Nada Karaman Aksentijević, Ph.D., Full Professor
University of Rijeka, Faculty of Economics
Ivana Filipovića 4
Phone: +385 51 355111
E-mail address: nkaraman@efri.hr

Zoran Ježić, Ph.D., Assistant Professor
University of Rijeka, Faculty of Economics
Ivana Filipovića 4
Phone: +385 51 355111
E-mail address: zoran.jezic@efri.hr

THE EFFECTS OF MIGRATION ON DEMOGRAPHIC TRENDS AND LABOUR SUPPLY IN EAST CROATIA[1]

POSLJEDICE MIGRACIJA NA DEMOGRAFSKA KRETANJA I PONUDU RADNE SNAGE U ISTOČNOJ HRVATSKOJ[2]

ABSTRACT

In Croatia, there are great differences in natural and mechanical population movements between individual counties. Counties with significant development lags in relation to the Croatian average record a higher negative migration balance, lower birth rates, higher death rates, and the population is growing older. The objective of the paper is to analyse natural and mechanical population movements in the counties of Osijek-Baranja, Požega-Slavonia, Brod-Posavina, Vukovar-Srijem, and Virovitica-Podravina. This will be achieved by analysing 2001 and 2011 Census as well as analysing the available official data on migratory movements of the population between the counties and outside of the Republic of Croatia (RC) for the past five years. In the next step, on the basis of a calculation, the current population size in the above-mentioned counties and its (possible) decrease will be estimated in comparison with the 2011 Census. In the second part of the paper, life expectancy will be calculated for RC and East Croatian counties, because it is one of the indicators of the quality of life of the population and general level of development of an area. It will be estimated whether, and to what extent, East Croatia lags behind the Croatian average, and what are the effects of migration, especially of young, working-age population, on labour supply and developmental prospects of the economy.

***Keywords**: population, migration, labour, economic development*

SAŽETAK

U Hrvatskoj postoje velike razlike u prirodnom i mehaničkom kretanju stanovništva pojedinih županija. Županije sa značajnim razvojnim zaostajanjima u odnosu na prosjek Republike Hrvatske bilježe veći negativan migracijski saldo, niže stope nataliteta, više stope mortaliteta, a stanovništvo stari. Cilj rada je analizirati prirodno i mehaničko kretanje stanovništva u Osječko-baranjskoj, Požeško-slavonskoj, Brodsko-posavskoj, Vukovarsko-srijemskoj i

[1] This work has been fully supported by the University of Rijeka under the project number 13.02.1.2.04 "Human Resources and Economic Development of Croatia"
[2] Ovaj rad je financiralo Sveučilište u Rijeci projektom 13.02.1.2.04 „Ljudski potencijali i ekonomski razvoj Hrvatske"

Virovitičko-podravskoj županiji. To će se napraviti analizom Popisa stanovništva iz 2001. i 2011. godine kao i analizom dostupnih službenih podataka o migracijskim kretanjima stanovništva između županija i izvan Republike Hrvatske za posljednjih pet godina. U sljedećem koraku, na temelju izračuna, utvrdit će se i procjena trenutnog broja stanovnika u navedenim županijama te njihovo (eventualno) smanjenje u odnosu na Popis 2011. U drugom dijelu rada, izračunat će se očekivano trajanje života za RH i županije istočne Hrvatske jer je ono jedan od pokazatelja kvalitete života stanovništva te opće razvijenosti nekog područja. Ocijenit će se postoje li i kolika su zaostajanja istočne Hrvatske za prosjekom RH te kakav utjecaj imaju migracije, posebno mladog, radno sposobnog stanovništva na ponudu radne snage i razvojne perspektive gospodarstva.

Ključne riječi: *stanovništvo, migracije, radna snaga, gospodarski razvoj*

1. Introduction with the Literature Review

The size and characteristics of the population, i.e. demographic factors, along with economic, social, political, and environmental factors, make a set of conditions, causes and effects of the unique process of social development. The total number and structure of the population have an impact on the share of working-age and active population, or labour force. Working-age population is the population of the working age, which is prescribed by the country's Constitution or legislation. Labour force implies total employed population and the unemployed job seekers. Population is the source of labour force, and this is why its developmental characteristics primarily determine the pace of the country's economic development (Wertheimer-Baletić, A., 1999).

