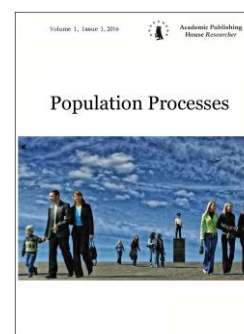


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Published in the Slovak Republic  
Population Processes  
Has been issued since 2016.  
E-ISSN: 2500-1051  
2018, 3(1): 3-7

DOI: 10.13187/popul.2018.3.3  
[www.ejournal44.com](http://www.ejournal44.com)



## Articles and Statements

### Population of Montenegro: Basic Demographic Indicators, Population Growth by Regions, Working Age Population

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#### Abstract

The paper analyzes basic demographic indicators, population growth by regions, working age population in Montenegro. In the inter – census period (2003–2011) is noticeable decrease in the population of the Northern region Montenegro (– 7.2 %), while in the central and coastal region marked an increase of 5.9 % and 3.7 %. Migration balance at the level of Montenegro in the period 2003–2011 shows a negative trend and amounted to – 10.433, by region: North – 17.161, Maritime – 2.068, 4 Central – 4.659. Number of working-age population, broken down by regions, growth was is recorded in the Central (8.4 %) and the Southern region (14.0 %), while the in North region reduced (- 4.7 %). It is concluded that far reaching solutions should be sought first of all increasing fertility, which will stimulate gradual rejuvenation of the age structure. Other a group of measures relates to immigration, and the third to increase youth employment stopping their mass eviction.

**Keywords:** Montenegro, population, regions.

#### 1. Introduction

Montenegro is located in South-Eastern Europe on the Balkan Peninsula, covering an area of 13.812 km<sup>2</sup> and having 620.029 inhabitants. Population density of 46 inhabitants per km<sup>2</sup> puts Montenegro among the countries with the lowest population density. “Compared with countries in the region, density is lower than in Bosnia and Herzegovina (75), Croatia (56.56), Serbia (88.4), Slovenia (102), Macedonia (83). Urban population accounts to 63 % of the total population in Montenegro. According to the census from 2011 – 620.029 people live in Montenegro out of which 1.3 % is more than in 2003 – year in which the previous census was carried out. In regard to 2011, the highest number of inhabitants is in the central region 293,509 (47.3 %), then in the northern region – 177.837 (28.7 %), while the coastal region is the region with the lowest population density – 148.683 (24.0 %). In the inter-census period, it was evident that there was a reduction in the population in the northern region, while the central and coastal recorded an increase” (Despotović et al, 2015). Jackson and Howe warn that “...demographic aging will affect more than the size and structure of the population and economy. The burgeoning proportion of elderly in the population,

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the smaller size of families, and growing ethnic diversity promise to recast every facet of society from the popular culture to politics. More fundamentally, they could shift society's overall direction and political agenda" (Jackson and Howe, 2008).

Future demographic processes, which have arisen from the current situation, and which are in the long-term formed on the basis of demographic inertia, will effect the social structure and social relationships in a more powerful way (Nejašmić, 2002). "An exceptionally high natural rate of decline, significant population aging and the appearance of a negative external migration balance confirms the conditions for a new period of very slow population substitution. This is further fueled by the economic recession, high unemployment rate, unstable society and all systems within the society ..." (Šterc and Komušanac, 2011).

## 2. Methodology

The core of the methodological method used in this research is an analytical and synthetic method. The analytical method considered the individual dimensions of the subject of the research, and the synthetic method of the whole, that is, the interconnections between objects and proposed measures deriving therefrom.

## 3. Results and discussion

Table 1 shows the distribution of the number, change, growth rates, population density and the average age of the population in the period from 2003–2011. According to the Ministry of Economy of the Government of Montenegro (2008) and Office of Montenegro – Monstat (2014) more than 50 % of the national territory of the North region of Montenegro is inhabited by less than a third of the total population, while nearly a quarter of the population inhabits only slightly more than 10 % of the territory of the coastal region. In the inter-census period is noticeable decrease in the population of the Northern region (– 7.2 %), while in the central and coastal region marked an increase of 5.9 % and 3.7 %. These changes are caused by the natural movement of the population, as well as a pronounced migration flows directed from north to central and coastal part of the country.

