

MIGRATION AND DEMOGRAPHIC CHANGES: THE CASE OF BOSNIA AND HERZEGOVINA

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Abstract

The focus of this study is an analysis of forced and voluntary migration and their impact on demographic changes in Bosnia and Herzegovina. Bosnia and Herzegovina is a country with a dynamic spatial, economic and demographic development. Until 1992 migration of population in Bosnia were mainly caused by economic factors. However, in the beginning of the 1990s and disintegration of Yugoslavia major political changes resulted in massive forced migration. The 1992-1995 war, including forced migrations, resulted in intensive demographic changes in Bosnia and Herzegovina while the post-war emigration from this country was mostly affected by economic, social and political factors. In this paper one tends to underline the most significant outcome of forced and post-war voluntary migration and to determine a degree of negative demographic trends in Bosnia and Herzegovina in the post-war period.

Keywords: *migration, political changes, forced migration, economic migration, Bosnia and Herzegovina, demographic changes.*

1. INTRODUCTION

In Bosnia and Herzegovina and other Southeastern European Countries migration is perceived as an important factor of a demographic change and the key driver of population development (Malnar and Malnar, 2015). It is also considered to be one of the key depopulation factors in the Western Balkan Countries (Lukic et al., 2012). Migrations have been an essential issue in the history of the Balkans and the current migration situation is still considerably affected by history (Bonifazi and Mamolo, 2004).

Zubiashvili (2014) claims that political instability accelerates migration processes while Lukić and Anđelković Stoilković (2017) believe that there is a correlation between migration and socio-economic processes. In the Western Balkan Countries migration processes have been influenced by political factors for centuries but the most dynamic migration processes were caused by disintegration of the former Yugoslavia in 1991 (Malnar and Malnar, 2015). Among the countries of the region, Bosnia and Herzegovina was the most affected by forced migration. Although migration from this country, primarily to the Western Europe, took place

long before 1992 and was caused by economic factors, there was an immense territorial redistribution of population during the 1992-1995 war within and outside the borders of Bosnia and Herzegovina. Pursuant to Vallador Alvarez (2015), Lukic Tanovic et al. (2014), Lukic et al. (2012) and Valenta, Ramet (2011) during the 1992-1995 war half of the pre-war Bosnian population was displaced while about 1.2 million residents fled from Bosnia and Herzegovina.

Not only did forced migration cause demographic changes but it also gave rise to numerous political, social and economic issues in Bosnia and Herzegovina. Forced and voluntary migration caused depopulation, changes in sex and age composition, enhanced aging process, ethnic homogenization of certain regions etc. along with numerous economic problems such as low life standard, decline in economic growth rate, unemployment, unfavorable social conditions etc. Consequently, adverse economic factors in Bosnia and Herzegovina have intensified the post-war economic emigration.

On the basis of the above mentioned the main purpose of this paper is to identify voluntary and forced migration trends in Bosnia and Herzegovina and determine their effects on demographic development of this country. Moreover, the paper seeks to identify current demographic trends and an extent of depopulation processes in Bosnia and Herzegovina in order to understand and plan future demographic development efficiently.

2. METHODOLOGY

Teka et al. (2017) and Malnar, Malnar (2015) hold that migration represent processes which are influenced by different internal and external factors and represent the most dynamic component of population movement and the most complex research subject in terms of content and methodology. A research of the forced and voluntary migration and demographic changes of Bosnian population comprised three phases: collecting statistical data, a statistical analysis of the data and their interpretation. The research involved various statistical techniques among which the most outstanding were measures of central tendency and correlation analysis, applied to determine spatial relation and patterns of demographic processes in Bosnia and Herzegovina.

To determine to what extent demographic variables related to the population of Bosnia and Herzegovina are associated, including the causal relation between natural increase/decrease rates and other demographic indicators of population dynamics, we performed a correlation analysis - a statistical technique for determination of causal relation between variables (Rogerson, 2001; Osborne, 2010). Preliminary statistical analyses were performed to make sure that there is not any violation of the assumptions of normality, linearity and homoscedasticity. A preliminary assessment of normality applied Kolmogorov-Smirnov and Shapiro-Wilk's test (Pallant, 2011; Lantz et al., 2016). Since the null hypothesis of data is rejected in this research one applied a non-parametric test of Spearman's Rank Order Correlation.

