

Territorial analysis of discriminated groups

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Abstract. *Labour market discrimination may lead to segregation resulting in the separation between the majority and the minority group at the local level, occupational level, educational level in public spaces etc. In this study we analysed the distribution of the Roma population at local level, because they are regarded as the most vulnerable group in Romania. We also analysed the extent to which spatial localization affects the poverty rate in this community. Data were provided by “A social map of PROROMI Roma communities”.*

Keywords: employment; discrimination; poverty.

JEL Classification: J01, J71, P36.

REL Classification: 5G.

1. Introduction

The term topology comes from Greek and it means „the study of a given place”. *The topological analysis is related to the spatial relationship* which the discriminated group has with the majority. The more distant is the relationship, the more limited the development opportunities of the discriminated group are. If there is a direct relationship between the majority and minority groups, the latter can easily integrate into the community.

The spatial analysis of the discriminated groups can lead to the emergence of territorial segregation. The economic theory shows that segregation generally has negative effects on the segregated population. Cutler and Glaser (1997) analysed the segregation effects on employment, schooling and concluded that the segregation of the population in certain areas or within certain occupations negatively influences the development of individuals belonging to minority groups. Segregation inhibits the exchange of information, of human capital between the segregated areas (Benabou, 1993, Buisson, 2005) which leads to the self-exclusion of the minority group from various levels of education and occupations.

Ethnic segregation may be based mainly on three factors: discrimination, disadvantaging and personal choice (Johnston, Poulsen, Forrest, 2007). The marginalization of ethnic groups is determined by several factors (Nevin Turgut Gültekin and Özlem Güzey, 2007), and the most important are: establishing social location that differs from the dominant group, rejection of general values that exist in the society, stereotypes etc.

Vermeiji, Duijn and Baerveldt (2009) studied ethnic segregation and social discrimination in the Netherlands by examining how students in secondary school behave. Social discrimination can be defined as an ethnic group's preference to have social relations only with the members of their group (intra-ethnic) and less with those who are part of the majority group (inter-ethnic). This conclusion was validated by other studies: Clark, Ayes (1992), Halinan (1982), Halinan and Smith (1985, 1989).

Blau (1994) considers that the chances of an individual who belongs to a minority group to establish social relationships with the individuals who are part of other groups increase depending on the size of these groups.

2. Spatial analysis of the Romani group

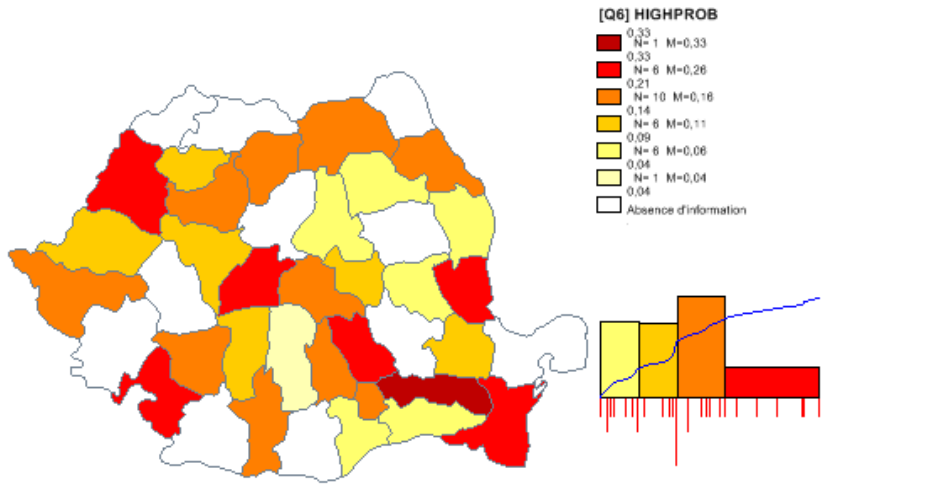
According to EU-MIDS report (2009), spatial segregation is high among Roma people; they live mainly in areas predominantly populated by other Roma people. Bulgaria records the highest level of segregation (72%), then Romania (66%), Slovakia (65%) and Greece (63%).

According to the Population Census of 2011, the ethnic distribution of the population in Romania is the following: Romanians (88.6%), Hungarians (6.5%), Roma (3.2%), Ukrainians (0.3%), Turks (0.17%), Russian-Lippovan (0.14%), Tatars (0.12), and 0.3% of the respondents did not declare their ethnicity. Roma people are evenly distributed over the entire territory especially in the following counties: Călărași (8.1%), Sălaj (6.9%) and Bihor (6.1%).

