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URBAN GEOGRAPHY

Migration Processes in Cities of the Russian North in the 1990s–2010s

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Abstract—Northern regions are often viewed as a pole of trouble for migration in the post-Soviet period. However, the extremely vast territory of the Russian North is characterized by considerable internal heterogeneity. This paper analyzes specific migration patterns in cities and towns of the Russian North from the early 1990s to the early 2010s and reveals a decreasing role of interregional territorial gradients and increasing intraregional disproportions. The dependence of the migration balance on a population size and geographic location of cities is analyzed. Big cities and regional centers are shown to have become more appealing to migration, whereas small towns have lost their attractiveness. Major stages are identified throughout the changes in the migration situation: stress-induced migrations of the early 1990s; leveling off of migrations in the end of 1990s; stability in migration processes in the 2000s; increasing intraregional polarization in migrations in the early 2010s. Migration balances specific to different groups and categories of cities and towns in intraregional and interregional exchange are shown. The paper presents specifics of the migration situation in regional centers of the North, the dynamics of migration situation and structural indicators of migration. Regional centers are primarily the most appealing places for the population from the intraregional periphery, and their migration attractiveness continues to increase, whereas these cities lose their population in interregional exchange with regions in more developed parts of the country. Regional centers primarily possess migration attractiveness to youth and have the ability to retain people of older age groups.

Keywords: Russian North, urban geography, population migration, regional centers, territorial gradients
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INTRODUCTION

Migration flows have changed significantly following the socioeconomic transformation of the 1990s. The colonization trend from regions of the main belt of settlement pattern to the north and east of Russia, which prevailed in migration throughout the centuries reversed to westward drift [4, 9], i.e., migration flow directed towards central regions of the country.

An acute phase of socioeconomic crisis interfered with urbanization stages and triggered a wave of population migration from major cities to rural areas and small towns; however, a tendency of people to concentrate and engage in economic activity in big cities later returned with renewed vigor [2, 6, 14]. Intraregional polarization of cities and towns has significantly strengthened in terms of the center–periphery gradient with differentiation factors including both geographic location of urban places, their population size and administrative status.

Northern regions are commonly viewed as a pole of trouble in the migration patterns of the post-Soviet period. The major intrinsic discouraging factors for migrants in the early 1990s include outstripping cost-of-living growth in northern regions, reduction in the relative level of wages in the North, and slowdown in production at city-forming enterprises or their shutdown. However, the extremely vast territory of the Russian North is characterized by substantial internal heterogeneity. It seems relevant to study migration processes on a large scale, i.e., at the level of municipalities, cities, and administrative districts. This paper reveals distinctive characteristics of migration processes in the Northern cities.

Common characteristics of migration processes shared by all northern cities have received much attention in the migration studies for all regions of the country, e.g., studies by N.V. Mkrtchyan and L.B. Karachurina, etc. [9, 11, 12]. There are studies available both on the national scale and at city level, which are mostly oriented toward migration processes in cities of northern territories. However, they are few in number and feature recent works only, e.g., investigations by T.G. Nefedova [13] and E.V. Antonov [1].

Studies of migration that directly examine northern territories are primarily done at a regional level,

e.g., works by T. Heleniak [17] on migration processes of the 1990s, V.V. Fauzer [3], I.A. Efremov [16], etc. Subregional studies concern themselves with migration processes in particular regions of the North: specifically, works by S.A. Sukneva dealing with the migration situation in the Sakha (Yakutia) Republic [15]. N.Yu. Zamyatina and A.D. Yashunskii [5] consider individual migration flows in northern cities, such as migration of youth from northern cities for education.

DATA SOURCES AND RESEARCH METHODS

Traditionally researchers focus on migration processes at the national or regional levels. Recent years have seen an increased number of works on migration processes at the subregional level due to the growth of availability of socioeconomic data at low-level administrative–territorial or municipal units. The availability of long-term statistical series also promotes additional interest in cities.

Meanwhile, analysis of migration processes (like any socioeconomic processes and phenomena) on a large scale presents difficulties due to the quality of the statistical data.

This paper analyses the dynamic characteristics of migration processes using data on net migration rate (‰) during 1991–2013 from the database Economies of Russian Cities at the MULTISTAT portal of Rosstat. Analysis of data available since 2012 from Rosstat Municipal Indicators Database (RMID) provides insight into the structural characteristics of migration processes, specifically, the shares of differently directed migration flows, age patterns in migration, etc., at the municipal level.

It should be noted that these sources are not strictly comparable. Records on towns under district jurisdiction are presented in the MULTISTAT database with a breakdown by corresponding administrative (and then municipal) districts, whereas the RMID data is directly available at the level of urban municipal settlements. These distinctions are not taken into account in the present study. In addition, due to inability to reduce heterogeneous data to a common denominator, data on territorial units recorded in the sources are assumed to be data relevant for cities. The latter approach is not usually a barrier in the context of the North, because in most cases, towns that make up urban municipal settlements account for the majority of the population in their municipal districts.

The sampling includes 135 cities and towns of the Extreme North, those equated to this status (except closed administrative–territorial units and towns in the Tyva Republic), and those in the northern districts of Sverdlovsk oblast, to which the district wage coefficient applies.