By the second half of the 20th century, since the benefit of national economies has become increasingly influenced by the availability of human capital, i.e. development of human resources, demographers and economic theorists have only studied the relationship between population size and economic development. Back in the ancient times, the rulers were also interested in the population size, and thus in the number of tax payers and military obligors in particular. Views of the population have changed in some historical periods as well as individual countries. They primarily depended on the circumstances in which some societies and countries developed and the problems they were facing.

By studying the relationship between population size and economic development, economists analysed the population in the dual role: (1) as a source of labour force; (2) as consumers, i.e. factor of the internal market size.

In the 18th century, more pronounced negative attitudes started appearing in relation to population growth. In his work „An Essay on the Principle of Population“, Malthus argues that the disparity between population increase and posibilities of increasing food production is the cause of poverty, epidemics, wars, and all evil. Unlike Malthus, A. Smith in his major work „An Inquiry into the Nature and Causes of the Wealth of Nations“ argues that true wealth lies not in money, as mercantilists claimed, but rather in rewarding work. Therefore, the population increase is positive, but only under the assumption of training, increasing knowledge, and division of labour. Thus, Smith proposed children's education that would be financed by the society. In the 19th century, economists' opinions on the impact of the population increase on poverty i.e. social well-being were divided. J. S. Mill believed that workers' misery was caused because of their excessive number that generated strong competition. At the beginning of the 20th century, A. Marshall was renowned for noticing that increase of population might be negative for society in some circumstances, but at the same time, he argued that this increase allowed the division of labour, specialisation, mass production, and it therefore „must lead to a more than proportionate increase of enjoyment of

all kinds“ (Pjanić, 1957). In the first half of the 20th century, J. M. Keynes in his essay „Some Economic Consequences of a Declining Population“ points out that declining of the population could stop national economic growth and prosperity of the country. He advocated government investments in education, which is a useful investment, as well as investing in production, and he believed that the state should use additional education to allow retraining of employees who cannot stay on their jobs due to technological changes. More recently, the predominant concept is that of human capital and human resources. This means that the issue of population size is in the background of development challenges, and that population quality is a crucial precondition for development. The greatest contribution to the study of population quality was given by T. Schultz and G. Becker (Schultz, T., 1985).

In the 1960s and 1970s, development theorists started devoting more attention to the importance of labour force, education, and human capital for economic development, especially in developing countries. One of the most famous structuralists, H. Chenery, pointed out that gradual accumulation of human capital, not only physical capital, is one of the basic preconditons for development. In the past 20 years, even neo-liberalists, who advocate market-oriented approach, recognised population's health care and education; i.e. activities in the framework of which human capital is formed, as well as areas in which the government should intervene, not only because of market imperfections, but also because of the necessity of the development process. Advocates of endogenous, or new economic growth theories are focused on the explanation of that part of the growth rate which is in neo-classical equations marked as residual (Todaro, M. P., Smith, S. C., 2009). They point out that investments in human capital could in the long run contribute to economic growth (Römer), and some of them explain long-term economic growth solely as a result of accumulation of human and physical capital (Becker, Murphy, Tamura).

The objective of the paper is to analyse natural and mechanical population movements in the counties of Osijek-Baranja, Požega-Slavonia, Brod-Posavina, Vukovar-Srijem, and Virovitica-Podravina. This will be achieved by analysing the 2001 and 2011 Census as well as the available official data on migratory movements of the population between the counties and outside of the Republic of Croatia in the past five years (2009-2013). Also, the current population in the above-mentioned counties and its (possible) decline in relation to the 2011 Census will be estimated on the basis of calculation. Taking into account the overall negative population trends in the Republic of Croatia, life expectancy will also be calculated for the above-mentioned counties, and it will be estimated whether East Croatia lags behind the Croatian average and to what extent. Also, it will be estimated what are the effects of migration, especially of young, working-age population, on labour supply and developmental prospects of the economy, because young, working-age population is the source of labour force in the future.