**Table 1.** Basic demographic indicators in Montenegro

Regions	Population 2003	Population 2011	Change 2011/03	Rate of growth 2011/03(%)	Population %	Density of population	Average age of the population
Northern	191.610	177.837	-13.773	-7.2	28.7	24.35	37.3
Central	277.279	293.509	16.230	5.9	47.3	59.69	36.6
Maritime	143.378	148.683	5.305	3.7	24.0	93.45	38.4

Source: Ministry of Economy Government of Montenegro ( 2008) and Statistical Office of Montenegro – Monstat (2014)

As the data in Table 1 on one side, the population in the northern region is reduced in period from 2003 - the year 2011 with 191.619 to 177.837 inhabitants, i.e. 13.773 or a rate of – 7.2 %, on the other side of the population in the coastal region has increased by 5.305 people, or from 143.378 to 148.683, or by 3.7 %, while in the Central region recorded a population increase of 16.230 or from 277.279 to 293.509 or by 5.9 %. In addition, the average density ranged from 24.35 in/km<sup>2</sup> in the North region, 59.69 in/ km<sup>2</sup> in the central to 93.45 in/km<sup>2</sup> in the coastal region. Judging by presented analytical indicators, population of Montenegro marks the threshold of demographic aging, the demographic age and deep demographic age. It is obvious that to the fore coming demographic momentum (demographic inertia), which determines the projected changes in the age structure (Keyfitz, 1971). To be reconvened "circulars vicious" are depopulation (partial and total) and changes in the composition of age in the direction of further aging of the population. The average age of the population in the Central region was 36.6, 37.3 in the North and the Southern 38.4. To understand the demographic factors that cause population aging, demographers often refer to stable populations (Preston et al, 2001). This population model assumes that age-specific fertility and mortality rates remain constant over time, and these results in a population

with an age distribution that stabilizes and eventually becomes time invariant as well. Conversely, this theoretical model suggests that any change in age structure, and population aging in particular, can only be caused by changes in fertility and mortality rates. The influence of changes in fertility rates on population aging is perhaps less intuitive than that of mortality rates. Everything else constant, however, a fertility decline reduces the size of the most recent birth cohorts relative to the previous birth cohorts, hence reducing the size of the youngest age groups relative to that of the older ones (Gavrilov, Heuveline, 2003).

**Table 2.** Population growth by regions (2003-2011)

Geospace	Natural increase (2003–2011)	Migration balance (2003–2011) <sup>1</sup>
Northern	3.388	-17.161
Central	11.571	4.659
Maritime	3.237	2.068
Montenegro	18.196	-10.434

Source: Ministry of Economy Government of Montenegro (2008) and Statistical Office of Montenegro – Monstat (2014).

In the reporting period 2003–2011, there was a positive population growth in all three regions (Maritime – 3.237, North – 3.388, Central – 11.571). Migration balance population is the difference between the number of allocated and the number of settlers in a given period. Migration balance at the level of Montenegro in the period 2003 - 2011 shows a negative trend and amounted to – 10.433, by region: North – 17.161, Maritime 2.068, 4.659 Central. According to data of the Statistical Office of Montenegro – Monstat (2014) the total number of the population moved around within Montenegro in 2013 amounted to 4.374 inhabitants; the majority of the population are women with 55.7 % or 2.438, while men make up 44.3 % of the total, or 1.936 inhabitants. Women aged 0 to 34 and over 65 and over will be moving more than men the same age. The biggest difference is in the age group of 20 to 24 years and amounts to 276; Men are the majority in the age groups from 35 to 64 years. The biggest difference compared to women in the age group of 55 to 59 years and is 37.

