

COMPARATIVE ANALYSIS OF URBAN SETTLEMENT OF THE RUSSIAN AND UKRAINIAN BORDER AREA

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Abstract: The border area is a unique object of study as multiple interaction effects are manifested there. The article is devoted to the consideration of regional and Russian-Ukrainian borders, which should be associated with various factors caused by natural, historical, socio-economic and geopolitical factors. At the same time, we take into account the fact that sometimes these factors are closely interrelated. In addition, it is taken into account that the influence of two factors taken together is greater than the influence of each of them separately. To obtain the results we used data from Russian and Ukrainian statistics for the period from 1989 to 2019 generalized with calculation methods. The Russian-Ukrainian border strip allows us to identify two major observed changes. The first is associated with the certain natural trends and patterns manifested in the development and economic activity of the territory; different types of settlements including urban ones. The second change lies in geopolitics and in the fact that the function of the border has changes. Now the border is barrier not contact. Depending on the prevailing functions, the border may promote or hinder cooperation, level or sharpen differences, or acquire or lose resources for development. As a result of the action of multiple factors in the Russian-Ukrainian border area, both relatively underdeveloped and weakly urbanized territories are observed, spatial asymmetry, socio-economic instability, multidirectional spatial processes that affect the level and quality of life of the population, the deepening of demographic and settlement contrasts are manifested. The geopolitical determinants of spatial development are revealed, consisting in the extensive nature of urbanization, depending on the stability of cities from natural area, historical maturity, socio-economic significance and geopolitical functionality. The strengthening of socio-economic polarization and center-peripheral contrasts was emphasized.

Key words: Russian-Ukrainian border area, interaction effect, urban settlement, urbanization structure, comparative analysis.

JEL codes: J11, P51, R12, R23

1. Introduction

The current stage of development of urbanization is characterized by an increasing polarization of different types of cities. As a rule, the main prevailing trend is a decrease in the number of small and medium-sized cities and an increase in the population of large, medium and megacities. The formation of this trend was influenced by many factors, among which the leading role belongs to the socio-economic conditions of life and work. At the same time, the role and importance, for example, of the ecological comfort of the urban environment go to the forefront and remain beyond the basic human needs.

Alongside with that the evolution of cities and urban settlements is influenced by the factor of geographical position, which fits into the theory of contrasts between the center and the periphery. And in this regard to study the multiplicity of manifestations of the effects of interaction, the border area is most suitable, most often a peripheral territory saturated with cities. Moreover, remoteness from the state border can serve as a condition, both contributing to and preventing the concentration of the population.

In the context of the contact border of the city they are gradually turning into integration nodes, centers of interstate interaction. At the same time, the size of the city and its position in relation to the state border play an important role. Moreover, the larger the cities and closer to the state border and to each other are, the higher are the interaction potential and the stronger friendly relations between them. An interaction corridor is being formed, having a beneficial effect both on cross-border cooperation and on the development of cities organizing integration ties.

In the context of the barrier, the situation is somewhat different. Political and social instability leads to the isolation of cities, strengthens disintegration trends, and if it is a small or medium city located in close proximity to a dangerous border, then to destructive depopulation as a result of mass migration outflows of the population.

Therefore, this article attempts to conduct a comparative analysis of the development of cities of different types, located in different starting conditions at the time of crisis situations, and on different sides of the state border. This allowed us to develop options for evolutionary models of urban development, to identify the influence of the state border, the geopolitical situation and regional policy in neighboring countries on the spatial organization of the border.

2. Methodology and data

The article consists of theoretical and empirical parts. The theoretical part is devoted to the analysis of literary sources on the topic under consideration and contains the most important provisions for the disclosure of our topic. The empirical part includes a detailed description of the statistical data for ten regions for the period from 1989 to 2019. This allowed us to trace the dynamics of changes in the number of different types of cities in the Russian-Ukrainian border.

Particular attention is paid to two modern turning points in the life of border areas. The first concerns 1989, when the last All-Union population census was carried out, and after which the vector of demographic behavior of the inhabitants of the studied countries and their border regions changed dramatically. In 2014, neighboring closely related ethnic groups that developed for a long time went into a period of confrontation. Cross-border cooperation, which determined relations between the countries for almost a quarter of a century, was rather sharply replaced by disintegration processes, as a result of which changes took place in almost all spheres of life and activity of the border area, significantly affecting urban and rural settlements.

