purchases, i.e. exclusively on current consumption compared with 2010, which contributed to a certain decline in spending on purchase of non-food products. Compared to 2010, the share of food expenditures in the amount of the minimum consumer budget in 2015 rose from 32.9% to 35.3%, which, according to Engel's law, reflects a decline in the standard of living and welfare of the population. Consumption of non-food products decreased from 38.7% to 36.3% in the analyzed period.

The share of services in the structure of consumer spending has remained almost unchanged in 2010-2015 (at the level of 26.6%). Housing and utilities services form an integral part of consumer spending. Therefore, a substantial share of expenses on services is due, first, to expenditures on housing and utilities services that are quite sizeable for the consumer budget. In addition, it is important to take into consideration the expenses on communication, culture and medical services. Consistency shown by this indicator in the structure of consumer spending allows us to make a conclusion that consumers' expenditures on food and non-food products are primarily subject to transformation because of declining real income and growing social and economic tensions.

It should be noted that the established facts of regional socio-economic differentiation, which determine the pattern of economic behavior of labor force in regional markets, are also proved by the differences in the structure of regional consumer spending. For instance, the lowest share of food expenditures in household budgets in 2015 was observed in the Tyumen Region (30.2%), the Moscow Region (29%), Moscow (32.7%), the Nenets Autonomous District (32, 9%), the Krasnodar Territory (34.4%). In several Russian regions such as the Republic of Dagestan, the Republic of Ingushetia, the Republic of Crimea, the Smolensk Region, the Republic of Buryatia, the Republic of Khakassia, the Kemerovo Region the share of spending on food purchases exceeded 44% in 2015.

Referring again to the groups of the Russian Federation members identified according to the ratio of payroll wages to the size of the minimum living wage of employable population presented in Table 2, it is relevant to correlate it with the migratory flows in the Russian regions measured in net migration rate per 10 thousand people. It has been revealed that the first and poorest group of regions is for major part characterized by negative migration growth, except for the three regions - Sevastopol and the Republic of Crimea, which are likely to be attractive to people, including Ukrainians, because the region joined the Russian Federation quite

recently, as well as the Republic of Ingushetia, where the flow of refugees from the Chechen Republic and North Ossetia continues. These facts support the hypothesis that poverty in the region pushes the population out.

The situation is less unambiguous in the second group, where a positive migration growth is observed for slightly less than half of the regions (16 out of 36). This is also indicative of the third group, where positive migration is recorded in 5 regions out of 11. This suggests that the value of the ratio of payroll to subsistence minimum for these groups is not a critical factor for the economic behavior of the people.

The hypothesis is proved true for the fourth group of nearly the most well-off regions with more appreciable measure of this ratio, where negative migration increase is only observed in the Magadan region, while in the others it is positive. The authors suppose that the reason why the hypothesis finds justification may be a combination of a high standard of living with a diversified economy, a great number of jobs in various regional industries and spheres - especially in Moscow, Moscow and Leningrad Regions, the Republic of Tatarstan. Concerning the fifth richest group of regions, the regularity is found only in case of a diversified economy in St. Petersburg. In our view the negative migration growth observed in the other regions is due to their commodity orientation, large-scale job cuts in the extractive industries, production expansion caused by unfavorable world energy prices.

The research carried out by the authors allows to draw a conclusion that the peculiarities revealed in household income formation and the way income is used require that the regulatory function of the government should be reinforced, since the process of unfair social and economic distribution of income in Russian regions is not only being dealt with, but, on the contrary, is progressing. It is essential for the government to give due regard to real conditions of the regional labor markets, as well as low labor costs in the Russian society to enhance the effectiveness of its regulatory function and pursue income policy in combination with structural and migration policies.

#### **4. Conclusions**

The findings of the research make it possible to draw several conclusions:

1. Economic decision-making by population in different regions and assessment of factors and consequences of these decisions constitute an important part of behavioral economics. It has been specified that interregional and intraregional migration which drives stepping-up processes of resource allocation between Russian regions should be regarded as a significant consequence of peoples' economic behavior.
2. The ongoing decline in real income of the population and the growth of poverty level in the Russian Federation, continuously growing interregional differentiation

resulting from the unbalanced social and economic development of the regions exert systemic negative impact on intensifying migration processes.

3. The authors have developed the typology of the Russian regions according to the degree of their appeal to the manpower based on estimations of income inequality in the Russian regions and comparison of income with the size of a living wage. It has been shown that almost 70% of the Russian regions are placed in groups with the lowest migration attractiveness. As a result, the conclusion was made there is an urgent necessity to implement migration policy in a consistent relationship with poverty reducing measures at the regional level with the aim to achieve a well-balanced development of the Russian regions.

### ***Acknowledgment***

*The study was carried out with the financial support of the Russian Foundation for Basic Research, project No. 17-02-00425 on the topic "Interregional asymmetry of territories and migration mobility of the population in Russia" as part of the main competition of 2017.*

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