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COMPARISON OF DETERMINANTS OF TOTAL DYNAMICS OF POPULATION OF UNSKO-SANSKI AND CANTON SARAJEVO IN THE PERIOD BETWEEN 2008-2017

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When analyzing the demographic development in Bosnia and Herzegovina in the post-war period, it is necessary to bear in mind certain unfavorable characteristics of the population's movements and structure, expressed in the war circumstances, as well as the consequences of the war.

According to the Federal Bureau of Statistics, in the last ten years, eight out of ten cantons in the Federation of Bosnia and Herzegovina recorded a decrease in the total population. In the same period, only the Posavski and Zapadnohercegovački Canton recorded an increase in the total number of inhabitants. The Sarajevo Canton has lost about 0.6% of the population or about 2700 settlers in the last ten years. In the same period, the Unsko-sanski Canton recorded a decrease of 6.1% in the total population.

The post-transition stage in the development of the population began in atypical socio-economic circumstances, unlike Western European countries, hence there are certain controversies about the character of recent demographic transition in Bosnia and Herzegovina, but also in some other countries. In conditions of high cost of living in Bosnia and Herzegovina, hyper-unemployment, poverty and social exclusion, especially persons in their 20s, the expansion of the family would in many cases exacerbate their already bad material position. Emigration results in losses of human capital, thereby endangering the prospects of not only demographic but also, in general, the social development of Bosnia and Herzegovina.

Key words: *Population transition, Bosnia and Herzegovina, population dynamics, natural increase, migration, Unsko-sanski Canton, Canton Sarajevo*

INTRODUCTION

An analysis of population development often implies research into possible changes in the total population and changes in the participation of its individual constituents. In the context of demographic development in Bosnia and Herzegovina in the post-war period, it is necessary to take into account certain unfavorable characteristics of the movement and structure of the population, expressed in the war circumstances, as well as the consequences of the war.

During the war and war destruction, from 1992 to 1995, a considerable number of people were killed: 250,000 people were killed and around 20,000 were recorded as missing. More than 2 million people left their homes, or 55% of the pre-war domicile population of Bosnia and Herzegovina. Of this number, about 1.2 million people sought refugee protection in over 100 countries around the world, while around a million people are internally displaced within BiH.

Such circumstances have conditioned that the main features of contemporary demographic picture of Bosnia and Herzegovina become visible in reducing the total rate of natural increase, intensive aging of the population, constant emigration of the population in optimal working and reproductive age, increasing mortality rate due to the

growing share of the elderly and depopulation. According to the vital-statistical parameters, the post-transition stage in the development of the population into which Bosnia and Herzegovina is infested has entered into a cluster of war circumstances and poor post-war economic situations (Zolić H., Emirhafizović M., 2017). The lack of appropriate socio-economic preconditions for such a reproductive regime, as was the case in developed European countries, leads to the conclusion that it is rather a kind of quasi-posttransition (Wertheimer-Baletić 2005). To what extent did the post-transition phase evolve and has it affected all the cantons in the Federation of Bosnia and Herzegovina with the same intensity?

According to the preliminary results of the population census conducted in 2013 in the Unsko-sanski Canton, there are 299,343 inhabitants, or 12.62% of the population of F BiH or 7.8% of the total population of Bosnia and Herzegovina. In the period from 1991 to 2011, the number of inhabitants in the USK area decreased by 87,793 or 23.37%, making the USK, by the number of inhabitants, the fourth largest canton in F BiH. The decrease in the number of inhabitants has been recorded in all municipalities of the USK, and some municipalities, such as Bosanska Krupa and Bosanski Petrovac, now have twice as few inhabitants in comparison with the number of inhabitants recorded by the 1991 Population Census.

According to the Federal Bureau of Statistics, in the last ten years, eight out of ten cantons in the Federation of Bosnia and Herzegovina recorded a decrease in the total population. In the same period, only the Posavski and Zapadnohercegovački Canton recorded an increase in the total number of inhabitants. The Sarajevo Canton has lost about 0.6% of the population or about 2,700 inhabitants in the last ten years. In the same period, the Unsko-sanski Canton recorded a decrease of 6.1% in the total population. By including components of the overall population movement, certain cantons in the Federation of Bosnia and Herzegovina have a completely different participation of its individual determinants.