The study of the border areas was carried out using various scales of research. The border regions were taken as a basis, but some issues were considered at the level of the immediate border — administrative districts with direct access to the state border. This was due to fundamentally different approaches to research, since it was these municipalities that reached the “leading edge” of interstate relations and it was they who experienced the most significant influence of geopolitical changes on everyday life. It is also important that the immediate border area is poorly provided by cities, and often they are not there at all.

3. Modern studies of urban settlement

Urbanization, understood as a triune process of increasing the number of cities, increasing the number of urban residents and the spread of urban lifestyles, has been in the field of view of geographers for quite some time. Contemporary research interest in the topic is due to a change in attitude towards urbanization as an unconditionally growing and developing phenomenon.

At present, the need for the emergence of new cities and maintaining “afloat” the weak ones that exhausted reserves of their development, is being questioned. Urbanists are forced to note an increase in depopulation trends, a significant decrease in the urban population of not only small and medium, but also large cities. Analysis of statistical data indicates a catastrophic scale of depopulation. And if earlier it concerned mainly rural settlements and small towns, today cities of all types are increasingly falling into its orbit. The phenomenon of shrinking

cities is becoming a reality. Along with single-industry towns, many other cities that are not included in the draft concept of territorial restructuring of Russia through its division into 20 agglomerations are also at risk of extinction (Patrushev, 2011).

An analysis of the impact of changes in the demographic situation on urban development was made in (Haase, A., 2008).

At the same time, according to A.I. Chistobaev (Features of urbanization processes ..., 2012), only preserving the hierarchical structure of settlement systems, characterized by diversity as a development resource, and including large, medium, small cities, urban-type villages and hamlets will allow revive the socio-economic space, ensure the territorial integrity of the state. G.M. Lappo (2019) also considers diversity as a necessary condition for the existence of Russia and one of the most important areas and key tasks of state urban policy.

Settlement scaling is also the subject of work: Lobo, J., Bettencourt, LM, Smith, M., Ortman, S. (2019). Settlement scaling theory: Bridging the study of ancient and contemporary urban systems // <https://doi.org/10.1177/0042098019873796>

Urban resettlement of Russia and Ukraine was formed due to the activation of migration processes. The interconnectedness of urbanization and migration was repeatedly pointed out by J.A. Zayonchkovskaya (2002) calling "city magnets the main factor in urbanization". She pointed to the controversial nature of modern urbanization.

The topic of the interrelation of cities and migrations is the subject of an article by German researchers in which large cities are regarded as immigration magnets, emphasizing that knowledge about new cities, their preferences and expectations regarding their desired place of residence is absolutely necessary (Welz, J., Haase, A., Kabisch, S., 2017).

A study of the role of medium-sized cities in a regional context takes into account the hierarchy of large, medium and small cities and is overlapped by network structures (Brigitte A., 2006).

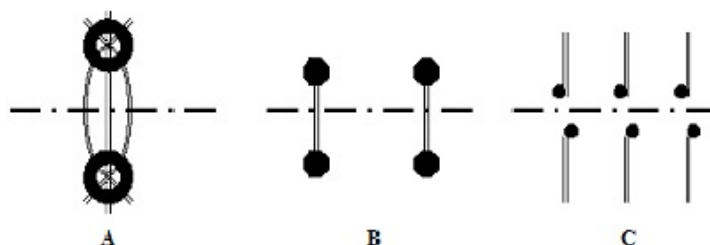
The multifactorial nature of the formation of settlement processes is mentioned by V.A. Schuper, noting that the "visible pattern of settlement is formed by the" interference "of two phenomena – the staged transitions in the evolution of settlement and polarizations of socio-geographical space. At certain stages of the evolution of resettlement, both processes proceed unidirectionally, mutually reinforcing each other" (Features of urbanization processes ..., 2012). T.G. Nefyodova and A.I. Treyvish (2017), consider the restructuring of settlement in modern Russia, raising issues that are important for our study. In particular, the waves and stages of

urbanization in Russia in the twentieth century are analyzed, hypotheses are given that explain the ambiguity of urbanization trends over the past quarter of the century.

