

AMURCON 2020
International Scientific Conference**POVERTY: METHODOLOGICAL APPROACHES TO
MEASUREMENT**

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**Abstract**

The reduction of poverty is one of the key goals of the state policy in the Russian Federation. The key goals are set out in several framework documents, and Presidential Decree No. 474 on the National Goals of the Russian Federation up to 2030 includes a twofold reduction of poverty. A total framework is used to measure poverty in the Russian Federation. This framework stipulates the establishment of a minimum standard to determine the poverty level. Russia uses the consumer basket as a standard to calculate the minimum wage. The minimum wage value corresponds to the poverty threshold. There is a suggestion to change the methods of measuring poverty and use the relative framework for calculations and the median method to measure poverty starting with 2021. This article presents a comparative analysis of minimum wage values calculated using two methodological approaches. It is proved that the regions of Russia that feature low per capita incomes have lower minimum wages if calculated using the median income rather than the consumer basket. The minimum wage calculation based on the consumer basket can be used provided that the selection of foods, non-food items, and services is changed and the experience of other countries is taken into consideration.

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Keywords: Poverty, minimum wage, median per capita income, consumer basket, total framework, relative framework



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1. Introduction

The reduction of poverty is one of the key goals of the current state policy in the Russian Federation.

According to Decree No. 474 of the President of Russia of 21.07.2020 on the National Development Goals of the Russian Federation up to 2030 (Ukaz Prezidenta Rossiyskoy Federatsii..., 2020), key national goals include the maintenance of the population, its health and well-being. This document also specifies a target index, i.e., the twofold reduction of poverty as compared with 2017.

The poverty line in the Russian Federation is determined based on the consumer basket that is revised every five years. The cost estimate of the consumer basket equals the minimum wage. People whose income is below the minimum wage are considered poor. This method of poverty measurement has been used since 2002. Currently, there is a heated discussion on changing the methodological approach to poverty line calculation. It is suggested by the Ministry of Labor and Social Protection of Russia in particular that the minimum wage should be calculated using the median per capita income. This approach is used in European countries, Canada, etc.

This article attempts to analyze both of the approaches and calculate the minimum wages based on them. We aim to prove that regions with lower per capita income have lower median income, and thus a lower minimum wage. We also compared the minimum wage in the regions of the Far Eastern Federal Districts using these two methodological approaches.

2. Problem Statement

Russia uses the provisions of the total framework to measure poverty. According to it, people's incomes are compared with the minimum wage value. The minimum wage values are determined as the cost estimate of the consumer basket.

The content of the consumer basket does not comply with the healthy nutrition recommendations from the WHO and the Russian Ministry of Health.

The minimum wage is also undersized in terms of non-food items and services. Following the recommendations of the Russian Ministry of Labor and Social Protection, Russia is planning to start calculating the minimum wage based on the median per capita income since 2021. The minimum wage will amount to 44.2% of the median per capita income. Using the regions of the Far Eastern Federal District, we prove that the regions with lower per capita incomes have lower minimum wages if calculated with the new approach rather than the consumer basket.

3. Research Questions

There are currently three frameworks for poverty measurement: total, relative, and subjective (Voronov et al., 2020).

The total framework stipulates measuring poverty according to the set social standards. This framework is used by many countries, and the poverty line there corresponds to the minimum wage (Voronov et al., 2020). To calculate the minimum wage, a set of food and non-food products and services is selected that can satisfy the basic needs of people, i.e. the consumer basket.

The relative framework classifies people as poor if they do not have enough resources to afford food and living conditions that are common within their society. The median method is used to determine the poverty line, which is based on comparing the incomes of the population with a specific fraction of the 'median' income. This framework is used by many countries to measure poverty. In Canada, people whose income amounts to 50% of the median level or below, and in Europe, those whose income is lower than 60% of the median are classified as poor (Voronov et al., 2020).

The subjective poverty framework is based on people's own opinions about their financial situation (Pishnjak & Popova, 2015).

4. Purpose of the Study

This article sets a purpose to compare two methodological approaches for measuring poverty in the regions of the Far Eastern Federal District, determine their drawbacks and compare the poverty measurement results for the regions of the Far Eastern Federal District obtained using these approaches.

5. Research Methods

When analyzing the methodological approaches to poverty measurement, we used the system-oriented approach. To calculate the median per capita income, we used the statistical evaluation method that allowed us to compare the median per capita incomes of the residents of the Far Eastern Federal District regions.

6. Findings

In Russia, the total framework is used to measure poverty among the population. The consumer basket is used to calculate the minimum wage, and the people whose incomes are below the minimum wage are classified as poor (Tukumcev, 2010). The consumer basket is used in Canada to calculate the basic standard of living rather than poverty measurement. The contents of the consumer basket in Russia and Canada are quite different.

