

THE GENDER AND AGE STRUCTURE OF THE POPULATION OF COVASNA COUNTY, AT THE 2011 CENSUS

George-Bogdan TOFAN*

„Vasile Goldiș” Western University of Arad, Faculty of Economic Sciences, Engineering and Informatics, Department of
Engineering and Informatics, Baia Mare Branch, 5 Culturii Street, Romania
e-mail: bogdan.tofan@uvvg.ro

Adrian NIȚĂ

„Babeș-Bolyai” University, Faculty of Geography, Gheorgheni Branch, Csiki Garden, Romania
e-mail: nitaadrian@hotmail.com

Bogdan-Nicolae PĂCURAR

„Babeș-Bolyai” University Cluj-Napoca, Faculty of Geography, Centre for Research on Settlements and Urbanism,
Cluj County Council, Urbanism and Territorial Planning Department, Cluj-Napoca, Romania
e-mail: pacurarbogdan@ymail.com

Abstract: This study presents a synthesis regarding the territorial distribution of the gender and age structure of the population in Covasna County, in 2011. We began by reviewing the characteristics regarding *gender structure*, and *both genders* (BG), followed by the *male population* (M) and the *female population* (F), as well as *the age groups*, beginning with *young people* (0-19 years), *adults* (20-59 years) and ending with the *elderly*, over 60 years. Moreover, for a clearer view of the male to female population ratio, we employed the most suggestive indicator, *the femininity index*.

Key words: population, male, female, age groups, 2011 Census,

* * * * *

INTRODUCTION

This study represents our second scientific endeavour into population dynamics, specifically the gender and age group structure registered at the 2011 Census, the first having been written for Harghita County (Tofan et al., 2016). In a similar fashion, in order to view the evolution of these two geodemographic components, we employed statistical data from the 2011 Population and Household Census, information provided by the National Institute for Statistics (table 3), and by the Covasna County Statistics Office.^{1 2}

After completing the process of data collection, we moved on to processing, interpreting, and creating a tabular, graphic and cartographic representation of them, thus enabling the possibility to

* Corresponding Author

¹ <http://www.recensamanromania.ro/rezultate-2>

² <http://www.covasna.insse.ro>

follow the issues much easier. When it comes to this geodemographic indicator, we must point out the fact that some areas of Covasna County have already been studied in prior papers (Niță, 2007, 2010). There is also the monography of Covasna, found in Romania's Counties Collection, published by the Romanian Academy Publishing House (Pișotă et al., 1975), as well as a series of studies by Algasovschi, 1980; Herman, 2009; Ilieș & Stașac, 2000; Lăcătușu, 2008; Pop et al., 1973; Pop, 2002; Pop et al., 2015; Tofan et al., 2014; Tofan, 2015 and two methodological guidebooks written by Vert, 1995, 2001.

GENDER AND AGE GROUP STRUCTURE OF THE POPULATION OF COVASNA COUNTY, AT LOCAL ADMINISTRATIVE UNIT 2 LEVEL

In Covasna County, out of a total of 210 177 inhabitants registered at the 2011 Census, 49.22% (103 454 people) were male, while 50.78% (106 723 people) were female.

