Tamás Kiss – Gergő Barna

Landscape after the census. Hungarian population in Transylvania in the first decade of the 21th century[1]

In 2011, Romania conducted its third census since the political changeover. At the national level, the most important question of the census was the actual size of the population. According to official publications delivered by the National Institute of Statistics (NIS) on 1 January 2011, Romania had a population of 21.413 million. However, NIS calculated emigration flows registered by the Romanian authorities which reflected only a very tiny segment of effective out-migration. According to World Bank statistics, in 2010, 2.8 million Romanian citizens resided abroad.[2] In the time period between 2001 and 2011, the number of emigrants registered by the Romanian authorities was about 128 000 persons. If we look at the flow statistics of the main host countries, we can see that the Romanian emigration statistics have captured less than 10 percent of the legal outflows from Romania. As a consequence, NIS highly overestimated the country's population.

The census was also important from the perspective of ethnic elites. These elites were concerned to demonstrate the numerical strength of the communities they claimed to represent. Accordingly, the organizations of the two considerable ethnic minorities of the country, the Hungarians and the Roma alike, conducted a census identity campaign. From a statistical point of view, the uncertainty was greater in the case of the Roma. In 2002, 535 thousand persons identified themselves as Roma, but virtually no one accepted this figure. The Romani Criss, a

[1] Our analysis of the preliminary data of the 2011 census was published at greater length in the Workshop Studies series of the Romanian Institute for Research on National Minorities (NKI) of Cluj-Napoca (*Kiss-Barna* 2012). The survey serving as the basis of this study was also carried out in cooperation with the NKI.

[2] See: http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:22803131~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html.

Roma organization engaged in the identity campaign, spoke about 1.8-2.5 million Romanian Roma while experts estimated their numbers at 1.8-2 million (Preda–Zamfir 2002). This also meant that Roma organisations had a greater incentive to mobilize the Roma population to claim their place in the census. In the case of ethnic Hungarians, the situation was less uncertain since the 2002 census data were accepted unanimously by the Hungarian elite. Demographers projected a population decrease, estimating the number of Hungarians at 1.265-1.290 million.[3] More importantly, the question was whether the loss in total figures would mean a decrease in their proportion of the population as well.

Preliminary census results(from a Hungarian perspective)[4]

Some general figures

According to the preliminary results, the total population of Romania went down by 12.2 percent in the inter-census period. The decrease of the population was more extensive in the former territories of the Old Romanian Kingdom (Regat) than in the former Hungarian territories of the Habsburg Monarchy (Transylvania, used in a broader sense, including Banat and the Hungarian-Romanian border region).

Changes in the population size between 1992-2011

Regions	Resident population			Change: absolute numbers		Change %	
	1992	2002	2011	Change 1992–2002	Change 2002–2011	Change 1992–2002	Change 2002–2011
Regat	15,086,722	14,459,241	12,567,042	-627,481	-1,892,199	-4.2%	-13.1%
Transylvania	7,723,313	7,221,733	6,475,894	-501,580	-745,839	-6.5%	-10.3%
Romania	22,810,035	21,680,974	19,042,936	-1,129,061	-2,638,038	-4.9%	-12.2%

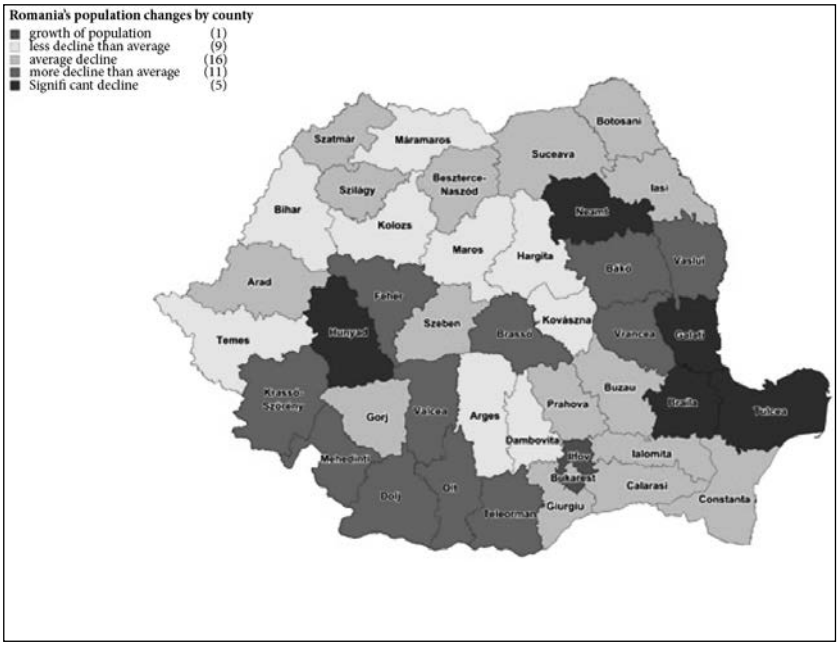
Source: INS

[3] *Csata-Kiss* 2007; *Kapitány-Kiss* 2007.

[4] The preliminary results of the 2011 census (based on the cumulative tables filled out by the enumerators) were published on 2 February, 2012. We have prepared a database by assigning the local administrative unit-level (LAU 2 – communes/towns) data to the results of 1992 and 2002. The first part of the analysis is based on that. The most important difference between preliminary and final results is that while the latter is elaborated after the processing of the individual questionnaires, the former is prepared on the basis of the cumulative tables submitted by the enumerators. In Romania, the CELR form (ethnicity, mother tongue, religion) contained all the information about ethnicity.

The eastern/south-eastern counties of the country (Tulcea, Neamț, Brăila, Galați) suffered the biggest losses. Within Transylvania, the most significant loss was registered in Southern Transylvania (Hunedoara, Caraş-Severin, Alba, and Braşov counties – in Hungarian: Hunyad, Krassó-Szörény, Fehér, and Brassó counties). The only county to see a population growth was Ilfov. Furthermore, the population decrease was relatively mild in Timiş (Temes) and Cluj (Kolozs) counties as well as in Harghita (Hargita) and Covasna (Kovászna) counties, which have a Hungarian majority. The population loss remained well below the average in Mureş (Maros) and Bihor (Bihar) counties, also having a significant Hungarian population.

Demographic evolution of the population size by counties in Romania between 2002-2011



Source: INS

It was also an open question whether the proportion of the urban population would continue to fall. The urban population shrank by 15 percent, whereas the rural population "only" by 8 percent. There are complex migratory processes behind this phenomenon. On the one

hand, a suburbanisation process took place, indeed: the residents of the big cities moved out of the metropolitan areas in great numbers. That is what explains the single population growth of Ilfov county surrounding Bucharest or that Feneş (Szászfenes), a settlement near Cluj (Kolozsvár), mushroomed into a commuter town with a population exceeding 20 thousand. On the other hand, and partly contrary to the mainstream hypotheses of the academic literature[5], international out-migration also took a greater number of the urban population.