The consumer basket in Canada helps calculate the costs associated with purchasing a specific set of products and services required to provide the basic standard of living and socialization. The basket is composed and calculated using the cost of living for a family of two adults and two children. The consumer basket in Canada is calculated for each region separately. It is not used to measure poverty but to help maintain the basic standards of living. For poverty measurement, Canada uses the relative framework. It classified people whose after-tax income amounts to 50% of the median, scaled to the size of the family. If a family's income does not reach the basic level, the family can apply for governmental support (Nakajima, 2012).

The consumer basket in Canada includes food products; clothes and shoes according to the list; median rent price for a specific region; public transit costs; as well as costs for basic products and services.

The content of the consumer basket is defined with a view to the recommendation of the Ministry of Health and includes 66 food products. The list of non-food products includes 98 items. The consumer basket includes the rent price for a three- or four-room apartment for a family of four people. The transport

costs are calculated based on the annual expenses on travel cards for two adults and 12 taxi rides. For rural areas, the basket includes the costs of purchasing a car and the associated annual operating costs (Nakajima, 2012).

The miscellaneous costs include buying a phone and equipment, furniture, household appliance - a total of 48 items. The list includes tickets to theaters and museums, sports gear, books, etc. The proportion of miscellaneous products and services is 73% of the expenses associated with food and shoes, and this list includes furniture, household appliances, etc. (Nakajima, 2012).

Russia uses a different approach to determining the content of the consumer basket. It specifies the minimum selection of foods, non-food products, and services and it is used to determine the minimum wage. The key point in this definition is that it is the minimum to maintain the life and health of people (Karabchuk et al., 2013). This article proves that the consumer basket does not comply with the recommendations of the World Health Organization (WHO) and the Russian Ministry of Health.

Firstly, the consumer basket does not accommodate the recommendations of the WHO and the Russian Ministry of Health. According to the WHO recommendation on healthy nutrition, most calories must come from vegetables, fruit, nuts, lean meat, legumes, etc. Governmental Decree No. 54 of 28.01.2013 sets out the guidelines that state the consumer basket shall have ‘a selection of foods to provide healthy nutrition at minimum costs and satisfy the needs in nutrients typical of the main social and demographic groups depending on the chemical composition and the calorific values of food products’. The content of the basket is limited and does not comply with the guidelines of the Russian Ministry of Health in a number of aspects.

Table 1. The correlations between the amounts of food groups in the rational consumption standards and the consumer basket (CB) (Bulanova, 2019)

List of foods	Standard	CB standards for people over the working-age	Difference Kg	CB standards for people of the working-age	Difference kg
Bread products (bread and pasta in flour equivalent, flour, cereals, legumes) legumes	96	107.2	+11.2	134.3	+38.3
Legumes	3	6	+3	7.1	+4.1
Rice	7	5	- 2	6.1	-0.9
Other cereals	14	4	- 10	5.1	-9.9
Wheat bread		105		131.1	
Rye bread		2		6.7	
Pasta	8	8	0	9.1	+1.1
Potatoes	90	70	-20	88.2	-1.8
Cabbage, fresh and fermented	40	35	-5	32.6	-7.4
Cucumbers and tomatoes, fresh and pickled	20	4	-16	5	-15
Edible root crops	35	35	0	35	0
Other vegetables	30	30	0	42.6	+12.6
Fresh fruit	100	45	-55	60	-40

Sugar	24	22	-2	22.6	-1.4
Candy		1		1	
Cookies		1		1	
Beef	20	12	-8	13.1	-6.9
Pork	18	8	-10	10.4	-7.6
Lamb		0.2		0.4	
Poultry	31	34	+3	35.1	+4.1
Fresh fish	22	27	+5	32.1	+10.1
Herring		1		1	
Milk, kefir	108	65	-43	70	-38
Sour cream	3	2	-1	2	-1
Butter	2	3	+1	3.3	+1.3
Cottage cheese	19	6	-13	8	-11
Cheese	7	4	-3	4.5	-2.5
Eggs (pcs)	260	200	-60	211	-49
Margarine and other fats		1		1	
Vegetable oil	12	10	-2	12.5	+0.5
Salt	4	2.9	-1.1	3.7	-0.3

The analysis shows that the difference between the consumer basket values and the guidelines is significant for some of the groups. For instance, the guidelines suggest consuming 100 kg of fruit a year, while the basket only provides for 45 kg for people over the working-age and 60 kg for people of the working age, which is about twice as low. The guideline for meat (pork, beef, poultry) is 69 kg., while the basket has 44 kg. The shortage amounts to 25 kg for the people over the working age and 10 kg for the people of working age. The guidelines stipulate consuming 215 kg of various vegetables, while the basket features only 174 kg for people over the working age and 203.4 kg for the people of the working age.