2. Analysis of Demographic Trends, Employment and Unemployment in East Croatian Counties

The dynamics and structure of population movements are formed by various factors: birth rate, death rate, and migration. The basic determinants of this process can be described as a natural and mechanical component of the total change in the population size.

2.1. Natural Change in Population

The total population of a country or a settlement, as the most important demographic data, can be read in the Census. Total resident population of a country consists of all persons who have permanent residence in a particular area at the time of the Census. In the 2001Croatian Census, in line with international standards, the concept of place of usual residence was

applied to define total population. According to this concept, total population of the country implies all the persons who have their place of usual residence in this country. Place of usual residence is considered the place where the person spends most of their time during the day regardless of short-term absence from this place (e.g. for reasons of going on vacation, a trip, medical treatment, a visit, etc.). According to the definition of the place of usual residence, total population comprises: persons who at the critical time of the Census continuously lived in their place of usual residence for at least 12 months; persons who during the 12 months before the critical Census day arrived to their place of usual residence with the intention of staying there for at least one year. The period of one year and longer, and the intention of presence/absence of at least one year are the main criteria for inclusion or exclusion of people from the country's total population (http://www.dzs.hr/hrv/censuses/census2011/censusfaq.htm).

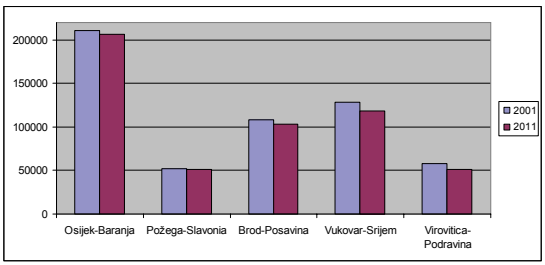
Table 1: *Population of the Republic of Croatia and East Croatian Counties according to 2001 and 2011 Census*

	2001	2011	Index 2011/2001
Osijek-Baranja	330506	305032	92,29
Požega-Slavonia	85831	78034	90,92
Brod-Posavina	176765	158575	89,71
Vukovar-Srijem	204768	179521	87,67
Virovitica-Podravina	93389	84836	90,84
Republic of Croatia	4437460	4284889	96,56

Source: CBS, 2001 and 2011 Census.

East Croatian counties had 805.998 inhabitants in 2011, which makes 20,67% of the total population of the Republic of Croatia. The County of Osijek-Baranja has the most inhabitants (305.032), and Požega-Slavonia the least (78.034). All counties, as well as the Republic of Croatia, recorded a decrease in the population in comparison with the 2001 Census (the greatest decrease was recorded in the County of Vukovar-Srijem, which had 12,33% inhabitants less than in 2001, and the smallest decrease was recorded in the County of Osijek-Baranja, with 7,71% inhabitants less than in 2001). It should also be noted that all East Croatian counties have greater decrease of the population than the Croatian average. In fact, Croatian population in 2011 decreased in comparison with 2001 by 3,44%, and all the analysed counties recorded a decrease from 12,33 to 7,71%.

Chart 1: *Population Aged 15 to 64 (Working-Age Population) in East Croatian Counties in 2001 and 2011*



Source: Authors' creation according to the CBS, 2001 and 2011 Census

The chart shows working-age population of East Croatian counties according to 2001 and 2011 Census. 557.808 inhabitants made work force in 2001, and 530.472 inhabitants in 2011 (representing a decrease of 4,9%). At the same time, the share of the working-age population in the counties in Croatia's total available work force was reduced by 1,27 percentage points,

from 19,72% to 18,45%. The majority of the population aged from 15 to 64 was residing in the County of Osijek-Baranja in 2011 (206.692 inhabitants), and the least in the County of Virovitica-Podravina (50.892), which also recorded the largest decrease of the number of working-age population in comparison with 2001 (11,98%).

Natural movement of the population implies the difference between the birth rate (natality) and death rate (mortality) of the population in a given time period (usually one year).

