



The Evolution of Romania's Internal Migration. Findings from the 1977, 1992, 2002 and 2011 Censuses

Constanța MIHĂESCU

Bucharest University of Economic Studies, Bucharest, Romania
constanta.mihaescu@csie.ase.ro

Adrian OTOIU

Bucharest University of Economic Studies, Bucharest, Romania
otoiu.adrian@gmail.com

Erika MARIN

Bucharest University of Economic Studies, Bucharest, Romania
erika.marin@csie.ase.ro

Ileana NICULESCU-ARON

Bucharest University of Economic Studies, Bucharest, Romania
gabriela.niculescu@csie.ase.ro

Abstract. *Although internal migration has been rather overlooked, both in terms of its magnitude and importance, its ability to reflect socio-economic changes is providing useful insights on the evolution of the Romanian society over the last decades. Based on the analysis of census microdata over the past 4 censuses, some major shifts in the magnitude and patterns in internal migration reveal the fact that characteristics of internal migrants have not only mirrored, but also preceded the changes observed for the total population. Among the most important developments revealed by our analysis have been a slight decrease in migration incidence since 1992, an increase in migrants residing in rural areas, especially in the South region, and a higher incidence among women, perhaps as a counterweight for higher international migration rates among men. Internal migrants' age profile shows that they are 11 years older than the total population, up from a gap of only 6 years in 1977. Although they tend to be relatively more educated, their advantage has been on a declining trend and, contrary to common perceptions, are less likely to be single. At the county level, data reveals diverging patterns triggered by post-communist development, among which deindustrialization of some countries and strong international migration. These findings help portray the socio-economic changes as revealed by the analysis of census data, and provide any additional feedback to the annual internal migration flow estimates, by assessing the stock of those who moved from their birthplace, and showing how net internal migration patterns have morphed over time, both reflecting and effecting demographic and socio-economic evolutions of the Romanian society¹.*

Keywords: internal migration, demography, census, socio-economic change, post-communism.

¹ This research has been performed as part of the project "Romanian history as reflected by population and housing censuses - from the first census until today"

Introduction

Migration is one of the most important socio-economic phenomena that defines and affects the life of the citizens in most countries. In many cases, people move at least once in their lifetime to continue their education, get a job or career compatible with their aspirations, find their spouse, or retire in a place of their choice, to name some of the life events that accompany a change in residence.

While international migration captures most attention and is being actively researched, internal migration is often overlooked, despite the fact that its magnitude is several times higher, and its impacts are likely greater. However, its impacts often reflect major socio-economic trends such as industrialization, urbanization, economic development of certain areas and widening gaps between regions.

Another important issue is the profile of internal migrants based on different characteristics. While the profile of international migrants is well-known: young or prime working age, male, (highly) educated (Otoiu, 2015), and moderately wealthy, little is known about internal migrants so far. This lack of knowledge is important if we consider the fact that internal and international migration draw upon the same pool of people (Otoiu et al., 2014).

In the literature, migration is often analyzed in terms of flows, despite their well-known caveats in terms of reliability (Goschin, 2016). Stock-based approaches were often used (e.g. Ghetau, 2009) to gauge the actual dimension of international migration. While this issue is not that strong for internal migration, if we consider the fact that it can be more accurately tracked through administrative records, it is highly informative to view the process as it unfolds through time, as, due to lower costs and fewer restrictions, more internal migration instances can occur during one's lifetime. Thus, an increased frequency and complexity of the movements makes an analysis using a stock-based approach to be highly valuable in terms of revealing the long-term patterns of internal migration and their characteristics.

Therefore, we have decided to do an analytical investigation of Romanian internal migration, in the light of the socio-economic changes that characterized the Romanian society in the past decades. This research complements the project "Romanian history as reflected by population and housing censuses - from the first census until today" carried out at the Bucharest University of Economic Studies as part of a cluster of projects which had the purpose of providing insights to Romanian society. The analysis seeks to explore the changes in internal migration as evidenced by the last four available censuses, as snapshots of the Romanian society which define, and are, in turn, defined by the broad socio-economic changes that have occurred over about half a century.

