Labour market outcomes in the Roma population of Spain

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Abstract

The aim of this paper is to identify the drivers of labor market outcomes for the Spanish Roma population. Our analysis reveals that discrimination and education have an influence on the labor market outcomes of this ethnic group, and social networks also play a key role, via ethnic and cross-ethnic social contacts and family background. Discrimination and family background have a significant effect on unemployment rates of this population, while education and ethnic social contacts have an important influence on the levels of self-employment.

Keywords: Spanish Roma population, labor market, discrimination, social networks.

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1. Introduction

Worsening labor market outcomes for visible ethnic minorities are commonly being observed in developed countries, and minority ethnic groups have higher unemployment rates (Carlsson & Rooth, 2007; Clark & Drinkwater, 2007; Li & Heath, 2009), and are often over-represented in low-status jobs (Darity & Mason, 1998), than the average native population. This labor situation is largely explained by lower levels of education among such minorities, and is exacerbated by employer discrimination (Berritella, 2012). Special attention has been given to discrimination issues, common for those groups that are culturally and visibly different from the native population. Employer discrimination usually occurs at recruitment, when minority candidates with equal skills are passed over in favor of candidates from the larger, native population (Carlsson & Rooth, 2007; Li, 2010, Oreopoulus, 2011; Pager and Western, 2012). This recruitment bias is also found in the case of workers with high qualifications who decide to apply for menial jobs.

On the other hand, ethnic minorities show higher rates of self-employment. This over-representation in self-employment among ethnic minority workers may also be a consequence of labor market obstacles, i.e. discrimination, which push ethnic minority workers to become self-employed. An alternative explanation for such over-representation in self-employment places the emphasis on a set of pull factors, including shared language, shared informal finance resources and, above all, family and community ties that facilitate starting a business (Clark and Drinkwater, 2000). With respect to family ties, prior evidence establishes that there is an inter-generational transmission of the propensity to be self-employed, that it is to say, a father's self-employment status affects his offspring's self-employment outcomes, although this effect differs by race (Hout and Rosen, 2000). With respect to community ties, the effect in an ethnic context are both positive and negative. Members of an ethic group concentrate on specific jobs in such a way that, when new job opportunities appear in their workplace, the information is given to other members of the ethnic group (Pattachini and Zenou, 2012). However, it is also plausible to consider that ethnic minorities with high unemployment rates may experience negative labor market outcomes because having fewer connections to employees reduces access to information about jobs and thus lowers the probability of obtaining a job (Hellerstain et al. 2008).

The Roma population is the largest ethnic minority in Europe and it is therefore not surprising that European institutions concerned with promoting social inclusion pay particular attention to the labor market problems of Roma[1]. Prior studies of the labor market situation of Roma have investigated populations in Central and South Eastern Europe, and have pointed to both low educational levels and discrimination as the primary factors in poor employment outcomes. Kertési and Kézdi (2011) analyze the employment gap between Roma and non-Roma in Hungary between 1993 and 2007, attributing more than one-third of the observed gap to the lower level of education of the Roma population. Kosko (2012) finds that the effect of education on employment is greater for Roma than for non-Roma in Romania, but when controlling for educational level, the Roma still have lower odds of gaining employment. Moreover, when employed, the probabilities are 2.5 times higher that a Roma individual will be in an unskilled, low-wage job. O'Higgins (2010) also finds that returns to education, in terms of a higher probability of finding a job, and earning higher wages, are lower for Roma in South-Eastern Europe. All these findings may be attributed to the existence of discrimination toward the Roma population. In this regard, Milcher and Fischer (2011) detect the presence of labor market discrimination in Albania and Kosovo, but find no such discrimination in Bulgaria, Croatia, or Serbia. Recently, O'Higgins and Brüggemann (2013) claim that cumulative discrimination, that is to say, discrimination in education that leads, in turn, to unequal educational attainment, can explain unequal labor market outcomes for Roma in the Czech Republic, where there exists an over-representation of Roma children in special schools.