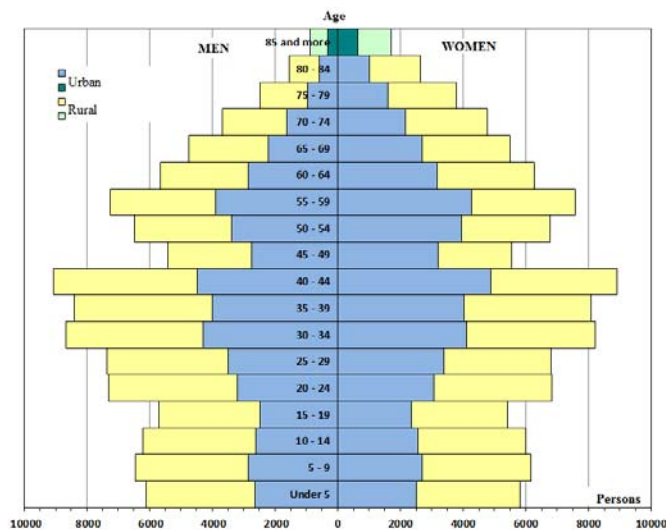


Figure 1. The age pyramid of Covasna County, in 2011

Both genders of the population of Covasna

a) The 0-19 years age group had an average percentage of 22.79% (47 893 inhabitants out of 210 177), however registering extremely different absolute and relative values at the lowest existing local level. Therefore, values around the average (22.79%), meaning 21-23%, were recorded in 12 units, one urban (Baraolt), and the rest rural (Aita Mare, Brețcu, Catalina, Comandău, Dalnic, Ojdula, Ozun, Poian, Reci, Sânzieni, and Zăbala). The higher echelon, 23-25%, characterized only seven communes: Bixad, Dobârlău, Ghelinița, Ghidfalău, Moacăș, Valea Mare, and Zagon, followed by the category that comprises values above 25%, found in 11 communes (Barcani, Bățani, Belin, Bodoc, Boroșneiu Mare, Brăduț, Estelnic, Hăghig, Sita Buzăului, Vâlcele, and Valea Crișului) and a town (Întorsura Buzăului). The lowest values, below 21%, were registered in 14 areas, such as Malnaș (18.58%).

b) The 20-59 years age group held the vast majority, 56.45% (118 653 people out of a total of 210 177). Compared to the average, the 55-57% category corresponds to 10 administrative-territorial units (Baraolt, Arcuș, Catalina, Ghidfalău, Malnaș, Micfalău, Moacăș, Ozun, Reci, and Turia), while other 27 units are below 55%, such as Hăghig commune, with the lowest percentage (46.83%). Only six units were between values of 57 and 59%: Covasna, Cernat, Comandău, Dalnic, Ghelinița, and Ojdula, while values above 60% were recorded in Târgu Secuiesc (60.47%) and Sfântu Gheorghe (61.33%).

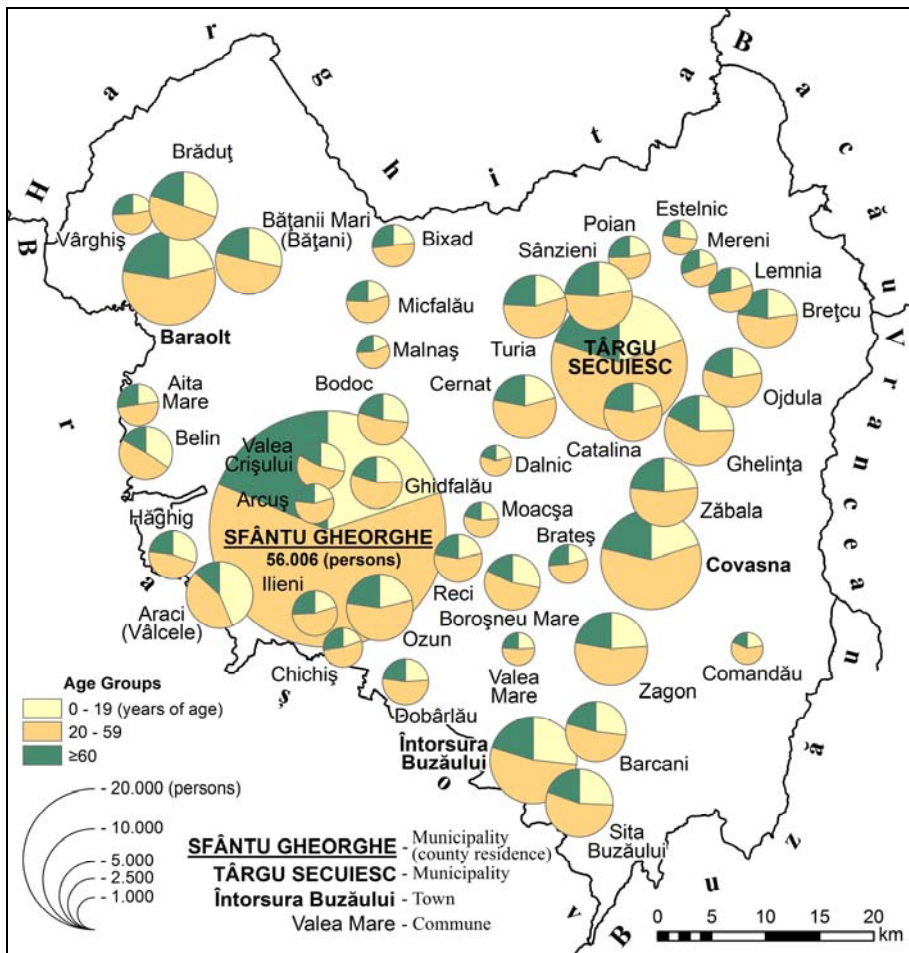


Figure 2. Age group structure in Covasna County, LAU 2 level, at the 2011 Census
(Data source: 2011 Census)