Measures of central tendency were applied for calculation of mean and median age of Bosnian population. According to Spence and Owens (2011), these measures provide useful quantitative information about typical and atypical values in a set of data and are a consisting part of descriptive statistics methodology. Demographic trends in Bosnia and Herzegovina after 1995 were determined by different demographic indicators, such as birth rate, fertility rate, mortality and natural population change rates, average age, median age, aging index, vitality index and other indicators. These demographic indicators served as the basis for determination of the potential vitality and bio-dynamics of Bosnian population. Geographical distribution of demographic indicators within Bosnia and Herzegovina was shown by maps created with Qgis application.

Changes in the total number of Bosnian population between two censuses were calculated as a difference between the two censuses divided by the number of inhabitants from the previous census (Wertheimer-Baletić, 1999). Birth rates were determined on the basis of the number of live-born children within the total population. A general fertility rate of Bosnian population was determined as a ratio of the number of live births and the number of women between 15 and 49 years of age. The mortality rate was calculated as a ratio of the number of deceased and the total population of Bosnia and Herzegovina and the natural increase/decrease rate was determined on the basis of a difference between the number of born and the number of deceased citizens (Nejašmić, 2005).

The age coefficient is determined with the percentage (%) of population of 65 year of age and older in the total Bosnian population. To determine a degree of vitality and potential biodynamics of Bosnian population one applied vitality index to evaluate relations between general fertility rate, general mortality rate and the age index. Pursuant to Wertheimer-Baletić (1999), this index represents a synthesis between indicators of natural increase rates and age structure of population.

3. BACKGROUND

3.1 Primary causes of migration processes in Bosnia and Herzegovina

Bosnia and Herzegovina is located in the western part of the Balkan Peninsula. Before 1992 it was a consisting part of the former Socialist Federal Republic of Yugoslavia. Today, as an independant state, it covers the surface of 51,209.2 km² and has about 3.5 milion inhabtants. It is administratively divided into two entities: the Federation of Bosnia and Herzegovina and the Republic of Srpska and Brčko District of Bosnia and Herzegovina.

Migration flows in Bosnia and Herzegovina are a reflection of its dynamic economic, political and social circumstances and they are a cause of numerous demographic changes (Pobrić, 2002). Three migration phases of Bosnian population have stood out in the second half of the 20th and the begining of the 21st century: a labor force emigration from the former Yugoslavia caused by economic factors, a forced migration in the 1992-1995 period caused by political circumstances and a post-war migration motivated by political and economic factors.

A weak economic development of Bosnia and Herzegovina in the former Yugoslavia and its economy based on mining and agriculture forced Bosnian population to emigrate to developed countries of the Western and the Central Europe. During the former Yugoslavia, emigration was especially intensified in the 1960s due to a recession of Yugoslavian economy. In the couple of following decades i.e. before 1991, about 234,213 or 5.4% of Bosnian citizens emigrated looking for a temporary employment in abroad (DZS, 1994).

Bosnia and Herzegovina is a multiethnic and a multireligious state with three constitutive ethnic groups (Bosniaks, Croats and Serbs). A complex ethnic and religious structure is a key factor of political instability of this area and political divisions on ethnic and religious bases were especially intensified in the end of the 20th century.

The results of censuses conducted in 1991 and 2013 indicated an outstanding correspondence of a national and confessional identity of Bosnian population (Cvitković, 2017). In 1991 there were 4,377,033 inhabitants in Bosnia and Herzegovina, out of which 43.4% were Bosniaks, 31.2% Serbs, 17.3% Croats and 8.1% others. Out of the total number of inhabitants that year 42.8% inhabitants were Muslims, 30.1% were Orthodox, 17.6% were Catholics and 3.7% other religions.