To our knowledge, there is no prior economic analysis of the factors explaining the labor outcomes of the Spanish Roma population. In fact, the current economic crisis has disproportionately affected the Spanish Roma population, who routinely face social exclusion and marginalization, as well as negative stereotypes and racial prejudice (Human Rights Council, 2013). Addressing these problems requires a knowledge of the employment drivers of this ethnic group. We use the *Spanish Roma Population Survey* (SRPS), a survey designed and carried out, jointly, by the intercultural, social non-profit organization Fundación Secretariado Gitano[2] (FSG), the Soros Foundation, and the

[1] See, for instance, Recommendation Rec(2001)17 on improving the economic and employment situation of Roma/Gypsies and Travellers in Europe (Council of Europe, https://wcd.coe.int/ViewDoc.jsp?id=241681&Site=CM&BackColorInternet=C3C3C3&BackColorIntranet=EDB021&BackColorLogged=F5D383)

[2] For more details, see http://www.gitanos.org/quienes_somos/mision_estrategia.html.en

Open Society Institute, in 2011[3], to investigate the labor situation of the Spanish Roma population. This survey is based on the same indicators and methodology as Spain's Economically Active Population Survey (EAPS)[4]. (Note: henceforth, we will omit the term 'Spanish' when referring to the Roma in Spain.)

Spanish law covering the protection of data prohibits the incorporation of ethnic variables in the census, making the study of ethnic groups in Spain problematic. SRPS allows for an analysis of the Roma population aged 16 and over (16 being the minimum legal age of employment in Spain). The sample size was 1,862 interviews, from which we can derive results with a 2.53% margin of error. The field work consisted of a single interview per household, incorporating questions about gender, age, and employment variables for all members of the household. Additional questions were answered by the family head, covering level of education, religion, self-perceived discrimination, and self-perceived health. The final exploitation of the data applied the appropriate weighting factors to balance the interviewee sample[5].

Since the most significant differences between the Roma and the average Spanish population, in terms of labor market outcomes are, first, the higher percentage of unemployment of Roma workers and, second, the lower percentage of Roma employees, which seems to be compensated for by the higher percentage of self-employed (see Table 1), the aim of this paper is to identify the main drivers of self-employment, paid-employment, and unemployment levels among the Spanish Roma population.

Table 1. Labour market status (in percentage terms), 2011.

	Spanish Roma population	Total Spanish population
Employee	12.6	38.6
Self-employed	14.5	7.4
Unemployed	27.2	14.1
Inactive	45.7	39.3
No. Obs. survey	1,859	139,689

[3] See Spanish and Migrant Roma Population In Spain: Employment And Social Inclusion – 2011- A Comparative study, page 203, http://www.gitanos.org/upload/14/10/Situatia_romilor_-_english.pdf

[4] http://www.ine.es/en/inebmenu/mnu_mercalab_en.htm

[5] For more details about methodology, see Spanish and Migrant Roma Population In Spain: Employment And Social Inclusion – 2011- A Comparative study, pages 205, 212 and 213. http://www.gitanos.org/upload/14/10/Situatia_romilor_-_english.pdf