Setting a hypothesis about the different participation of certain components of the total population movement, this research imposes an attempt to explain such differences on the example of the municipalities of Sarajevo Canton and Unsko-sanski Canton, which are presumed to exist. In addition, the task of the research is to classify 17 municipalities of two cantons into separate subgroups that adhere to a certain type of participation of the determinants of total population movement.

In the development strategy of the Unsko-sanski Canton 2014-2020, it is stated that in the period from 1991 to 2013, 56,642 inhabitants moved out of the USK area, which is 13.48% of the total number of displaced population from the territory of F BiH in the mentioned period. On the other hand, in the Canton Sarajevo in the period from 2003-2012, the population growth rate of 1% was recorded, with positive growth rates in the Sarajevo Canton area being realized in all municipalities, except in the municipality of Novo Sarajevo, where the number of inhabitants decreased.

The basis of the data source in this research is the data from the Population and Households Census from 2013 and the data of vital statistics that are regularly recorded in the territory of the Federation of Bosnia and Herzegovina since 2006 through systematic reports in the form of Statistical Yearbooks, Bulletin and Communication. The basis of the research methodology is the demographic statistical methodology and the budgets of the total population change rate, the rate of natural increase, and therefore the overall birth rate, mortality rates and migration trends. Geographic information system was used to provide an adequate overview of the obtained data.

Total population trends of Unsko-sanski and Sarajevo Cantons from 2008-2017

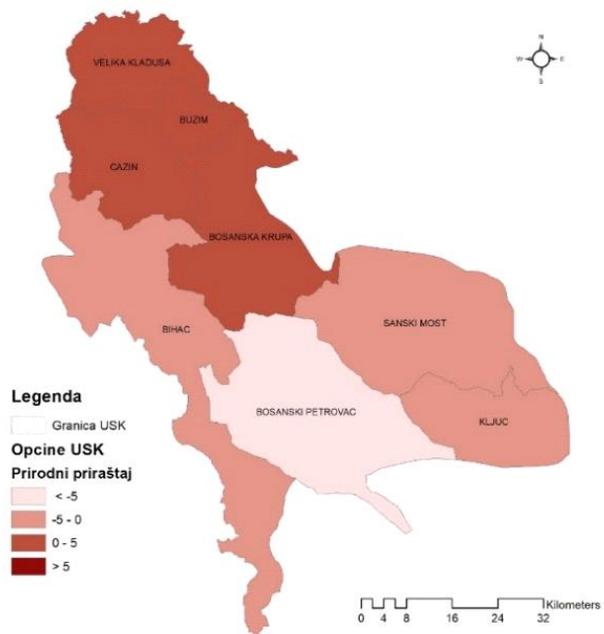
The general assessment is that similar changes in the total number of inhabitants of the two observed cantons in the last ten-year period amounted to between 2 and 3% of the variability for both cantons. More specifically, such an amount of variability is of a negative character when it comes to the rate of total population change, since both cantons in the same period are characterized by the features of total depopulation. Even 11 out of 17 municipalities recorded a decrease in the total population in the last ten-year period. The municipalities of Trnovo (48, 3%) and Centar (23%) are from the Sarajevo Canton and then the municipalities: Ključ (18.15%), Velika Kladuša (12.8%) and Bosanski Petrovac (12%). An increase in the total number of inhabitants is recorded in Sarajevo suburban municipalities: Vogosca (31.4%), Hadzici (9%), Ilijas (14.9%) and Ilidza (31.8%). The largest percentage of total