Forced migrations in the 1992-1995 period caused changes in the ethnic and religious composition of Bosnian population and an ethnic homogenization within Bosnia and

Herzegovina. In 2013 Bosnia and Herzegovina had 3,531,159 inhabitants, out of which 50.1% were Bosniaks, 30.8% Serbs, 15.4% Croats and 3.7% other ethnic groups. Out of the total number of inhabitants that year 50.7% were Muslims, 15.2% Catholics, 30.7% Orthodox and 3.4% other religions. In the Federation of Bosnia and Herzegovina, 70.4% of population are Bosniaks and in the Republic of Srpska 81.5% of population are Serbs. In Brčko District of Bosnia and Herzegovina 42.4% of population are Bosniaks, 20.7% Croats and 34.6% Serbs (DZS, 1994 and BHAS, 2016).

In the post-war period, the administrative division and ethnic homogenization have not contributed to political stability of this country while the politics has hindered its economic and social development. Unfavorable economic and political circumstances have intensified migrations of Bosnian population again. Therefore, migrations have been the primary factor of demographic changes in the several last decades. Consequently, it is necessary to thoroughly examine primary migration trends with their causes and consequences for future demographic development of Bosnia and Herzegovina.

3.2 Migration trends in Bosnia and Herzegovina

Like the entire area of the Southeastern European region where Bosnia and Herzegovina is situated, this country is characteristic by its significant migrations of the population, both forced and voluntary. These movements were especially intensified during the 19th and 20th centuries, and they reached their culmination in the 1990s (Ibreljić and Kulenović, 2005).

In line with previous studies, more than a half of Bosnian population was forced to emigrate from the country or was displaced within Bosnia and Herzegovina between 1992 and 1995 (Lukic Tanovic et al., 2014). About 1.2 million people were forced to leave the country (Valenta and Ramet, 2011) while 1 million citizens were displaced within the country, which, in total, is 2.2 million refugees and displaced people (Vallador Alvarez, 2015; Ibreljic et al., 2006; Ibreljić and Kulenović, 2005). According to the United Nations Refugee Agency (2006), there were more than 1.050 million Bosnian refugees in foreign countries in 1996, which is almost $\frac{1}{4}$ of its total pre-war population.

Similar information about the intensity of displacement of population of Bosnia and Herzegovina between 1992 and 1995 were provided by the Internal Displacement Monitoring Centre and the Norwegian Refugee Council, stating that more than a half of Bosnian population was displaced in the mentioned period. About 1.3 million were forced to leave the country, 500,000 fled to neighbouring countries and around 700,000 to the Western European Countries (350,000 to Germany). Most of the migrants chose neighboring states for their host countries because of geographical proximity (Vrečer, 2010; Bonifazi and Mamolo, 2004).

About 40% of Bosnian citizens immigrated to Serbia, Montenegro, Croatia and Slovenia between 1992 and 1995. These countries, along with Germany and Austria, hosted 75% of Bosnian refugees. A significant number migrated to other Western European Countries and all over the world - approximately 25% of refugees (Table 1).

Table 1. Bosnian refugees in the world from 1992 to 1995

Country	Number of refugees	Country	Number of refugees
Australia	15,000	FYR Macedonia	9,000
Austria	86,500	Norway	12,000
Belgium	5,500	Germany	320,000
Czech Republic	3,000	USA	20,000
Denmark	17,000	Slovenia	43,100
France	6,000	Serbia and Montenegro	297,000
Greece	4,000	Spain and Portugal	4,500
The Netherlands	22,000	Sweden	58,700
Croatia	170,000	Switzerland	24,500
Italy	12,100	Turkey	23,500
Canada	20,000	G. Britain and Ireland	4,100
Hungary	7,000	Other countries	13,500

Source: Valenta, Ramet, 2011

From 1996 Bosnia and Herzegovina has participated in various assisted programs related to voluntary return and reintegration, which enabled many Bosnian citizens to return home. Conforming to official indicators, 1,012,006 Bosnian citizens returned to Bosnia and Herzegovina (442,137 refugees and 569,869 displaced persons) between signing of the Dayton Agreement and 2006 (UNHCR, 2006). According to 2013 Population Census in Bosnia and Herzegovina, 451,447 citizens returned home from foreign countries.