In our previous works (Popkova, 2005, 2013, 2019), the fact that the formation of the territorial structure of the border regions of Russia and Ukraine took place on the leftover principle was repeatedly indicated, as a result of which they turned to each other with “spins” – relatively underdeveloped and poorly urbanized areas with a small number of large cities. Always, but especially after the events of 2014, the border territories were held hostage of the “big” policy, which led to the emergence of a multidimensional deepening of socio-economic contrasts between the Russian and Ukrainian regions, as well as within the border area.

In a generalized form, the resettlement situation of the Russian-Ukrainian border is as follows (Fig. 1). The model reflects the existence throughout the Russian-Ukrainian border area of fundamentally different interaction options. Somewhere, as in case A, a large interaction node has been created, formed by two large cities (one of which is a megacity) and a multi-highway that promotes active cooperation. The second option (B) is characterized by a more narrowly focused, but, nevertheless, active commodity exchange, due to the similarity of economic specialization in the coal-mining areas of Donbass. And, finally, the third option is represented by the typical peripheral nature of settlements that do not have infrastructure connections between themselves and develop in isolation in any geopolitical situation. But, nevertheless, at the present time the prevailing disintegration phenomena, the situation in all three variants of the resettlement situation has changed, which requires the updating of research.

Fig. 1. Models of population settlement in the border areas



- A - large cities focusing the means of communication, including border ones (Belgorod-Kharkov);
- B - medium-sized cities of similar economic specialization, with developed economic ties (Donbass);
- C - small settlements, which are the “final stop” at the border (the area between the Bryansk and Chernihiv regions).

Source: own development based on: (Popkova, 2005) and own observations.

The above diagram (Fig. 1) also reflects the zoning of the territory of the Russian-Ukrainian border area according to the nature of the settlement situation and related features of the development and settlement of the territory, traditions and environmental management skills, level and quality of life of the population.

The northern borderland is the most mature in age of cities, but the least infrastructurally provided. The central borderland has a high degree of population concentration in large border cities, which leads to an extreme polarization of their functions. The southern border is full of industrial, mainly coal mining cities and has close cooperative ties.

This topic is dedicated to the special 42 issue of comparative studies in the field of population and other works (Haase A., Wolf M., Spakova P., Radzimsky A., 2017)

Studies of urbanization processes in the Russian-Ukrainian border area have been carried out earlier (Popkova, 2005, 2013), however, they belonged to the integration, pre-revolutionary stage of relations between Russia and Ukraine, and now, being the base for the region, they need to be extended and new trends to be identified. Until 2014 cities were considered as important centers of organization not only of “their” territory, but of the entire border area.

4. The evolution of urban settlement of the border regions of Russia and Ukraine

The modern settlement of the population of the Russian-Ukrainian border was formed as a result of the previous socio-economic development of its constituent territories. This means that the needs of settlements separated first by the administrative, and then by the state border, are fully consistent with the possibilities of their economic development. The study area has never been a single socio-economic space and consisted of separate settlement systems.

As of January 1, 1989 25.2 million people lived on the territory of the Russian-Ukrainian border, of which 56% were on the Ukrainian side and 44% were on the Russian side. By 2019, the population decreased to 21.4 million people, and decreased in absolute terms by 3.7 million (Table 1, Fig. 2). At the same time, the Russian border has lost almost 590 thousand and the Ukrainian 3.1 million, (i.e. 5.2 times more). The ratio of the cross-border population between countries has also changed (52 and 48%, respectively).