Source: Own elaboration from SRPS and EAPS

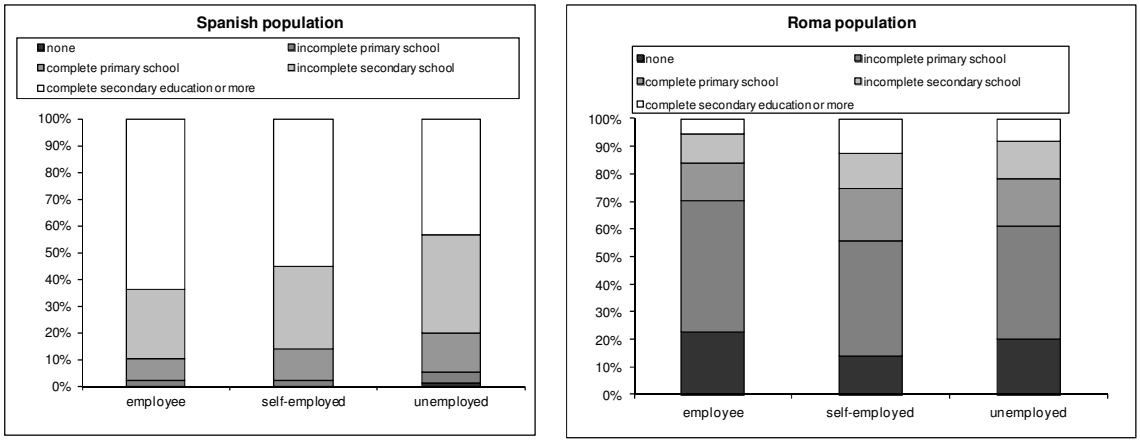
The structure of the paper is as follows. Section 2 presents a brief descriptive analysis of the Roma population in Spain, focusing on the distinctive features that may be affecting their labor market outcomes. The econometric analysis is shown in Section 4, and Section 5 outlines our conclusions.

2. Descriptive statistics of Spanish Roma population

The Roma, comprising groups who first arrived in Spain in the 15th Century, have shown strong group cohesion and have preserved distinctive characteristics over time (e.g. the Romani language). The estimated number of Roma living in Spain is around 700,000 (Council of Europe, 2007), a figure similar to that of Russia. Only Turkey and Romania (with 1.9 million and 1.85 million, respectively) have larger Roma populations. They are not, however, a homogeneous group in Europe; depending on their location, five Roma categories are distinguished: these are the Kalderaši (the most numerous) in the Balkans, many of whom migrated to Central Europe and North America; the Gitanos (or Calé) in the Iberian Peninsula, Northern Africa, and Southern France; the Manush (or Sinti) in Alsace and other regions of France and Germany; the Romnichal (or Romany) in the UK and North America, and the Erlides (or Yerlii) in South-Eastern Europe and Turkey.

As prior studies have emphasized, education and discrimination may play a key role in explaining labor outcomes of the Roma. Unsurprisingly, Figure 1 shows a significant gap between the educational level achieved by the Roma and that of the average Spanish population. Around 50% of the Roma population have not completed primary school, compared to 5% for the average Spanish population. Distinguishing by employee, self-employed, and unemployed categories, different educational patterns are detected. In the Spanish population as a whole, those who did not complete primary school fall mostly into the category of unemployed; for the Roma, the majority of those who failed to complete primary school are found in the category of the employed. At the upper levels of education, those who have completed secondary school or higher are mostly in the employee category for the total Spanish population, whereas they have a greater presence in the self-employed category for the Roma.

Figure 1. Percentage of population at all levels of education, 2011.



Source: Own elaboration from SRPS and EAPS

SRPS also incorporates a question to the family head about whether he/she felt discriminated against in the past year; this allows us to measure his/her perceived discrimination. Self-perceived discrimination is a subjective concept, of course, but it is widely used in the literature and, contrary to what could be expected, Kaiser and Major (2006) find that perceived discrimination is under-, rather than over-reported. Using data from the Spanish National Health Survey (2006), Gil-González et al. (2013) determine that the frequency of self-perceived discrimination at the national level was 4.2% for men and 6.3% for women. From SRPS, we find that 30.17% of the interviewed Roma perceived discrimination, with no significant gender differential. We further find that this percentage is not uniform once employee, self-employed, and unemployed categories are considered: while 34% of Roma, self-employed and unemployed, classify themselves as discriminated against, only 17% of Roma employees feel that way.

