

DOI: <http://dx.doi.org/10.34069/AI/2020.28.04.37>

Migration processes in rural areas as an indicator of economic security

МИГРАЦИОННЫЕ ПРОЦЕССЫ В СЕЛЬСКОЙ МЕСТНОСТИ КАК ПОКАЗАТЕЛЬ ЭКОНОМИЧЕСКОЙ БЕЗОПАСНОСТИ

Received: February 5, 2020

Accepted: March 25, 2020

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Abstract

The article reveals the migration processes characteristic of the whole of Russia, including in the village. The migration policy of the regions is one of the key elements of the social development of society, taking into account the economic, political and demographic features of the territory; it determines the direction of migration processes and the formation of migratory connection. The migration process in rural areas (territories) acts as a two-way movement - as a stream of departures and as a stream of arrivals. The article provides basic statistics on migration in the region for 2014-2018.

The aim of the study is to analyze the migration situation in rural areas (territories) of the Udmurt Republic, one of the regions of the Russian Federation, since these processes directly affect the state of the labor market. In this regard, it seems relevant to study migration processes in rural areas (territories) of the Udmurt Republic. The object of research is the processes of migration in the context of modern international relations.

The subject of the study is - migration processes in rural areas; at the same time, migration is

Аннотация

В статье раскрываются миграционные процессы характерные для всей России в том числе и на селе. Миграционная политика регионов является одним из ключевых элементов социального развития общества, учитывая экономические, политические и демографические особенности территории, она определяет направления миграционных процессов и формирование миграционных связей. В сельских районах (территориях) миграционный процесс выступает как двоякое движение - как поток выбытий и как поток прибытий. В статье приводятся основные статистические данные по миграции в регионе за 2014-2018 годы.

Целью исследования является анализ миграционной ситуации в сельских районах (территориях) Удмуртской Республики - одного из регионов Российской Федерации, так как указанные процессы напрямую влияют на состояние рынка труда. В этой связи, представляется актуальным изучение миграционных процессов в сельских районах (территориях) Удмуртской Республики.

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considered in comparison with labor market indicators in addition to traditional indicators of migration growth (decrease) in the population.

In accordance with this goal, the main task was determined: to offer statistical indicators characterizing migration in terms of the labor market and the quality of life of rural areas. Methods of comparison, grouping, systematization, analysis of dependence were used.

It is concluded that these calculation methods can be applied to determine target indicators of the municipal policy of the region.

Key words: migration policy, migration efficiency, economic security.

Introduction

Modern requirements for ensuring the economic security of a country and a region can be considered not only with the actual problem of demography, but also with the processes of population migration (Mukhina I.A., Markovina N.V., Pimenova N.B., 2014).

The movement of the population characterizes the socio-economic mobility of the, guaranteed by constitutional norms, due to a number of objective reasons and factors. The guideline of state and municipal government is the stability of the population and an increase in its population in a certain territory as an indicator of ensuring economic security (Voitovich V.Yu. 2016; Osipov A.K., Bakakina E.A., Mukhina I.A., Gainutdinova E. A, 2017). The effective functioning of the country's economy is possible only when there is an effective state management of it, including certain areas of activity and the performance of a number of functions. (Molchan A.S., Frantsisko O.Yu., Ternavshchenko K.O., Ostaev G.Ya., Tinyakova V. I., Markovina E. V., 2020).

At the country level, the entry of foreign citizens increased for the purpose of permanent residence in the country or temporary residence and work, which in turn solved certain problems associated

Объектом исследования являются процессы миграции в контексте современных международных отношений.

Предметом исследования является – миграционные процессы в сельских территориях, при этом предлагается помимо традиционных показателей миграционного прироста (убыли) населения рассматривать миграцию в сопоставлении с показателями рынка труда.

В соответствии с указанной целью была определена основная задача: предложить статистические показатели, характеризующие миграцию с точки зрения рынка труда и качества жизни сельских территорий. При написании статьи использовались методы сравнения, группировки, систематизации, анализа зависимости.