In spite of the seemingly favourable regional distribution, the preliminary results of the census showed a slight decrease in the proportion of Hungarians at the national level and an unquestionable drop in Transylvania. The Roma population increased in size and proportion, but to a much smaller extent than in the previous censuses. Out of the other ethnicities, only the Armenians grew in number.

The size and the proportion of ethnic minorities in Romania, 1992-2011

Ethnicity	1992	%	2002	%	2011 ↓	%
Romanian	20,408,542	89.47%	19,399,597	89.48%	16,869,816	88.59%
Hungarian	1,624,959	7.12%	1,431,807	6.60%	1,237,746	6.50%
Roma	401,087	1.76%	535,140	2.47%	619,007	3.25%
Ukrainian	65,764	0.29%	61,098	0.28%	51,703	0.27%
German	119,462	0.52%	59,764	0.28%	36,884	0.19%
Turkish	29,832	0.13%	32,098	0.15%	28,226	0.15%
Lipovan	38,606	0.17%	35,791	0.17%	23,864	0.13%
Tatar	24,596	0.11%	23,935	0.11%	20,464	0.11%
Serb	29,408	0.13%	22,561	0.10%	18,461	0.10%
Slovak	19,594	0.09%	17,226	0.08%	13,936	0.07%
Bulgarian	9,851	0.04%	8,025	0.04%	7,471	0.04%
Croat	4,085	0.02%	6,807	0.03%	5,482	0.03%
Greek	3,940	0.02%	6,472	0.03%	3,650	0.02%
Jewish	8,955	0.04%	5,785	0.03%	3,153	0.02%
Polish	4,232	0.02%	3,559	0.02%	2,583	0.01%
Czech	5,797	0.03%	3,941	0.02%	2,518	0.01%
Armenian	1,957	0.01%	1,780	0.01%	2,090	0.01%
Other ethnicities	8,602	0.04%	23,647	0.11%	36,696	0.19%
Non-response	*766*	*0.00%*	*1,941*	*0.01%*	*59,186*	*0.31%*
Total population	**22,810,035**	**100.00%**	**21,680,974**	**100.00%**	**19,042,936**	**100.00%**

Source: INS

[5] Analyses have pointed out that in Romania, the primary source of international migration is derived from villages (*Sandu* 2005; *Horváth* 2008).

As a new phenomenon, there were a significant number of respondents who did not disclose their ethnicity. This could be due more to methodological (rather than socio-psychological) factors. On the one hand, it was the first time that enumerators had to point out specifically that it was not mandatory to supply data concerning ethno-cultural features (ethnicity, mother tongue, religion). On the other hand, when the responses of a person were given by other than household members, this question was skipped altogether. On the basis of the commune/town level data, we can assume that about 4,671 persons who had identified themselves as Hungarians in the 2002 census did not disclose their ethnicity in 2011.[6]

The ethnic Hungarian population of Transylvania in light of the 2011 census

Before examining the factors that have influenced the demographic evolution of the Hungarian population, we will devote some space to the presentation of the census results by region[7], and type[8] and ethnic composition of the administrative unit respectively[9].

---

[6] See *Kiss-Barna* 2011 for more on the subject.

[7] We have set up six regions: (1) Banat: Arad, Timiş and Caraş-Severin counties (Bánság: Arad, Temes, and Krassó-Szörény) ; (2) Southern Transylvania: Braşov, Alba, Hunedoara, and Sibiu counties (Brassó, Fehér, Hunyad, and Szeben) ; (3) Northern Transylvania: Bistriţa-Năsăud and Maramureş counties (Beszterce-Naszód and Máramaros); (4) Central Transylvania: Cluj (Kolozs) and the area of Mureş (Maros) county that did not belong to the former Marosszék, completed by Târgu Mureş (Marosvásárhely) and its surrounding area; (5) Partium: Bihor, Satu Mare, and Sălaj counties (Bihar, Szatmár, and Szilágy); (6) Szeklerland (Székelyföld): Harghita (Hargita) and Covasna (Kovászna) counties, completed by the former Marosszék part of Mureş (Maros) without Târgu Mureş (Marosvásárhely) and its surrounding area.

[8] We have set up six categories: (1) villages; (2) villages in the metropolitan area of cities with more than 100 thousand inhabitants; (3) small towns with less than 10 thousand inhabitants; (4) small towns with 10-30 thousand inhabitants; (5) middle towns with 30-100 thousand inhabitants; (6) cities.

[9] Our categories: (1) villages and towns of Hungarian dominance, where the proportion of Hungarians is more than 75 percent; (2) villages and towns with a Hungarian majority; (3) plurality minority where the proportion of Hungarians is between 35-50 percent; (4) minority where the proportion of Hungarians is between 20-35 percent; (5) communities on their way to becoming a diaspora where the proportion of Hungarians is between 10-20 percent; (6) diaspora communities

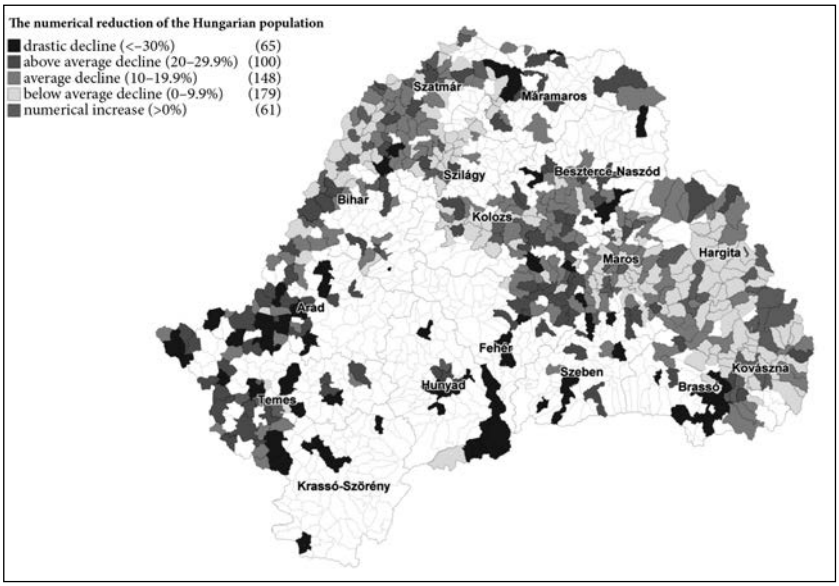
Changes in the size and proportion of the Hungarian population by counties