Table 2: *Natural Movement of the Population of East Croatia and Republic of Croatia in the Period between 2011 and 2013*

	2011 N	2011 M	2011 Balance	2012 N	2012 M	2012 Balance	2013 N	2013 M	2013 Balance	Total N	Total M	Total balance
Osijek-Baranja	2835	3914	-1079	2919	4096	-1177	2786	3825	-1039	8540	11835	-3295
Požega-Slavonia	691	1046	-355	736	1014	-278	703	1008	-305	2130	3068	-938
Brod-Posavina	1615	1958	-343	1563	2035	-472	1512	1917	-405	4690	5910	-1220
Vukovar-Srijem	1698	2269	-571	1772	2325	-553	1593	2261	-668	5063	6855	-1792
Virovitica-Podravina	816	1246	-430	793	1184	-391	790	1192	-402	2399	3622	-1223
Republic of Croatia	41197	51019	-9822	41771	51710	-9939	39939	50386	-10447	122907	153115	-30208

Source: Authors' creation according to statistical reports 1466, 1494, 1518.

In the period between 2011 and 2013, all the East Croatian counties had negative natural increase of the population, i.e. more inhabitants died than were born. The highest negative natural increase, i.e. natural decline, had the County of Osijek-Baranja in which in the above-mentioned period 8540 inhabitants were born, and 11835 died (natural increase of -3295 inhabitants, which makes 10% of the negative natural increase of the population of Croatia in this period). The smallest decrease of the population caused by negative natural increase had the County of Požega-Slavonia (-938 inhabitants).

Except for natural movements, change in the population is also affected by mechanical movements analysed below.

2.2. Migration

The term migration means spatial mobility, or mechanical movement of the population. Mobility is a more general concept than migration, because migration is spatial mobility of the population and, as such, only one of the components of the overall population mobility. The components of migration or mechanical movements of the population are immigration (moving in) and emigration (moving out) of the population. Unlike natural movement, which was originally a bioogical phenomenon, population migration are economic and social (social and political) phenomena (Družić, 2011).

In the period between 2009 and 2013, 60.638 persons moved abroad from RC, and 41.324 persons moved to RC (which makes a negative migration balance of 19.314 persons). In the same period, the same number of people moved out of the County of Vukovar-Srijem (4025) and Osijek-Baranja (3497) (Table 3). The fewest persons moved abroad from the County of Virovitica-Podravina (1674). Therefore, all East Croatian counties have a negative migration balance, i.e. greater outflow of the population to foreign countries than the inflow from abroad. Due to the application of the new Law on Residence (*The Official Gazette* No.

144/12 and 158/13), statistical data include people who left their place of residence for more than one year for reasons of temporary departure from Croatia, and reported their temporary departure to the Ministry of the Interior. For example, in 2013, 49,0% of Croatian citizens and 51,0% foreigners moved here from abroad, and 87,8% Croatian citizens and 11,7% foreigners moved out (citizenship was unknown for 0,5% persons). Of the total number of Croatian emigrants, most of them moved to Bosnia and Herzegovina (26,8%), and Serbia (26,2%). (CBS, Statistical Report 7.1.2., 2014).

In the same period (Appendix Table 6), a large number of residents left East Croatian counties and moved to other parts of Croatia. 27.928 people left the counties and moved to other parts of Croatia (mostly from the County of Osijek-Baranja and Vukovar-Srijem), and 16.348 persons moved from other parts of Croatia to some of the East Croatian counties (negative migration balance was 11.544 persons). The largest number of emigrants within Croatia was aged 20-39 (44,2%), while the share of women in the total number of emigrants was 54,1%. Ultimately, it should be pointed out that emigration only included persons who reported their temporary departure to the Ministry of the Interior. Thus, the data are not comprehensive and real changes will not be known until the next Census. Taking into consideration the previous analysis, the conclusion is derived that there is a decrease in the population in all East Croatian counties due to natural and mechanical movements of the population. Therefore, based on the data from the 2011 Census (Table 1), natural increase of the population (Table 2), and mechanical movements of the population of the Republic of Croatia and East Croatian counties (Appendix Tables 6 and 7), the estimated number of inhabitants on 1/1/2014 can be calculated below.