Сделан вывод о том, что указанные методы расчета могут быть применены для определения целевых индикаторов муниципальной политики региона.

Ключевые слова: миграционная политика, эффективность миграции, экономическая безопасность.

with the natural population decline (Chazova I.Yu., Mukhina IA, 2019; Chazova I.Yu., Voitovich V.Yu., Mukhina I.A., Korotaeva E.A., Mukhin A.A., Ivanova A.A., 2019).

In the period from 2012 to 2017, these migration processes have become an additional help for our country in terms of labor resources and economic development. However, the movement of population within the country began to be one-sided in the direction of the central and western regions (Gaynutdinova E.A., Mukhina I.A., Osipov A.K., 2019).

The existing threats to economic security associated with population decline, migration processes and other factors specific to the country, as it seems to us, should be reflected in the state migration policy.

Domestic migration policy should also be aimed at keeping the population on the ground, as the population of the regions plays a big role in shaping the image of the region and the country as a whole.

The migration situation in Udmurtia is very tense, as 3,000 people migrate annually over the past 20 years, so the decline in the population of

Udmurtia is primarily due to the negative dynamics of the migration movement.

The Concept of State Migration Policy of the Russian Federation for 2019 – 2025 (Decree of the President of the Russian Federation of October 10, 2018 N 622 "On the Concept of the State Migration Policy of the Russian Federation for 2019 - 2025". "Collection of the legislation of the Russian Federation", 05.11.2018, N 45, Art. 6917. Retrieved from http://www.consultant.ru/document/cons_doc_LAW_310139/) provides for the following measures for information-analytical and scientific support of state policy: "improvement of statistical tools for studying, analyzing and forecasting the migration situation; determination of the parameters of the analysis of the migration situation, reflecting its impact on economic, social, cultural, national, ethno-confessional and other aspects of the life of Russian society, and organization of monitoring of the migration situation on the basis of the indicated parameters, which allows providing relevant and objective data for making management decisions in the field of migration "

Literature review

There are many copyright developments devoted to assessing migration as the main element of the country's economic demography. The traditional problems of demography related to population displacement were considered by a number of domestic and foreign authors at the macro level (Vishnevsky A., 1982; Nathan Keyfitz, John A. Beekman, 1984) without taking regional features into account. In a number of works, the population is studied from the perspective of human capital that can influence economic growth (Akindinova N.V., Chekina K.S., Yarkin A.M., 2017); the achieved results in education (PISA tests) and the health status of the population (reduction in mortality at working age) are selected as the main factors. However, the working-age population in modern Russia must be taken into account at the place of residence, this is the root cause of the development of the educational level and the preservation of the health of citizens (labor force).

The connection between the consequences of the urbanization movement of the population and the development of urban economies is carried out (Sagradov V.A., Iontsev A.A., 2003; Weil D. (2014)), while there is no quantitative study of the consequences for the economic security of rural areas. The authors most fully disclose the country's socio-demographic security (V. A. Chereshev, B. G. Yushkov, A. I. Tatarkin, et al., 2008), study the effects of migration, but there is no detailed statistical analysis of the factors that reduce the migration outflow of the rural population.

Methodology

Reliable information support and management decision making is achieved through effective management (Ostaev G.Ya., Khosiev B.N., Kokoeva Z.T., Kallagova A.Kh., Temiraeva A.V., 2019).

Statistical authorities record migration information by signs: gender and age composition, level of economic activity, level of education, budgetary dependence of arrivals and departures (recipients of social assistance from the state and regions) (Ostaev G.Ya., 2018; Ostaev G.Ya., 2019). In addition to traditional indicators of migration growth (decrease) in the population, we proposed to consider migration in comparison with labor market indicators. Based on the correlation and regression analysis, we will identify the most significant migration factors and build a model that predicts the size of migration in order to conduct state and municipal management of the development of the region. In carrying out the work, systemic and process approaches to scientific research were used (Kondratiev D.V., Ostaev G.Ya., Osipov A.K., Bogomolova T.P., Nekrasova E.V., Abasheva O.V., 2020).