County	1992		2002		2011		Changes in the absolute numbers and proportion:			
	Size:	%	Size:	%	Size:	%	Size: 1992–2002	Size: 2002–2011	% 1992–2002	% 2002–2011
Harghita (Hargita)	295,104	84.7	276,038	84.6	258,615	84.8	-19,066	-17,423	-6.5%	-6.3%
Covasna (Kovászna)	175,502	75.2	164,158	73.8	151,787	73.6	-11,344	-12,371	-6.5%	-7.5%
Bihor (Bihar)	181,703	28.4	155,829	26.0	138,441	25.2	-25,874	-17,388	-14.2%	-11.2%
Sălaj (Szilágy)	63,151	23.7	57,167	23.0	50,659	23.2	-5,984	-6,508	-9.5%	-11.4%
Mureş (Maros)	252,651	41.4	228,275	39.3	200,989	37.8	-24,376	-27,286	-9.6%	-12.0%
Satu Mare (Szatmár)	140,392	35.0	129,258	35.2	113,541	34.5	-11,134	-15,717	-7.9%	-12.2%
Cluj (Kolozs)	146,186	19.9	122,301	17.4	103,457	15.7	-23,885	-18,844	-16.3%	-15.4%
Bistriţa-Năsăud (Beszterce-Naszód)	21,098	6.5	18,349	5.9	14,773	5.3	-2,749	-3,576	-13.0%	-19.5%
Braşov (Brassó)	63,558	9.9	50,956	8.7	39,275	7.8	-12,602	-11,681	-19.8%	-22.9%
Alba (Fehér)	24,765	6.0	20,684	5.4	15,870	4.8	-4,081	-4,814	-16.5%	-23.3%
Arad (Arad)	61,011	12.5	49,291	10.7	37,067	9.1	-11,720	-12,224	-19.2%	-24.8%
Maramureş (Máramaros)	54,902	10.2	46,300	9.1	34,781	7.5	-8,602	-11,519	-15.7%	-24.9%
Sibiu (Szeben)	19,309	4.3	15,344	3.6	10,893	2.9	-3,965	-4,451	-20.5%	-29.0%
Timiş (Temes)	62,866	9.0	50556	7.5	35,294	5.4	-12,310	-15,262	-19.6%	-30.2%
Hunedoara (Hunyad)	33,849	6.2	25,388	5.2	16,219	4.1	-8,461	-9,169	-25.0%	-36.1%
Caraş-Severin (Krassó-Szörény)	7,876	2.1	5,824	1.7	3,276	1.2	-2,052	-2,548	-26.1%	-43.8%
Transylvania	**1,603,923**	**20.8**	**1,415,718**	**19.6**	**1,224,937**	**18.9**	**-188,205**	**-190,781**	**-11.7%**	**-13.5%**
Romania	**1,624,959**	**7.1**	**1,431,807**	**6.6**	**1,237,746**	**6.5**	**-193,152**	**-194,061**	**-11.9%**	**-13.6%**

Source: INS

with a proportion Hungarian below 10 percent, but with more than 100 Hungarian residents. (As it follows from the above), we had two additional settlement categories that were not included in the analysis about Hungarians: (7) persons living in a diaspora, i.e. settlements where the proportion of Hungarians is below 10 percent and their number is below 100; (8) settlements without a Hungarian population.

Changes in the number of Hungarians by communes/towns in Transylvania between 2002-2011



Source: INS

Demographic processes affecting the Hungarian population vary significantly by regions/counties. We can classify the Transylvanian counties into four groups. The first group (the Szeklerland ethnic block) is constituted by Harghita (Hargita) and Covasna (Kovászna) counties where the Hungarian population is characterized by demographic trends far more advantageous than the national average. Here we can see stability in terms of ethnic ratios (the proportion of Hungarians slightly increased in Harghita (Hargita) while it went down slightly in Covasna (Kovászna)). In Bihor (Bihar), Sălaj (Szilágy), Mureş (Maros), and Satu Mare (Szatmár) counties (that we might consider as a sort of ethnic contact zone), the demographic evolution of the Hungarian population was about the same as the national average. In these counties, the proportion loss of Hungarians is not significant; Sălaj (Szilágy) registered even a population increase. In the case of Cluj (Kolozs), Bistriţa-Năsăud (Beszterce-Naszód), Braşov (Brassó), Alba (Fehér), Arad (Arad), and Maramureş (Máramaros) counties (are in the process of becoming more dispersed), the demographic trends of the Hungarian population are less favour-

able here than on the national level, and the decline of the proportion of Hungarians is also considerable. As for Sibiu (Szeben), Timiş (Temes), Hunedoara (Hunyad), and Caraş-Severin (Krassó-Szörény) counties, they are characterized by extreme demographic erosion (surpassing demographic projections).

Changes in the size and proportion of the Hungarian population by counties, 2002-2011

		Changes in absolute numbers (%) 2002-2011	**Changes in the proportion of the proportions compared to each other 2002-2011**
Region	Szeklerland (Székelyföld)	-6.6%	-0.5%
	Partium	-11.6%	-2.2%
	Central Transylvania	-14.7%	-8.0%
	Northern Transylvania	-23.3%	-13.1%
	Southern Transylvania	-27.1%	-12.9%
	Banat (Bánság)	-28.4%	-21.2%
Ethnic composition of the settlement	Hungarian dominance (above 75%)	-5.6%	-1.5%
	Majority (50-75%)	-6.3%	0.3%
	Minority plurality (35-50%)	-15.1%	-5.3%
	Minority (20-35%)	-16.6%	-10.6%
	Community being disperzed (10-20)	-22.9%	-12.9%
	Disperzed community (below 10, >100 inhabitants)	-31.7%	-21.3%
Type of settlement	**Village**	-7.2%	-0.7%
	Village in a metropolis zone	-1.8%	-12.9%
	Small town (below 10 thousand inhabitants)	-12.4%	-0.2%
	Small town (10-30 thousand inhabitants)	-17.5%	-2.9%
	Town (30-100 thousand inhabitants)	-17.9%	-0.8%
	City (above 100 thousand inhabitants)	-23.1%	-13.2%

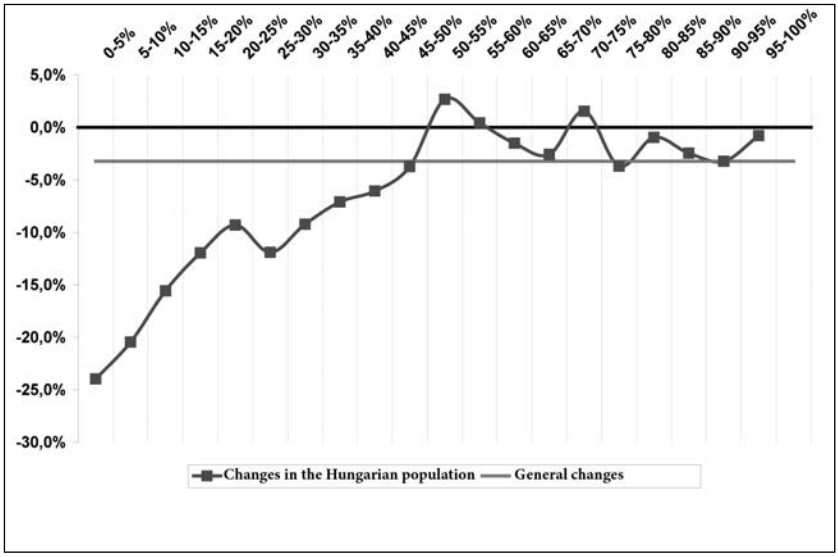
Source: INS

The same can be observed according to regional categories as well. In Szeklerland (Székelyföld), the Hungarian population loss was 7 percent, which is well below the national average and it is equal to the changes between 2002-2011. In Partium, the size of the

Hungarian population also evolved similarly to the national average, and to the trends between 1992-2002. In Central Transylvania, however, the trends are less favourable than the national average. At the same time, the the so called diaspora regions are struggling with a serious problem: not only is the Hungarian population loss much more dramatic there than the national trends, but the demographic erosion seems to have accelerated as well in comparison with the results of the previous decade.

