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CURRENT CONDITIONS OF DEMOGRAPHIC SITUATION IN THE CITY OF KURSK

Diukanowa E. N., Krietowa O. G. **Współczesna sytuacja demograficzna w Kursku (południowa Rosja)**. Omówiono współczesną sytuację demograficzną w Kursku. Przedstawiono informacje o urodzeniach i zgonach. Przeanalizowano wzajemne relacje między naturalnym i mechanicznym ruchem ludności w centrum obwodowym. Oceniono podstawowe wskaźniki demograficzne w okręgach administracyjnych Kurska w 2014 roku, a także współczynnik obciążenia demograficznego, który jest pomocny do określenia wielkości i jakości potencjału zasobów pracy miasta. Badania objęły też analizę struktury wiekowej i płciowej ludności. W wyniku przeprowadzonych badań demografii okręgów miejskich wydzielono okręg o największej koncentracji przedsiębiorstw przemysłowych i dzielnic sypialnych (sejmski). Analizy potwierdzają też ogólną poprawę sytuacji demograficznej miasta, co wynika ze zwiększonego poziomu urodzeń, stymulowanego regionalnymi programami demograficznymi. Dostarczenie w odpowiednim czasie władzom miejskim informacji o liczbie i strukturze ludności, określenie negatywnych tendencji w celu prowadzenia przez nie poprawnej polityki demograficznej, wymaga zwiększonej uwagi odnośnie do zmian sytuacji demograficznej.

Дюканова Е. Н., Кретова О. Г. **Современное состояние демографической ситуации в г. Курске**. Рассматривается современная демографическая ситуация в городе Курске. Представлены данные о рождаемости и смертности. Анализируется взаимосвязь между процессами естественного и механического движения населения в областном центре. Дана оценка основных демографических показателей в административных округах г. Курска за 2014 г., а также коэффициента демографической нагрузки, который помогает определить объемы и качество трудового потенциала города. Исследование включает в себя анализ половой и возрастной структуры населения. По результатам проведенного исследования демографии городских округов выделяется округ с наибольшим сосредоточением промышленных предприятий и спальных микрорайонов (Сеймский). Исследование подтверждает то, что в целом по городу улучшается демографическая ситуация благодаря повышению уровня рождаемости, что стимулируется региональными демографическими программами. Своевременное обеспечение органов управления города информацией о численности и структуре населения, выявление негативных тенденций для разработки ими грамотной демографической политики, требует повышенного внимания к изменениям демографической ситуации.

Key words: birth rate, mortality, natural population movement, demographic burden, migrations

Słowa kluczowe: urodzenia, zgony, ruch naturalny ludności, obciążenia demograficzne, migracje

Ключевые слова: рождаемость, смертность, естественное движение населения, демографическая нагрузка, миграции

Abstract

In article present demographic situation in the city of Kursk is investigated. Examines levels of fertility and mortality. The correlation between processes of natural and mechanical movement of population in the regional center is analyzed. Estimate of the main demographic rates in administrative districts of Kursk for 2014 and also demographic burden index which helps to determine the amount and quality of labor potential of the city are given in the article. The research includes analyses of gender and age pattern of the population. According to the results of the study demographics of urban districts allocated district with the greatest concentration of industrial enterprises and residential neighborhoods (Seymskiy).

The study confirms that in general, the city is improving the demographic situation by raising the birth rate, which stimulated regional demographic programs. Timely delivery of the city administration information on population size and structure, identifying negative trends for the development of literate demographic policy requires increased attention to changes in the demographic situation.

INTRODUCTION

Kursk is an ancient Russian city. Archaeological investigations reveal that in the place of today's Znamensky monastery of Kursk there used to be a big settlement no later VIII century.

Modern Kursk is the capital of the region, big economic and cultural centre of Russia where 450 thousand people live. One third of the whole industrial and production potential of the region is concentrated here – enterprises of machine building and metal-working, chemical and petrochemical, food and light industries, building industry.

Residential houses, establishments of trade and entertaining, for social and cultural purposes, communal-general infrastructure are being built actively in the city.

Development of Kursk and cities of Russia takes place in conditions of notably changing demographic situation which is characterized by sharp decline in birth rate in view of different social and economic reasons which can't help telling on the change of gender and age structure of population (LAPPO, HONSCHE, 2000).