Literature review

Compared with its international counterpart, internal migration has received little attention, and scholarly references are, in many respects, limited.

However, several references stand out when it comes to Romanian internal migration. Popescu (2020) observes that post-communist trends such as deindustrialization, and deurbanization have reversed the predominance of urban-rural migration since 1997. Simon et al. (2011) also shows that the urban-rural pattern of internal migration has reversed in the post-communist period, and that the pattern is comparable to emigration. Kupiszewski et al,

(1997) noticed that, from 1992 onwards, internal migration for urban to nearby rural areas has picked up, and migration from urban to urban areas has intensified in the post-communist period, reversing strong rural-to-urban migration. Horvath (2016) observes similar trends, and notices that high rates of international migration have not decreased the incidence of internal migration, with urban areas identified as development poles being the main drivers of migration to urban areas, and to urban sprawl.

In terms of migration drivers, political policies that controlled and directed population movements were replaced by economic factors such as unemployment, population density, urbanization, and altitude. Andrei and Mirica (2019), show that the level of development has played a major role in explaining the incidence of internal migration, and that internal migration patterns followed seven distinct periods of socio-economic development, from 1964 to 2014.

Sandu (2018) observed the high diversity of internal migration patterns for the 1991-2011 period. Urban to rural migration thus predominates in several counties in Moldova, in order to take advantage of lower costs of living. Rural-to-rural migration is very frequent in the Southern counties, and appears to be spreading in the south of Moldova and Tulcea. Finally, the existence of a large city (over 200,000 inhabitants) leads to strong urban-to-urban internal migration flows, with Bucharest, Cluj, and Brasov being the main destinations.

Methodology

Given the descriptive focus of the paper, which matches the research project under which this research has been carried out, and the fact that internal migration has not, to our knowledge, explored through the use of census data, descriptive methods were used to define and portray the long-term levels of internal migration. Summarization of the census data was the main method used, along with choropleth charts, tables, and heatmaps for the synthetic display of the results.

Romanian microdata for the 1977, 1992, 2002 and 2011 censuses was used, available from IPUMS. Data covered information about the county of domicile of the census respondents, area type, county of birth, age, gender, marital status, and education. Due to anonymization of respondent data, it was impossible to track a person throughout the period.

Data processing and analysis had to overcome several technical issues. Data from two counties, Arad and Alba, were missing from the 1977 census. Two territorial reorganization of the old Ialomita and Giurgiu counties posed difficulties in data processing, due to the fact that these counties have undergone a reorganization in 1981, when the Giurgiu and Ilfov counties have been reorganized into Giurgiu, Ilfov and Calarasi (Apostol, 1969).

Internal migration was computed as a dummy variable, which identified those who are not living in the same county where they were born. We have excluded from the data those born in other countries, as this phenomenon was marginal for the first three censuses, and in order to ensure comparability of the estimates.

Results and discussions

Internal migration has declined slightly during the past two decades before 2011. The most common explanation was the change in political regime after the fall of communism. The communist period during Nicolae Ceausescu has been characterized by the phenomenon of forced industrialization, characterized by a mass migration from rural areas to urban areas.

This has abated after 1990, and is the main factor that has driven the incidence of internal migration down from 18% in 1977 and 1992 to 16% in 2002 and 2011.