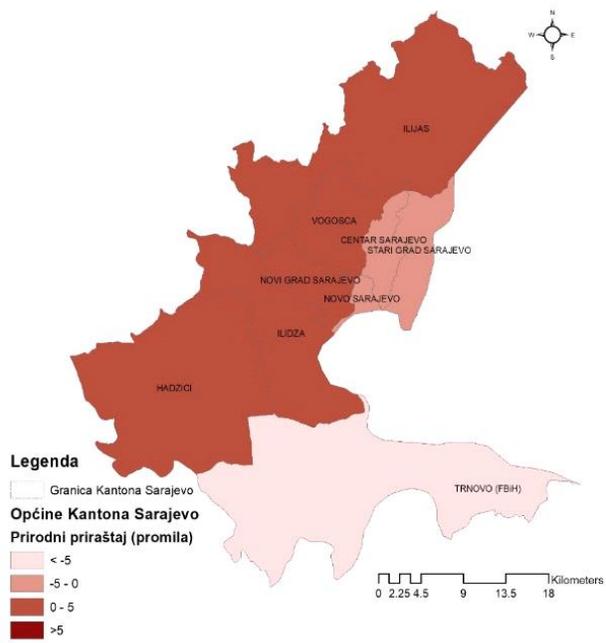
population increase in the amount of about 1/3 is recorded by Vogosca and Ilidza, which are among the most favorable municipalities in the Federation of Bosnia and Herzegovina when it comes to the dynamics of population movement.

The population growth of the total population of the municipalities of Vogosca, Ilidza, Ilijaš, Hadzici, Bužim and Cazin for the last ten-year period is also visible in the analysis of the population growth index. Namely, according to Friganović M. from 1990, the value of this index above 100 indicates an increase in the total number of inhabitants. All mentioned municipalities have a population increase index above 100, and the highest values are the municipality of Vogosca (103.1) and the municipality of Ilidza (103.2). (See Fig. 1 and Fig. 2).

NATURAL AND MECHANICAL COMPONENTS OF MOVEMENT OF POPULATION OF UNSKO-SANSKI AND CANTON SARAJEVO FROM 2008-2017

Natural population movements are related to the biological, natural factors and processes of the basic course of population development (Friganović, M. 1990). Therefore, its determinants are classified into two groups, and those who take part in this brief analysis will refer to the natality, mortality and natural increase. Analysis of the Unsko-Sanski and Canton Sarajevo found that these are cantons and municipalities with a very low level of birth rate and mortality with the exception of Bosanski Petrovac (18.2 ‰), Cazin (11.8 ‰), Center (11.7 ‰) and Novi Grad (11,1 ‰) that have medium or moderate mortality rates. As a result of low fertility rates and low to moderate mortality rates, 9 out of 17 municipalities recorded a negative rate of natural increase, which implies a greater number of deaths than those born in the same municipalities in the period 2008-2017. years.





Figures 3 and 4. Natural increase of USK and KS by municipalities for the period 2008-2017

Negative natural growth is characterized by 4 municipalities of the Unsko-sanski Canton and confirms very negative population opportunities in the same area, ie the conclusion that the population growth rate in these municipalities is primarily a function of the high value of mortality or more death than birth. These are the municipalities: Bosanski Petrovac, Ključ, Sanski Most and the city of Bihać in which demographic or population regression or implosion with very low birth rates, higher rate of mortality and values of negative natural change have been present for a long time. The positive natural increase in the last ten-year period is characterized by 4 municipalities in the Una-Sana Canton, which is treated with low rates (for each of them, the rate of natural increase ranges from 0-5 ‰), the highest in the municipality of Bužim traditionally represents an area of significant influence of the young population, ie more favorable age structure of the population. These are the municipalities: Bužim (4.9 ‰), Cazin (1.5 ‰), Velika Kladuša (3.2 ‰) and Bosanska Krupa (0.2 ‰).