Demographic situation is one of the urgent social and economic problems today. In accordance with Conception of demographic policy of the Russian Federation for the period till 2025 the activities of the Administration of the city of Kursk aims at reduction mortality rate, stimulation of birth rate by rendering support to families with children, preservation and recruitment of population health, strengthening of the institution of the family and revival of spiritual and moral family relations. Strengthening of the institution of the family, advocacy of family values, accomplishment of measures for social protection of families, women and children, providing state warrants to families who raise children, addressing problems on stabilization of the resident population, improving demographic situation are priorities in the city of Kursk (*On establishment of municipal program...*, 2014; *On establishment of complex program...*, 2014).

THEORETICAL BASIS AND METHODS

In our investigation we rested upon foundations of the general theory of population geography which were laid in the works of R. M. KABO (1918), Yu. G. SAUSHKIN (1947), V. V. POKSHISHEVSKY (1951), B. S. KHOREV (1975), V. V. VOROBYOV (1977), N. N. BARANSKIY (1980), G. M. FEDOROV (1984), G. M. LAPPO, F. W. HONSCHE (2000), S. A. KOVALEV (2003) and other Russian geographers. The ideas of these scientists turned out to be fruitful and constructive enough, they were aimed at solving important practical tasks – perfection of population settling and development of settlements of different size with purpose of increasing level and quality of people's life. Today such investigations are developing rapidly and are aimed at solving social, economical and ecological tasks. Method of collection and summarizing statistical information, using cartogra-

phic technique for visualization of the obtained results are the most convenient for conducting research on demographic situation in the city of Kursk.

As for administration the city is divided into three districts: Central, Zheleznodorozhniy and Seymskiy.

Because of complicated relief and hydrological network communication between districts and micro-districts of one district is difficult which leads to problems of organization interurban traffic stream. As for the number of population the biggest is Central – 193 thousand people, then follows Seymskiy – 150 thousand people, in Zheleznodorozhniy district – 70 thousand people. This inequality is connected with the fact that in Central district there is one of the biggest bedroom communities of the city in which ¼ of the population resides, and also with historical peculiarities of settlement. The main part of Zheleznodorozhniy district are residential houses of the private sector and dachas, and blocks of flats have been erected only recently. Seymskiy district is characterized by concentration of industrial potential of the city.

Inhabitants of Kursk divide privately the above-named districts into smaller microdistricts. There are no official borders between them, but nevertheless every one has rather clear outline and generally accepted names which are clear to any inhabitant. Some of them have rather deep historical roots and remained since the time of tsar Russia; others sprang up much later and owe their appearance to city infrastructure objects.

It is typical for Kursk that central part of the city has identity owing to its central historical commercial functions. At the same time inner differentiation is developed rather badly or is obliterated.

At the same time suburban parts of the city make up numerous rather closed neighborhoods constitutions with relatively clear-cut borders or kernels. Neighborhoods of outskirts don't experience strong "aligning" influence of the Center. Being in some isolation they accumulate individual peculiarities, are characterized by their own specific character, as a result they are rather strongly consolidated in public consciousness, at the same time they serve as important elements of integral division into districts of the city area.

All this allows to say that microdistricts may be the base for geographical and demographic investigations and may be used as basic territorial units in the systems of classification of consumers (KAZAKOV, KHARCHENKO, CHERNYSHEV, 2015).

RESULTS AND DISCUSSION

In Kursk 2014 saw increasing the number of births and decreased persons. Crude birth rate was 12‰, and in 2013 – 11,9‰.

The following factors affect birth rate negatively: low money income of young families, lack of normal housing facilities, modern family composition, low health level. Birth rate remains one of the best among regional centers of the Central Federal Okrug, during the last five years Kursk consistently makes the top three.

Essential demographic problem is high death rate. General rate of mortality was 12,8‰, in 2013 general rate of mortality was 12,6‰. As a result of existent processes natural diminution of population as compared to the previous year increased by -0,8‰. In other cities, the following picture is the Central Black Soil economic region of Russia (fig. 1).