TERRITORIAL MIGRATION GRADIENTS

Territorial migration gradients in northern cities have changed significantly over the post-Soviet period. Interregional disproportion in the migration situation was the most evident during the acute phase of socioeconomic crises in the early 1990s. At that time, annual migration outflow rates exceeded 2% in five regions of the North: the Chukotka Autonomous Okrug (AO), Magadan oblast, the Nenets AO, Kamchatka oblast, and the Sakha (Yakutia) Republic. In the selected years from 1992 to 1994, these rates were over 10% in the Chukotka AO and Magadan oblast, while the migration losses were lower in the southern regions of the North with a more favorable climate due to the greater attractiveness of such destinations for return migrants from CIS countries and less exposure to push factors. Overall, Karelia and Tomsk oblast exhibited positive migration rates. The majority of northern regions maintained migration outflow rates within the range of 0–10‰. Cities usually lost less population through migration than did their regions on average. An exception was small and remote towns whose economic foundations experienced an acute meltdown.

Westward drift was also noticeable at the urban level. No population increase from migration was observed in cities and towns of the Far Eastern North in the early 1990s, whereas most of cities in European North attracted migrants, especially small and mid-size towns along its southern border (Fig. 1). Among northern macroregions, the most stable situation was observed in Western Siberia, where nearly half the cities and towns, predominantly the youngest, exhibited population increase from migration.

A return population flow from the North was promoted by the stress-induced nature of migration. As noted by researchers in the 1980s, temporary-stay thinking prevailed in cities and towns of the Extreme North from the very beginning [8]. The migratory behavior of residents pioneering new formerly undeveloped regions was often oriented toward returning to their regions of origin once desirable financial or career goals had been reached. At the same time, a stronger rootedness of the urban population from the earlier developed regions, e.g., Arkhangelsk oblast, the Republic of Karelia, etc., was instrumental in reducing migration outflow. The West–East migration gradient is, to a greater degree, determined by different durations of the territorial development, i.e., the Russian North contrasts with the new formerly undeveloped areas of the Soviet North.

The intensity of westward drift decreased as the demographic potential of eastern areas dried up. The effects from the stress-induced migrations from the remotest northern regions were eliminated by the end of the 1990s. Variations between cities and towns of the European North and the North of Eastern Siberia and Far East, which amounted to 10–15‰ in the

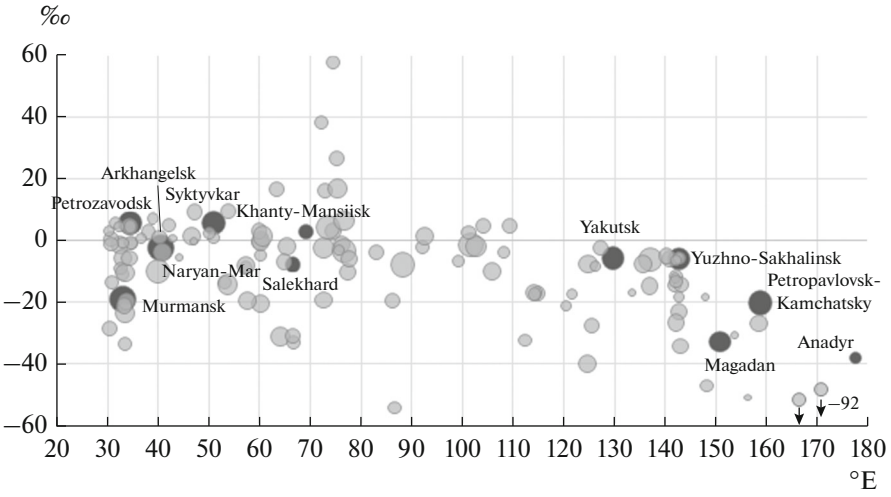

Fig. 1. Longitudinal net migration rate in cities and towns of North in 1991–1995, ‰. Darker shade indicates regional centers. Size of marker indicates population size in town or city. Source: Economies of Russian Cities database, MULTISTAT portal.

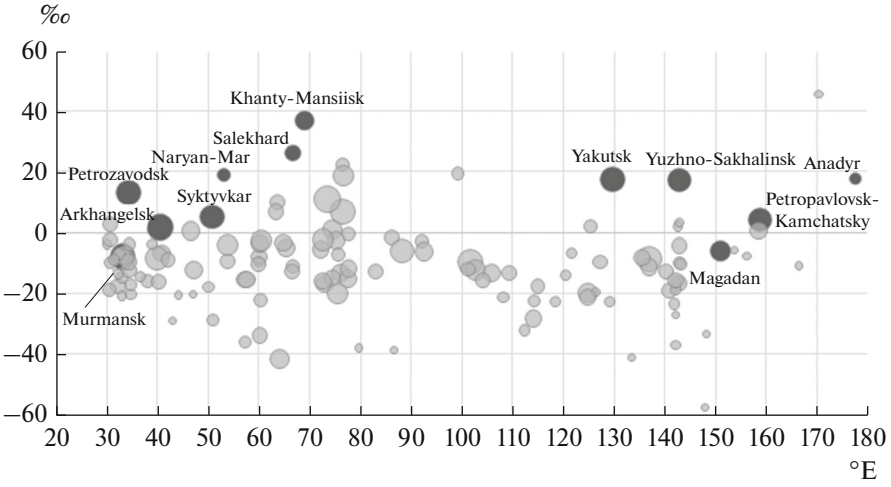

Fig. 2. Longitudinal net migration rate in cities and towns of North in 2011–2013, ‰. Darker shade indicates regional centers. Size of marker indicates population size in town or city. *S*ource: Economies of Russian Cities database, MULTISTAT portal.