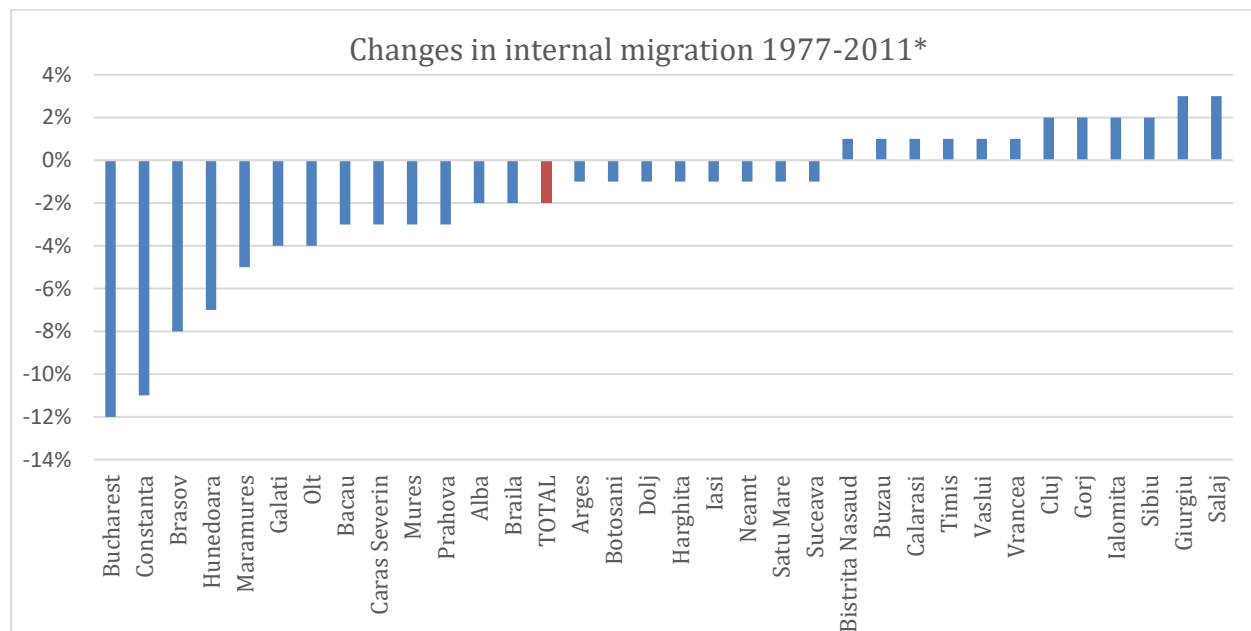


Figure no. 1. Changes in internal migration from 1977 to 2011

Source: authors' calculations based on IPUMS data

Notes: data for Arad and Alba computed for the 1992-2011 period. Due to reorganization, Ilfov county figures were unreliable and were not reported.

The regional situation has followed suit, as most counties have experienced a decrease in the incidence of internal migration, as seen in Figure 1. Of a particular interest is the case of Bucharest, which experienced a decline from an internal migration incidence of 54% to 42% in 2011. However, there are reasons to believe that this decrease is partly due to urban sprawl, with people moving away from Bucharest to Ilfov and other neighboring counties, and by the economic development of other major cities, such as Cluj-Napoca and Timisoara, which managed to attract large numbers of internal migrants. Apart from Bucharest, Constanta, Brasov, Hunedoara, Maramures, Galati and Olt were the counties with the largest decreases.

There are reasons to believe that the post-communist period, characterized by deindustrialization, has led to the large decreases in Brasov, Hunedoara and Galati. Among the counties with the largest increases there are the Giurgiu, Calarasi and Ialomita, for reasons that will be revealed when migration by area type is analyzed. Counties of Sibiu and Cluj have managed to attract people following a strong economic development. For a few counties, not shown in the graph, the situation remained stable: Arad, Bihor, Covasna, Dambovitza, Mehedinti, Teleorman, Tulcea and Valcea.

Currently, internal migration seems to be more polarized than in the past, as shown in Figure 2. A comparison between 1997 and 2016 shows that internal migration has experienced a generalized decrease from 1992 to 2011. However, the migration patterns remained largely the same, in terms of high incidence (e.g. Bucharest, Timis, Brasov, and Constanta) and low incidence counties (Teleorman and Botosani).