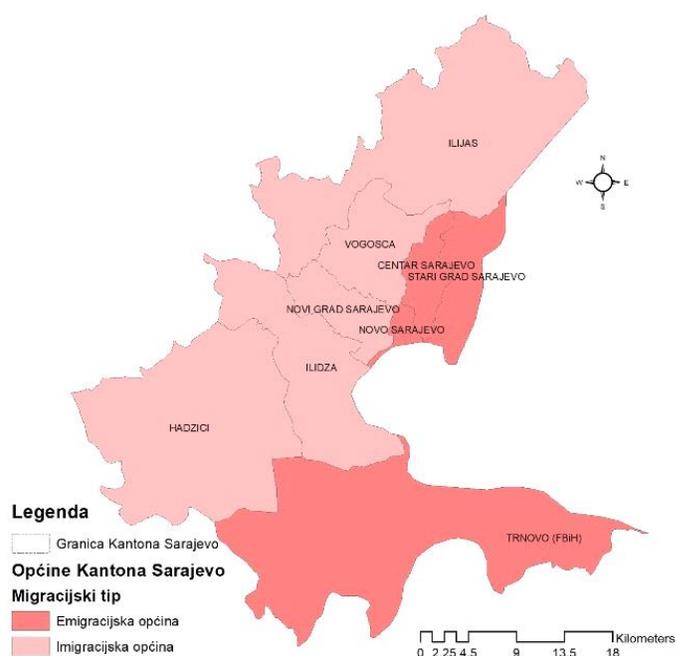
The negative natural increase is characterized by 4 Sarajevo municipalities in which, with the exception of Trnovo (-12,5 ‰), which entered the phase of serious population regression, rates of natural increase also range from 0 to -5 ‰, which are: Stari Grad (-2 ‰), Center (-1,9 ‰) and Novo Sarajevo (-0.4 ‰). In this regard it is possible to point out the present trend of decreasing the birth rates of the citizens in urban municipalities of the canton of Sarajevo, whose population is moving considerably towards less urbanized municipalities or adapted to the process of aging or deterioration of its age structure of the population. Thus, there are considerable spatial differences in the basic course of the natural dynamics of certain Sarajevo municipalities. In contrast to the mentioned municipalities, which adorn the negative natural dynamics, the spatial imbalance of natural dynamics is enhanced by the positive values of natural movement in suburban Sarajevo municipalities: Ilidža (3.1 ‰), Vogošća (4 ‰), Hadžići (2.5 ‰), Ilijas , (3 ‰). This condition is equally conditioned by the moderate values of birth rates that are higher than 10 ‰ and the inflow of a younger, more educated population of fertile age from other municipalities of Sarajevo and other cantons.

The analysis of spatial mobility, ie spatial mobility of the population in the Una-Sana and Canton Sarajevo, confirms the very contrary population circumstances when it comes to the mechanical component of the population. Namely, with the exception of the City of Bihać, which on several occasions recorded a positive migration balance in the last ten-year period (a total of 4 out of 10 recent years), all other municipalities of the Una-Sana Canton are characterized by a negative migration balance which implies a significant departure of the population from the Una-Sana Canton and most often to the countries of the European Union. In the seven Krajina municipalities in the entire analyzed period, more people left than moved to the same area from other municipalities and cantons. It actually pulls its roots since the war, because the non-negative migration balance (a large number of emigrants from the number of immigrants) has long been in force in this canton. Most analyzes by the Federal Bureau of Statistics show that among the migrants the majority of age groups are aged from adults to the middle ages, especially in the case of an economic type of migration. Within this age range, persons over the age of 20 are predominant, and this is precisely the population with the greatest biological and ideological potential. Bearing in mind the negative demographic effects of selectivity of migrants by age, which has not only current but also long-term character, total depopulation was imminent for 6 out of 8 municipalities of Una-Sana Canton in the last 10 years, and projections mostly confirm the continuation of this process in the future.

Figure no.5: Migration balance for municipalities of Una-Sana and Canton Sarajevo in the period 2008-2017

In contrast to the very negative emigration processes in the Una-Sana Canton municipalities, the Sarajevo area is characterized by positive values when migration of the population is at stake, where most statistics indicate the process of immigration of the population to this canton. Namely, urbanized Sarajevo municipalities are distinguished by the negative migration balance or emigration process in two directions: towards the peripheral Sarajevo municipalities or to the developed countries of Western Europe. One should not forget that this is a nodal gravity center that attracts the population from the surrounding and other smaller towns in Bosnia and Herzegovina (Žunić L., 2008). Employed population, students and others who are not primarily from the area of the city, enter the group of temporary ones. The unfavorable topographical position, the shift of industrial and other economic flows outside the urban core are just some of the reasons for the relocation of a considerable number of inhabitants to the municipalities of Ilidža, Vogošća, Hadžići or Ilijas, so these municipalities, despite the positive natural growth features, are among the few municipalities that are not only in Sarajevo Canton, as well as in the entire Federation of

Bosnia and Herzegovina, achieved a higher level of socio-economic and demographic development.