The second half of the 1990s was characterized by voluntary emigration of Bosnian citizens who left the country either to reunify with their families or due to adverse economic and political situation in Bosnia and Herzegovina in the post-war period. As stated by the United Nations Development Programme (2002) at least 92,000 young people left Bosnia between January 1996 and March 2001. In the first several years of the 21st century there was not any indication that the number of emigrants from Bosnia and Herzegovina was in decline. This process was mostly conditioned by the economic motives and social, political and other circumstances. Emigrants are mostly highly educated and qualified and are usually between the age of 20 and 40. On the report of Malnar and Malnar (2015), young people emigrating from Bosnia and Herzegovina, like their peers from other countries of Southeastern Europe, are motivated by unfavorable economic circumstances. Avdeev et al. (2011) claim that the greatest outflow of population caused by migration to other European countries was reported by the poorest countries, including Bosnia and Herzegovina.

Bosnia and Herzegovina has had a negative migration balance since 1996. Only in 2010 it was recorded that 4,284 persons left Bosnia and Herzegovina while only 309 foreigners applied for a permanent residence in this country. 3,492 persons left Bosnia in 2013; 4,323 in 2014; 3,948 in 2015 and 4,019 in 2016. About 36.6% of people who left Bosnia and Herzegovina were between the age of 30 and 39 and 54.1% between the age of 15 and 44. Most of the citizens who left Bosnia and Herzegovina in 2016 went to the following countries: Germany (29.6%), Austria (22.2%), Croatia (21.9%), Serbia (12.1%) and Slovenia (10.5%) (Federal Office for Statistics, 2011 to 2017). Persons who apply for a permanent residence in Bosnia are mostly from China, Croatia, Montenegro, Turkey, Macedonia, the Russian Federation, Slovenia, Austria and Syria (Ministry of Security of B&H, 2012). The main reasons why Bosnians emigrate are closely related to employment (36%), studying

(19%), etc. Statistical data of the World Bank indicate that Bosnia and Herzegovina is one of the countries with the hugest percentage of emigrants in comparison to its total population. As stated by this source, Bosnia and Herzegovina has a great number of emigrants in its total population (1,461,000 or 38.9% of total population). Furthermore, emigration rate of highly educated persons is high - 23.9% (World Bank, 2011).

Some authors believe that Bosnians nowadays represent one of the most widespread emigrant communities from the Balkans (Halilovich, 2012). The fact that a very significant number of Bosnians in diaspora renounced their Bosnian citizenship represents a serious problem for demographic development of this country. About 58,453 Bosnians renounced their citizenship between 1998 and 2012. About 2/3 of Bosnians who renounced their citizenship did it in order to acquire German, Austrian, Slovenian, Croatian, Serbian or Danish citizenship (Ministry of Human Rights and Refugees of B&H, 2012).

4. RESEARCH RESULTS

4.1 Migration and demographic changes in Bosnia and Herzegovina

Migration is an important factor of demographic development and has a very strong impact on adverse population trends in Bosnia and Herzegovina, Albania, Kosovo as well as other countries of Southeastern Europe (Malnar and Malnar, 2015). A similar demographic trend was also noted in other countries of the world. For example, one of the main causes of population decline in Kazakhstan was a significant emigration of population from this country (Nyussupova et al., 2017).

In the modern era of globalization of international migrations, Bosnia and Herzegovina, as a country with a small number of citizens with numerous economic, political, social and other problems, faces a relatively difficult situation. Bosnian population migration caused significant demographic changes in this country, which affect the total number of population, natural increase of population, changes in age and sex structure, ethnic affiliation, spatial redistribution of population, etc. The data presented in Table 2 illustrate the influence of migration component from 1992 to 1995 on development of Bosnian population.