The analysis of the consumer basket shows that it does not comply with the existing recommendations of the WHO on healthy nutrition (Diet, nutrition, and prevention., 2003). The most calories come from bread, sugar, and potatoes, while the WHO guidelines state they must come from vegetables, fruit, nuts, lean meat, legumes, etc. According to the WHO standards, the daily ration must include at least 400 grams of fresh fruit and vegetables. The consumer basket stipulates 125 grams of fruit a day, which is three times lower than the guideline.

Secondly, the consumer basket used to calculate the minimum wage includes non-food products and services. Between 1999 and 2012, the costs of non-food products and services were calculated based on Federal Law No. 201-FZ on the Consumer Basket for the entire Russian Federation. Since 2012, the calculation methods for the costs of non-food products and services changed due to the passage of Federal Law No. 227-FZ of 03.12.2012. Since then, the costs of non-food products and services are determined through the food cost ratio. It amounts to 50% for services and 50% for non-food products. What does it give us? It gives us only one thing: it prevents the cost of the consumer basket and, consequentially, the minimum wage from increasing dramatically, thus preventing the increase in the number of poor people. Below we prove that the costs of services considered are artificially lowered. Calculate the costs of services for 2020 using the standards set out in Federal Law No. 201-FZ on the Consumer Basket for the entire

Russian Federation of 1999. Since the costs associated with services and non-food products take up supposedly equal proportions of the consumer basket, we will calculate the costs of services for one person.

Table 2. Costs of services according to the standards set out in Federal Law No. 201-FZ

Service	Service volume	Service rate	Service price
Housing	18 m ²	39.22 RUR	705.96 RUR.
Central heating	6.7 Gcal per year	1846.87 RUR per 1 Gcal	12374.0 / 1031 RUR a month
Cold- and hot-water supply and removal	285 l per diem = 0.285 m ³	42.39+35.09+43.9=40.5 RUR per 1 m ³	346.3 RUR
Gas supply	10 m ³	162 RUR	1620 RUR
Electricity	50 kW h per month	4.73 RUR	236.5 RUR
Transport	619 rides per year	30 RUR	1547 RUR
Miscellaneous	15% of the entire service volume	5486.7 RUR	823 RUR
Total			7132.8 RUR

The calculations are approximate and based on the current rates in Khabarovsk territory. We must note that the basket does not cover some crucial costs like apartment rent, medical services, cultural services, etc. (Khalikova, 2018).

The minimum wage for the people of working age in Khabarovsk territory in the second quarter of 2020 is 16,246 RUR (Velichina prozhitochnogo minimuma., 2020). It means that the cost of non-food products and services amounts to 8123 RUR and the cost of services is 4061.5 RUR. Table 2 shows that service fees for one person amount to 7132.8 RUR. The author claims that the minimum wage must be 28,531 RUR, which is a sum of 7132.8 RUR for services, 7132.8 RUR for non-food products, and 14,265.6 RUR for food. The method in question underestimates the costs of services and non-food products. Thus, the minimum wage is 40% lower than it should be, just like the proportion of people living in poverty (Rzhanicyna, 2018).

Currently, the Ministry of Labor and Social Protection initiates the transition from the minimum wage based on the consumer basket to the one based on median per capita income. The minimum wage shall be set at 44.2% of the median per capita income. In other words, the quality of life and poverty levels will be determined using the relative approach.

Calculate the median per capita income for Russia as a whole in 2019. The Ministry of Labor and Social Protection of the Russian Federation suggests that the minimum wage equals 44.2% of the median per capita income. We will compare the results with the minimum wage set for Russia as a whole in 2019 in the regions of the Far Eastern Federal Districts.

Table 3. The median per capita income and minimum wage values for the regions of the Far Eastern Federal District in 2019, RUR

Regions of Russia	Median income value	Minimum wage value (44.2 % of the median income)	Minimum wage value calculated using the consumer basket	The difference between the anticipated and the current minimum wages
Republic of Buryatia	20307	8976	11377	-2401
Republic of Sakha (Yakutia)	35391	15643	17181	-1538
Zabaykalsky territory	20893	9235	12337	-3102
Kamchatka territory	42010	18568	20499	-1931
Primorsky territory	29258	12932	13124	-192
Khabarovsk territory	33717	14903	14328	+575
Amur Oblast	25631	11329	12379	-1050
Magadan Oblast	50906	22500	19680	+2820
Sakhalin Oblast	38130	16853	14781	+2072
Jewish Autonomous Oblast	22357	9882	14213	-4331
Chukotka Autonomous District	61747	27292	22213	+5079

Will the change of minimum wage calculation methods be beneficial for the people? The answer to this question can be found in Table 2 that presents the calculations of minimum wage using these methods. The median per capita income for Russia in 2019 is 26,642 RUR (Russia in numbers, 2020), 44.2% is 11,775 RUR, and the minimum wage – 10,890 RUR.