Table 3: *The Estimated Number of Inhabitants of the Republic of Croatia and East Croatian Counties on 1/1/2014.*

	Estimation 1/1/2014	Index 2014/2011
Osijek-Baranja	297994	97,69
Požega-Slavonia	74056	94,90
Brod-Posavina	152990	96,48
Vukovar-Srijem	171563	95,57
Virovitica-Podravina	81228	95,75
Total East Croatian counties	777831	96,51

Source: Authors' calculation

The largest decline of the population (5,10%) was recorded in the County of Požega-Slavonia, and the smallest in the County of Osijek-Baranja (2,31%). All the East Croatian counties recorded a decrease in the population higher than the Croatian average (which amounted 1,16% in the period between 2011 and 2013). This means that these counties lose their population faster than the rest of Croatia. With regard to the criteria set by the immigration countries, such as belonging to younger age groups and high education level, it can be concluded that these parts of the country, as well as entire Croatia, are abandoned by young, working-age population. This eliminates the preconditions for the formation of high-quality labour supply in the future, and for boosting economic development of these counties.

2.3. Employment and Unemployment, Labour Force

Employment determines production capacities of the economy and affects the living standard of the population. Employees are defined as persons who have signed a work contract with an employer, for a fixed or indefinite period of time, regardless of the number of working hours and ownership of the legal person. Persons aged 15 - 65 who are capable or partly capable of

work, who are not employed, actively look for work and are available for work, and are registered in the Croatian Employment Service, are considered unemployed.

Table 4: *Number of Employed and Unemployed Persons in East Croatia and Republic of Croatia in the Period from 2011 to 2013*

	2011 E	2011 U	2012 E	2012 U	2013 E	2013 U	Index E 13/11	Index U 13/11
Osijek-Baranja	72887	32663	72395	34438	67695	36627	92,88	112,14
Požega-Slavonia	14276	5996	13998	6435	13381	6435	93,73	107,32
Brod-Posavina	26589	16906	26167	17197	25230	17912	94,89	105,95
Vukovar-Srijem	31869	18377	31892	19768	31160	21404	97,78	116,47
Virovitica-Podravina	14532	9395	13804	10180	13724	10470	94,44	111,44
Total	160153	83337	158256	88018	151190	92848	94,40	111,41
Republic of Croatia	1150307	305333	1148525	324323	1122885	345112	97,62	113,03
Total labour force E and U	*243490*		*246274*		*244038*		*100,23*	
Total Croatian labour force	*1455640*		*1472848*		*1467997*		*100,85*	

Source: CBS, statistical reports 9.2.4. 2011-2013 and http://statistika.hzz.hr/

All the East Croatian Counties in the period between 2011 and 2013 recorded an increase in the number of the unemployed and a decrease in the number of employed persons. The number of unemployed persons increased at a slower pace than the average number of the unemployed in the Republic of Croatia, which may indicate that, in these counties, more persons emigrate abroad and to other parts of Croatia looking for work. Also, total labour force in Croatia grows faster than the labour force of East Croatia (by 0,62 percentage points), and it should be pointed out that the labour force of East Croatian counties in 2013 decreased in comparison with 2012 when these counties recorded the greatest migratory movements in the reference period (Appendix Tables 6 and 7).

2.4. Life Expectancy

Taking into consideration the established negative natural and mechanical population trends, life expectancy of the population of RC and East Croatian counties in 2001 and 2011 will be established below as one of the indicators of the quality of life and level of development of the population.

Table 5: *Life Expectancy of the Population of the Republic of Croatia and East Croatian Counties in 2001 and 2011*

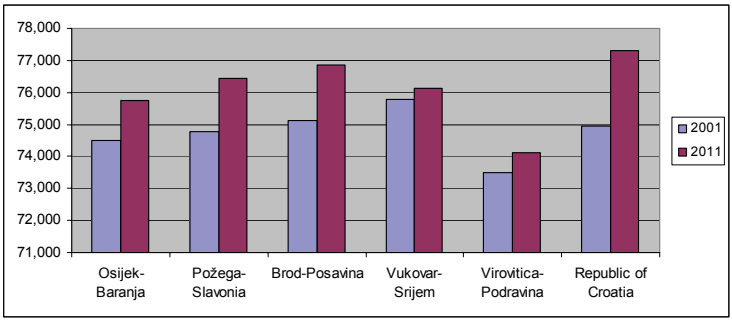
	2001	2011	Difference in years
Osijek-Baranja	74,506	75,734	+1,228
Požega-Slavonia	74,790	76,449	+1,659
Brod-Posavina	75,129	76,847	+1,718
Vukovar-Srijem	75,779	76,123	+0,344
Virovitica-Podravina	73,486	74,107	+0,621
Republic of Croatia	74,935	77,305	+2,370