Table 2. Number of Bosnian citizens between 1991 and 2013

Year	Population	Rise or decline (%)
1991	4,377,033	-
1996	3,645,000	-16.7
2001	3,798,000	4.2
2005	3,843,000	1.2
2011	3,840,000	-0.08
2013	3,531,159	-8.04

Source: Agency for Statistics of Bosnia and Herzegovina, 2017

According to 1991 Population Census, there were 4,377,033 people in Bosnia and Herzegovina while pursuant to 2013 Census there were 3,531,159 inhabitants. This shows that the number of people in this country declined for 19.3% in the period between 1991 and 2013. Similar data about the intensity of forced migration were provided by Avdeev et al. (2011) showing that Bosnia and Herzegovina lost 19% of its population due to major political upheavals from the 1990s. It is important to underline that not only did the migration affect demographics of Bosnia and Herzegovina but it also affected the number of war casualties

and the decline of birth rate in this period. In the opinion of Lukic Tanovic et al. (2014) the total demographic loss in the 1992-1995 war was 1,135,966 people or 25.95% of the pre-war Bosnian population.

A slight rise of population was recorded after 1996 due to repatriation of Bosnian refugees from abroad. However, there has been a steady decline of population from 2001. This trend is a consequence of the post-Dayton emigration of Bosnian population and of negative trends of natural increase/decrease rates (Table 3), which resulted from adverse economic, political, social and other conditions.

Table 3. Natural increase/decrease rates in Bosnia and Herzegovina from 1991 to 2015 in ‰

Year	Birth rate	Death rate	Natural increase	Year	Birth rate	Death rate	Natural decrease
1991	14.9	7.2	7.8	2008	8.9	8.9	0.0
1996	12.8	6.9	5.9	2009	9.0	9.1	-0.1
2002	9.3	7.9	1.4	2010	8.7	9.1	-0.4
2003	9.2	8.3	0.9	2011	8.3	9.1	-0.8
2004	9.1	8.5	0.7	2012	8.5	9.3	-0.8
2005	9.0	8.9	0.1	2013	6.0	7.1	-1.1
2006	8.9	8.6	0.2	2014	8.6	10.2	-1.6
2007	8.8	9.1	-0.3	2015	8.5	10.8	-2.3

Source: Agency for Statistics of Bosnia and Herzegovina, 2017

It is clearly visible from data presented in Table 3 that birth rates in Bosnia and Herzegovina have been below 14‰ since 1996 while mortality rates have varied from 6‰ to 11‰. This resulted in low natural increase rates, which varied from 5.9‰ to 0.1‰ in the period between 1996 and 2006. Natural decrease rates were recorded from 2007 (-0.3‰) to 2015 (-2.3‰). The above mentioned ratios indicate that Bosnia and Herzegovina has entered the post-transitional stage but in terms of socioeconomic status it still lags behind the highly developed countries which have recorded low natural increase rates for decades. The cause of this continuous decline of birth rates and natural increase rates are war casualties and the post-war emigration from Bosnia and Herzegovina supported by adverse socio-economic, political and other circumstances.

The data presented in Table 4 show Spearman's Rank Order Correlation between dependent variable natural increase/decrease rate in 2013 and six different independent demographic and economic variables of Bosnia and Herzegovina's population in 2013: mean age, age coefficient, net wage, percentage of internally displaced persons in total population, percentage of unemployed in total population and average size of household.

Table 4. Spearman's Rank Order Correlation between natural increase/decrease rates and other demographic variables in Bosnia and Herzegovina in 2013

Variable		Natural increase/decrease rate in ‰
Mean age	Spearman's rho	-.845**
	Sig. (2-tailed)	.000
Age coefficient	Spearman's rho	-.778**
	Sig. (2-tailed)	.000
Net wage	Spearman's rho	-.021
	Sig. (2-tailed)	.803
Percentage of displaced persons in total population	Spearman's rho	-.269**
	Sig. (2-tailed)	.001
Percentage of unemployed in total population	Spearman's rho	.260**
	Sig. (2-tailed)	.002
Average size of households	Spearman's rho	.417**
	Sig. (2-tailed)	.000
**. Correlation is significant at the 0.01 level (2-tailed).		