Obviously, other social variables should be taken into account, especially those features that are distinctive of the Roma population, and also affect labor market outcomes. First, a significant gap is observed between Roma fertility patterns and those of the Spanish population at large. Roma families have more children than the average Spanish population, which fits in with their low level of education. In Hungary, Kertési and Kézdi (2011) find that the number of children is important for female employment

among that Roma population. Roma women there face the 'double' discrimination facing worse labor outcomes than non-Roma women and Roma men (O'Higgins, 2012). Table 2 shows that the participation of the Roma population in the labor market is higher for men than for women. Roma women who enter the labor market are mostly unemployed, and those who are employed do not run a business; Roma self-employment is predominantly male.

Table 2. Labour market status by gender (in percentage terms), 2011.

	Spanish Roma population	Total Spanish population
Employee	12.6	38.6
Self-employed	14.5	7.4
Unemployed	27.2	14.1
Inactive	45.7	40.0
No. Obs. survey	1,859	139,689

Source: Own elaboration from SRPS

Another distinctive feature of Roma workers is that they enter the labor market at an earlier age than the average Spanish population (Laparra, 2007). As Table 3 shows, the average age of Roma workers in all labor categories is lower than that of the general labor force in Spain as a whole.

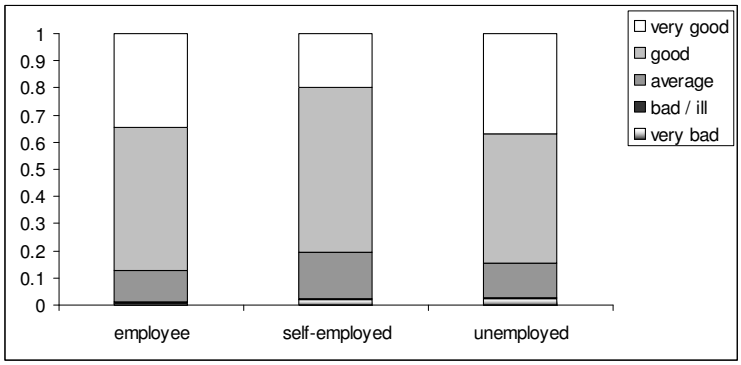
Table 3. Average age, 2011.

	Spanish Roma population	Total Spanish population
Employee	34.6	40.4
Self-employed	38.2	45.6
Unemployed	32.8	37.0

Source: Own elaboration from SRPS and EAPS

Health also affects labor outcomes. In fact, there is a significant causal effect from health on the probability of employment, with Spain being one of the European countries with a greater health effect (García-Gómez, 2011). SRPS provides information about self-reported health. The Roma describe their general state of health as good or very good. Considering labor categories, self-employed Roma appear to declare a slightly worse general state of health (Figure 2).

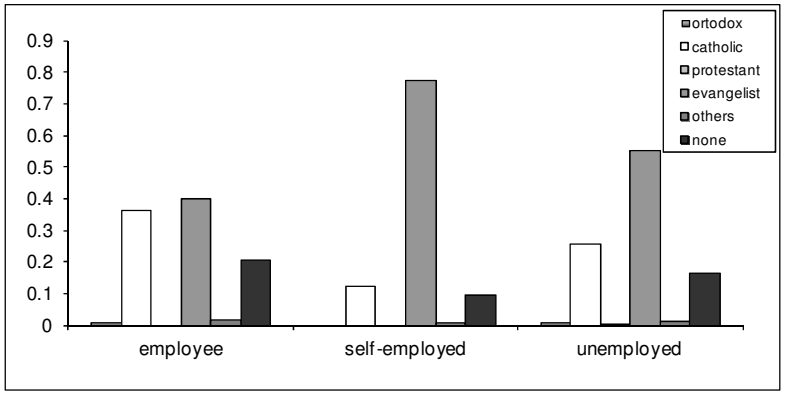
Figure 2. General state of health reported of Spanish Roma population, 2011



Source: Own elaboration from SRPS.

Existing studies emphasise that religious difference has an independent effect on labor market performance (Khattab, 2009). Religion may also shape entrepreneurship (Audretsch, et. al., 2013). Figure 3 presents the composition of the Roma population's religious beliefs in each category. While employees are almost equally divided between Catholics, Evangelists, and no religion, unemployed and self-employed Roma show a bias in favor of Evangelism. Most non-Roma Spanish are Catholic.