1990s, were reduced to the minimum (0.5‰) by the early 2010s (Fig. 2). This occurred against the background of growing migration losses, largely resulting from changes in migration accounting methods; i.e., from 2011 onwards, data encompass information about migrants registered at a place of temporary residence for a term over 9 months. The cities and towns of the European North proved more sensitive to accounting changes: the 2011–2013 data appear to account for migration flows of youth, which tend to concentrate in regional centers and major cities.

The early 2010s saw heightened migration outflow from cities of Western Siberia, where migration inflow had earlier dominated. In part, this was caused by the increasing popularity of temporary labor migration, which replace movements associated with change of residence; these processes require separate study. Once they intensify, migration losses should be expected to further increase in cities and towns of the Western Siberian North.

In the context of westward drift, not only the longitudinal, but also the latitudinal gradient determined the migration situation in the North in the early 1990s. Among the cities of the Extreme North, population increase from migration was observed in only three oil and gas development centers of the Yamalo-Nenets AO (Muravlenko, Noyabrsk, and Novy Urengoi) in the early 1990s, while the level of population decrease from migration exceeded 20‰ on average (Fig. 3). A considerable decline in living standards, a rise in the cost of living, and a lesser rootedness promoted migration outflow.

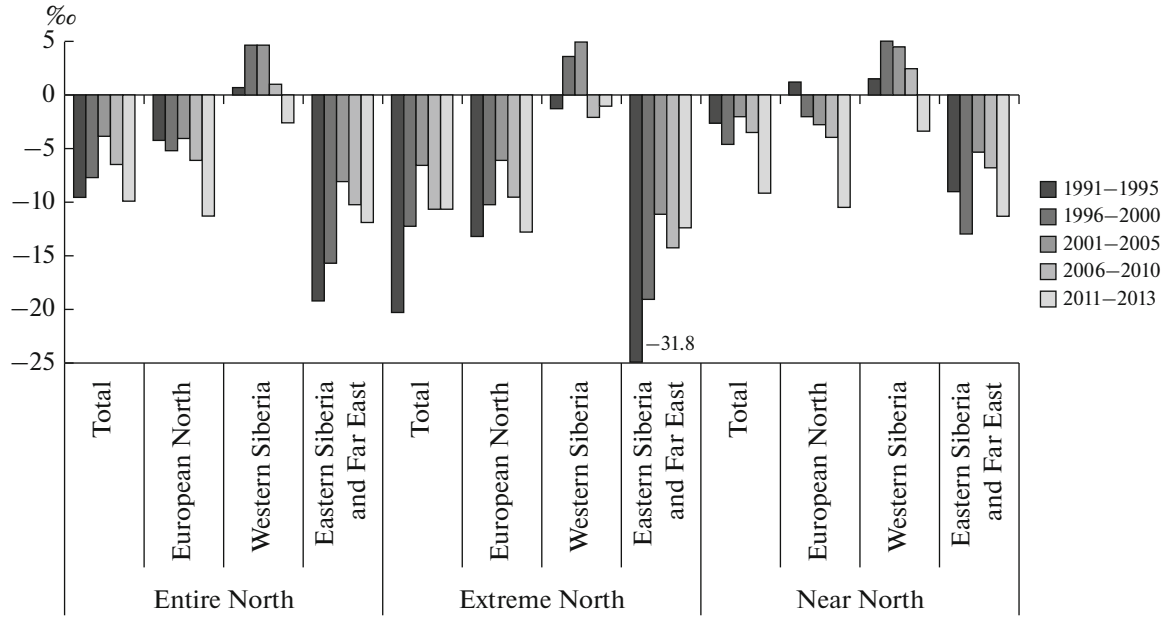

Fig. 3. Net migration rate in cities and towns across various macroregions of the North in 1991–2013, ‰. Source: Economies of Russian Cities database, MULTISTAT portal.

Population decrease from migration was on average under 5‰ in cities of the Near North. A small migration inflow was observed in the zone adjacent to the European North due to diversion of the rural population or population from cities of the Extreme North and arrivals of return migrants from CIS countries. The places that took the lead in migration inflow rates included several cities and towns of the Khanty-Mansi AO (Langepas, Pyt-Yakh, Lyantor, Yugorsk, etc.), which were predominantly the youngest towns formed around oil-producing enterprises.

Overall, the latitudinal gradient was more evident in the European North and in the North of Eastern Siberia and the Far East, while performance of the urban economy and the age of cities and towns were instrumental in the North of Western Siberia.

The latitudinal gradient in the migration situation had weakened by the early 2010s. Differences in the urban migration outflow level between the Extreme and Near North decreased to the minimum (to 1.4‰). A similar situation was observed in each of the macroregions of the North; migration losses of cities in the Extreme North of Western Siberian were less than cities and towns of the Near North (Fig. 3).

In the 2000s, with the weakening of the interregional gradients in migration, intraregional disproportions became more evident in the North, which was in line with the national trend [10, 12].

Migration balance of cities and towns became more dependent on their population size (Fig. 4). In the early 1990s, it was small towns with populations from 20000 to 50000 that featured lower migration outflow rates and even population increase (in the Near North), primarily due to migration inflow from CIS countries and the regions of the Extreme North. In the Extreme North, greater stability was characteristic of mid-size cities, which largely preserved their industrial potential. However, overall, uncomfortable living conditions pushed the population from all cities and towns regardless of their population size. The least populous towns (under 20000), especially in the Extreme North, experienced the strongest population decrease from migration.

In the 2000s, big cities experienced increasing attractiveness to migrants both in the Extreme and Near North. From the mid-2000s onwards, big cities in the southern zone of the North managed to increase their population size from migration; the trend has been strengthening since. In the Extreme North, a town may not have sufficient size to attract migrants, but it can slow migration outflow.