c) *The above 60 years age group* registered a county value of 20.76% (43 631 inhabitants). Nine level 2 administrative units had values between 19-21% (Târgu Secuiesc, Întorsura Buzăului, Barcani, Bodoc, Brăduț, Dalnic, Ghidfalău, Ojdula, and Sita Buzăului), percentages below 19% being found in seven LAU2: Sfântu Gheorghe, Belin, Boroșneu Mare, Comandău, Ghelinta, Vâlcele (13.18%, lowest value), and Valea Crișului. Above the average, there is the 21-22% echelon, with four administrative units, one urban (Covasna) and three rural (Bățani, Cernat, and Moacșa), and above 22%, with 25 administrative units, the highest being registered in Mereni (29.53%) (figure 2).

The male population of Covasna County

The male population had a value of 49.22% (103 454 men out of 210 177 inhabitants), with the three major age groups as follows: 24 504 or 23.69% - young age, 59 952 or 57.95% - adult age and 18 998 or 18.36% - elderly.

a) *The 0-19 years age group* had a percentage of 23.69%. Values of 22-24% were found in 11 local administrative units (Baraolt, Covasna, Bixad, Brețcu, Catalina, Mereni, Micfalău, Moacșa, Ojdula, Sânzieni, and Zăbala), while the 24-26% category contains four communes (Aita Mare, Dobârlău, Ghelinta, and Zagon). Values above 26% of the young male populace emerged in 13 rural units (Belin, Brăduț, Hăghig, Vâlcele etc., the last registering the highest value, 44.36%)

and in one urban unit (Întorsura Buzăului). The lowest values, below 22%, were recorded in the remaining 16 administrative units, such as Malnaș commune, with 17.53% (figure 3).

b) *The 20-59 years age group* reached a value of 57.95% (59 952 people) at county level, with percentages around the average, or 56-58%, in 12 administrative units (Baraolt, Brețcu, Catalina, Chichiș, Ghidfalău, Ilieni, Micfalău, Poian, Sita Buzăului, Valea Crișului, Zagon, and Zabala). Values below 56% were recorded in 19 communes and a town (Întorsura Buzăului). Values above the average, 58-60%, were found in: Covasna, Arcuș, Cernat, Ghelița, Moașa, Ojdula, Ozun, Reci, and Turia, while above 60% in Sfântu Gheorghe, Târgu Secuiesc, Dalnic, and Malnaș.