DISCUSSION AND CONCLUSION

The post-transition phase in the development of the population began in atypical socio-economic circumstances, unlike the Western European countries, hence there are certain convergences related to the character of the recent demographic transition in Bosnia and Herzegovina, but also in some other countries (eg, Wertheimer-Baletić 2005). In conditions of high cost of living in Bosnia and Herzegovina, hyper-vulnerability, poverty and social exclusion, especially persons in the 20s, the expansion of the family would in many cases exacerbate their already uninsured material position. The problem of unemployment, which has reached epidemiological proportions among young people, in addition to influencing the decision to marry and give birth, is a strong repulsive factor that will encourage emigration from the country in the following period. Emigration thus results in the losses of human capital, thus endangering the prospects of not only demographic but also, in general, the social development of Bosnia and Herzegovina.

Reduced birth norms during the demographic transition after a certain period caused a reduced inflow of female population into the fertile contingent. In other words, the reproduction rate declined substantially, because in each next generation a smaller number of girls were born. By decreasing the net reproduction rate below 1, there was no longer a replacement for mothers with the same number of daughters.

If the 17 municipalities of Sarajevo Canton and Una-Sana Canton are classified according to the sign of a change in the total number of inhabitants (increase and decrease that occurred in that period), 4 groups will be able

to distinguish. The first group consists of municipalities that are characterized by positive natural growth and a positive migration balance (Hadžići, Ilidža, Ilijaš, Novi Grad, Vogošća). In the second group there are municipalities that are characterized by positive natural growth but negative migration balance. (Bosanska Krupa, Bužim, Cazin, Velika Kladusa). The third group consists of two municipalities that have a negative natural increase but a positive migration balance. These are Novo Sarajevo and the City of Bihac. The fourth group is characterized by negative natural growth and negative migration balance. This group includes municipalities: Bosanski Petrovac, Ključ, Sanski Most, Stari Grad, Trnovo, Centar. (See figure 7, table 1).

From the previous considerations, it follows that the structure of the demographic balance in some municipalities of the mentioned cantons is marked by a positive natural change, i.e. natural population growth and positive migration balance, and at the same time the structure of the demographic balance in some municipalities (especially in the sub-district of 2008 - 2017) is characterized by a natural decrease in population, natural depopulation and negative migration balance (migration depopulation). The result of such a differential structure of the demographic balance and its constituent parts for some of the mentioned municipalities marks an increase in the total number of inhabitants, while the result of the demographic balance and its constituents in most of the municipalities of the USK and the KS mark the reduction of the total number of inhabitants.