The least populous towns continue to lag and experience the largest population outflow. The dynamic patterns of migration losses in this category of towns speak for themselves: whereas the Extreme North still displays a considerable migration outflow, which has stabilized primarily due to exhausted demographic potential, the outflow from the Near North, on the contrary, has significantly increased. Here, the migration crisis manifested itself one generation later than in the Extreme North, with an outflow of the predominantly young population.

Thus, a common pattern is the maximum attractiveness of big cities and minimum attractiveness of the smallest cities. However, this dependence on size is nonlinear overall and in the Extreme North, in partic-

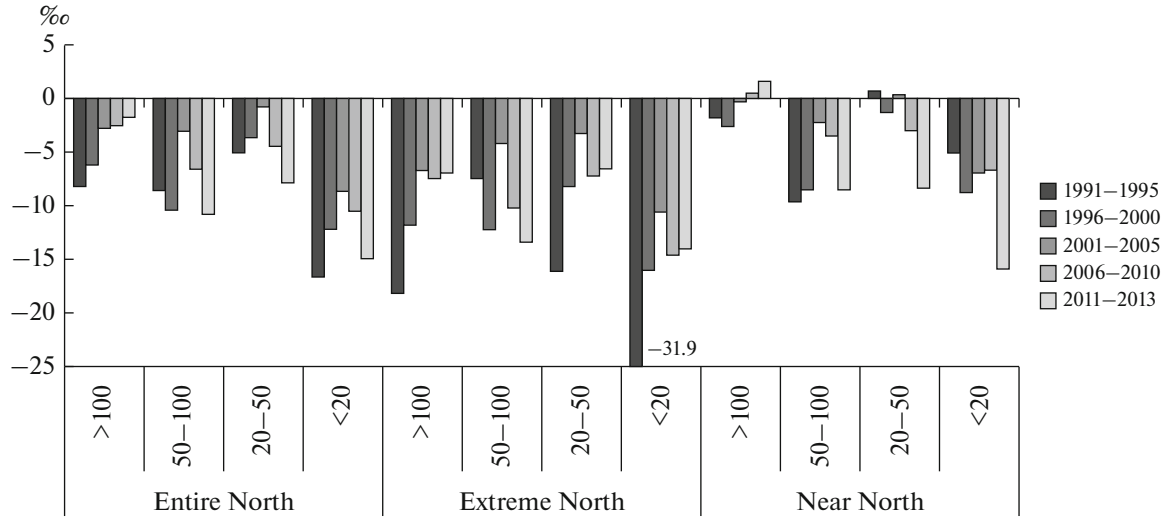

Fig. 4. Net migration rate in northern cities and towns of different population size in 1991–2013, ‰. Source: Economies of Russian Cities database, MULTISTAT portal.

ular; towns with populations from 20000 to 50000 are, in many cases, considered relatively stable industrial centers where migration outflow occurs at a rate close to the North's average. In the Near North, polarization in the migration situation between towns differing in population size is more evident due to a higher level of territorial development.

Generally, the following stages of change can be distinguished in the migration situation in the North:

(1) Stress-induced migrations of the early 1990s (1991–1995). The stage features the maximum intensity of interregional migration gradients, considerable population outflow from cities and towns of the Extreme North and the North of the Far East along with a relatively high attractiveness of cities and towns in the Near North.

(2) Leveling off of migrations in the end of 1990s (1996–1999). This stage features a decreasing migration outflow rate from cities and towns of the Extreme North and the North of the Far East and a increase in the relative attractiveness of major cities and regional centers.

(3) Stability in migration processes in the North in the 2000s (2000–2010). The stage features an overall decrease in migrations, strengthening of intraregional migration gradients, and a continuous increase in the migration attractiveness of regional centers, while the other categories of cities and towns maintain relatively steady migration outflow rates.

(4) Increasing intraregional polarization in migration in the early 2010s (2011–2015). When identifying the fourth stage, it should be noted that its essential processes might have become mainstream as a result of changes in migration accounting methods, which has ensured more complete accounting for individual migrant flows. During this stage, the majority of regional centers in the North and big cities in the Near North tend to maintain their migration attractiveness, whereas migration outflow from small towns of the Near North is increasing, as well as outflow from the intraregional periphery in general. Reduction in migration increase is observed in cities and towns of Western Siberia, and interregional differences are being eliminated altogether.

Interregional migration is a critical component of migration outflow from northern cities and towns. During 2012–2015, only than five cities and towns in the North exhibited a positive interregional net migration rate, specifically, Khanty-Mansiisk and Salekhard, which are the capital cities of oil and gas industry regions; Surgut as the major city of the Khanty-Mansi AO; and the Lukoil base towns of Kogalym and Pokachi. High intensity of interregional migration outflow, together with a slight negative net intraregional migration rate, is typical of cities and towns in the Extreme North, whereas in the Near North, migration outflow in the context of intraregional movements is comparable with interregional losses (Fig. 5). This might be a result of isolation, an insular distribution of cities and towns in the Extreme North, and the predominantly network nature of migration [5].

In addition to regional centers, intraregional migrants in the North are attracted to regional subcenters—e.g., Apatity in Murmansk oblast, Kotlas in Arkhangelsk oblast, Ukhta and Sosnogorsk in the Komi Republic, Mirnyi and Neryungri in the Sakha (Yakutia) Republic, Bratsk in Irkutsk oblast, Komsomolsk-on-Amur and Amursk in Khabarovsk krai—and to stable industrial centers.