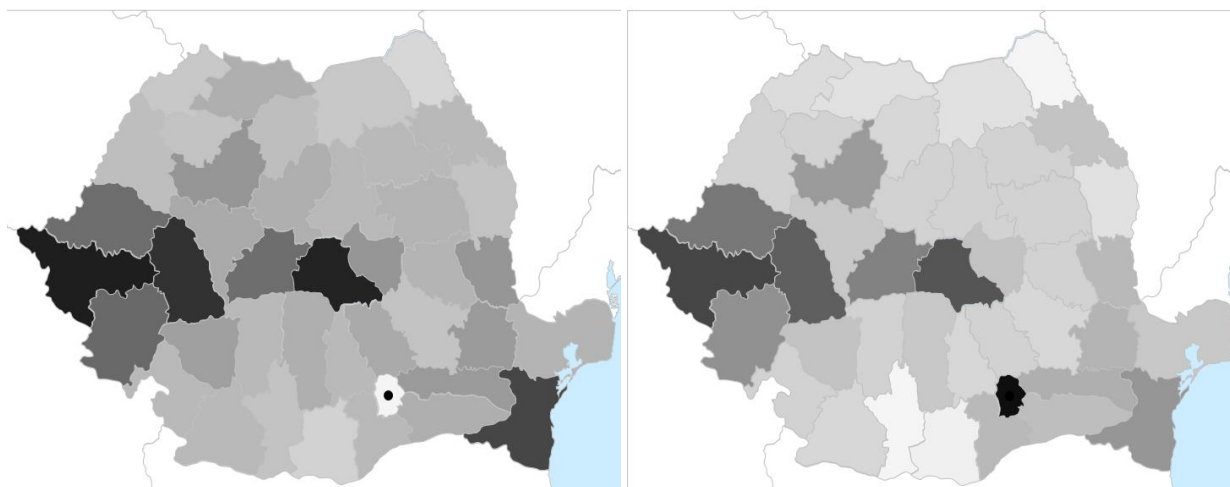


Figure no. 2. Incidence in internal migration 1992 (left) and 2011 (right)

Source: authors' research based on IPUMS data

Notes: Ilfov county figures were unreliable and are not reported. Scale ranges from 0% (clear white, to Black (40% and over)

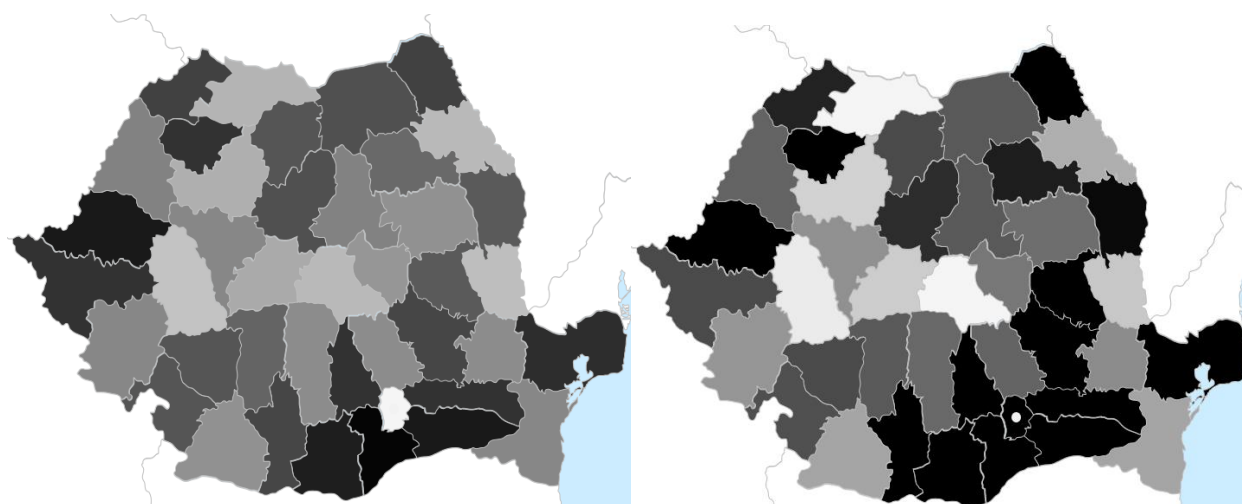


Figure no. 3. Incidence in internal migration in rural areas 1992 (left) and 2011 (right)