First, the baseline size of the population and its distribution by age and sex are essential, sometimes augmented by other characteristics such as region, urban/rural or race/ethnic group. Second, fertility, mortality, and net immigration by age and sex are used to project the population forward based on age/time/sex accounting identities. If fertility has been declining for ten years the analyst would probably project it to continue to decline, but for how long and to how low a level, and is a rebound expected in the more distant future? If mortality has been declining for the past century, the analyst will expect it to continue to decline, but there is uncertainty and controversy about the pace of decline and whether there is a near upper limit to human life expectancy such that life expectancy gains will decelerate as this limit is approached (see Vaupel, 2010; Olshansky et al, 2005). According to Chawla et al (2007) the Balkans, along with the rest of Eastern Europe, have suffered the effects of a “third demographic transition”, which would be the trend of rapid population ageing occurring under the conditions of unprecedentedly slow and weak institutional development. In a state of high unemployment rate, the demographic trend which implies a high workforce outflow is regarded as a solution to the problem of unemployment, like in the Balkans. But in the long run, the population ageing will undoubtedly present a threat to economic growth, because it leads to a decline of working-age population and ageing of the labour force. Ageing of the workforce can affect its productivity because older workforce cannot produce at the same level of output a younger one could, though the more recent findings on the issue are assorted (Bloom et al., 2010; Mendryk and Dylon, 2013).

<sup>1</sup> The migration balance is obtained based on the difference in population between the two censuses and natural increase for the period from 2003–2011.

**Table 3.** Working age population (15–64 years) by region

Geospace	2003		2011		Change 2011/2003 Rate of growth (%)	
	Number	Participation (%)	Number	Participation (%)		
Northern	123.191	30.87	117.647	27.90	-5.544	-4.5
Central	186.086	46.63	201.695	47.83	15.609	8.4
Maritime	89.772	22.50	102.351	24.27	12.579	14.0
Montenegro	399.049	100.00	421.93	100.00	22.644	5.7

Source: [Ministry of Economy Government of Montenegro \(2008\)](#) and [Statistical Office of Montenegro – Monstat \(2014\)](#)

Working age population in the period 2003–2011 at the level of Montenegro increased by 22.644 inhabitants, which represents a growth rate of 5.7 %. Broken down by regions, growth was recorded in the Central (8.4 %) and the Southern region (14.0 %), while the number of working – age population decreased in the North region (– 4.7 %). Such a trend may be a limiting factor for the development of the North region. Ageing recently became a very important policy issue, as it has wide-ranging implications in various areas of social, economic and political life. The most important side-effects of the ageing process include: increasing public expenditure on pensions, social security and health services, caused directly by the growing number of elderly (and thus of pensioners) in the population; a decreasing percentage of people in the working age, causing a shrinkage of the labor force and an increase in the overall burden on the working population in terms of various intergenerational transfers: taxes, other contributions, family support etc.; increasing risk of failure of repartition (pay-as-you-go) pension systems; growing demand for medical care and changing public health patterns (even though the elderly become relatively fitter and healthier); increasing risk of the emergence of intergenerational conflicts, due to the changes in the patterns of resource distribution between the generations ([Bijak et al, 2007](#)).

#### 4. Conclusion

The EU population is expected to continue increasing in the near future, as well as the population in southern and western Europe, the German-speaking and the Nordic countries and the Caucasus. Conversely, eastern Europe as a whole might experience a population decline. In 2030 Germany is projected to have the largest population of EU countries, followed by France métropolitaine and the UK. Among all the considered European countries, the Russian Federation could be leading in terms of population size ([Mamolo and Scherbov, 2009](#)). The demographic ageing phenomenon is present in all Balkan countries, even in Montenegro but the intensity and the stadium of the process differ, depending on numerous factors. This is a result of cultural, religious and ethnic heterogeneity, as well as different socio-economic and political processes that occurred during the second half of the 20th and the beginning of the 21st century ([Kotzamanis, 2001](#)).

Our research records are based on similar research [Nejšamić and Toskić \(2013\)](#) indicates that the failure of demographic processes by spontaneous flows undoubtedly leads to deepening economic and social crises and threatens overall development. In order to slow down the process of aging of the population of Montenegro and mitigate its consequences, it is necessary to increase fertility, which will result in a gradual rejuvenation of the age structure (see [Rajović, Bulatović, 2018](#); [Bulatović and Rajović, 2018](#)). So it's important to persevere in the implementation of an active pro-politic policy as an integral part of the general development policy. The second group of measures relates to immigration and the third to the increase in youth employment in order to prevent their more numerous evictions. It is indisputable that the aging of the population as well other adverse demographic processes and their consequences pose a great challenge to population, economic and social policy of Montenegro (see [Rajović, Bulatović, 2018](#); [Bulatović, Rajović, 2018](#)).

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