Regarding location of the Roma population in settlements compared to the majority group in the study *Rroma communities in Romania (2005)* we could draw the following conclusions:

- The highest concentration of poor Roma population is in the developed villages and the small towns;
- Generally speaking, the size of the Roma community is increasing: from the rural to the urban; from those located peripheral to the central ones;
- Most Roma live on the outskirts of the village, however, nearby (57.1%) primarily in the following counties: Sibiu, Alba, Arad, Bihor, Timiș, Maramureș (Annex 1, Figure A1. *Respondents living on the outskirts of the village, nearby*).
- 36.2% of the respondents live within cities, especially in the following counties: Dolj, Călărași, Giurgiu, Botoșani, Galați, Vaslui (Annex 1, Figure A2. *Respondents living in towns*).
- 6.5% of the respondents live on the outskirts of the city, especially in: Ialomița, Constanța and Prahova (Annex 1, Figure A3. *Respondents living on the outskirts of the city, farther*).

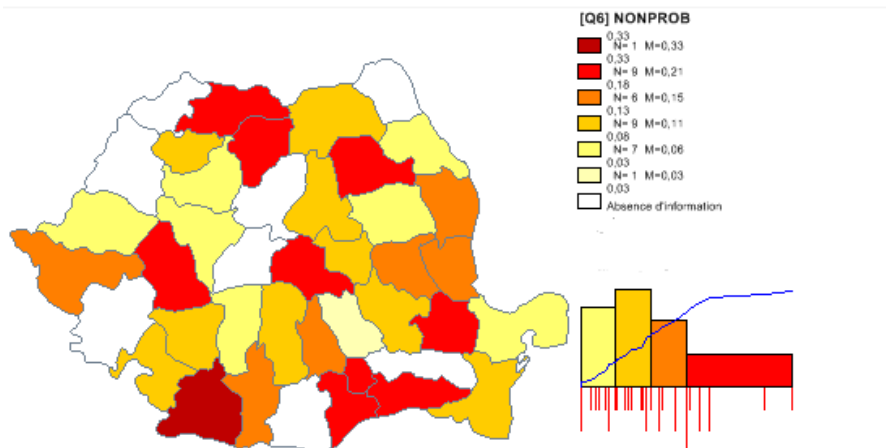
Sandu (2005) created a social map of the Roma group based on the study of the *Rroma Communities in Romania* and classified the Roma communities into four categories: *Highprob – very poor*, *Midprob – poor*, *Lowprob – less poor* and *Nonprob – without social problems*. Based on the data drawn from this investigation we could represent the counties experiencing the most serious social problems in Roma using a map (Figure 1).



Source: Own representation based on the survey: A social map of the PROROMI Roma communities, 2005.

Figure 1. Respondents with serious social problems

The map above groups the counties into seven categories according to the value of the Highprob indicator and generates an average at the level of each group. In Ialomița County this indicator has the highest value (33%), followed by: Bihor, Sibiu, Mehedinți, Prahova, Constanta and Galați (with an average of 26%). At the opposite pole we find Dolj, where 33% of the respondents said they do not have social problems (Figure 2).



Source: Own representation based on the survey: A social map of the PROROMI Roma communities, 2005.

Figure 2. Respondents without serious social problems

3. Empirical analysis

According to the study conducted by the World Bank (2010) poverty rate among the Roma population was 67%. In order to see to what extent the location of the Roma population influences the poverty rate within this group, we used the database information provided by the study called *A social map of the PROROMI Roma communities* (Sandu, 2005). This database consists of 848 respondents and we used the following variables:

Table 1. *Model variables*

Independent variables	Codification
Location	1- Within locality 2- On the outskirts, nearby 3- On the outskirts, farther
Region (Codreg)	1-Macro-region 1 2-Macro-region 2 3-Macro-region 3 4-Macro-region 4
Dependent variable	
Level of poverty	0-Nonprob (without social problems) 1-Lowprob (low poverty) 2- Midprob (average poverty) 3- Highprob (very poor)

In order to identify the influence of the independent variables we used the following regression equation:

$$y_i = a + b_1 \times x_1 + b_2 \times x_2 \dots \dots \dots b_n \times x_n + u_i$$

where: y_i represents the level of poverty, b_i is the vector of the coefficients to be estimated and u_i is the residues.

For the results of the model not to be distorted we calculated the correlation matrix for the exogenous variables. The table below notes that the independent variables are not correlated with each other because the values obtained are less than 0.5 or 0.6 (Leech, Baret, Morgan, 2005).

Table 2. *Correlation table*

		Codreg	Location in village/ town
Codreg	Pearson Correlation	1	0.101**
	Sig. (2-tailed)		0.003
	N	848	848
Location	Pearson Correlation	0.101**	1
	Sig. (2-tailed)	0.003	
	N	848	848

** Correlation is significant at the 0.01 level (2-tailed).

The second column of the table below presents the Pearson correlation coefficient between the dependent variable and independent variables which is 0.601 and it means that there is a strong correlation between variables. The coefficient of determination (R^2) is 0.36, which means that 36% of the variance of the dependent variable can be explained by the variance of the independent variables,

Table 3. Model summary

Model	R	R ²	Adjusted R ²	Standard error
1	0.601 ^{a)}	0.362	0.360	0.68035

^{a)} Predictors: (Constant), codreg, location in village/town.