Source: authors' research based on IPUMS data

Notes: Ilfov county figures were unreliable and are not reported. Scale ranges from 0% (clear white, to Black (40% and over)

The incidence of migration has been different when area types were compared. Since 1977, rural internal migration (or, more precisely, people who live in rural areas and have changed domicile since birth) has been picking up. The share of internal migrants in rural population grew from 20% in 1977 to 23% in 2011. Figure 3 shows the evolution of the incidence of internal migration in rural areas, and provides a better picture of the evolution of internal migration in rural areas, as countrywide figures can be biased by large population figures for urbanized counties. Counties in the south of Romania have shown an acceleration of rural migration, which currently surpasses 50%. Currently, 13 counties have a rural

migration rate of over 40%, up from only four in 1992. Most of them are located in the south of the country; however, some counties in Moldova (Botosani, Neamt and Vaslui) and Transylvania (Satu Mare, Arad and Salaj) also have high, and increasing internal migration in rural areas. We chose this comparison period as, due to the territorial reorganization, 1977 figures are unreliable for the counties with the highest internal migration incidence in rural areas: Ilfov, Calarasi, Ialomita and Giurgiu.

At the other end of the spectrum, five counties have low rural migration incidence: Cluj, Sibiu, Maramures, Galati and Brasov, which have seen sizable decreases. For the first two, this development is explained by industrial and urban development, while for the others the issue should be further investigated.

Analysis of internal migration by gender reveals a pattern which shows an important difference between internal and international migration. The incidence of internal migration is significantly lower among men, while the opposite is true when it comes to international migration. Their share in internal migration numbers is significantly lower than their share in total population, as shown in Table 1. A situation by county is not presented as there are no significant differences between them when it comes to gender balance, both for internal migrants and for the total population.

Table 1. Share of men in total population and in total internal migration

	1977	1992	2002	2011
Share of male internal migrants	47%	46%	44%	43%
Share of males in total population	49%	49%	49%	49%

Source: authors' calculations based on IPUMS data

The age profile of internal migrants helps provide further insights on the differences between internal migrants and total population. The slight decrease in the incidence of internal migration is accompanied, and seems to influence, the difference in median age between the total population and the internal migrants.

Table 2. Median age of internal migrants vs total population

	Internal migrants	Total population	Difference
1977	38	32	6
1992	40	33	7
2002	46	35	11
2011	51	40	11

Source: authors' calculations based on IPUMS data

As table 2 shows, there has been a significant shift in the age difference between internal migrants and total population since 1992, when the difference started to be almost twice as large as the one in 1977 and 1992. While the age of migrants is expected to be higher due to the fact that, usually, the instance of moving (changing domicile) to another place is taken after the age of majority, the difference is striking if we control for the size of the younger cohorts.