Although only a fraction of the labor migration flow from neighboring countries is accounted for by the international migration rate, all groups and categories of northern urban areas display a positive net

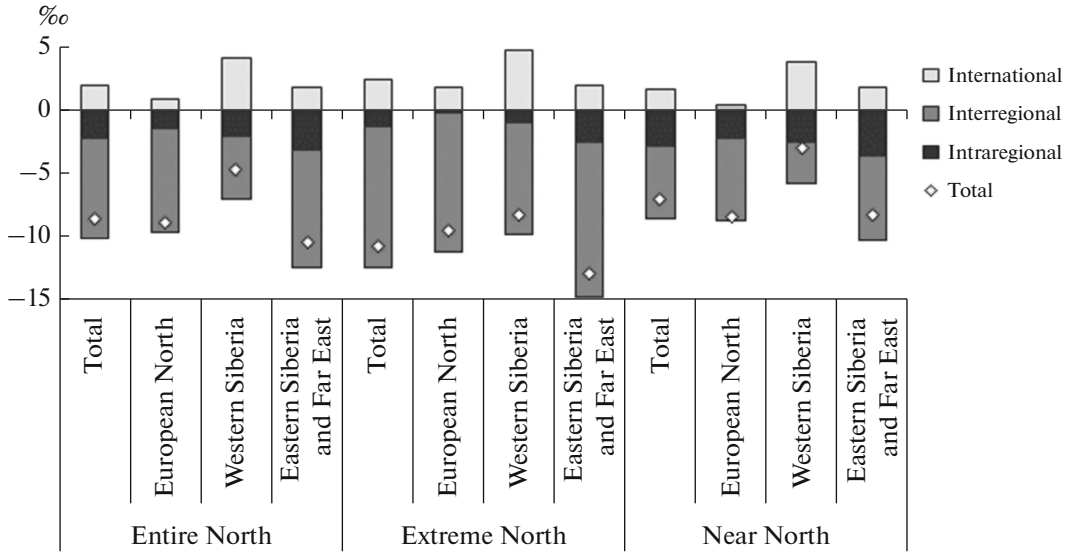

Fig. 5. Net migration rates in cities and towns across various macroregions of North by migration flows in 2012–2015, ‰. Source: RMID data.

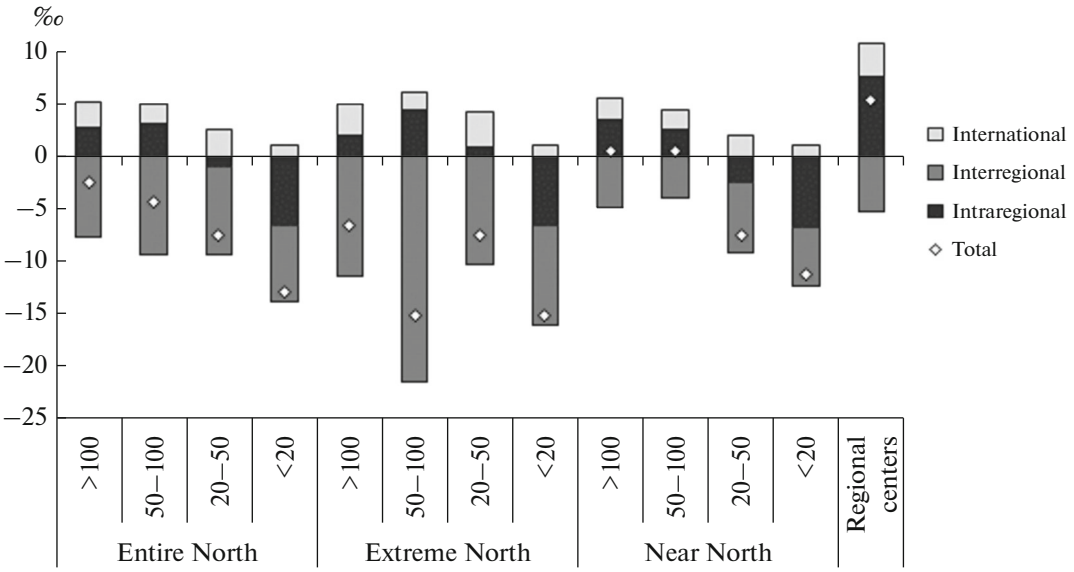

Fig. 6. Net migration rates in northern cities and towns of different population size by migration flows in 2012–2015, ‰. Source: RMID data.

migration rate in terms of exchange with other countries. Migrants from abroad are largely attracted to the urban oil and gas areas of Western Siberia, as well as to several other cities and towns featuring an active labor market (predominantly, centers for extraction industries) and regional centers.

The intraregional migration balance is considerably polarized between towns with different population size. As a result of migration outflow from small towns, people concentrate in big and mid-size cities and towns (regional centers among them), which contributes to average rates (Fig. 6). However, the population size is not a significant differentiating factor for interregional and other external migration flows.