Using statistical data (<https://udmstat.gks.ru/folder/51924>), we calculated a number of economic indicators characterizing the state and dynamics of migration processes based on statistical data.

Table 1.

Migration of the population living in rural areas of the Udmurt Republic for the period from 2014 to 2018, people

Years	Number of arrivals	Number of people left	Migration growth (decrease)	Average population	Average number of employed *
2014	19214	23859	-4645	535352	120862
2015	22039	22661	-622	533432	118796
2016	21925	23772	-1847	532284	116150
2017	20253	23232	-2979	529462	107859
2018	19937	23190	-3253	525429	111372
Absolute change, man					
2018 to 2014	723	-669	1392	-9923	-9490
every year on average	181	-167	348	-2481	-2373
Relative change, %					
2018 to 2014	103,8	97,2	70,0	98,1	92,1
every year on average	100,9	99,3	91,5	99,5	98,0

Note: * The average annual number of employees in organizations (excluding small businesses)

Compiled by the authors

The number of arrivals in 2018 compared with 2014 is increasing, and the number of departing is decreasing, which can be considered a positive moment, but the magnitude of the influx of rural population annually is less than the influx of population, which is characterized by a process of migration decline. Over the entire period, 13346 people disappeared from the countryside, which is equal to the number of the Yarsky district, and annually from the villages of Udmurtia the migration outflow is approximately 2600 people. Against the background of natural population decline, the rural population as a whole decreased by 9923 people. or for 2480 people. annually for the period 2014-2018. These processes directly affect the state of the labor market, and over the entire specified period the number of employees decreased by 9490 people. The main migration activity is shown by economically active citizens who are able to

produce a product for the region and who are the main taxpayers (Osipov A.K., 2019; Osipov A.K., Nikitina Yu.K., Gainutdinova E.A., Mukhina I.A., 2019). The tax base of municipalities is largely compiled by the indicators "payroll fund", "retail turnover", in this regard, 2,600 people leaving the village each year suffer tax losses of at least 40 million in total for the rural areas of Udmurtia (Mukhina I.A., 2019; Mukhin A.A., Mukhina I.A., 2018).

Results and Discussion

Using statistical data (<https://udmstat.gks.ru/storage/mediabankf>), we consider which of the factors have the most significant effect on migration growth (decrease) in 2018, having previously designated each indicator

Table 2.
Indicators of socio-economic development of municipal rural areas of Udmurtia

Rural areas of Udmurtia	Indicators of socio-economic development								
	Y	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8
Alnashsky	-8,6	23,2	18,2	34,7	28,9	1,6	2,4	7,2	62,6
Balezinsky	-11,2	24,4	12,9	22,3	24,8	4,1	1,6	6,8	35,2
Vavozhsky	-11,2	27,6	17,0	25,2	23,4	1,9	2,0	9,0	45,2
Votkinskiy	3,7	37,1	18,4	12,3	24,9	4,2	1,3	7,7	37,6
Glazovsky	-13,6	24,6	16,2	5,1	27,9	2,8	1,7	8,5	37,1
Grakhovsky	-11,2	24,1	17,5	23,8	24,1	1,4	1,9	10,3	43,9
Debossy	-6,3	25,9	14,7	27,0	24,9	1,8	1,7	11,4	48,3
Zavyalovsky	18,4	32,0	29,5	25,5	24,8	4,3	1,1	4,2	29,8
Igrinsky	-10,6	30,0	21,0	23,9	24,0	3,7	1,5	5,6	36,6
Kambarsky	2,6	29,2	16,7	18,7	25,8	4,3	1,3	8,6	35,2
Karakulinsky	-14,7	30,7	16,3	27,8	25,1	3,0	1,7	14,2	46,3
Kesky	-10,2	23,9	15,5	23,6	25,3	1,9	1,4	9,1	33,9
Kiznersky	-30,1	29,4	15,1	30,3	22,2	1,4	2,2	8,0	43,0
Kiyasovsky	-22,9	24,1	17,0	32,1	24,8	1,4	1,9	13,0	61,9
Krasnogorsk	-13,9	23,9	14,2	24,1	24,3	1,7	2,6	14,4	46,4
Malopurginsky	-4,1	26,0	17,1	25,4	23,2	1,1	1,3	5,9	29,9
Mozhginsky	-7,8	28,3	16,3	31,7	21,3	1,6	1,5	8,4	33,8
Sarapulsky	-7,8	26,8	18,5	18,8	20,4	6,2	1,6	7,2	33,3
Celtinsky	-16,1	24,8	18,3	31,7	24,4	1,2	1,4	11,1	50,6
Syumsinsky	-15,4	26,7	20,0	29,3	22,2	1,9	1,9	10,8	41,4
Uvinsky	-9,0	29,5	23,6	29,3	22,9	4,0	1,7	5,2	42,3
Sharkansky	-8,8	26,0	18,9	23,5	25,5	1,3	1,7	8,3	45,4
Yukamensky	-17,5	23,1	13,0	28,7	25,3	2,2	1,7	13,8	42,7
Yakshur-Bodinsky	-12,2	32,8	23,1	34,6	22,6	1,5	1,7	6,6	42,5
Yarsky	-22,6	24,3	15,5	21,5	25,6	3,2	1,7	9,9	35,5