Figure 3. Religious beliefs of Spanish Roma population, 2011



Source: Own elaboration from SRPS.

Although this descriptive analysis (see also Appendix A) exhibits certain differences between Roma and non-Roma Spanish workers, which may explain the

comparatively poorer labor outcomes of the Roma, an econometric model must be run in order to determine the drivers of the probabilities of being an employee, self-employed, or unemployed, for this population.

3. Econometric model

Entry to the labor market as an employee, or self-employed, or unemployed is modelled using probit regressions. Let us consider the pooled sample, with S_j being the unobserved benefits and costs of being an employee ($j=1$), self-employed ($j=2$) or unemployed ($j=3$). These benefits and costs are associated with individual socio-economic characteristics, discrimination, and tradition in the family. A specific worker will be in situation j as long as S_j is greater than zero. In practice, S_j is unobserved and is replaced in the estimations by its binary counterpart C_j, which takes a value of 1 if the worker is in situation j, and 0 otherwise. Since X is a vector of socio-economic, demographic, and cultural variables, and μ the error term, the decision may be delineated as a latent variable model in which the net benefit of training for the employee is given by:

$$\begin{cases} S_j = \beta_j X + \mu_j, \\ C_j = 1 \text{ if } Situation\ j > 0 \\ C_j = 0 \text{ if } Situation\ j \leq 0 \end{cases}$$

Specifically, the estimations are based on the following:

$$\Pr ob(C_j) = \alpha_{j0} + \sum_i \alpha_i X_i + \mu_j$$

Following prior studies, the variables *educational level*, *self-perceived discrimination*, *age* (considering also the possibility of a non-monotonic effect), *gender*, *number of children*, *civil status*, *religion*, and *self-perceived health* could be important factors affecting Roma labour market outcomes in Spain. Self-perceived discrimination is measured through a dummy variable, with value 1 for those who report that they felt discriminated against in the last year. Residence (rural or urban) is also incorporated into the analysis as a control variable. It is also likely that the mechanism of inter-generational transmission plays a role in the Roma community. Family members of usually live very close to each other, and family ties are very strong. In order to capture

this possible effect, a dummy variable is introduced into the analysis, with value 1 for those who have the same occupational status as their father or mother.

Discrimination has been considered as a potential endogenous variable because self-perceived discrimination could be both cause and consequence of the labour situation. Two instruments have been used: discrimination against the Roma community, and ethnical openness. First, in the SRPS, the head of the family is asked whether the Roma community is currently more, equally, or less discriminated against than ten years ago. The three possible responses become three dummies, with the reference dummy being those who perceive more discrimination now than ten years ago. Second, discrimination is related to the openness of the individual and a dummy is created with value 1 if the interviewee is not concerned about ethnicity. Table 4 shows the results of the econometric specification (Model I). The null hypothesis of exogeneity, at a 5% of significance level, is not rejected (except for the employee model, in which the hypothesis of exogeneity could be rejected, but at a 10% significance level). In the joint significance test of the instruments in the first stage regression, the F-statistic is greater than 10 and the Anderson-Rubin test rejects the null hypothesis of weak instruments. We cannot reject the null hypothesis of goodness of fit of the probit model at a 1% significance level.

Table 4 shows an interesting influence of self-perceived discrimination on the probability of being employed, self-employed, or unemployed for the Roma population. The link between those who respond that they felt discriminated against in the past year, and the probability of their being an employee, is negative, but turns positive in the link between self-perceived discrimination and the probability of being unemployed. However, discrimination has no effect on the probability of being self-employed among the Roma population. Self-perceived discrimination does not explain the over-representation of self-employment among the Roma, which may imply that pull factors (such as personal characteristics or family background) can explain this over-representation. The level of educational level affects the probability of being self-employed, with respect to those with no education, but the data do not point to the existence of inter-generational transmission of the propensity to be self-employed.