MIGRATION SITUATION IN REGIONAL CENTERS OF THE NORTH

Regional centers of the North occupy an exclusive position with respect to migration rates compared to other cities and towns. In many northern regions, a regional center often the only or one among a few cities and towns exhibiting a positive migration rate (Fig. 2). Such a situation is observed in Karelia, Arkhangelsk oblast, the Komi Republic, Yamalo-

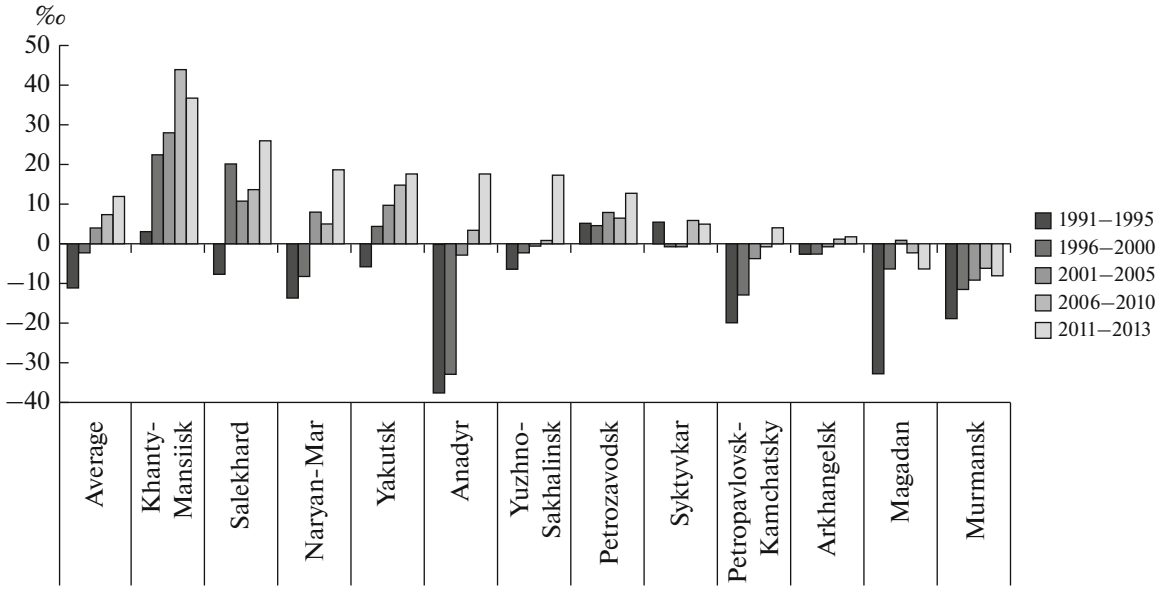

Fig. 7. Net migration rates in regional centers of North in 2011–2013, ‰. Source: Economies of Russian Cities database, MULTISTAT portal.

Nenets AO, Yakutia, and Sakhalin oblast. The regional center of the Khanty-Mansi AO is well in advance of other growing towns in the region in terms of migration increase.

The process, by which economic activity and population concentrate in big cities overall, and regional centers in particular, which for the most part fall into this category, is well understood [6, 7, 14].

In general, regional centers in the North can be characterized by continuously increasing popularity among migrants during the entire period from the early 1990s to the 2010s (Fig. 7). In the early 1990s, the majority of regional centers experienced migration outflow, which by the early 2000s continued to persist only in two centers of the Extreme North: Murmansk and Magadan.

The differentiation factors researchers identify in terms of attractiveness of regional centers for the population include the stage of demographic and urbanization transition for a region, geographic location, and the level and pace of economic development in the corresponding regions [7]. The concentration of administrative and service functions is high in northern regional centers; therefore, capital cities have the additional benefit of regional rent concentration.

Among the regional centers that experience significant migration inflow are capital cities of the oil and gas producing okrugs and other regions where extraction industries have been actively developing (Anadyr and Yuzhno-Sakhalinsk); as well as Yakutsk, which has been rapidly growing due to rural-urban migration of titular population in Yakutia.

Overall, regardless of their cumulative effect, migration processes are more intense in cities and towns of the Extreme North (except Magadan, which experienced dramatic migration outflow in the early 1990s) than of the Near North (Table 1) due the decreased ability of the latter to retain population compared with cities and towns of more developed regions of the North.

The growth potential of regional centers largely depends on the rural population and population of small towns in corresponding regions. The trend is the strongest in more developed regions with a more developed settlement pattern, e.g., Arkhangelsk oblast, the Komi Republic, the Republic of Karelia, the Sakha (Yakutia) Republic, etc. Net migration increase is largely determined by the attractiveness of regional capitals for their population; intraregional migration does not contribute much to the structure of arrivals into towns and cities experiencing migration outflow (Table 1). Exceptions are Salekhard, Khanty-Mansiisk, and Yuzhno-Sakhalinsk, owing to the powerful rent source in the region, which can attract population from outside.

In most cases, population flow from regional centers is largely directed beyond the boundaries of their regions to the central regions of Russia. Less than a third of the population in regional centers of outlying areas, i.e., Murmansk, Magadan, Petropavlovsk-Kamchatsky, and Yuzhno-Sakhalinsk, migrate within their regions. In other regional centers of the North, the share of intraregional migration outflow does not exceed 50%.