The calculations of the median per capita income for the regions of the Far Eastern Federal District in 2019 and its planned 44.2% show that the minimum wage values calculated using the new approach are lower than the current values in the regions with low per capita incomes. In the Republic of Buryatia, the anticipated minimum wage values will be 21% lower, in Zabaykalsky territory – 25%, in the Republic of Sakha (Yakutia) – 9%, in Kamchatka territory – 9.5%, and in Jewish Autonomous Oblast – 30% lower. This minimum wage calculation approach is beneficial for regions with high per capita incomes like Magadan Oblast, Sakhalin Oblast, and Chukotka Autonomous District.

7. Conclusion

This article proves that the minimum wage calculated using the new methods will be lower rather than higher than its existing value. This is unacceptable because it will not be sufficient for the satisfaction of even the basic needs.

References

- Bulanova, M. A. (2019). Federalnyi proekt "Starshee pokolenie": problemy izmerenija i perspektivy razvitiya [Senior Generation federal project: measurement problems and development prospects]. *Power and Administration in the East of Russia*, 4(89), 101-115. [in Russ].
- Diet, nutrition and the prevention of chronic diseases: report of a Joint WHO. (2003). FAO Expert Consultation. *WHO Technical Report Series*, 916. World Health Organization.
- Karabchuk, T. S., Pashinova, T. R., & Soboleva, N. E. (2013). Bednost domokhozjajstv v Rossii: chto govoryat dannye RMEZ VShE [The household poverty in Russia: what the RLMS HSE data say]. *Universe of Russia*, 1, 155-175. [in Russ].
- Khalikova, S. S. (2018). Ocenka urovnja bednosti naselenija Khabarovskogo kraja [The poverty level estimate for the population of Khabarovsk territory]. *Power and Administration in the East of Russia*, 4, 127-136. [in Russ].
- Nakajima, K. (2012). Izmerenie bednosti v Kanade [Measuring poverty in Canada]. In *Methods for estimating the poverty lines: four country case studies* (pp.34-47). MOT. [in Russ].
- Pishnjak, A. I., & Popova, D. O. (2015). Uroven i kachestvo zhizni moskovskikh domokhozjajstv: objektivnye i subjektivnye ocenki [The level and quality of life in Moscow households: objective and subjective estimates]. *The Journal of Social Policy Studies*, 13(2), 257-272. [in Russ].
- Rossia v cifrah [Russia in numbers]: Brief statistical digest. (2020). Rosstat. [in Russ].
- Rzhanicyna, L. S. (2018). Bednye v Moskve: sposoby izmerenija, mery socialnoi politiki [The poor in Moscow: measurement methods, social policy measures]. *Sociological Studies*, 10, 77-89. [in Russ].
- Tukumcev, B. G. (2010). Bednost i nishcheta rabotnikov promyshlennogo proizvodstva [Poverty and destitution among the industrial production workers]. *The Journal of Social Policy Studies*, 6(3), 319-338. [in Russ].
- Voronov, V. V., Ruzha, O. P., & Stashane, Ya. V. (2020). Mnogomernaja bednost v stranakh Baltii v kontekste ES: teoreticheskie i prakticheskie aspekty [Multidimensional poverty in the Baltic countries in the EU context: theoretical and practical aspects]. *The Baltic Region*, 12(3), 72-88. [in Russ]
- Ukaz Prezidenta Rossiyskoy Federatsii №474 ot 21.07.2020 g. «O natsional'nykh tselyakh razvitiya Rossiyskoy Federatsii na period do 2030 goda» [Decree No. 474 of the President of Russia of 21.07.2020 on the National Development Goals of the Russian Federation up to 2030]. *Collected Legislation of the Russian Federation*, 07.27.2020, No. 30, Art. 4884 [in Russ]
- Velichina prozhitochnogo minimuma v Khabarovskom kraje na 2 kvarta 2020 g. [The value of the subsistence minimum in the Khabarovsk Territory for 2 quarters of 2020]. <https://habstat.gks.ru/storage/mediabank/hIT9rJWt/%D0%92%D0%9F%D0%9C%202016-2020.pdf> [in Russ]