The proportion of Hungarians in the population has a decisive effect on demographic trends. The lower the ratio of Hungarians in a given settlement at the beginning of the inter-census period, the greater the population loss. In the settlements of Hungarian dominance or majority, the population decrease remained under the national average, whereas in the case of settlements where the proportion of Hungarians was lower this figure exceeded 30 percent and 20 percent, respectively.

Changes in the proportion of the Hungarian population between 2002-2011. (Axis "y" indicates the categories by the proportion of Hungarians in 2002, while axis "x" shows the changes in proportion of Hungarians between 2002-2011.)



Source: INS

With respect to the changes in proportions, the critical value seemed to be the initial status of 40 percent. Where the proportion of Hungarians was higher than that in 2002, the demographic processes of the ethnic groups of the past ten years were relatively balanced and, as a consequence the proportion of Hungarians remained constant. However, where the proportion of Hungarians was below 40 percent, a further decease was more likely to happen.

Trends by settlement types are similar to those observed between 1992-2002. The size of the settlements and Hungarian population loss were directly related: the bigger the settlement size, the greater the loss. While at the level of villages, the loss amounted to 7.4 percent between 2002-2011, it reached 23.1 percent in the cities. Villages located in the metropolitan area of cities with 100 thousand inhabitants were the least affected by Hungarian population loss, but that did not mean an increase in their proportion over all.

The outcome of theses processes is a significant modification of the internal structure of the Hungarian population in Transylvania. Between 1992-2011, the propoprtion of those living in cities with more than 100 thousand inhabitants dropped from 26 percent to 21 percent, while the proportion of those living in communes (located outside the metropolitan area) grew from 38 percent to 44 percent. The fact that a growing ratio of the community is concentrated in rural-type settlements has a negative effect on the social position of Hungarians. Moreover, the development of ethnic Hungarian "blocs" in Transylvania should also be noted as a phenomenon. In comparison with 2002, the proportion of those living in an administrative unit of the Hungarian majority grew from 48 percent to 53 percent, and the Székelys – as opposed to 33 percent in 1992 and 35 percent in 2002 – now make up 38 percent of the total Hungarian community of Transylvania.

Factors influencing the demographic evolution of the Hungarian population in Transylvania

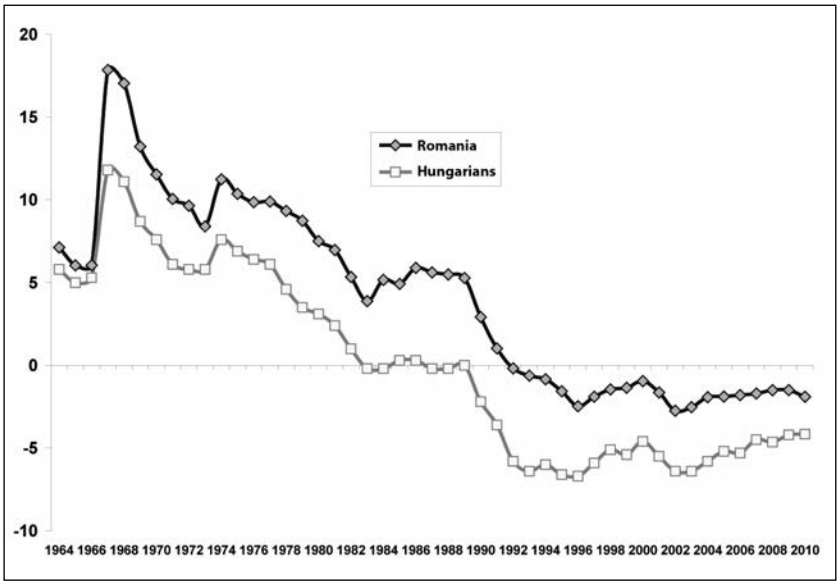
In the following, we will present the demographic processes that affected the Hungarian population trends between 2002-2011. We distinguish between the following factors:

(1) Natural growth, i.e. the difference between the number of births and deaths;
(2) Intergenerational assimilation
(3) Change of (census) ethnic self-identification in the following relations: (3.a) Hungarian-Roma; (3.b) Hungarian-Swabian, and (3.c) Hungarian-Romanian. Logically, the rising number of those not wishing to disclose their ethnicity also belongs here.
(4) Net migration.

Natural growth

Among the demographic processes natural growth can be best documented, as both the ethnicity (nationality) of newborns and deaths is registered in Romania. These data are (more or less) reliable concerning Hungarians.[10]

The natural growth rate of the total population of Romania and the ethnic Hungarian population of Transylvania



Source: INS, own calculations

[10] In the case of newborns, we corrected the data in certain counties. See also *Gyurgyík–Kiss* 2010; *Kiss–Barna* 2012.

We have to note that the main factor which led to a higher rate of population decrease compared to the national average was the natural decrease. As for Romania, the number of births had surpassed the number of deaths each year before 1992. In the time period between 1992 and 2001, the natural growth rate was -1.9 per thousand, and -1.3 per thousand between 2002 and 2010, respectively. However, in the case of Hungarians, we cannot talk about a positive natural growth rate from the mid-eighties on.

Between 1992 and 2001, the natural growth rate as an annual average was -5.8 per thousand while between 2002 and 2010, it was -5.1 per thousand. Thus we can say that although the natural growth rate of the Hungarian population moved closer to the national average, the natural decrease of the Hungarian population surpassed the national figures even in the last inter-census period.

The natural growth of the total population of Romania and the ethnic Hungarian population of Transylvania

	Romania				Hungarians in Transylvania			
	Births	Deaths	Natural growth		Births	Deaths	Natural growth	
			number	‰			number	‰
1992-2002*	2,432,999	2,736,837	-303,838	-1.3	135,383	226,583	-89,274	-5.8
2002-2011*	2,071,479	2,487,625	-416,146	-1.9	112,349	179,219	-66,870	-5.2

Source: INS, *Value calculated for the inter-census period

We have to underline that in the period between 2002 and 2011, the less favourable natural growth rate was not due to a lower propensity of childbearing by Hungarian women (families) or to the lower life expectancy at birth of ethnic Hungarians. In contrast, these were basically identical to the national average in the last inter-census period. Thus, the only factor causing a higher rate of population decline was the less favourable age structure (of 2002).