Age group	mig77	mig92	mig02	mig11	pop77	pop92	pop022	pop11	popR77	popR92	popR02	popR11
0 to 4	2%	1%	1%	1%	9%	7%	5%	5%				
5 to 9	3%	2%	1%	1%	10%	7%	5%	5%				
10 to 14	2%	3%	2%	1%	6%	8%	7%	5%				
15 to 19	4%	4%	3%	2%	6%	8%	7%	5%	8%	10%	9%	6%
20 to 24	9%	7%	5%	5%	8%	9%	8%	6%	10%	11%	9%	8%
25 to 29	12%	7%	7%	6%	8%	5%	8%	7%	10%	7%	9%	8%
30 to 34	9%	11%	10%	8%	6%	7%	9%	8%	8%	9%	11%	9%
35 to 39	10%	13%	7%	8%	7%	8%	5%	8%	10%	10%	7%	9%
40 to 44	10%	11%	10%	10%	7%	7%	7%	9%	10%	9%	8%	10%
45 to 49	9%	8%	12%	7%	7%	5%	7%	5%	9%	7%	9%	6%
50 to 54	8%	8%	10%	10%	6%	6%	7%	7%	9%	8%	8%	8%
55 to 59	5%	7%	7%	12%	4%	6%	5%	7%	5%	8%	6%	9%
60 to 64	5%	6%	7%	10%	4%	5%	5%	6%	6%	7%	7%	7%
65 to 69	4%	5%	6%	6%	4%	5%	5%	4%	6%	6%	6%	5%
70 to 74	3%	3%	5%	6%	3%	2%	4%	5%	4%	3%	5%	5%
75 to 79	2%	2%	3%	4%	2%	2%	3%	4%	2%	3%	4%	4%
80+	1%	1%	1%	3%	1%	1%	1%	2%	1%	2%	2%	3%
85+	0%	1%	1%	2%	0%	1%	1%	1%	1%	1%	1%	2%

Figure no. 4. Age distribution of migrants vs. total population

Source: authors' work based on IPUMS data

Legend: mig- internal migrants, pop- population, popR- population aged 15 and over.

As shown in Figure 4, the age distribution of internal migrants shows interesting patterns. The general phenomenon of population aging can be clearly seen from the distribution of both total population and internal migration. The latter seems to be highly concentrated around the 35-39 age group in 1992, 45 to 49 age group in 2002 and 55 to 59 age group in 2011. This roughly corresponds to the 1947- 1962 birth cohorts, which make up for about a third of internal migrants in 1992, 2002 and 2011. By contrast, the distribution of the population aged 15 and over shows a more even distribution among age groups. However, the age distribution in the 15+ population is becoming more concentrated around the 1965-1981 following the pro-natalist policy since 1967. While its effects are also reflected in the distribution of migrants, especially in 2011 for the 30 to 44 age groups, it cannot overshadow the internal migration peak for the 1947-1962 cohorts. This corresponds to the start of the communist period, with potential causes being the forced industrialization and collectivization of agriculture. This also explains its high concentration around particular age groups, and has somewhat amplified the aging effect among internal migrants. This trend may also be associated with the freedom of movement after the Communist period, which has effected a reduction of the size of the 1965-1981 cohorts, contributing to a flatter age profile for the total population.

The regional distribution of the age difference brings additional insights to the differences in the age profile of migrants. Age increases by county do not affect all counties the same way, and large differences are shown in Figure 5.

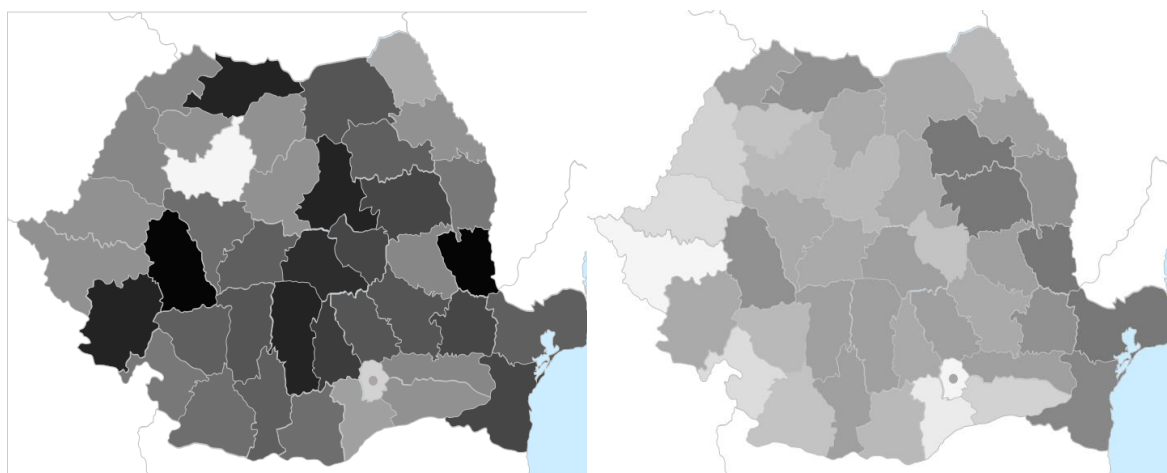


Figure no. 5. Increase in migrants' median age, 1977 to 2011

Source: authors' research based on IPUMS data

Notes: data for Arad and Alba computed for the 1992-2011 period. Scale ranges from 2 years (clear white), to Black (21%)