Compiled by the authors

The factors are further divided into groups: economic, social infrastructure, and municipal management efficiency. The study is based on

the principle of correlation and regression analysis, therefore the value of migration growth - Y is taken as an effective sign.

Table 3.

Determination of the relationship between factors (socio-economic indicators) and the level of migration growth (loss).

Groups of factors	Factor Name	Correlation coefficient r	Tightness of communication
Economic	The average salary of 1 employee, thousand people	0,459	direct moderate
	The number of individual entrepreneurs per 1000 people of the average annual population	0,554	direct moderate
	The number of doctors per 10 thousand people, people	-0,270	reverse weak
Social infrastructure	Provision of housing for 1 person, sq.m	0,093	direct weak
	Volumes of accrued payments to the population for housing and utilities per 1 person, thousand rubles	0,443	direct average
	The number of catering facilities per 1000 people, units	-0,550	reverse moderate
Municipal Governance	The number of employees of the municipal government per 1,000 inhabitants, people	-0,499	reverse average
	Revenues of the municipal budget per 1 resident, thousand rubles	-0,426	reverse average

Compiled by the authors

Inverse correlation indicators generally characterize the low efficiency of social management:

- 1) the processes of optimizing the costs of free public services and the increase in paid hospitals, including the number of doctors, make it impossible to obtain quality health services;
- 2) an increase in the number of employees and budget revenues per unit of population leads to negative migration results, that is, municipalities do not have enough funds and real mechanisms to solve this problem.

We are particularly interested in those indicators that are aimed at increasing migration growth, that is, having a direct impact, these are economic indicators. We construct the equation of dependence on factors:

x_1 – average salary and x_2 – number of entrepreneurs per 1000 population

$$y = -46,64 + 0,59x_1 + 1,12x_2.$$

Multiple R (communication tightness) is 0.87 (reliability is high), so it can be argued that with an increase in the average salary of 1 thousand rubles per worker, the migration growth increases by 0.59%, and the increase in the

number of individual entrepreneurs by 1 enterprise per 1000 inhabitants can lead to an increase in migration growth by 1.12 %.

Conclusion

All migration processes in one form or another are reflected in the economic security of the country. Thus, in connection with the foregoing, it is possible to single out certain problems related to economic security (low wages in the regions, underdeveloped infrastructure, etc.) (Frantsisko O.Yu., Ternavshchenko K.O., Molchan A.S., Ostaev G.Ya., Ovcharenko N.A., Balashova I.V., 2020).