The average value of the total fertility rate between 1992-2001 and 2002-2010 (calculated for 1,000 women of reproductive age)

	Romania	ethnic Hungarians of Transylvania
1992-2001	1,450	1,311
2002-2010	1,371	1,366
Change	-5.4%	- 4.2%

Source: Eurostat, own calculations

Life expectancy at birth by gender for the total population of Romania and for the ethnic Hungarian population of Transylvania between 1994-2001 and 2002-2009

	Romania	ethnic Hungarians of Transylvania
1994-2001	69.9	69.9
2002-2009	72.3	72.4

Source: Eurostat, own calculations

Intergenerational assimilation

In the case of a minority group, generational reproduction is not only a matter of fertility rates. It is also an important question, weather or not and to what extent are the parents are able (and disposed) to transmit their ethno-cultural skills and identity to their offspring. With regards to the ethnic Hungarians in Transylvania, this problem arises quite acutely in interethnic marriages because most of the children growing up in mixed families shift toward the majority identity, group, and culture. Thus, the principal channel of intergenerational assimilation is interethnic marriage. Consequently, intergenerational assimilation depends on two factors: (1) the number of the interethnic marriages (those who marry inter-ethnically); (2) ethnic socialization within interethnic families.

Concerning interethnic marriages, we can also rely on official statistics. Since we have statistics on marriages by the ethnicity of the spouses in the time period of 1992 and 2007, we can compare the figures for 1992-2001 and 2002-2007 periods.

When examining the data by regions, compared to the 1990s, the proportion of homogeneous marriages declined in each region. The greatest decrease took place in Banat (Bánság), Northern Transylvania, and Central Transylvania. In Szeklerland, the changes are insignificant, while in Southern Transylvania the relative stability is due to Braşov (Brassó) and Alba (Fehér) counties. In Hunedoara (Hunyad) and Sibiu (Szeben) counties, the share of interethnic marriages grew considerably. The (relative) stability of the average figures for Transylvania is due to the fact that of those who get married, has increased the share of those from Szeklerland.

Ethnic reproduction rate and assimilation loss between 1992-2002 and 2002-2011

Region	County	Homogeneous marriages		Ratio of Hungarian children in interethnic marriages			ER (Ethnic reproduction)		Assimilation loss	
		1992–2001	2002–2007	Total	Men (Hungarian)	Women (Hungarian)	1992–2001	2002–2007	1992–2002	2002–2011
Szeklerland (Székelyföld)	Covasna (Kovászna)	95.3	94.0	54.3	61.4	47.8	100.4	100.6	73	93
	Harghita (Hargita)	96.7	95.8	48.0	53.4	43.5	99.9	99.9	-31	-38
	Total	**96.1**	**95.1**				100.1	100.1	42	55
Partium	Bihor (Bihar)	85.7	81.7	37.2	36.9	20	93.8	92.1	-880	-991
	Satu Mare (Szatmár)	81.7	80.1	42.6	46.3	39.4	97.4	97.2	-335	-340
	Sălaj (Szilágy)	88.7	85.9	32.2	36.1	28	95.9	94.9	-260	-238
	Total	**84.6**	**81.8**				95.6	94.6	-1474	-1569
Central Transylvania	Cluj (Kolozs)	77.1	71.3	28	32.4	23.1	89.8	87.2	-846	-777
	Mureş (Maros)	88	84	35.6	39.2	32.1	96.6	95.4	-735	-863
	Total	**84.3**	**80.1**				94.7	93.4	-1581	-1639
Northern Transylvania	Bistriţa-Năsăud (Beszterce-Naszód)	63	54.5	29.4	33.6	23.8	84.2	80.6	-248	-187
	Maramureş (Máramaros)	58.3	55.5	30.1	34.1	25.4	83.1	82.0	-596	-367
	Total	**59.6**	**55.2**				83.5	81.5	-845	-554
Southern Transylvania	Alba (Fehér)	67.5	71.7	22.8	30.4	14.8	82.2	84.5	-266	-121
	Braşov (Brassó)	61.7	60.5	24.5	28.8	20	80.4	79.8	-645	-580
	Hunedoara (Hunyad)	45.1	39.3	22.1	24.5	19.4	69.2	65.9	-449	-233
	Sibiu (Szeben)	39.5	33	24.4	31.6	17.1	69.0	65.6	-344	-231
	Total	**55.4**	**53.9**				76.8	76.7	-1704	-1165
Banat (Bánság)	Arad (Arad)	59.1	54.8	29.1	32.6	25.3	82.8	81.0	-540	-406
	Caraş-Severin (Krassó-Szörény)	23	23	23.7	30.2	16.5	59.0	59.0	-148	-60
	Timiş (Temes)	36.6	32	29.4	36.7	20.6	72.9	71.0	-843	-606
	Total	**47.5**	**42.8**				76.8	75.4	-1531	-1073
Transylvania		**82.1**	**81.0**	**32.3**	**37.5**	**26.9**	**94.5**	**94.7**	**-7093**	**-5945**

*the ratio of children born to Hungarian women and children registered as Hungarian

Concerning ethnic socialization within ethnically mixed families, our point of reference are the census data. In 2002, 32 percent of minors living in mixed families with one Hungarian parent were registered as Hungarians. In case of a balanced situation (were "gains" equate the "losses") this figure would be 50 percent. Significant regional differences can be observed in this regard as well. While in Szeklerland, socialization within interethnic marriages is well-balanced, exogamy led to the demographic erosion of the Hungarian community in all the other regions.

Since there are no 2011 census data available on the subject, we can only rely on the figures of the 2002 census for calculating the ethnic reproduction rate.[11] The ethnic reproduction rate shows how the number of children registered as Hungarians relates to the number of children born to Hungarian women.[12] From that, we can also infer the magnitude of intergenerational assimilation that reduces the generational replacement of the ethnic minority (in comparison with female fertility).

There are considerable regional differences (related to the proportion of interethnic marriages and ethnic socialization within interethnic marriages). In Szeklerland (where the proportion of interethnic marriages is relatively small and ethnic socialization is balanced within interethnic families), there is no assimilation loss, but in some counties of Southern Transylvania, assimilation may deduct as much as 1/4th of the generational replacement of the Hungarian population. The value of ethnic reproduction rate in all of Transylvania (aggregated on the basis of county data) was 94.5 percent between 1992-2002 and 94.7 percent between 2002-2011. In other words, (compared to the number of children born to Hungarian women), we can calculate an assimilation loss of 5.5 percent and 5.3 percent. With the exception of Szeklerland, the ethnic reproduction rate dropped in every region. The fact that the value rose at the level of Transylvania can be explained by the shifting of the regional distri-

[11] The formula is as follows: ER = HomM × 100 + HetM × (ERHet_man + ERHet_woman), where HomM – the ratio of homogeneous marrriages in which ethnic reprdocution can be assumed to be 100 percent; HetM — is the ratio of interethnic marriages; ERHet_woman, ERHet_man – is the ethnic reproduction within interethnic marriages with a Hungarian wife or husband.