Tab.1. Some indicators of the dynamics of the population of the border region

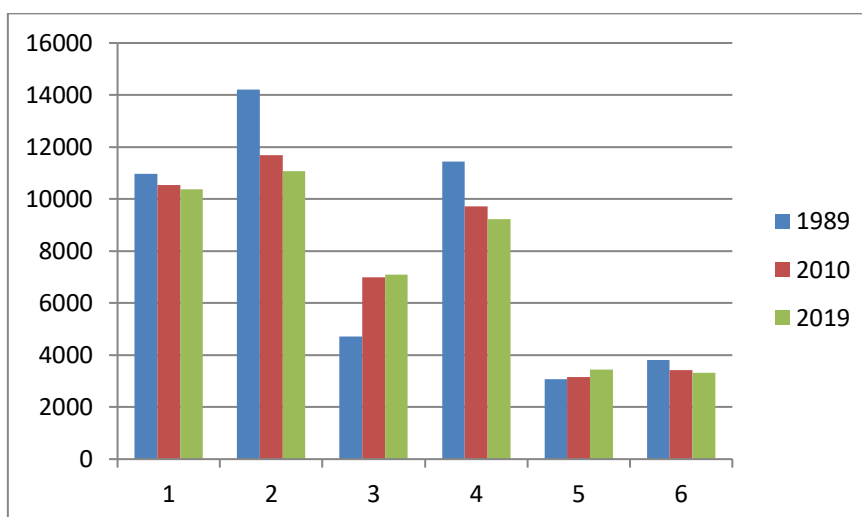
Region	Population (thousand people)			The urban population (thousand people)			The population of the regional center (thousand people)		
	1989	2010	2019	1989	2010	2019	1989	2010	2019
Belgorod region	1380,7	1532,5	1547,4	871,1	1013,1	1044,5	300	356	392
Bryansk region	1474,7	1275,2	1200,2	991,9	883,3	850,9	452	416	405
Voronezh region	2469,9	2335,2	2327,8	1504,8	1487	1576,4	882	890	1054
Kursk region	1339,2	1125,1	1107,0	775,5	734,1	756,9	424	415	450
Rostov region	4308,6	4276,4	4202,3	3073,0	2876,0	2871,4	1008	1089	1133
Russian border	10973,1	10544,4	10384,7	4719,6	6993,5	7100,1	3066	3166	3434
Donetsk region	1380,7	4418,6	4165,9	4815	4028,0	3783,4	1109,1	968,3	913,3
Lugansk region	1474,7	2285,8	2151,8	2473	1994,8	1872	496,8	434,9	403,9
Sumy region	2469,9	1158,9	1081,4	885	785,3	747,9	291,3	272,3	263,4
Kharkiv region	1339,2	2738,7	2675,6	2511	2209,6	2168,4	1610	1452,3	1446,1
Chernihiv region	4308,6	1089,2	1005,7	756	690,7	655,6	296,3	297,4	288,3
Ukrainian border	14218,3	11691,2	11080,4	11440	9708,4	9227,3	3803,5	3425,2	3315

Source: compiled by the author according to the Federal State Statistics Service of Russia and the State Statistics Service of Ukraine.

A fundamentally different situation has developed with the dynamics of the urban population. Cities were more resilient to change. As of January 1, 2019 212 cities are located on the territory of the Russian-Ukrainian border – 75 in Russia and 137 in Ukraine. More than 16 million people live in them (7 on the Russian and 9 on the Ukrainian side). 95 thousand people live in the average Russian border city which is 1.5 times more than lived in 1989, and 67 thousand people live in Ukraine and this is only 80% of the number of population in 1989 (Table 1, Fig. 2).

The population of the regional capitals looks quite stable compared to the population of the regions. Their share in the population of the region is growing steadily. At the same time, differences between the Russian and Ukrainian sides are significant. The border Russian regional centers, all but Bryansk, were growing, and all Ukrainian – were losing their population (Fig. 3).

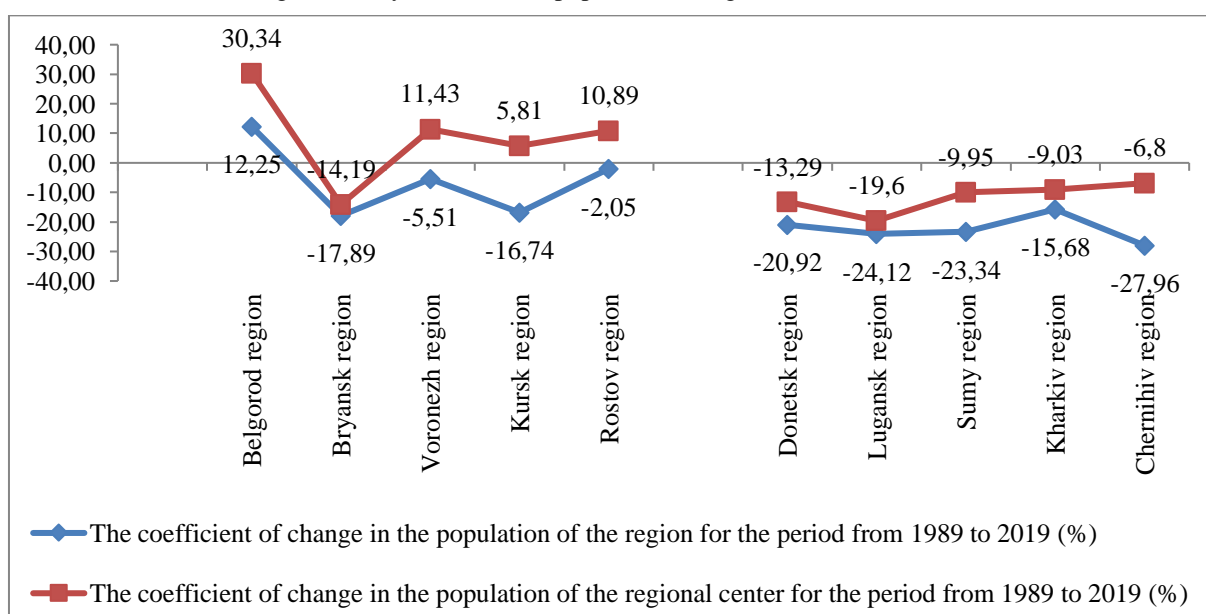
Fig. 2. The dynamics of the population of the border region