For the migration balance to be “0”, it is necessary to achieve an average wage of 30 thousand rubles, and the number of individual enterprises should be 28.5 per 1 thousand inhabitants. To increase the influx of population into the countryside to a greater extent, annual salary growth should be at least 10%, and the number of individual entrepreneurs per 1,000 inhabitants should be at least 29.6. This value is quite achievable, each indicator in the Zavyalovsky district of the Udmurt Republic was 29.5 already in 2018.

Since 2014, the Udmurt Republic Migration Policy Concept for the Period until 2025 has been

in force in the region. It should be noted that a detailed analysis of the migration situation was presented in its original form in this concept, however, the proposed implementation mechanisms were quite theoretical. A positive result was the revision of this document, and the responsible government bodies were identified in terms of the steps to implement the stages in the revision of this document in 2019 (Decree of the Government of the UR dated December 15, 2014 N 949-r On approval of the Concept of migration policy of the Udmurt Republic for the period until 2025 (as amended on July 17, 2019). Official website of the Head of the Udmurt Republic and the Government of the Udmurt Republic. Retrieved from <http://docs.cntd.ru/document/428641485>).

The main drawback of the presented Concept, in our opinion, is the lack of specific indicators in section "VII. The expected results of the implementation of the migration policy of the Udmurt Republic until 2025." We believe that the indicators we calculated, and the forecast values developed on their basis could be used as targets for the migration policy of the region.

References

- Akindinova N.V., Chekina K.S., Yarkin A.M. (2017) Economic growth in Russia, taking into account demographic changes and the contribution of human capital. *HSE Economic Journal*. Vol. 21. No 4. Pp. 533-561.
- Chazova I.Yu., Mukhina I.A. (2019) Effectiveness of administration of economic entities in state and municipal ownership. *Advances in Economics, Business and Management Research Proceedings of the International Science and Technology Conference "FarEastCon" (ISCFEC 2019)*. Far Eastern Federal University. Pp. 208-211.
- Chazova I.Yu., Voitovich V.Yu., Mukhina I.A., Korotaeva E.A., Mukhin A.A., Ivanova A.A. (2019) The effectiveness of state and municipal management. *Izhevsk*.
- Chereshnev V.A., Yushkov B.G., Tatarkin A.I. (2008) Socio-demographic security of Russia. *Yekaterinburg: Institute of Economics, Ural Branch of the Russian Academy of Sciences*. P. 857.
- Decree of the Government of the UR dated December 15, 2014 N 949-r On approval of the Concept of migration policy of the Udmurt Republic for the period until 2025 (as amended on July 17, 2019). Official website of the Head of the Udmurt Republic and the Government of the Udmurt Republic. Retrieved from <http://docs.cntd.ru/document/428641485>.
- Decree of the President of the Russian Federation of October 10, 2018 N 622 "On the Concept of the State Migration Policy of the Russian Federation for 2019 - 2025". "Collection of the legislation of the Russian Federation", 05.11.2018, N 45, Art. 6917. Retrieved from http://www.consultant.ru/document/cons_doc_LAW_310139/
- Frantsisko O.Yu., Ternavshchenko K.O., Molchan A.S., Ostaev G.Ya., Ovcharenko N.A., Balashova I.V. (2020) Formation of an integrated system for monitoring the food security of the region. *Amazonia Investiga*. 2020. Vol. 9. No 25. Pp. 59-70.
- Gaynutdinova E.A., Mukhina I.A., Osipov A.K. (2019) Prediction of the natural movement of the population as a function of state and municipal government. *Bulletin of the Udmurt University. Series Economics and Law*. Vol. 29. No. 2. Pp. 117-124.
- Kondratiev D.V., Ostaev G.Ya., Osipov A.K., Bogomolova T.P., Nekrasova E.V., Abasheva O.V. (2020) Organizational and management mechanism for reforming agricultural organizations based on cooperation and integration of economic systems. *Amazonia Investiga*. Vol. 9. No. 25. Pp. 376-388.
- Molchan A.S., Frantsisko O.Yu., Ternavshchenko K.O., Ostaev G.Ya., Tinyakova V. I., Markovina E. V. (2020) Optimization of interaction of agrarian entities as an imperative of ensuring food security of the state. *Amazonia Investiga*. Vol. 9. No. 25. Pp. 242-253.
- Mukhina I.A., Markovina N.V., Pimenova N.B. (2014) Methodological issues of applying the methods of qualimetry in assessing the quality of state and municipal government. *Law and state: theory and practice*. No. 3 (111). Pp. 12-18.
- Mukhina I.A. (2019) The methodology for rating the interaction of the population of the regions with the federal service of state registration, cadastre and cartography. The influence of the new geopolitical reality on public administration and the development of the Russian Federation *Materials of the II All-Russian Scientific and Practical Conference*. Edited by Z.A. Saidova. Pp. 188-191.
- Mukhin A.A., Mukhina I.A. (2018) Methods for assessing the sustainability of the financial security of the region. *Modern problems of economic development and management in the region (in the context of digital transformation)* *Materials of the XI International scientific-practical conference*. Branch "St. Petersburg Institute of Foreign Economic Relations, Economics and Law" in Perm. Pp. 414-419.