[12] See *Szilágyi* 2002:2004.

bution of newborns. The proportion of newborns falling on Szeklerland continues to grow, which counterbalances the declining ethnic reproduction indicators of the other areas. The intergenerational assimilation loss thus calculated was 7,000 persons between 1992-2002 and 6,000 persons between 2002-2011.

The intergenerational assimilation statistically is not an independent element of the population loss but it is closely related to the rate of natural increase. As we mentioned already the number of deaths exceeded by 66,870 the number of births. This number already includes the assimilation loss, which reduced the number of newborns registered as Hungarian by 6,000 persons.

Change of ethnic identification in Hungarian-Swabian relations

In Satu Mare (Szatmár) county and especially in the rural area surrounding Carei (Nagykároly) there lives a large Hungarian-speaking population of German/Swabian origin. Szatmár Swabians have been affected by a strong process of assimilation since the 19th century, but they have maintained a sense of ethnic origin. Since one can identify the territory populated by Szatmár Swabians, it is relatively easy to follow the fluctuation of ethnic self-identification from census to census. In the 13 villages concerned, only 1,991 people identified themselves as German and 29,414 as Hungarian in 1966. By 1977, the number of Germans went up to 3,093, and that of Hungarians dropped to 25,906. The number of ethnic Germans (including Swabians) reached its peak in 1992, causing an 8,000 statistical loss for Hungarians. On the other hand, in 2002, (with the German ethnic revival drawing to an end), it was the Hungarians who registered a significant gain of about 7 thousand persons. In 2011, the change of self-identification was much less numerous than in the previous two censuses. In 2002, approximately 80.8 percent of those with a simultaneous German and Hungarian affiliation identified themselves as Hungarian, while in 2011, this figure was 82.6 percent. A change of census identification in favour of the German catogary can be observed in the villages of Urziceni (Csanálos) and Ciumeşti (Csomaköz). There was a shift in favour of the Hungarian category in Foieni (Mezőfény) and Ardud

(Erdőd). On the whole, the population change due to changed census identification could involve no more than a few hundred persons (we shall say 200 persons in the following), and it tended to increase, rather than decrease, the (statistical) number of Hungarians.

Change of ethnic identification in the Roma-Hungarian relations

As we have mentioned above, there is no consensus about the number of the Roma at the national level. The core of the problem lies in the fact that the social construction of Roma ethnicity differs greatly from that of the Hungarian or Romanian, and as such, censuses are not necessarily adequate tools to establish the number of the Roma. While being Hungarian or Romanian is a matter of subjective self-identification and based on given linguistic-cultural traits, people become Roma mainly because others consider them to be such.

With respect to the Hungarian-speaking Roma, representative individual municipal (community level) surveys provide some orientation. On the basis of the survey *Turning points of the life course - Transylvania*[13] in 2006, we came to the conclusion that in Transylvania, there may be about 150 thousand Roma who speak Hungarian, out of whom 88 thousand identified themselves as being Hungarian.

Now let us see which ethnic identification the Roma opted for in the censuses. At the national level, the 1966 census was a low point concerning the number of those who identified themselves as Roma. In that year, only 64,197 persons claimed to be Roma. Compared to that, the number of the Gypsies/Roma rose from census to census as a result of two factors: their natural increase (which was caused by a far higher fertility rate than that of non-Roma) and the so called *Roma dissimilation*[14].

[13] The survey carried out in 2006 was initiated by the Demographic Research Institute of the Hungarian Central Statistical Office. About the results, see *Spéder* (ed.) 2009.

[14] We mean by this that people who had identified themselves as Romanian or Hungarian in the previous censuses now called themselves Gypsies/Roma. Naturally, this interpretation of assimilation/dissimilation is oversimplified, but we shall refer to this phenomenon by these terms for ease of understanding.

Number of persons who identified themselves as Gypsy/Roma (according to the 1966, 1977, 1992, 2002, and 2011 censuses) and the gains of the Gypsy/Roma category in self-identification

		Romania	Transylvania	Bihor (Bihar)	Covasna (Kovászna)	Harghita (Hargita)	Mureş (Maros)	Satu Mare (Szatmár)	Sălaj (Szilágy)
1966	**Number of Gypsies according to census**	**64,197**	**49,105**	**3,678**	**1,465**	**1,390**	**11,402**	**1,750**	**1,779**
1977	**Number of Gypsies according to census**	**227,398**	**123,028**	**12,014**	**3,522**	**3,228**	**20,019**	**5,256**	**3,920**
	Population number calculated from 1966 census results with a yearly growth of 2%	79,821	61,056	4,573	1,822	1,728	14,177	2,176	2,212
	Gains by change of census identity	147,557	61,972	7,441	1,700	1,500	5,842	3,080	1,708
	Hungarian-Roma ethnicity transfer	10,160	10,160	3,792	800	1,500	1,500	2,418	150
1992	**Number of Gypsies according to census**	**401,097**	**202,665**	**21,796**	**2,641**	**3,827**	**34,798**	**9,823**	**9,224**
	Population number calculated from 1977 census results with a yearly growth of 2%	306,048	165,579	16,169	4,740	4,344	26,943	7,074	5,276
	Gains by change of census identity	95,049	37,086	5,627	-2,099	-510	7,855	2,749	3,948
	Hungarian-Roma ethnicity transfer	3,489	3,489	-316	-1,000	-435	3,000	1,406	834
2002	**Number of Roma according to census**	**535,140**	**244,475**	**30,089**	**5,973**	**3,835**	**40,425**	**13,478**	**12,544**
	Population number calculated from 1992 census results with a yearly growth of 1.6%	470,096	237,529	25,545	3,095	4,485	40,784	11,513	10,811
	Gains by changes of census identity	65,044	6,946	4,544	2,878	-650	-359	1,965	1,733
	Hungarian-Roma ethnicity transfer	-1,194	-1,194	868	-400	-1,125	-1,234	822	-125
2011	**Number of Roma according to census**	**619,007**	**271,417**	**33,694**	**8,238**	**5,422**	**46,637**	**17,513**	**15,137**
	Population number calculated from 2002 census results with a yearly growth of 1.6%	627,198	286,531	35,265	7,001	4,495	47,379	15,797	14,702
	Gains by changes of census identity	-8,191	-15,114	-1,571	1,237	927	-742	1,716	435
	Hungarian-Roma ethnicity transfer	2,514	2,514	-2,057	456	767	1,647	1,080	221