Source: Author's calculation, based on data from Agency for Statistics of Bosnia and Herzegovina, 2017

Calculation of Spearman's correlation between different demographic variables in municipalities of Bosnia and Herzegovina showed that there was a slight negative correlation between percentage of decline in total number of population and natural increase/decrease rates. Municipalities with higher percentage of refugees and internally displaced persons have lower natural increase rates. Elderly population percentage and mean age of population have the greatest influence on population dynamics. Municipalities with higher age coefficient and mean age mostly have higher natural decrease rates (Figures 1 and 2).

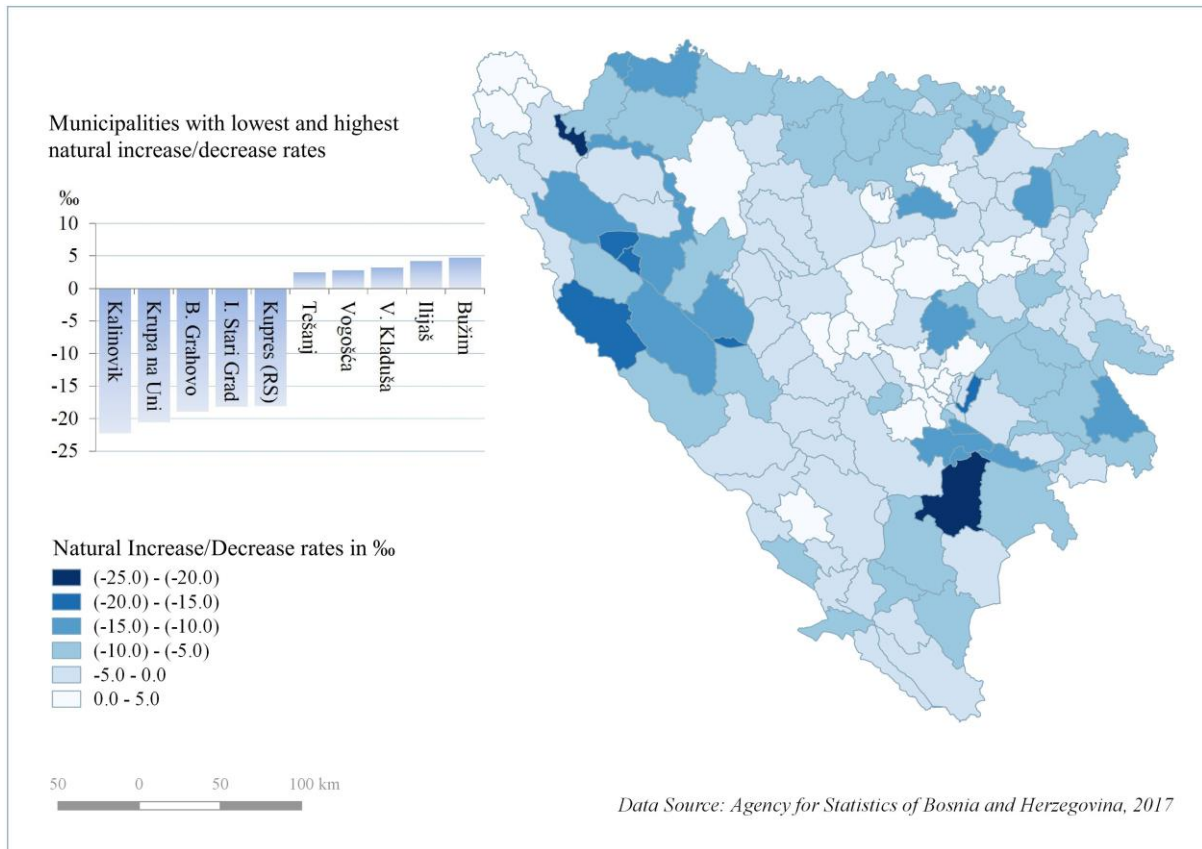


Figure 1. Natural increase/decrease rates in Bosnia and Herzegovina in 2015

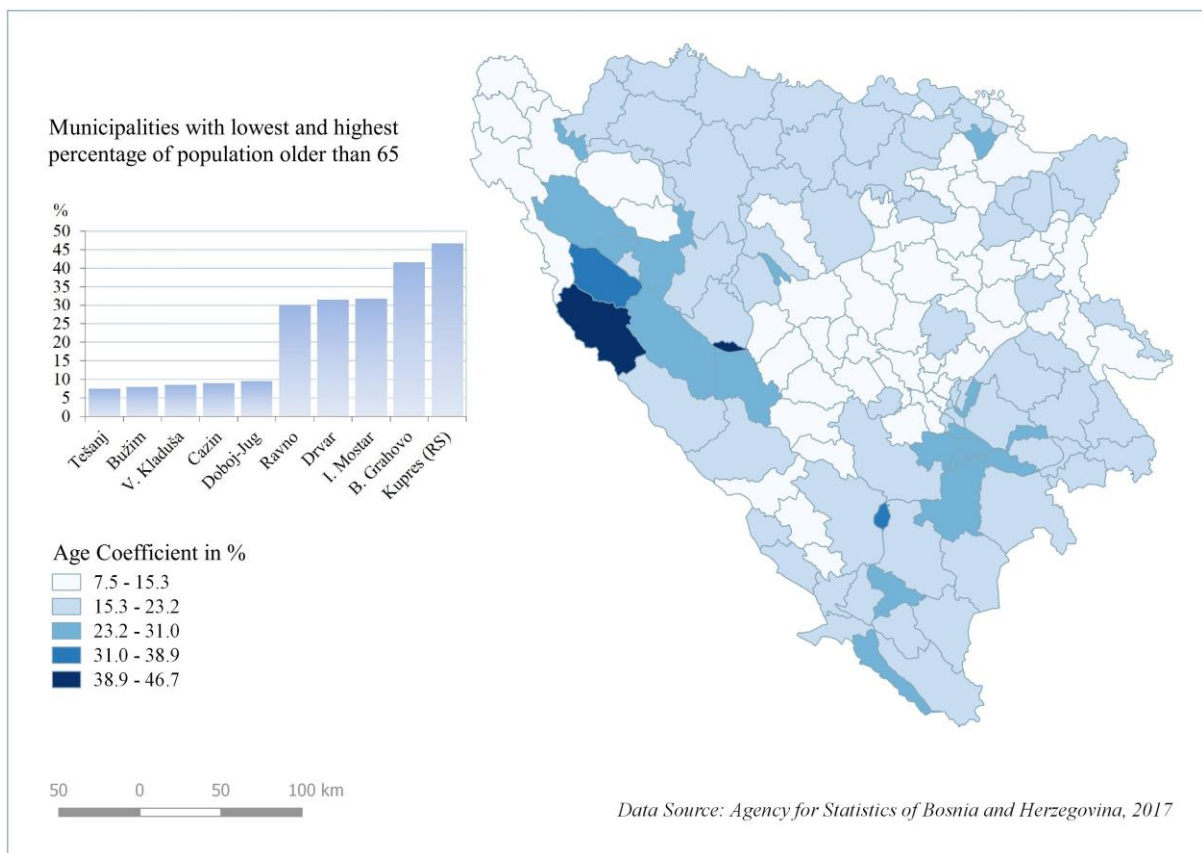


Figure 2. Age coefficient in Bosnia and Herzegovina in 2015

The aging process in Bosnia and Herzegovina, like in other European countries, has started long ago and has been increasing. For example, the median age in the countries of the European Union increased from 39.8 to 42.6 years in the period from 2006 to 2016 (Eurostat, 2017). Over the past decades, median age has especially been increasing in developed countries of the world but also in less developed regions due to social and economic development (Bucher, 2012). Typically, more developed countries have higher median age because they have higher percentage of population older than 60 in the overall population (UNDESA, 2009). However, this process was significantly accelerated in Bosnia and Herzegovina after the recent 1992-1995 war. Mean and median age of Bosnian population changed in line with economic, social and political circumstances. Since 1961 the mean and median age of Bosnian population have been showing a steady increase. In the period between 1961 and 2013 mean age of Bosnian population increased from 25.5 to 40.1 and median age from 21.2 to 39.9. According to an estimation of the United Nations, Bosnia and Herzegovina is among those countries of the world which expect an intensive population ageing and which median age is to reach 53.2 years of age by 2050 (UNDESA, 2013).