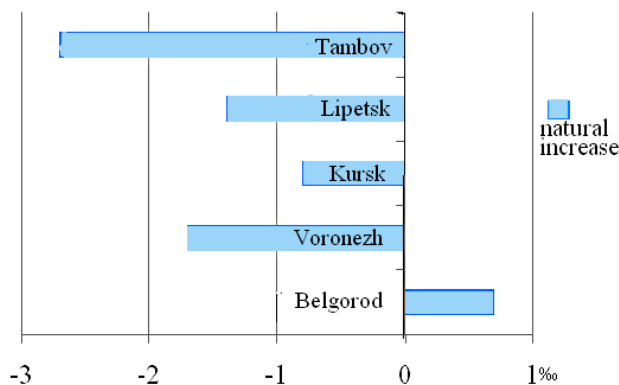


Fig. 1. Natural population growth in the regional cities of Central Black Soil Economic Region

Rys. 1. Przyrost naturalny w miastach obwodowych Centralno-Czarnoziemnego Okręgu Ekonomicznego

Рис. 1. Естественный прирост в областных городах Центрально-Черноземного экономического района

The city of Belgorod is the only one in the Central Black Soil Region which is characterized by natural increase of population (0,7‰), in other cities – including Kursk in 2014 – natural decrease is observed.

Table 1. The migration situation in Kursk

Tabela 1. Sytuacja migracyjna w Kursku

Таблица 1. Миграционная ситуация в Курске

Indicators	Years	2009	2010	2011	2012	2013	2014
The number of arrivals, people		5 853	8 020	12 290	14 052	15 072	12 389
The number of drop-outs, people		2 647	3 297	5 466	8 119	9 527	8 554
Migration gain, people		3 206	4 723	6 824	5 933	5 545	4 285

Among the cities of the Central Black Soil region high level of migratory increase based on official statistical data is manifested in Tambov. Migratory increase is 16,2% for 1000 people which is 6, and 4% more than in Kursk (9,8%). This is caused by positive migratory stream from CIS countries, especially Uzbekistan (32,6% general balance of migration), and also conducting competent migratory policy by local authori-

Cardiovascular diseases continue to remain the main reason of mortality of population; their part in mortality structure is 54,6%. Then follow occurrence of mortality because of tumors (17,6%), after that because of outer causes (7,6%).

Infantile mortality is an important characteristic of the general health state and living standard and reacts most keenly to any changes in living conditions and state of environment. In this connection lowering rate of infant mortality should be referred to positive moments of demographic situation in Kursk. Every year in Kursk fertility increases because the latest economic arrangements in solving the problem of birth rate, in particular the weightiest of them – “mother’s stock”, play a very important role in the given problem-solving.

Data on international, within Russia and inside region migration are elaborated by organs of national statistics on the basis of records of statistical registrations of arrivals and departures which are received from territorial organs of Federal migratory office (*Territorial body...*, 2015). First primary source of data receiving about population is population census. Current estimate of population is calculated on the basis of the totals of the last population census, to which every year the number of those who were born and arrived to the given territory is added, and the number of the dead and those who left from the given territory is subtracted. On the bases of the immediate population census estimate of population for the previous between census periods is defined more exactly.

Migratory situation in the city of Kursk is relatively stable. Every year contribution of migratory component to population development is steadily increasing, at the same time proportions between the number of those who left and those who arrived remained practically unchanged (table 1).

ties. So at the end of 2013 the first in Russia Center of social adaptation of working migrants was opened in Tambov (fig. 2).

Information on the number of population, its distribution according to age groups are elaborated and cited on the basis of resident population to which persons who live constantly on the given territory refer including those who are absent at the moment

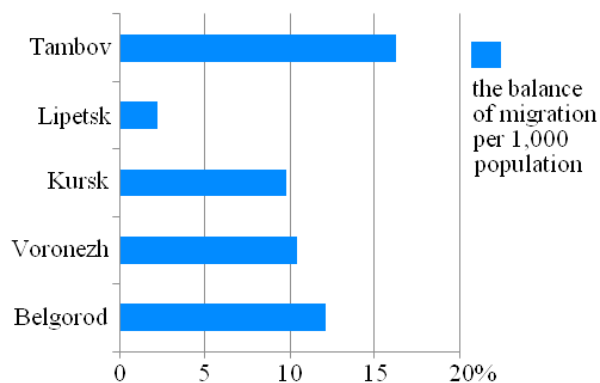


Fig. 2. Migration balance in the regional cities of Central Black Soil Economic Region

Rys. 2. Saldo migracji w miastach obwodowych Centralno-Czarnoziemnego Regionu Ekonomicznego

Рис. 2. Сальдо миграции в областных городах Центрально-Черноземного экономического района

of census. The main sources of information about population, its number and structure, as well as states and separate settlements, are population census.