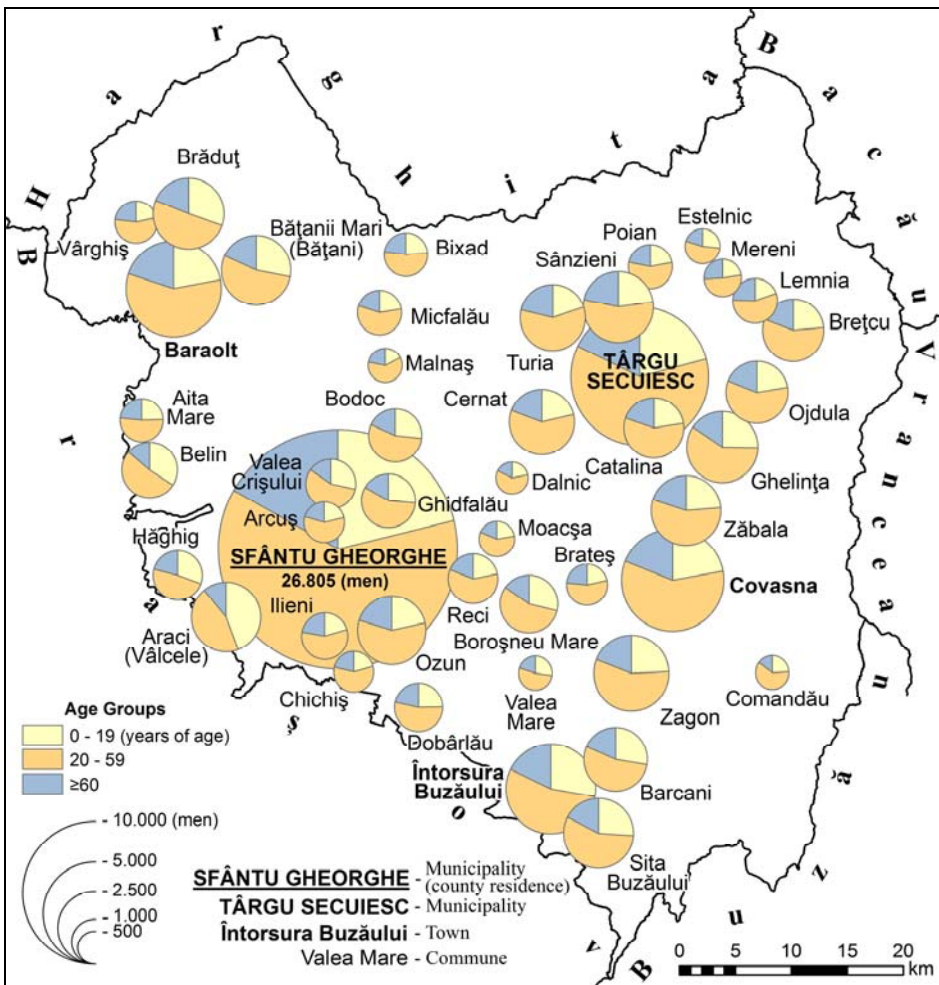


Figure 3. The age group structure of the male population of Covasna County, LAU 2 level, at the 2011 Census (Data source: 2011 Census)

c) *The over 60 age group* was represented by 18.36% (18 998 people). This category contains 10 administrative units around the already mentioned average, or 17-19% (Târgu Secuiesc, Covasna, Întorsura Buzăului, Barcani, Bățani, Bodoc, Dalnic, Moașa, Reci, and Sita Buzăului). In comparison, in the lower, below 17%, echelon there are seven units (Sfântu Gheorghe, Belin, Boroșneu Mare, Ghelița, Ghidfalău, Valea Crișului, and Vâlcele (10.97%).

Above the average, we have 13 units between 19-21%, and 15 units with values above 21%, the highest percentage being found in Comandău (28.20%).

The female population of Covasna County

Numbering 106 723 people (50.78%) out of the total of 210 177, the female population of the county is divided into 3 categories: young, 21.92% (23 389 people), adult with 55.00% (58 701), and elderly with 23.08% (24 633).

a) *The 0-19 age group*, with an average of 21.92%, has the following structure: values between 20-22% were registered in 13 administrative units: Baraolt, Aita Mare, Arcuș, Catalina, Cernat, Comandău, Dalnic, Lemnia, Ozun, Reci, Sânzieni, Turia, and Valea Mare. The next category, 22-24%, contains the following 10 units: Bixad, Brețcu, Dobârlău, Ghelînța, Ghidfalău, Ojdula, Poian, Vârșag, Zagon, and Zăbala, while the *over 24% category* comprises 12 communes (Barcani, Bățani, Belin, Bodoc, Boroșenu Mare, Brăduț, Estelnic, Hăghig, Moacșa, Sita Buzăului, Vâlcele, and Valea Crișului) and a town (Întorsura Buzăului). Below the average, and below 20%, there are nine such units, like the town of Covasna, with the lowest rate (18.10%).

b) *The adult age group (20-59 years)*, having an average of 55.00% (58 701), is divided as follows: the 54-56% class in only four units: Baraolt, Cernat, Dalnic, and Ojdula; the 56-58% class with only two (Comandău and Ghelînța), over 58% (Covasna, Târgu Secuiesc, Sfântu Gheorghe), while the remaining 36 administrative units had values below 55%.