Bosnian population entered the advanced demographic ageing because the age coefficient amounted to 19.8% according to the data from 2007 and 20.5% in 2013. Vitality index was about 0.035 in 1991, 0.008 in 2007, and 0.005 in 2013, which indicates that the potential vitality and bio-dynamics of Bosnian population significantly dropped in the postwar period. This was also confirmed by the population pyramids for years 1991 and 2013 (Figure 3), where Bosnian demographic aging process was clearly observable.

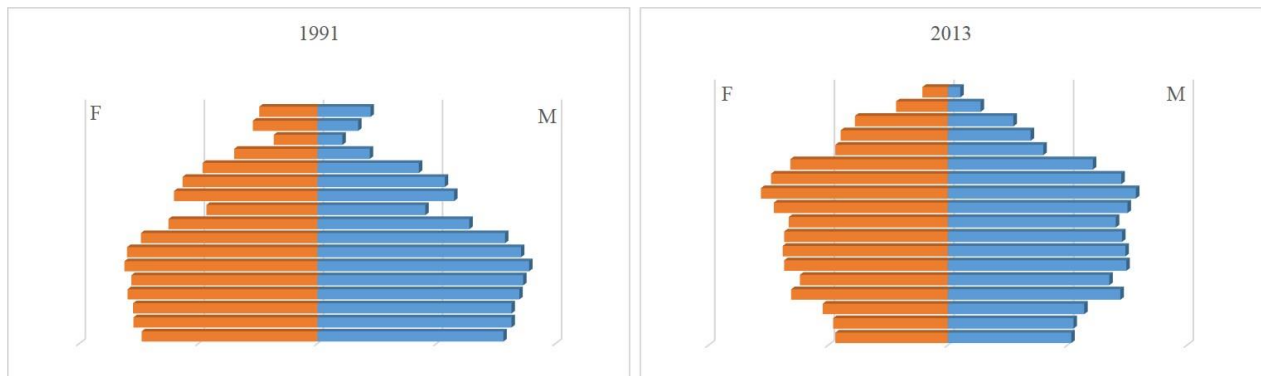


Figure 3. Population pyramids of Bosnia and Herzegovina in 1991 and 2013

Bosnia and Herzegovina is facing a depopulation process which is mostly caused by emigration, decreasing birth rates, increasing death rates and population ageing. Unfortunately, there is not any institutionalized population policy in this country which could lead to demographic revitalization. Therefore, similar demographic trends are expected in the future.

5. CONCLUSIONS

Bosnia and Herzegovina has been an area of intensive emigration flows since the second half of the 20th century. Emigration of Bosnian population to developed European countries and other countries of the world before the first half of the 1990s was mostly caused by economic factors. Until 1992 economic migrations from Bosnia and Herzegovina were caused by internationalization of production which destabilized traditional agriculture and created circumstances for migration. However, in the period between 1992 and 1995 there was a forced migration of Bosnian population, which consequently gave political connotations to the migration process in this country.

Major economic, social and especially demographic changes in Bosnia and Herzegovina were made because of the forced migration of about 1.2 million Bosnian citizens to other European and world countries and 1 million of displaced persons within Bosnia and Herzegovina. The forced migration caused regional redistribution of population within Bosnia and Herzegovina. Ethnic homogenization in some areas of Bosnia and Herzegovina and concentration of population in urban areas during and after the war are direct consequences of forced migrations. Furthermore, the second half of the 1990s was also characterized by a voluntary emigration of Bosnian citizens due to poor social, political and economic conditions in the postwar period. Both, forced migration of 2 million Bosnians during the war and the voluntary emigration after the war (negative migration balance) caused the decline of the total number of citizens. Moreover, they affected decline of natural increase rates as well as the decline of potential bio-dynamics and expressed aging process of Bosnian population.

A lack of population politics represents one of the main problems for the postwar demographic development of Bosnia and Herzegovina. Therefore, it is necessary to strengthen the economic and social development of this country. Furthermore, defining an adequate population policy which will lead to demographic revitalization of Bosnia and Herzegovina would be of a great importance.

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