Source: INS, own calculations

In the above table, we tried to separate these two factors. We calculated with a Roma population growth of 2 percent for 1966-1992 and 1.6 percent for 1992-2011. According to this, the Roma dissimilation gain was 145 thousand in 1977, 95 thousand in 1992, and 65 thousand in 2002 at the national level. In 2011, 619 thousand people identified themselves as Roma in Romania. This figure is clearly lower than what could be expected according to the hypothesis of the 1.6 percent yearly increase of the Roma population, which numbered 535 thousand in 2002. This demonstrates that as opposed to the previous three censuses (1977, 1992, and 2002), we cannot talk about Roma dissimilation at the national level. In fact, there were 8 thousand fewer people identified themselves as Roma than in the previous census. In Transylvania, the connection is even more obvious. Here the Roma population dropped due to census identification change by 15 thousand. That is all the more surprising since the 2011 census was the first one during which Roma organizations led a serious identity campaign (to increase their own numbers).[15]

In Hungarian-Roma relations, the census identification trends did not follow the national trends. In 1977 and 1992, in harmony with the national trend, a greater proportion of the Hungarian Gypsies identified themselves as Gypsy. However, the tide turned in 2002, and compared to 1992, more Hungarian speaking Roma claimed to be affiliated with the Hungarian community. In 2011, the situation was reversed. While in 2002, the changes of census identification had a positive outcome (from a Hungarian perspective) in spite of the Roma dissimilation at the national level, in 2011, the balance turned negative despite the fact that at the national level we cannot talk about Roma dissimilation. This was manifest in all the counties with the exception of Bihor (Bihar). The aggregated figures often conceal a multi-directional movement. On the whole, we estimated the Hungarian population loss to Roma dissimilation at 2,514 persons. At the same time, it should be emphasized that the majority of Hungarian Roma (especially the ones living in Szeklerland) continued to identify themselves as Hungarian. In Szeklerland (including Târgu Mureș /Marosvásárhely and its surrounding area),

[15] http://www.romanicriss.org/index.php?option=com_content&task=view&id=336-&Itemid=64

there are about 71 thousand Roma16 according to our estimates, of whom 56 percent claimed to be Hungarian in 2011.

Migration trends and changes of ethnic identification in Romanian-Hungarian relations

Before 1989 ethnic minorities were highly overrepresented among the migrants from Romania. The out-migration of Hungarians intensified from the second half of the 1980s. Between 1987-1991, nearly 100 thousand Hungarians left Transylvania. In the 1990s, Hungarians continued to be heavily overrepresented within the migrant population. If we take into consideration the data on natural growth, the total population loss caused by net migration could be estimated as 825,233 between 1992-2002, which corresponds to an average of -3.6 per thousand annual net migration. Regarding Hungarians, based on calculations on natural growth and change of census identification, we can calculate with a migration loss of -110 thousand or an average annual net migration rate of -6.6 per thousand. That also means that in 1992, roughly 13 percent of the migration loss affected the Hungarian population making up 7.2 percent of the total population.

After the millenium, however, Romanian migration was profoundly transformed as a result of the country's extremely intensive participation in the international migration movements. After the year 2000, Romania became the second most significant sending country in Eastern Europe after Poland. The census results seem to confirm the assumptions according to which 2-2.5 million Romanian citizens reside abroad, mainly in Western Europe. Based on the data on natural increase, the 2011 census highlighted a population loss caused by migration of 2.22 million, which means a -11.4 per thousand of annual average net migration, or a loss of -10.3 percent of the 2002 population. Out-migration has the greatest impact on the Moldovan region and Southern Transylvania, while the least affected are the areas inhabited by the highest proportion of Hungarians: Szeklerland (Székelyföld), Partium, Central Transylvania, and also

[16] Not all of them are Hungarian speaking. For a detailed analysis see *Kiss-Barna* (2012).

Population changes due to factors other than natural growth in the total and the Hungarian population between 2002-2011

Region	County	Net migration of the total population		Hungarians				
				Total population change (other than natural growth)		Changes of census identification	Net migration	
		Number	‰ (yearly average)	Number	‰ (yearly average)		number	‰ (yearly average)
Szeklerland (Székelyföld)	Covasna (Kovászna)	-16,261	-7.9	-10,073	-6.6	-636	-9,437	-6.2
	Harghita (Hargita)	-19,969	-6.6	-15,174	-5.9	-899	-14,275	-5.5
	Total	**-36,229**	**-7.1**	**-25,247**	**-6.1**	**-1,535**	**-23,712**	**-5.8**
Partium	Bihor (Bihar)	-37,106	-6.7	-7,704	-5.4	1,147	-8,851	-6.2
	Sălaj (Szilágy)	-23,422	-10.5	-3,727	-7.2	-369	-3,358	-6.4
	Satu Mare (Szatmár)	-30,326	-9.1	-9,779	-8.3	-1,292	-8,487	-7.2
	Total	**-53,747**	**-8.2**	**-21,210**	**-6.8**	-514	-20,696	-6.6
Central Transylvania	Cluj (Kolozs)	-26,850	-4.1	-9,488	-8.7	-1,082	-8,406	-7.7
	Mureş (Maros)	-41,877	-7.8	-15,596	-7.5	-2,792	-12,804	-6.2
	Total	**-122,474**	**-5.8**	**-25,084**	**-7.9**	**-3,874**	**-21,210**	**-6.7**
Northern Transylvania	Bistriţa-Năsăud (Beszterce-Naszód)	-35,459	-12.5	-2,100	-13.1	-20.0	-2,080	-13.1
	Maramureş (Máramaros)	-46,551	-10.0	-8,254	-21.1	-1,213*	-7,041	-18.0
	Total	**-82,009**	**-10.9**	**-10,354**	**-18.8**	**-1,233**	**-9,121**	**-16.6**
Southern Transylvania	Alba (Fehér)	-45,003	-13.2	-3,094	-17.5	-15	-3,079	-17.5
	Braşov (Brassó)	-85,785	-16.3	-8,023	-18.4	-105	-7,918	-18.4
	Hunedoara (Hunyad)	-71567	-16.9	-7,714	-38.4	-1,603*	-6,110	-30.4
	Sibiu (Szeben)	-46,064	-12.0	-3,171	-25.0	-431*	-2,739	-21.6
	Total	**-248,420**	**-14.8**	**-22,002**	**-23.4**	**-2,154***	**-19,847**	**-21.2**
Banat (Bánság)	Arad (Arad)	-33,425	-8.0	-7,376	-17.7	-400	-6,976	-17.7
	Caraş-Severin (Krassó-Szörény)	-45,927	-15.7	-2,243	-51.0	-1,000*	-1,242	-28.3
	Timiş (Temes)	-16,661	-2.6	-11,406	-27.5	-5,433*	-5,972	-14.4
	Total	**-96,013**	**-7.1**	**-21,025**	**-24**	**-6,833***	**-14,190**	**-16.7**
Transylvania		**-638,893**	**-9.8**	**-124,923**	**-9.8**	**-16,143***	**-108,777**	**-8.6**
Romania		**-2,221,892**	**-11.3**	**-127,455**	**-9.9**	-16,143	-111,312	-8.5

The figures marked with an * asterisk are based on the intuitive estimation of census identification changes in Hungarian-Romanian relations (not supported by specific data).