Table 4. Estimation results, probit, and instrumental variable model (Model I)

	Employee				Self employed				Unemployed			
	probit		ivprobit		probit		ivprobit		probit		ivprobit	
Self-perceived discrimination	-0.3943	***	-1.0825	***	-0.0280		0.5910		0.2167	***	-0.3062	
Equal parent ocupation	0.1051		0.1496		-0.4127		-0.4458		0.7411	***	0.7217	***
Age	0.1516	***	0.1435	***	0.0811	***	0.0846	***	0.0976	***	0.0980	***
Age square	-0.0019	***	-0.0018	***	-0.0010	***	-0.0010	***	-0.0014	***	-0.0014	***
Civil status (reference single)												
married	0.2299		0.2383		0.4293	***	0.3448	**	-0.3882	***	-0.4165	***
living together	-0.0757		0.0230		-0.1222		-0.1922		0.1377		0.0855	
widow/-er	-0.4385		-0.2671		0.0946		-0.0468		-0.0675		0.0120	
divorced	0.8024	**	0.8520	***	-0.0419		-0.1134		-0.2236		-0.2967	
separated	0.2164		0.3338		0.0918		-0.0713		-0.3463		-0.2734	
Female	0.0476		0.0402		-0.5830	***	-0.5449	***	-0.5097	***	-0.5477	***
Children	-0.4223	***	-0.3402	**	0.0136		-0.0376		0.0969		0.1238	
Education (reference complete secondary school or more)												
none	0.3776	*	0.4550	**	-0.4335	**	-0.5019	***	0.1861		0.2236	
incomplete primary school	0.4439	**	0.4422	**	-0.2190		-0.2373		0.0697		0.0885	
complete primary school	0.1134		0.1158		-0.2309		-0.2594		0.0546		0.0963	
incomplete secondary school	0.2639		0.3107		-0.2015		-0.2460		0.2744	*	0.3020	*
Self-reported health (reference bad or very bad)												
average health	0.6454	**	0.6092	*	0.2905		0.3106		0.2275		0.2262	
good health	0.7618	**	0.6928	**	0.5416	**	0.5710	**	0.1887		0.2042	
very good health	0.9155	***	0.8213	***	0.2021		0.2914		0.3203		0.2624	
Evangelist	-0.5395	***	-0.3749	***	0.4145	***	0.2679	*	-0.1957	**	-0.1032	
Rural residence	0.2546	**	0.2909	***	0.1065		0.0542		0.0191		0.0428	
_cons	-4.6237	***	-4.2816	***	-3.0863	***	-3.1508	***	-1.9917	***	-1.9034	***
No. Obs	1424		1364		1424		1364		1424		1364	
Pseudo R2	0.134				0.136				0.103			
Hosmer-Lemeshow Goodness-of-Fit Test	F(9,1377) = 1.16				F(9,1377) = 1.77				F(9,1377) = 2.20			
/athrho			0.3199062	*			-0.2896828				0.2639672	
/lnsigma			-0.8451214	***			-0.8450731	***			-0.8444274	***
Wald test exogeneity			2.72	*			2.51				1.74	
F first stage			10.15				10.12				10.06	

The parent's employment status appears to affect his offspring's employment outcomes negatively: the probability of being unemployed increases if either of the parents is unemployed.

As expected, the variable *age* has a non-monotonic effect, the older the individual, the greater the probability of being employed, self-employed, or unemployed but, beyond a certain age, this relationship turns negative. Being married increases the probability of being self-employed, and decreases the probability of being unemployed, but has no effect on the probability of being an employee. As prior descriptive analysis has shown, being female decreases the probability of being self-employed and unemployed. A good self-reported general state of health increases the probability of being employed, but does not affect the likelihood of being unemployed. A rural residence has a positive effect only on the probability of being an employee. Finally, religion, particularly being evangelist, decreases the probability of being an employee and unemployed, but increases the probability of being self-employed.