	No education	Primary	Lower Secondary	Upper secondary	Tertiary	N/A
mig77	4%	27%	23%	34%	6%	6%
mig92	2%	15%	26%	42%	11%	5%
mig02	2%	11%	23%	46%	15%	3%
mig11	1%	7%	21%	45%	24%	2%
pop77	7%	33%	20%	17%	2%	20%
pop92	4%	21%	26%	28%	4%	16%
pop02	4%	18%	25%	35%	6%	12%
pop11	3%	13%	24%	37%	13%	10%
Ratio77	60%	82%	112%	192%	298%	
Ratio92	56%	68%	98%	147%	266%	
Ratio02	63%	64%	93%	130%	229%	
Ratio11	44%	57%	86%	121%	189%	

Figure no. 6. Distribution of migrants and total population by education levels 1977- 2011

Source: authors' work based on IPUMS data

Legend: mig- shares of internal migrants by education level, pop- shares of total population by education level, Ratio- shares of internal migrants over total population shares for corresponding levels of education

It can be seen that aging has completely different patterns when the regional distribution is considered. Apart from counties in which both the total population and and internal migrants have a higher increase in median age, e.g. Tulcea, Neamt, Galati and Bacau, there are places where aging of internal migrants is more pronounced, e.g. Suceava, Caras-Severin Brasov and Bistrita. In Timis, the aging of the internal migrant population is markedly more pronounced, than for the total population, which is also true for Giurgiu. The only exception to the rule is Cluj, where the median age of migrants has barely changed, while its total population shows low to moderate aging. For the Hunedoara, Caras- Severin, Galati, Maramures, Harghita, Brasov, and Arges, counties, higher aging of internal migrants seems to be associated with decreasing migration intensities.

While migrants are in general more educated, the educational divide between them and the total population is decreasing, especially for those with upper secondary and tertiary education, as shown in Figure 6. Increasingly, those with lower levels of education (no education or primary education) are less likely to migrate. Those with lower secondary have a relatively stable share among both migrants and total population.

Conclusion

An analysis of internal migration patterns and trends has revealed interesting facts about the evolution of the Romanian society for a period of 44 years.

Net migration stock measures, as observed during the 1977, 1992, 2002 and 2011, have revealed facts that have defined the evolution of the Romanian society throughout the years. A relatively slight decrease in the incidence of internal migration is related to the change in political regime after the 1989, although different counties are affected to a different extent. The age structure of migrants reveals the fact that economic policies in the early Communist period have influenced internal migration more than the pro-natalist policy enacted in 1966. Gender balance of internal migrants is skewed towards women a lot more than it is for the total population. Rural internal migration has picked up and accounts for an increasing share of migrants compared to the past. Also, while the general patterns of internal migrations have experienced only a few changes, it can be seen that rural internal migration is highly prevalent in the Southern counties. Another item of interest is the fact that, except for the Cluj county, it appears that internal migration may have contributed to the increase in median age, with the counties which were heavily industrialized in the past (Brasov, Hunedoara and Galati) being the most affected.

Internal migration thus seems to reflect and follow the broad socio-economic trends seen in Romanian society, and has the potential of yielding interesting insights about the socio-economic changes that affected Romania over the years. Further research is, however, needed, in order to delve deeper in the structure of internal migration and its potential effects on other socio-economic areas, and reveal the causal impact of internal migration on different socio-economic phenomena that were previously unexplained.

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