Banat (Bánság) where Hungarians represent a lower proportion of the population.

In the case of Hungarians, we separated – mostly intuitively[17] – the net migration from the changes caused by transfer of census identification in Romanian-Hungarian relations. In our former analyses, we assumed that intra-generational assimilation (i.e. that someone who had identified himself as Hungarian would change to Romanian self-identification) is not typical (or is statistically insignificant) in Transylvania. However, on the basis of the data from 2011, it seems that we cannot put down the decrease of the Hungarian population solely to migration trends, especially in Caraş-Severin (Krassó-Szörény), Hunedoara (Hunyad), Sibiu (Szeben), and Maramureş (Máramaros) counties.

The table shows population movement due to factors other than natural growth, first with respect to the overall, then to the Hungarian population. Regarding the total population, it corresponds to the (external and internal) net migration. As we have mentioned above, at the national level, the loss caused by migration was 2.22 million, while in Transylvania, it is 638 thousand. This means an annual average net migration of -11.3 per thousand and -9.8 per thousand, respectively.

As for the Hungarian population, we have split the data into two components: the change of census identification and net migration. On the one hand, the column of census identification change contains the results of the documented trends (Roma–Hungarian, Swabian–Hungarian and non-respondents), and on the other, it also offers estimates for the possible volume of identification change in Romanian–Hungarian relations in a selection of counties. We assumed that ethnicity transfer from Hungarian to Romanian had taken place where the population loss of Hungarians due to factors other than natural increase surpassed the value for the total population by more than 1.8. These counties were Caraş-Severin (Krassó-Szörény), Hunedoara (Hunyad), Timiş (Temes), Maramureş (Máramaros), and Sibiu (Szeben). In their case, we calculated with the net migration rate presented in the last two columns of the table. With respect to Hunedoara (Hunyad), Maramureş (Máramaros), and Sibiu (Szeben),

[17] More in detail in *Kiss-Barna* 2012: 62-64.

the figure is 1.8 times higher than the migration loss for the total population, while in Timiş (Temes) county, it is 1.8 times higher than the migration loss minus the internal migration gain. Accordingly, the changes caused by identification transfer is -16,143, whereas the net migration is -111,312.

Conclusions

In summary of the above, demographic trends of the Hungarian population were affected by different factors.

Factors determining population size

	number	**%**
Net migration	-111,312	57.4
Natural increase	-60,661	31.3
Intergenerational assimilation	-5,945	3.1
Changes of census identification (Romanian–Hungarian relations)	-9,158	4.7
Non-response	-4,671	2.4
Changes of census identification (Roma– Hungarian and German-Hungarian relations)	-2,314	1.2
The demographic evolution of the population between 2002-2011	**-194,061**	

Between 2002-2011, Hungarian population decrease was mostly the result of migration loss. Compared to the previous period (1992-2002), the out-migration of Hungarians reached greater proportions (annually 8.5 per thousand compared to annually 6.6 per thousand) despite the fact that it still remained far below the figure pertaining to the majority Romanian population as well as that of the total population of the country. In our previous demographic projections concerning the Hungarian population, we had underestimated the migration affecting the Hungarian community, since compared to the period between 1992-2002, we had projected a slightly decreasing migration loss (Csata–Kiss 2007). The migration loss grew especially in the diaspora region where migration was typically directed toward Western Europe. As opposed to the previous inter-census period, the number of migrants moving to Hungary did not decline significantly: 60-75 percent of the 111 thousand migration loss is made up of migrants to Hungary (65-83 thousand persons).

The natural decrease of the Hungarian population was more accentuated than that of the total population. That was true despite the fact that Hungarian fertility and life expectancy at birth were not lower than the national average. In the period examined, the number of deaths exceeded that of births by 66 thousand. This figure also includes the 6-thousand intergenerational assimilation loss, which is due to the fact that the majority of children born in interethnic marriages are not registered by their parents as Hungarian.

The next factor is the change of census identification changes that turned out to be less favourable in 2011 than in 2002. First of all, the non-response rate grew regarding ethnicity, and about 4,600 non-respondents had possibly identified themselves as Hungarian before. Second, we incurred a population loss in Roma–Hungarian relations as well, even though this was the first census since 1966 without Roma dissimilation at the national level. Contrary to our previous studies, this time we assumed that about 10 thousand was the balance of changes of identification in Romanian–Hungarian relations as well.

Finally, it is worth highlighting the regional differences once again, which appear in each and every demographic trend between the ethnic blocs and the dispersed population regions. In Szeklerland (and to a smaller extent, in Partium), thanks to the more favourable age structure, the natural growth rate is also more favourable than in areas of dispersed settlements. Moreover, the Hungarian communities living there did not join the migration flow to Western Europe or if they did, only to a lesser degree. Consequently, the population loss of the Hungarians of Partium and Szeklerland was significantly less whom compared to the national figure. The disappearance of the dispersed settlements is happening faster than expected and also implies that within the Hungarian community of Transylvania, ethnic blocs – especially Szeklerland (Székelyföld) – will have an increasingly important maintenance role in the future.

BIBLIOGRAPHY

CSATA, István – KISS, Tamás (2007): *Népesedési perspektívák. Az erdélyi magyar népesség regionálisan tagolt előreszámítása húsz és harminc éves időtávra*. Kriterion Könyvkiadó–RMDSZ Ügyvezető Elnökség, Kolozsvár

GYURGYÍK, László – KISS, Tamás (2010): *Párhuzamok és különbségek. A második világháború utáni erdélyi és szlovákiai magyar népességfejlődés összehasonlító elemzése.* EÖKIK, Budapest

Kapitány, Balázs – Kiss, Tamás (2010): Erdélyi magyarság: csökkenő létszám, változatlan arány. *Korfa* 4.

KISS, Tamás – BARNA, Gergő (2012): *Népszámlálás 2011. Erdélyi magyar népesedés a XXI. század első évtizedében.* Műhelytanulmányok a romániai kisebbségekről 43. Nemzeti Kisebbségkutató Intézet Kolozsvár

PREDA, Marian – Zamfir, Cătălin (ed.) (2002): *Romii în România*. Expert, Bucureşti

SPÉDER, Zsolt (ed.) (2009): *Párhuzamok. Anyaországi és erdélyi magyarok a századfordulón*. Budapest, KSH – Népességtudományi Kutatóintézet, Kutatási jelentések 86

SZILÁGYI N., Sándor (2002): Észrevételek a romániai magyar népesség fogyásáról, különös tekintettel az asszimilációra. *Magyar Kisebbség* (4.) 64-96.

SZILÁGYI N., Sándor (2004): Az asszimiláció és hatása a népesedési folyamatokra. In: KISS Tamás (ed.): *Népesedési folyamatok az ezredfordulón Erdélyben*. Kriterion Könyvkiadó – RMDSZ Ügyvezető Elnökség, Kolozsvár, 157–235.

Translated by Judit Pethő-Szirmai