Source: Authors' calculation

The average life expectancy in the Republic of Croatia in 2011 amounted to 77,305 years, and it was for 2,37 years longer than in 2001. This is the effect of an increase in the living standard, particularly health care and level of education of the population. However, in East Croatian counties, life expectancy grows much slower than the Croatian average. In the counties under analysis, the highest life expectancy was in the County of Brod-Posavina

(76,847 years), and this county also recorded the largest increase in comparison with 2001 (+1,718 years). The smallest increase was recorded in the County of Vukovar-Srijem (+0,344 godine), so that life expectancy in this county was 76,87 years. Of all the counties under analysis, the highest negative deviation from the Croatian average was recorded in the County of Virovitica-Podravina, where in 2011 the population lived 3 years and 2 months less on average in relation to the Croatian average (Chart 5).

Chart 5: *Life Expectancy in 2001 and 2011 for the Republic of Croatia and East Croatian Counties (in Years)*



Source: Authors' creation

Croatia, and East Croatian counties in particular, are facing a long-term trend of fertility decrease, and, consequently, ageing of the population. Fertility rates range below the level of simple reproduction of the population. The result of such developments are negative rates of natural population increase. The share of mature and old population has been increasing, and the working-age population has reduced its share in the total population. This also occurrs due to natural and mechanical movements. Such trends have negative consequences for economies of certain counties and the entire country. This is a direct economic consequence of the negative natural increase, ageing and migration of the population. Economic growth is slowed down, i.e. counties do not achieve economic growth and development. Measures of pro-natal demographic policy should be used to fight these negative and unfavourable demographic trends, as well as investments in education and opening of work places that will employ young emigrants.

3. Conclusion

The size and characteristics of the population, i.e. demographic factors, along with economic factors, make a set of conditions, causes and effects of the process of economic growth and development. The total number and structure of the population affect the share of working-age and active population, or labour force. Analysis of natural change and migration of the population in the counties of Osijek-Baranja, Požega-Slavonia, Brod-Posavina, Vukovar-Srijem, and Virovitica-Podravina has shown that all the counties in 2011, in comparison with 2001, recorded a decline of the population, and this decline continued until 2014 due to higher death rate (than birth rate) of the population, as well as emigration of the population out of the Republic of Croatia and out of East Croatian counties. In particular, this refers to the migration of younger (educated) population that leaves the country searching for work. These processes reduce the number of (young) working-age population as a source of labour force in the future.

Life expectancy, which is one of the indicators of quality of life and general level of development of an area, grows at a slower pace in East Croatian counties in comparison with

the Croatian average, from which it may be concluded that negative demographic trends, among other things, affect the growing development lag behind the Republic of Croatia.

REFERENCES

Akrap, A. i sur. (2003): ***Činitelji demografskih kretanja u Republici Hrvatskoj***, Državni zavod za zaštitu obitelji, materinstva i mladeži, Zagreb

Barro, R.J. (1999): ***Economic Growth***, MIT Press, London

Becker, G. S., (1993): ***Human Capital – A Theoretical and Empirical Analysis with Special Reference to Education***, Third edition, The University of Chichago Press, Chichago

Bloom, D. E.; Canning, D.; Sevilla, J. (2001): ***Economic Growth and the Demographic Transition***, Working Paper No. 8685, Cambridge, MA: National Bureau of Economic Research

Državni zavod za statistiku, Popis stanovništva, razne godine http://www.dzs.hr/hrv/censuses/census2011/censusfaq.htm; http://www.dzs.hr/Hrv/pxweb2003/database/Naselja%20i%20stanovnistvo%20Republike%20Hrvatske/3%20Stanovnistvo%20gradovi%20opcine/Tabela3_08.px