In the table below, ANOVA, the F test verifies if the regression line is significant. In this model, the F test has high value; it is statistically significant ($p < 0.001$).

Table no 4. Anova^{b)}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	221.547	2	110.773	239.317	0.000 ^{a)}
	Residual	391.128	845	0.463		
	Total	612.675	847			

^{a)} Predictors: (Constant), codreg, location in village/town

^{b)} Dependent variable: Roma community type according to Sandu Roma Social Mapping, ANR, 2005.

Regression coefficients and t test results are presented in the table below. Standardized coefficient for the variable location is 0,589 and for the region is 0.076. They represent the correlation between the dependent variable and the independent variables. After analysing these factors, we see that location at the level of settlement affects much more the poverty level than the region which the respondent comes from. Unstandardized coefficients (the slope of the regression equation) are 0.856 (for location) and 0.33 (for region). Based on these factors we can write the regression equation as follows:

$$y = 0.048 + 0.856 \text{ Location} + 0.033 \text{ Codreg}$$

Table 5. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.048	0.082		0.588	0.057
	Location	0.856	0.040	0.589	21.316	0.000
	Codreg	0.033	0.012	0.076	2.738	0.006

Note: Dependent variable: Romani community type according to Sandu Roma Social Mapping, ANR, 2005.

Coefficient values are statistically significant ($p < 0.01$).

4. Conclusions

Rroma communities are located mainly on the outskirts of the settlements 57.1% of respondents (Sibiu, Alba, Arad, Bihor, Timiș), and 36.2% live within settlements (Dolj, Călărași, Giurgiu, Botoșani, Galați, Vaslui).

In terms of poverty, the most serious social problems in this ethnic group are registered in Ialomita followed by: Bihor, Sibiu, Mehedinți, Prahova, Constanta and Galați (with an average of 26%). At the opposite pole we find Dolj County, where 33% of respondents said they do not have social problems.

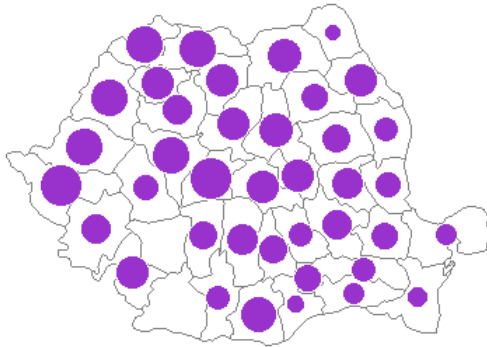
Analysing the factors influencing poverty within Rroma communities, location at the level of settlement (inside, on the outskirts and on the outskirts, but farther) influences more than the geographical area where the respondents come from.

Acknowledgements

This work was supported by CNCSIS+UEFISCSU, project number PNIIRU code PD: 281/2010 (number 77/2010).

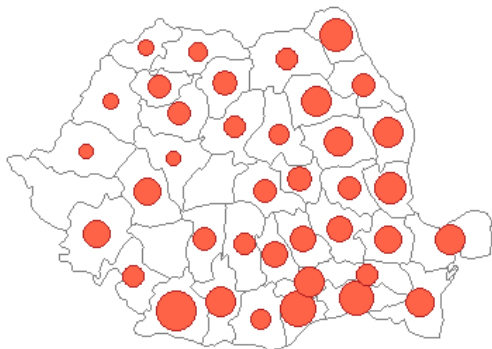
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Annex 1

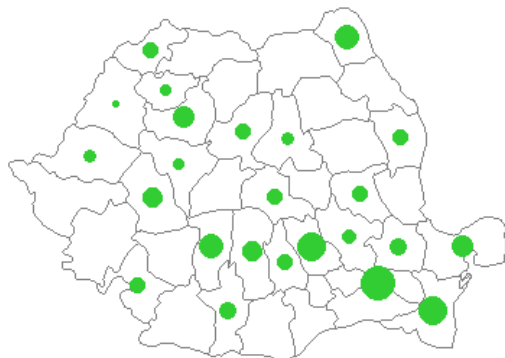
Source: Own representation based on the survey: A social map of the PROROMI Roma communities, 2005.

Figure A1. Respondents living on the outskirts of the village, nearby



Source: Own representation based on the survey: A social map of the PROROMI Roma communities, 2005.

Figure A2. Respondents living in towns



Source: Own representation based on the survey: A social map of the PROROMI Roma communities, 2005.

Figure A3. Respondents living on the outskirts of the city, farther