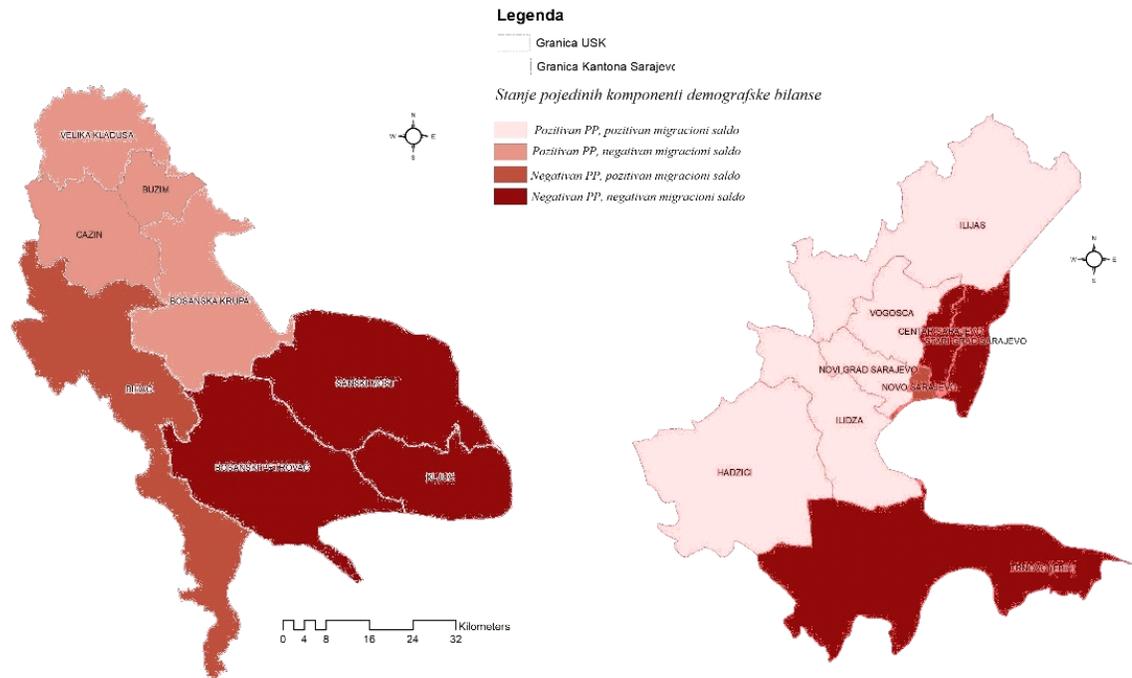


Figure no. 7. Classification of municipalities of USK and KS according to the state of individual components of demographic balance

Table. No. 1. Classification of municipalities of USK and KS according to the state of individual components of demographic balance

Positive growth	Positive growth	Negative growth	Negative growth
Positive migration balance	Negative migration balance	Positive migration balance	Negative migration balance
Hadžići	Bosanska Krupa	Novo Sarajevo	Bosanski Petrovac
Iliđža	Bužim	Grad Bihać	Ključ
Ilijaš	Cazin		Sanski Most
Novi Grad	Velika Kladuša		Stari Grad
Vogošća			Trnovo
			Centar

The summarizing feature that determines the difference in the demographic perspective between the municipalities of the Una-Sana Canton and Sarajevo Canton consists in the fact that the first ones have in the conditions of high level of economic development, natural increase of the population and with this high positive migration balance, and others, in conditions of much lower level of economic development, have the opposite essential demographic characteristics in the current economic conditions - a natural decrease in the population with a tendency of deterioration and a negative migration balance with a tendency to increase. Some municipalities, as we have already mentioned in the text, are becoming very attractive for life (as is the case with some Sarajevo municipalities), while some municipalities are characterized by the rapid loss of the population, especially the youth (as is the case with many USK municipalities).

Variations in the total number of inhabitants over time arise from the constellation of population dynamics components (birth rate, mortality and migration), which are determined by the complex web of numerous factors. The restrictive natality, which is subject to further decline, with the simultaneous growth of hundreds of mortality, resulted in an inevitable inversion - a greater number of deaths than the number of births. Thus, the negative natural change was recorded in Bosnia and Herzegovina for the first time in 2007, and since then, with the exception of zero values in 2008, mortality has become the dominant component of the natural movement of the population. The negative sign of natural change since 2009 has become stable, with a tendency to further increase its value. Between 2013 and 2016, only by a negative difference between the number of live births and the number of deaths, more than 23,000 population was lost.

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SUMMARY

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In this paper we tried to answer the above questions and point out the differences which appear between some municipalities in the Unsko-sanski Canton and Canton Sarajevo in basic aggregate demographic processes and component changes of demographic balance. The emphasis is on the direction and intensity of individual changes of determinants of the process of total depopulation, natural depopulation and structures of demographic balance with regard to the different relationships and beliefs of its individual natural and migration components.

According to the Federal Bureau of Statistics, in the last ten years, eight out of ten cantons in the Federation of Bosnia and Herzegovina recorded a decrease in the total population. In the same period, only the Posavski and Zapadnohercegovački Canton recorded an increase in the total number of inhabitants. The Sarajevo Canton has lost about 0.6% of the population or about 2700 settlers in the last ten years. In the same period, the Unsko-sanski Canton recorded a decrease of 6.1% in the total population.

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Such circumstances have conditioned that the main features of contemporary demographic picture of Bosnia and Herzegovina become visible in reducing the total rate of natural increase, intensive aging of the population, constant emigration of the population in optimal working and reproductive age, increasing mortality rate due to the

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