According to the data of the last three censuses Kursk is one of the most populous among the cities of the Central Black Soil region (fig. 3).

The last All-Russian census of 2010 also gives us extensive material about social and demography structure of the population of Kursk.

Taking into consideration that in the period between censuses such a corpus of information on the basis of current accounts is not formed, data VPN-2010 for analyses of social and demography characteristics of the population of Kursk are used expediently (table 2).

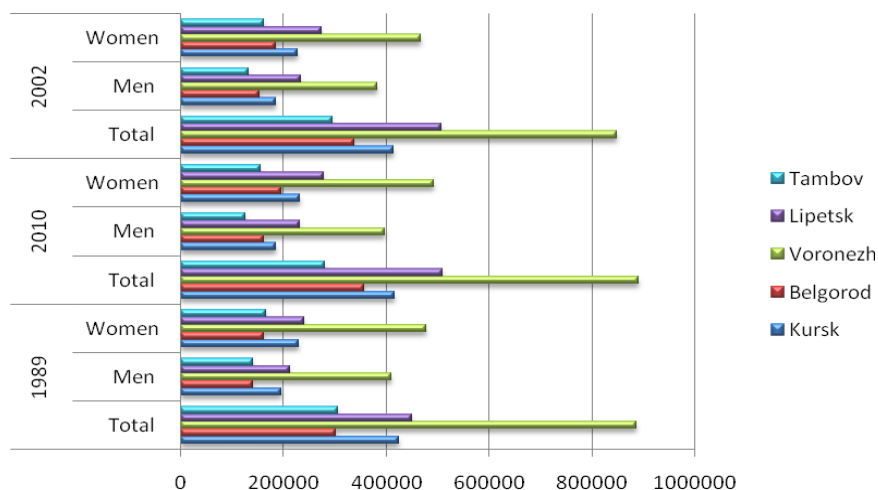


Fig. 3. Population according to Census 1989, 2002, 2010 in the regional cities of Central Black Soil Economic Region

Rys. 3. Wskaźniki demograficzne wg spisów ludności w latach 1989, 2002 i 2010 w miastach obwodowych Centralno-Czarnoziemnego Regionu Ekonomicznego

Рис. 3. Демографические показатели по результатам переписей 1989, 2002, 2010 в областных городах Центрально-Черноземного экономического района

Table 2. Population Kursk (according to the 2010 population census)

Tabela 2. Liczba ludności Kurska (wg spisu ludności z roku 2010)

Таблица 2. Численность населения Курска (по результатам ВПН – 2010)

City and districts	Total	Men	Woman	In the total population (%)	
				Men	Woman
Kursk city	415 159	184 209	230 950	44,4	55,6
Zheleznodorozhniy District	67 394	29 726	37 668	44,1	55,9
Seymskiy District	147 419	63 785	83 634	43,3	56,7
Central District	200 346	90 698	109 648	45,3	54,7

Age and gender structure of population is characterized by considerable disproportion. In total number of population women prevail (55,6%), portion of men in the population structure is 44,4%. Ratio of genders during many years didn't change: for 1000 men there are 1250 women. Numeral exceeding of women over men in the population structure has been recorded since the age of 16–17 and is increasing in years. At the age of 65–69 female population prevails

over male one almost two times more, at the age of 70 and older – 2,5 times. For the older age groups is due to the low life expectancy of men is different from women's more than 10 years (fig. 4, 5).

In the data about population according to the main age groups children and teenagers under 16 are ascribed to population younger than working age, men aged 16–59 and women aged 16–54 – to population of working age, men of 60 and older and women of 55