Youth accounts for a significant part of migration inflow to regional centers. The attractiveness of a city to youth is largely determined by the potential of a city educational system. Inflow of population aged 15–19 peaks in major higher education centers of the North: Arkhangelsk, Petrozavodsk, Syktyvkar, and Yakutsk

Table 1. Characteristics of migration situation in regional centers of North in 2012–2015

Regional center	NMR[1], ‰	MTR[2], ‰	Share of intraregional migration in structure of flows, %		Share of interregional migration in structure of flows, %		Share of population aged 15–29 in structure of flows, %	
			migration inflow	migration outflow	migration inflow	migration outflow	migration inflow	migration outflow
Arkhangelsk	0.8	49	66	36	28	59	52	37
Magadan	–6.8	19	41	14	52	84	41	30
Murmansk	–10.1	81	28	19	46	67	40	33
Naryan-Mar	15.4	106	53	42	39	57	34	36
Petrozavodsk	11.1	57	57	47	29	45	51	47
Petropavlovsk-Kamchatsky	–0.7	85	17	12	41	65	42	34
Salekhard	9.7	127	37	43	53	53	45	42
Syktyvkar	1.2	60	68	43	24	49	52	44
Khanty-Mansiisk	21.3	130	42	44	44	50	45	38
Yuzhno-Sakhalinsk	5.9	84	43	29	42	61	40	37
Yakutsk	11.4	65	81	50	17	49	59	49

[1]Net migration rate. [2]Migration turnover rate.

(Fig. 8). Youth primarily originates from the same regions, since northern universities fail to sustain a competitive advantage with the leading national centers in terms of education quality. As a result, these cities feature an increased share of the young population in the structure of arrivals (Table 1); however, some graduates leave the regional center, and the share of regional migration ouflow is disproportionally high compared to the share of intraregional inflow of entrants.

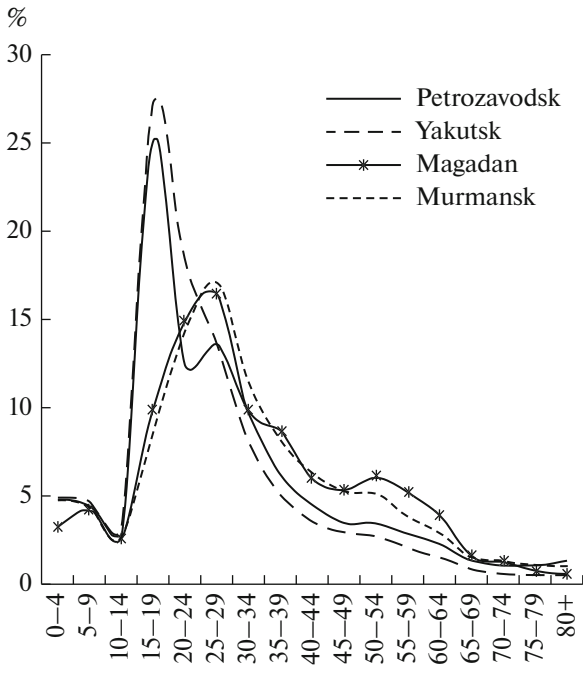

Fig. 8. Age pattern of migration inflow in selected regional centers of North in 2012–2015. Source: RMID data

Due to better quality and access to social services, the pattern of migration outflow pattern of regional centers features a less prominent peak in return migration outflow of early retirement ages than on average, which is otherwise typical of the entire area of the North. At the same time, such a differentiation remains high among regional centers; the peak is more pronounced in capital cities of the Extreme North, whereas urban centers of the Near North are in a better position to retain their populations and the most successful of them do not differ much in the pattern of migration outflow from the developed regions of the country (Fig. 9).

The population structure of northern regional centers in terms of the duration of living in a city reflects the intensity of migration processes at present.

The group of previously developed old regional centers can be identified: Arkhangelsk, Petropavlovsk-Kamchatsky, Murmansk, Naryan-Mar, Syktyvkar, Yakutsk, and Magadan. The share of people residing there from birth is high (Fig. 10), while the inflow of the newcomers to these cities has been relatively steady. Along with the existing high share of natives, Petrozavodsk and Yuzhno-Sakhalinsk have recently

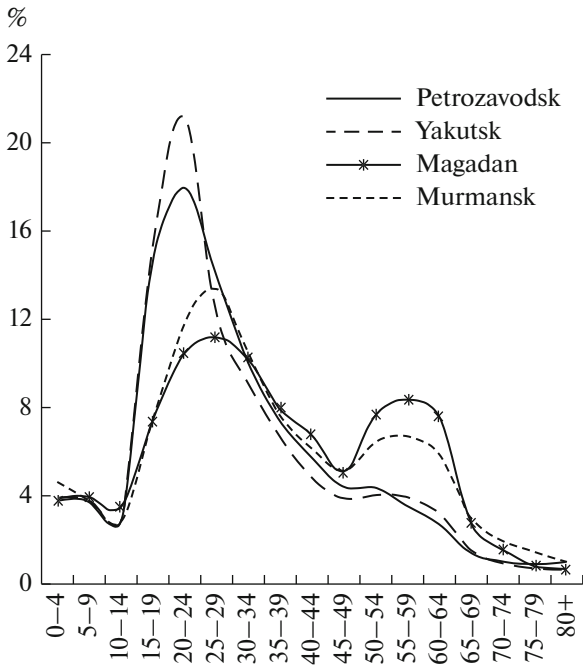

Fig. 9. Age pattern of migration outflow from selected regional centers of North in 2012–2015. Source: RMID data.

experienced significant migration inflow from other territories. Over 20% of the population had resided in the city for less than 10 years at the time of the 2012 census. It should be assumed that the reasons for the migration inflow to these two cities differ. Petrozavodsk mainly experiences intraregional educational migration of youth, whereas Yuzhno-Sakhalinsk attracts experienced people due to the developing labor market and projects implemented by the oil and gas industry in the region. The group of regional centers with a minimum share of native population (under 40%) stands apart, including Salekhard, Khanty-Mansiisk, and Anadyr. These cities exhibit the maximum share of newcomers, e.g., in Khanty-Mansiisk over 40% of its population resided in this regional center for less than 10 years. This might be a result of both large migration inflow in recent years (Salekhard and Khanty-Mansiisk) and dramatic migration outflow of the 1990s followed by replacement of the population by new residents (Anadyr).