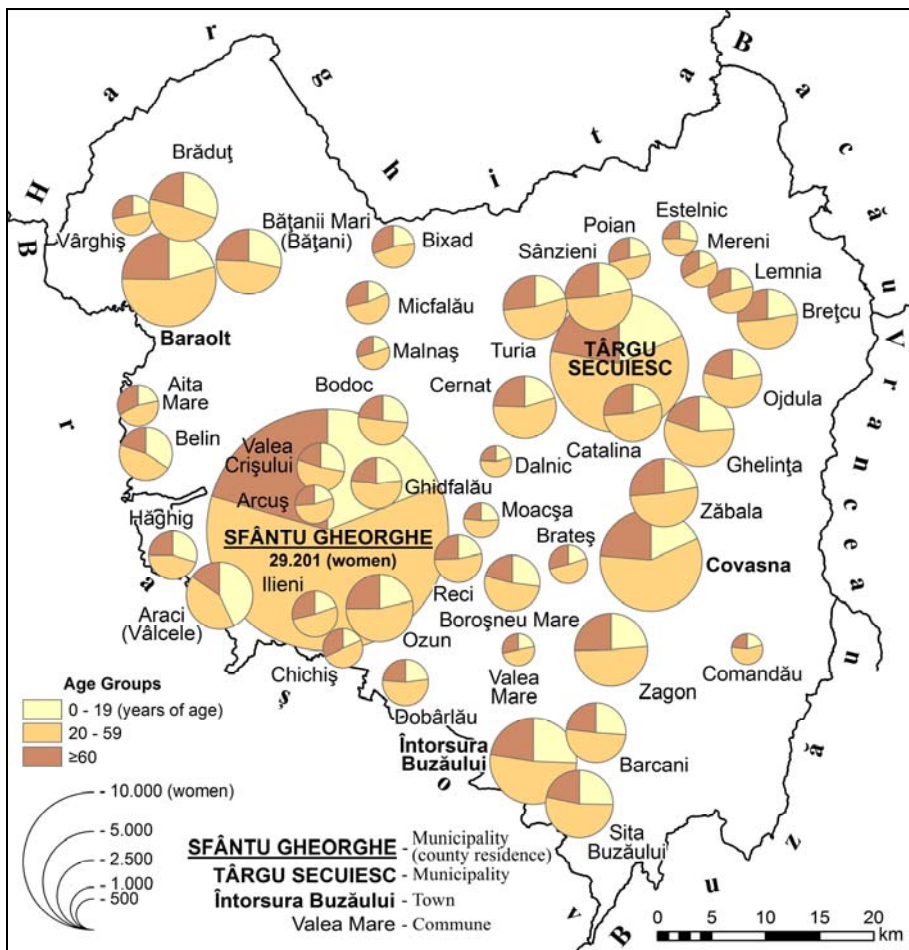


Figure 4. The age group structure of the female population of Covasna County, LAU 2 level, at the 2011 Census (Data source: 2011 Census)

c) *The over 60 age group* registered 23.08% (24 633 people). The age class around the 22-24% mark comprises 10 territorial-administrative units, the *below 22%* nine units (Sfântu Gheorghe, Belin, Boroșneu Mare, Brăduț, Ghelinta, Ojdula, Sita Buzăului, Vâlcele, and Valea Crișului), while the *24-26% age class* seven units (Baraolt, Bățani, Cernat, Hăghig, Ozun, Reci, and Zagon), and the *above 26%* 18 units, Merești commune having the highest value (33.04%) (figure 4).

CONCLUSIONS

At the 2011 Population and Household Census, in the County of Covasna, out of a total stable population of 210 177 inhabitants, 49.22% (103 454 people) were *male*, while 50.78% (106 723) were *female*. The femininity index for the entire area registered a value of 103 women/100 men. In terms of age groups, the ratio was higher - 129 women/100 men - in the ≥ 60 years group, followed by the adult group (20-59 years) with 97 women/100 men, while the young group (0-19 years) had only 95 women/100 men.

Thusly, we witness a demographic ageing phenomenon mostly due to low fertility rates, but also due to the migration of the population of fertile age, leading to a decrease in the number of young people (0-19 age group) and to an increase of the elderly (≥ 60 years).

All these effects will have direct repercussions on the sustainable development of the county as human resources slowly dwindle.

Analysing the major age groups of the population of Covasna County, we end up with the following situation: *both genders*, in the order of the age groups taken into consideration (young, adult, and elderly), with 22.79% (47 893 people), 56.45% (118 653 people), and 20.76% (43 631).

The male population of the county (103 454 men), in the same age group order, registered the following: 23.69% (24 504), 57.95% (59 952) and 18.36% (18 998), while *the female population* (106 723 women) is structured into young females - 21.92% (23 398), adult females - 55.00% (58 701), and elderly females - 23.08% (24 633) (table 1).