Croatian Beraou of Statistics (CBS - Državni zavod za statistiku), Statistical Reports: 8.1.3./2009.; 1414/2010.; 7.1.1./2001-2011.; 1441./2011.; 1443/2011.; 1741/2012.; 1502/2013.; 9.2.4. 2011-2013; 1466; 1494; 1518

Croatian Employment Service (Hrvatski zavod za sapošljavanje), statistics, http://statistika.hzz.hr/

Družić, I (2011): ***Demografski kapital*** in Gospodarstvo Hrvatske, ed. Čavrak, V., Politička kultura, zgreb

Karaman Aksentijević, Nada, ed. (2012): ***Ljudski potencijali i ekonomski razvoj***, Sveučilište u Rijeci, Ekonomski fakultet u Rijeci

Karaman Aksentijević, Nada, Ježić, Zoran (2009): ***Development of Human Resources of Republic of Croatia and Primorsko-Goranska County and their Influence on Economic Growth***, in Tourism and Hospitality Management, an international journal of multidisciplinary research for south-eastern Europe No.15., Vol. 1., p. 13-24

Pjanić, Z. (1957) ***Problem stanovništva u ekonomskoj teoriji***, Nolit, Beograd

Schultz, T.W. (1985), ***Ulaganje u ljude,*** CEKADE, Zagreb

Todaro, M.P., Smith S.C. (2009): ***Economic Developmen***, Pearson Education Limited

Todaro, P. Michael, Smith, S. C. (2006): ***Ekonomski razvoj***, Šahinpašić, Sarajevo

Wertheimer-Baletić, A. (1999); ***Stanovništvo i razvoj***, MATE, Zagreb

Appendix: Table 6: Migration of the Population from East Croatian Counties and the Republic of Croatia in the Period from 2009 to 2013

	2009 I	2009 E	Balance	2010 I	2010 E	Balance	2011 I	2011 E	Balance	2012 I	2012 E	Balance	2013 I	2013 E	Balance	Total I	Total E	Total balance
Osijek-Baranja	441	618	-177	232	539	-307	401	611	-210	427	746	-319	395	983	-588	1896	3497	-1601
Požega-Slavonia	61	303	-242	43	291	-248	57	414	-357	67	589	-522	80	239	-159	308	1836	-1528
Brod-Posavina	336	827	-491	185	333	-148	248	325	-77	226	395	-169	216	695	-479	1211	2575	-1364
Vukovar-Srijem	429	804	-375	190	931	-741	311	772	-461	353	499	-146	325	1019	-694	1608	4025	-2417
Virovitica-Podravina	135	673	-538	79	252	-173	66	228	-162	82	285	-203	67	236	-169	429	1674	-1245
Republic of Croatia	8468	9940	-1472	4985	9860	-4875	8534	12699	-4165	8959	12877	-3918	10378	15262	-4884	41324	60638	-19314

Source: Authors' creation

Table 7: Migration of the Population from East Croatia and the Republic of Croatia Between the Counties in the Period from 2009 to 2013

	2009 I	2009 E	Balance	2010 I	2010 E	Balance	2011 I	2011 E	Balance	2012 I	2012 E	Balance	2013 I	2013 E	Balance	Total I	Total E	Total balance
Osijek-Baranja	1199	1587	-388	1120	1437	-317	1193	1537	-344	1100	1574	-474	1152	1771	-619	5764	7906	-2142
Požega-Slavonia	314	693	-379	333	592	-259	356	684	-328	337	625	-288	381	639	-258	1721	3233	-1512
Brod-Posavina	721	1218	-497	632	1184	-552	628	1240	-612	629	1159	-530	603	1413	-810	3213	6214	-3001
Vukovar-Srijem	845	1480	-635	756	1437	-681	726	1504	-778	734	1459	-725	751	1681	-930	3812	7561	-3749
Virovitica-Podravina	382	574	-192	289	555	-266	401	565	-164	411	655	-244	391	665	-274	1874	3014	-1140
Republic of Croatia	27798	27798	0	25846	25846	0	28514	28514	0	27617	27617	0	29959	29959	0	139734	139734	0

Source: Authors' creation