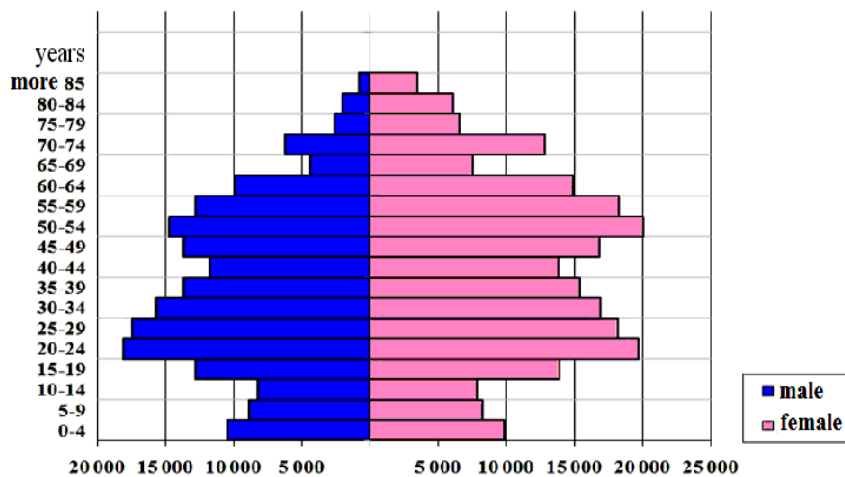


Fig. 4. Age-sex pyramid of Kursk
 Rys. 4. Piramida wieku i płci ludności Kurska
 Рис. 4. Поло-возрастная пирамида для города Курска