- 1 - Population of the Russian border
- 2 - Population of the Ukrainian border
- 3 - Urban population of the Russian border
- 4 - Urban population of the Ukrainian border
- 5 - Population of the regional centers of the Russian border
- 6 - Population of the regional centers of the Ukrainian border

Source: built by the author according to the Federal State Statistics Service of Russia and the State Statistics Service of Ukraine

Fig. 3. The dynamics of the population of regions and their centers



Source: built by the author according to the Federal State Statistics Service of Russia and the State Statistics Service of Ukraine

The priority hierarchy of relations between the peripheral border settlements with the administrative centers of their districts and regions that existed under the contact border conditions was nevertheless violated by “neighborly” interactions because of their proximity and accessibility. This can serve as one example of the manifestation of spatial self-organization of the population. Therefore, the implementation of everyday needs: assistance in agricultural work, mutual assistance with fuel, seeds, agricultural machinery; cultural and everyday interaction: visits to shops, clubs, educational institutions of the nearest neighbors were carried out “on the spot”. The scale of these relations depended on the distance between the settlements and the size of the population living in them. Moreover, the degree of transport accessibility, the presence of paved roads were not critical.

Before the appearance of the state border, these interactions did not fall within the scope of state control, were not encouraged, but were not prohibited by the authorities. People felt comfortable and they did not annoy their requests to the district and regional administrations. Such ties have developed over decades and were strong enough, despite the fact that they were not “materially” marked on the ground. For the implementation of these contacts, it was sufficient to have own resources of both business entities (most often agricultural and processing enterprises) and the population itself. This circumstance should be taken into account when analyzing the territorial structure of population settlement, despite the lack of statistics and the fixation of these ties by material infrastructure objects.

The main “theater” of such interactions was the immediate border area, which is a mosaic strip of areas that differ in geographical position, economic activity, economic specialization, and the nature of settlement. They represent their countries, are an important and integral part of the region and are connected with their regional centers. Common problems lead to the need to realize unity with other border regions of their country, to be united and to uphold their common interests. These often sparsely populated areas represent the façade of their country. They enter the international level of relations, first of all, with the same actors of the border policy of a neighboring state like them.

5. Conclusion

Radical changes in the number of urban population including regional centers occur due to the reasons that strengthened the socio-economic polarization of the Russian-Ukrainian border. This especially affected Ukrainian cities. 2.4 million people replenished Russian cities while Ukrainian lost almost the same 2.2 million people.

Regional centers on the Ukrainian side of the border (Chernihiv, Sumy, Kharkov, Lugansk, Donetsk) lost, starting in 1989, a total of 488.5 thousand people. The greatest damage was done to Donetsk and Lugansk, the population of Kharkov decreased significantly. On the Russian side of the border there was an urban growth with an increase in their status, on the Ukrainian side – a decrease in the number and loss of city status.

The population of Russian regional centers (Bryansk, Kursk, Belgorod, Voronezh, Rostov-on-Don) has increased over the same period by 368 thousand people. The greatest growth is in Rostov-on-Don and Voronezh. Bryansk has reduced the population. At the same time Donetsk dropped out of the list of megacities and Voronezh entered it.