- Nathan Keyfitz, John A. Beekman (1984) *Demography Through Problems*. Springer-Verlag New York Inc.
- Osipov A.K., Bakakina E.A., Mukhina I.A., Gainutdinova E.A. (2017) *Human Resource Management in the Rural Area*. Izhevsk.
- Osipov A.K. (2019) *Problems and opportunities for solving demographic problems in Udmurtia. The Finno-Ugric world in the multi-ethnic space of Russia: cultural heritage and new challenges collection of articles based on the materials of the VI All-Russian scientific conference of Finno-Ugric scholars*. Pp. 457-463.
- Osipov A.K., Nikitina Yu.K., Gainutdinova E.A., Mukhina I.A. (2019) *Problems of the implementation of socio-demographic and family policies in the region (based on the materials of the Udmurt Republic)*. Ministry of Agriculture of the Russian Federation; Izhevsk State Agricultural Academy. Izhevsk.
- Ostaev G.Ya. (2019) *Monitoring using a complex of traditional and innovative accounting and management approaches*. *Science of Udmurtia*. No 2 (88). Pp. 88-90.
- Ostaev G.Ya. (2018) *Algorithm for building a crisis management system. Modern problems of economic development and management in the region (in the context of digital transformation) Materials of the XI International scientific-practical conference*. Branch of the "St. Petersburg Institute of Foreign Economic Relations, Economics and Law" in Perm. 2018. Pp. 446-451.
- Ostaev G.Ya., Khosiev B.N., Kokoeva Z.T., Kallagova A.Kh., Temiraeva A.V. (2019) *Management and investment in the business of processing agricultural raw materials: technology, financing and capital investments*. *Indo American Journal of Pharmaceutical Sciences*. Vol. 6. No.6. Pp. 11617-11624.
- Sagradov V.A., Iontsev A.A. (2003) *Introduction to Demography*. Moscow: TEIS. P.629.
- Socio-economic situation of urban districts and municipal regions of the Udmurt Republic: Statistical digest*. *Udmurtstat - I*, 2019, 188 p. Retrieved from <https://udmstat.gks.ru/storage/mediabankf>
- Voitovich V.Yu. (2016) *Legal regulation of local governments in the context of its modernization*. *Bulletin of the Udmurt University. Series Economics and Law*. Vol. 26. No. 5. Pp. 92-96.
- Vishnevsky A.G. (1982) *Reproduction of the population and society: History, modernity, a look into the future*. Moscow: Finance and Statistics.
- Website of the Territorial Authority of the Federal State Statistics Service for the Udmurt Republic*. Retrieved from <https://udmstat.gks.ru/folder/51924>
- Weil D. (2014) *Health and Economic Growth. The Handbook of Economic Growth* (eds. P. Aghion, S.N. Durlauf), Vol. 2B, North Holland.