Table 1. The gender and age group structure of Covasna County at the 2011 Census
(Data source: 2011 Census)

Covasna County	Gender	Total stable population	Age groups					
			0-19	%	20-59	%	≥ 60	%
TOTAL	BG	210177	47893	22,79	118653	56,45	43631	20,76
	M	103454	24504	23,69	59952	57,95	18998	18,36
	F	106723	23389	21,92	58701	55,00	24633	23,08
Urban	BG	100811	20685	20,52	60317	59,83	19809	19,65
	M	48633	10597	21,79	29488	60,63	8548	17,58
	F	52178	10088	19,33	30829	59,08	11261	21,58
Rural	BG	109366	27208	24,88	58336	53,34	23822	21,78
	M	54821	13907	25,37	30464	55,57	10450	19,06
	F	54545	13301	24,39	27872	51,10	13372	24,52

BG = both genders, M = male, F = female.

REFERENCES

- Algasovschi, Al., Calameț, T., Kisgyörgy, Z., Stanca, C., Ráduly, G., Popină, Gh., Deac, M. (1980), *Covasna: monografie [Covasna: Monograph]*, Editura Sport-Turism, București.
- Herman G. V. (2009), *Omul și modificările antropice din câmpia someșului [The man and anthropogenic changes in Someș Plain]*, Editura Universității din Oradea, 227 pag., ISBN 978-973-759-981-0, Oradea;

- Ilieș Al., Stașac M. (2000), *Studiul geografic al populației [Geographical study of population]*, Editura Universității din Oradea, Oradea, ISBN: 973-8219-08-6.
- Niță A. (2007), *Populația și așezările din Depresiunea Brașov [Population and Settlements in Brașov Depression]*, Teză de doctorat, Universitatea „Babeș-Bolyai” Cluj-Napoca, Facultatea de Geografie, Cluj-Napoca.
- Niță A. (2010), *Aspects Regarding the Origin and Evolution of the Population and Settlements in the Întorsura Buzăului Depression*, Studia UBB, Geographia, LV, 2, Cluj-Napoca.
- Pișotă, I., Ivănescu, Maria, Mihai, Elena (1975), *Județul Covasna [Covasna County]*, Editura Academiei R.S. R, București.
- Pop P. Gr., Zotic V., Alexandru Diana Elena (2015), *The Romanian Population by Gender and Age Groups in 2011*, Studia UBB, Geographia, LX, 1, Cluj-Napoca.
- Pop Gr., Galoș M., Ivan Ana, Moș Tr. (1973), *Structura pe grupe de vârstă a populației județului Bihor*, Lucrări Științifice, Seria Geografie, Oradea.
- Pop P.Gr. (2002), *Structura pe sexe a populației Regiunii de Nord-Vest a României [Population Structure per sexes of the North-West Region of Romania]*, Studia UBB, Geographia, 2, Cluj-Napoca.
- Tofan G. B. (2015), *Etnie, confesiune și comportament electoral în județele Harghita, Covasna și Mureș. Studiu geografic (2008-2014) [Ethnicity, Confession and Electoral Behaviour in Harghita, Covasna and Mureș Counties. Geographic Study (2008-2014)]*, Editura Casa Cărții de Știință, Cluj-Napoca.
- Tofan G. B., Niță A., Nimară C. (2014), *The Confesional Structure of Harghita, Covasna and Mureș, in 2011*, Analele Universității din Oradea, Seria Geografie, 24 (2), Editura Universității din Oradea, Oradea.
- Tofan, G. B., Niță, A., Păcurar, B. N., (2016), *Gender and Age Group Structure in Harghita County, at the 2011 Census*, Analele Univ. din Oradea, Seria Geografie, 26 (1), Editura Universității din Oradea, Oradea.
- Vert C. (1995), *Analiza geodemografică. Manual practic [Geodemographic analysis. Practical manual]*, Universitatea de Vest din Timișoara, Facultatea de Chimie-Biologie-Geografie, Catedra de Geografie, Timișoara.
- Vert C. (2001), *Geografia populației. Teorie și metodologie [Geography of population. Theory and Methodology]*, Editura Mirton, Timișoara.
- *** (1984), *Geografia României, II, Geografia Umană și Economică [Geography of Romania, II, Human and Economic Geography]*, Editura Academiei R. S. România, București.
- <http://www.recensamantromania.ro/rezultate-2>, consulted at 01 April 2016.
- <http://www.covasna.insse.ro/main.php>, consulted at 01 April 2016.

Submitted:
March 28, 2016

Revised:
August 03, 2016

Accepted and published online
November 17, 2016