Thus, along with the crisis state of interstate relations between Russia and Ukraine, there have been significant changes in the basic framework of resettlement. This testifies to the thoroughness of the restructuring of the entire system of urban settlement, invisible at first glance, but the steady concentration of the population in Russian agglomerations and the constant outflow of not only rural but also urban population from the border regions of Ukraine.

The dominance of the barrier function of the border changed the established territorial structure, the configuration of transport routes, the direction of freight and transportation. This led to the closure and liquidation of border crossings which provided the residents of the border area with employment opportunities. This increased the migration outflow of the population from the border areas, especially Ukrainian, and led to a decrease in population density.

All these changes, unfortunately, testify to the protracted nature of disintegration processes between closely related ethnic groups. In conjunction with the observed changes in the demographic behavior of the population towards small families, bordering Russian-Ukrainian regions, and so representing peripheral, underdeveloped areas, it threatens to turn into a socio-economic desert.

References

Brigitte A. (2006) Medium-sized cities in urban regions, *European Planning Studies*, 14: 4, 547-555.

Features of the processes of urbanization and ruleization in the Russian space. Changes in the potential and influence of the largest cities in post-Soviet Russia, their “pluses” and “minuses” (2012) / The space of modern Russia: opportunities and barriers to development (reflections of geographers and social scientists) / ed. ed. A.G. Druzhinin, V.A. Kolosov, V.E. Shuvalov. M.: University book, p. 154-167.

- Haase A., Wolf M., Spakova P., Radzimsky A. (2017). Urbanization in post-socialist Europe - a comparative view of East Germany, Poland and the Czech Republic // Comparative population studies. - Issue 42 (2017): 353 -390). (Kabish N., Haase D., Haase A. (2019). Reorganization: a long-term process or a short-term stage? // Space and place of population. – Vol.: 25, Iss.: 8.
- Haase, A. (2008) Reurbanisation - An Analysis of the Interaction between Urban and Demographic Change: A Comparison between European Cities Die Erde: Zeitschrift der Gesellschaft für Erdkunde, Berlin; Forum für Erdsystem- und Erdraumforschung. - Berlin: Gesellschaft für Erdkunde. - Vol. 139. 4, p. 309-332.
- Karachurina L.B., Mkrtychyan N.V. (2016) Population of centers and outback in Russia, Ukraine and Belarus // Demoscope Weekly. No. 699 - 700. URL: <http://demoscope.ru/weekly/2016/0699/demoscope699.pdf>.
- Lappo G.M. (2019) City diversity as a factor in the successful spatial development of Russia // News of the Russian Academy of Sciences. Geographical series. . - No. 4. - C. 3-23. DOI: 10.31857 / S2587-5566201943-23
- Lobo, J., Bettencourt, LM, Smith, M., Ortman, S. (2019). Settlement scaling theory: Bridging the study of ancient and contemporary urban systems // <https://doi.org/10.1177/0042098019873796>.
- Nefedova T.G., Treyvish A.I. (2017) Restructuring resettlement in modern Russia: urbanization or deurbanization? / Regional studies. No. 2 (56). S. 12-23.
- Patrushev A.V. (2011) Division of Russia into 20 agglomerations: reality or utopia? // Economy of the region No. 1 /, p. 241-244.
- Popkova L.I. (2005) Population Geography of the Russian-Ukrainian Borderland / Monograph - Smolensk, 304 p.
- Popkova L.I. (2013) Urbanization processes in the Russian-Ukrainian border area / Scientific notes. Electronic scientific journal of Kursk State University. No. 3-1 (27). S. 315-334.
- Popkova L.I. (2019) Transformation processes in the socio-economic space of the Russian-Ukrainian border region // Russia: Trends and Development Prospects. Yearbook. Vol. 14 / RAS. INION. Sep. scientific cooperation; Repl. ed. IN AND. Gerasimov. - Part 2. - S. 225-227.
- Welz, J., Haase, A., Kabisch, S. (2017): Profile städtischer Zuwanderer in Zeiten des Wiederwachstums - das Beispiel Leipzig, In: disP - The Planning Review, 53: 3, 18-32).

Zayonchkovskaya Zh.A. (2002) Migration and urbanization that changed Russia //
Demographic modernization, private life and identity in Russia. //
http://www.demoscope.ru/weekly/knigi/konfer/konfer_03.html