CONCLUSIONS

The macroregional gradients of the migration situation in the North have significantly changed over the post-Soviet period. Interregional gradients typical of the period of stress-induced migration of the early 1990s (West–East and North–South) have become less noticeable. The differences in the level of migration rates between the North of Far East and the European North decreased from 10–15‰ in the early 1990s to its minimum (0.5‰) by the early 2010s. The differences between cities and towns of the Extreme North and the Near North did not exceed 2‰ either by that time. Different durations of periods, in which remote areas of the North and areas adjacent to the main zone of the settlement pattern were developed,

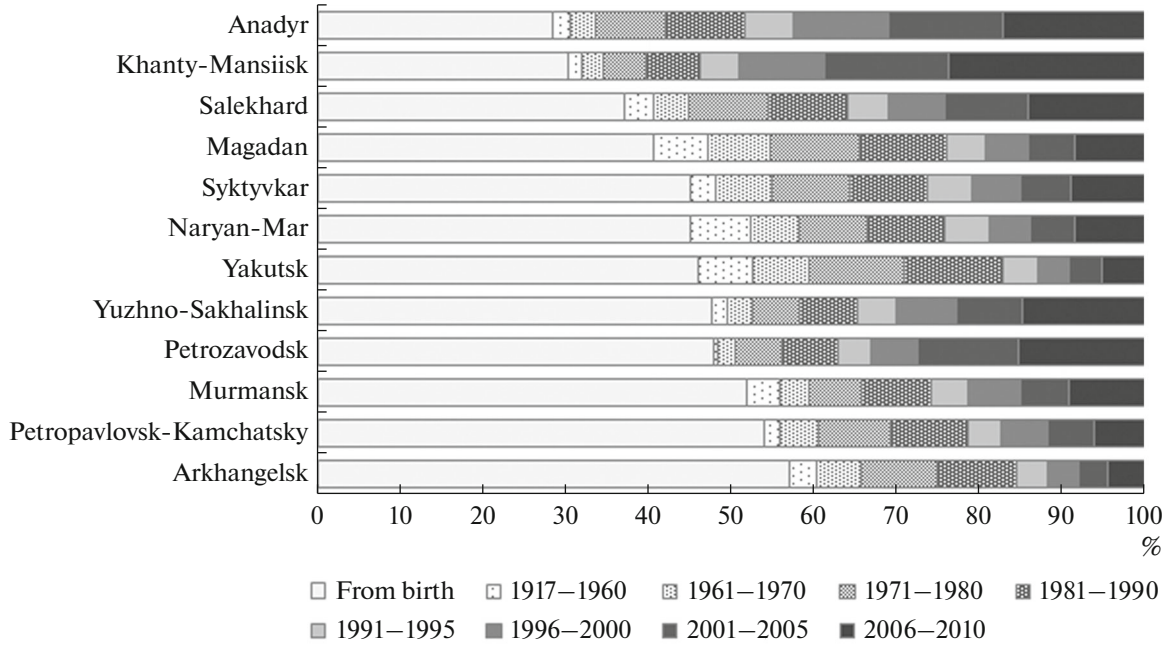

Fig. 10. Population structure in regional centers of North by duration of living in city (indicator is year when continuous residence started). Source: 2010 Russian National Census (question no. L12.1 in census questionnaire).

are responsible for the varying degrees of rootedness of the population, which in turn was a differentiating factor in migration processes on the interregional scale during the post-Soviet period. Conversely, intraregional differences, a center–periphery gradient of the migration situation, in particular, became more pronounced, which agrees with the national trend.

The migration balance of cities and towns is increasingly dependent on their population size. The attractiveness of big cities for migration has increased in all northern macroregions over the 2000s, whereas the least favorable migration situation was observed in small towns, because this category of towns tends to lose population more intensely. Polarization in the migration situation between cities and towns with different population size in the Near North is more pronounced due to a higher level of territorial development.

By the end of the studied period, migration outflow from the cities and towns of Western Siberia had increased due to the increasing popularity of temporary labor migration, which have replaced movements associated with change of residence.

Four stages can be identified in the migration situation in the North: the stage of stress-induced migrations of the early 1990s with the maximum intensity of interregional gradients; a leveling stage in the migration situation of the late 1990s with attenuation of westward drift; stability in migration processes of the 2000s with an overall decrease in migration intensity and a continuous increase in the attractiveness of regional centers along with a relatively steady outflow from the periphery; and a stage of an increasing intraregional polarization in migration situation of the 2010s together with an intensified population outflow from intraregional periphery and steadily high attractiveness of the centers.

With a very few exception, northern cities and towns lose population in the context of interregional exchange. The intraregional balance features a significant polarization between cities and towns of different population size; the population tends to concentrate in big and medium-size cities at the expense of outflow from small towns. The most appealing are regional centers and their suburbs, regional subcenters, and a few stable industrial centers. The population size of cities and towns is not a differentiating factor in interregional flows.

The attractiveness the regional centers for migration has significantly increased over the post-Soviet period. Northern capital cities attract intraregional population from small towns and rural localities and lose population in interregional exchange with regions of the more developed part of the country. Regional centers feature various age patterns of migration. Educational centers are more appealing for migration; however, their attraction zone does not extend beyond the regional border. The capital cities are in a better position to retain population at early retirement age compared with other northern cities and towns.

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