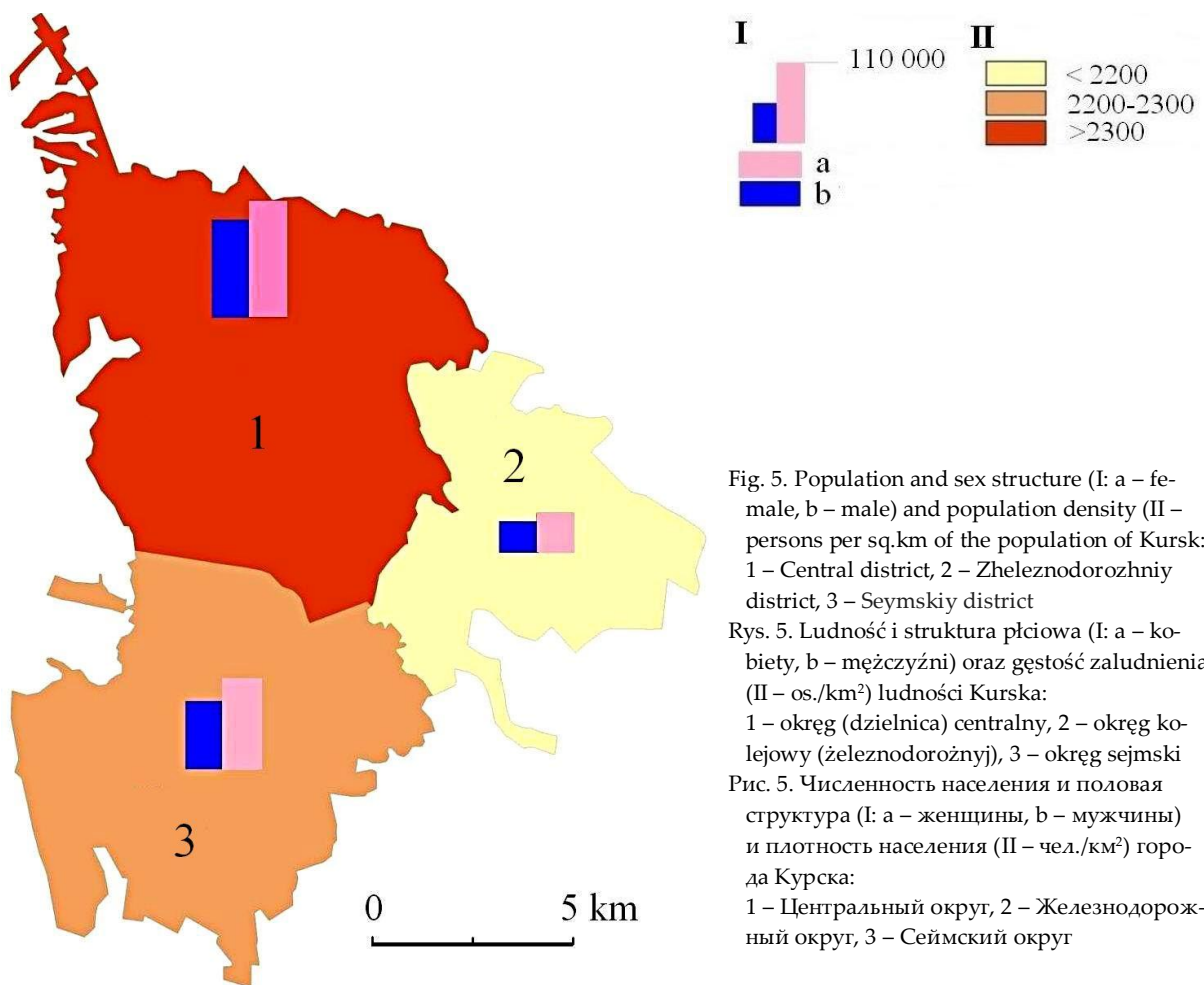


Fig. 5. Population and sex structure (I: a – female, b – male) and population density (II – persons per sq.km of the population of Kursk: 1 – Central district, 2 – Zheleznodorozhniy district, 3 – Seymskiy district
 Rys. 5. Ludność i struktura płciowa (I: a – kobiety, b – mężczyźni) oraz gęstość zaludnienia (II – os./km²) ludności Kurska: 1 – okęg (dzielnica) centralny, 2 – okęg kolejowy (żelaznodorozhniy), 3 – okęg seymski
 Рис. 5. Численность населения и половая структура (I: a – женщины, b – мужчины) и плотность населения (II – чел./км²) города Курска: 1 – Центральный округ, 2 – Железнодорожный округ, 3 – Сеймский округ

and older – to population of older than working age. Analyzing the findings we can say that population of working age prevails in Kursk. Of the total number of population proportion of persons younger than working age is 13,8%, older than working age – 23%, which points to insufficient level of fertility, and also to increasing rate of pensioners and demographic “ageing” of population.

Fluctuations of birth rate after definite period are manifested in corresponding fluctuations of population of working age. On the 1-st of October 2010 according to the data of population census proportion of working age population was 64,0% and 63,2% correspondingly, by the end 2011 – 62,5%.

The largest number of working age population lives in the Central district (fig. 6).

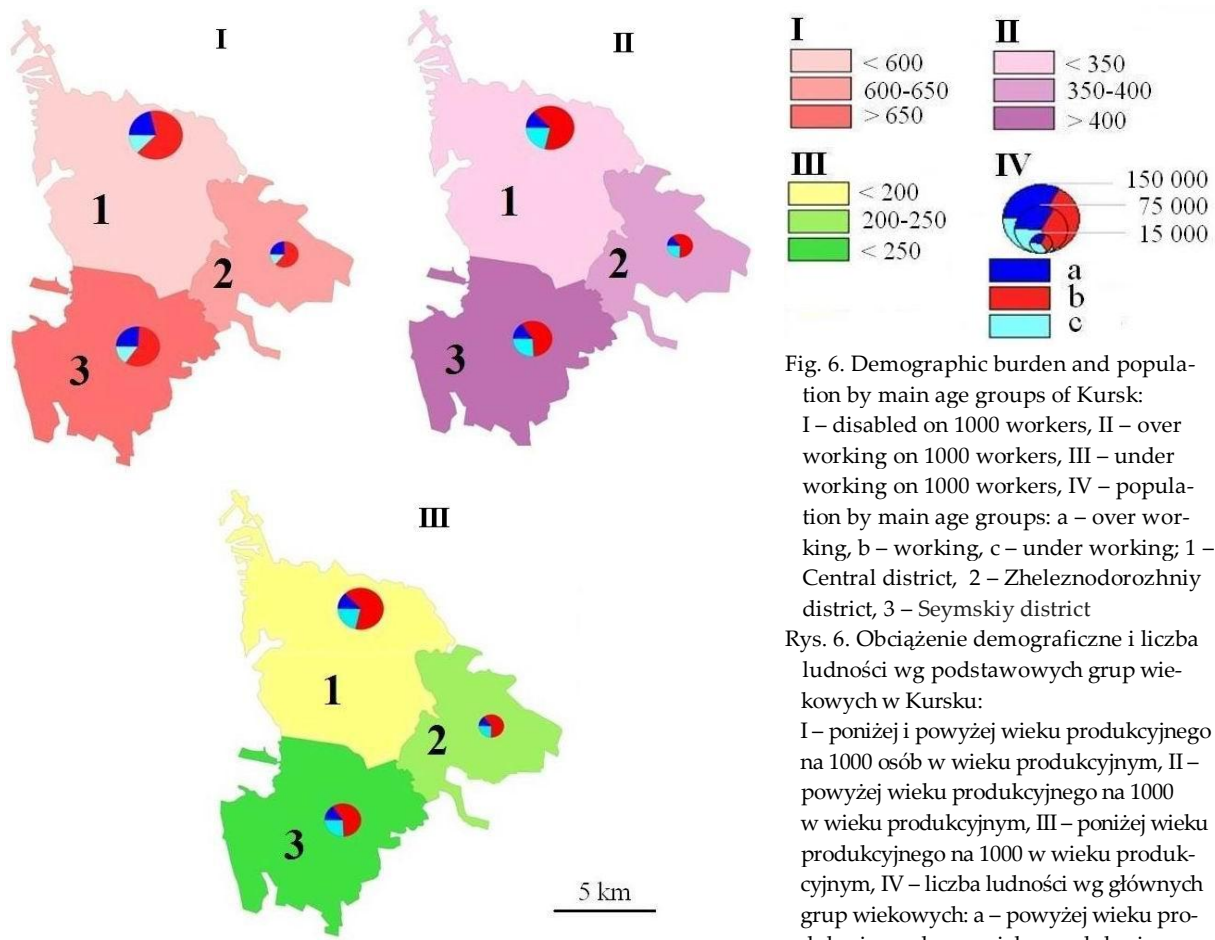


Fig. 6. Demographic burden and population by main age groups of Kursk: I – disabled on 1000 workers, II – over working on 1000 workers, III – under working on 1000 workers, IV – population by main age groups: a – over working, b – working, c – under working; 1 – Central district, 2 – Zheleznodorozhniy district, 3 – Seymskiy district

Rys. 6. Obciążenie demograficzne i liczba ludności wg podstawowych grup wiekowych w Kursku: I – poniżej i powyżej wieku produkcyjnego na 1000 osób w wieku produkcyjnym, II – powyżej wieku produkcyjnego na 1000 w wieku produkcyjnym, III – poniżej wieku produkcyjnego na 1000 w wieku produkcyjnym, IV – liczba ludności wg głównych grup wiekowych: a – powyżej wieku produkcyjnego, b – w wieku produkcyjnym,

c – poniżej wieku produkcyjnego; 1 – okręg (dzielnica) centralny, 2 – okręg kolejowy (żelaznodorozhniy), 3 – okręg seymski
 Рис. 6. Демографическая нагрузка и численность населения по основным возрастным группам в городе Курске: I – нетрудоспособных на 1000 трудоспособных, II – старше трудоспособного возраста на 1000 трудоспособных, III – моложе трудоспособного возраста на 1000 трудоспособных, IV – численность населения по основным возрастным группам: а – старше трудоспособного возраста, б – трудоспособного возраста, с – моложе трудоспособного возраста; 1 – Центральный округ, 2 – Железнодорожный округ, 3 – Сеймский округ

Analyses of age structure of the population of districts testifies that in Seimsky district proportion of population younger working age is the largest. Proportion of working age population is largest in the Central district.

Age structure of population predetermines important from the economical standpoint index of demography load which characterizes ratio of the population number of working age and disabled age.

In the view of demography load the most optimal ratio of working population and disabled population was developed in Central district, where according to the data of VPN-2010 for 1000 inhabitants of working age there are 527 people older and younger than working age. In Seymsky and Zheleznodorozhniy districts demographical load was 639 and 641 people. From the data given in the table it results that in all districts of Kursk proportion of disabled population doesn't exceed 40%, most part of which lives in Sei-

msky district. Among people older than working age most people live in Zheleznodorozhniy district.

CONCLUSION

Attention should be paid to age hardening of urban population. At the moment of testing VPN-2010 demography load in Kursk was as follows: for 1000 inhabitants of working age there were 584 people of disabled age including 366 persons older than working age. Small portion of population younger than working age testifies by implication to age hardening of the population of Kursk region. State of public health of the population, risk factors of environment and mode of living exert key influence on demography indexes. Healthy way of life hasn't become norm for every person, every family, that is why preservation of population, its physical and moral health is one of the most important priorities in the sphere of family and demographic policy. The main causes of morta-

lity of adults are cardiovascular diseases, tumors, injuries and poisoning.

For further improvement of demographic situation in our city it is necessary to solve a whole complex of problems in the field of social sphere, employment of population, migratory policy. Relatively low birth rate and high death rate against a background of age hardening of population tell negatively on the main indexes of social and economic development of the city, result in the rise of problems in forming labor force, structural and qualitative changes in the system of rendering medical and social aid. Preservation of population, its number, its physical and moral health have great strategic significance.

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