Existing empirical studies of the Roma population have focused on the role of discrimination and level of education as drivers of labour market outcomes, but the role of family ties and links to friends has been overlooked. We broaden the possible modes of inter-generational transmission of the occupational status of parents and their offspring, to test whether family background has an effect on labour market outcomes, in the sense that self-employed parents involve their children as employees in the business (model II). Furthermore, in model I, the possible direct influence of same- and cross-race social contacts on labour outcomes has not been considered. We may be losing part of the story, since links to friends can affect access to information about jobs. Using data from the Multi-City Study of Urban Inequality, Stainback (2008) provides evidence on different effects of same- and cross-race social contacts on the quality of employment. SPRS incorporates a question about links to close friends, with possible responses being 'from my ethnic group only', 'predominantly from my ethnic group, but I also have friends from other ethnic groups', 'the ethnic group of my friends does not matter for me' and 'I do not have close friends'. Four dummies have been built, with "the ethnic group is not important" as reference variable. We have also introduced more forms of religion. Estimation results are shown in Table 5.

Table 5. Estimation results, probit model (Model II)

	employee		self employed		unemployed	
Integration						
feel discriminated	-0.3564	***	-0.0800		0.2786	***
friendship (ref. any friend)						
only Roma			0.0766		-0.0954	
predominantly Roma	-0.0935		0.3549	***	-0.5317	***
no friends	0.2670				-0.2171	
Networks						
employee parent	-0.0531		-0.0455		-0.4566	**
self-employed parent	-0.2952		-0.4601	*	-0.5912	***
unemployed parent	-0.6206	**	0.1040		0.4984	***
Socio-demographic characteristics						
age	0.1377	***	0.0858	***	0.0837	***
age square	-0.0017	***	-0.0010	***	-0.0012	***
Civil status (ref. single)						
married	0.1591		0.4167	***	-0.4927	***
living together	-0.2014		-0.0646		-0.0841	
widow/-er	-0.5596		0.0594		-0.1228	
divorced	0.7750	**	-0.0836		-0.2694	
separated	0.1708		0.0776		-0.4523	
female	0.0488		-0.5816	***	-0.5328	***
any children	-0.4299	***	0.0315		0.0135	
Education (ref. secondary school or more)						
none	0.3124		-0.3917	**	0.1369	
incomplete primary school	0.4081	**	-0.1928		0.0374	
complete primary school	0.0712		-0.2052		0.0054	
incomplete high school	0.2501		-0.1994		0.2597	
Health perceived (ref. average or less)						
good health	0.2074		0.2956	**	0.0403	
very good health	0.3441	**	0.0040		0.1032	
Religion (Ref. No religion)						
Ortodox	0.4581		0.0000		-0.2468	
Catholic	0.0461		-0.1616		0.0828	
Protestant	0.0000		0.0000		0.1142	
Evangelist	-0.4152	***	0.2624	*	-0.0267	
Other	0.3494		-0.0436		0.1967	
_cons	-3.4868	***	-2.8795	***	-1.2455	***
No. Obs	1312.0000		1402.0000		1422.0000	
Pseudo R2	0.1260		0.1450		0.1330	
Hosmer-Lemeshow Goodness-of-Fit Test	F(9,1265) =0.89		F(9,1355) = 1.14		F(9,1375) = 0.86	

Two results are noteworthy. First, family background has an important effect on the labour outcomes of the Roma. If there is a favourable family background, that is to say, if the parent is in employment, the probability of the offspring being unemployed diminishes. If there is an adverse family background, that is, if the parent is unemployed, the chances of the offspring being unemployed increase and the probability of being employed decreases. Second, links to friends have no influence on the probability of being employed, but do have a significant effect on the probability of being self-employed or unemployed. Those whose close friends are predominantly Roma, but also have relationships with other ethnic groups, increase their chances of being self-employed and reduce their chances of being unemployed. The remaining variables have similar coefficients and maintain the signs of model I.

This research has several policy implications. First, Spanish institutions should pay particular attention to families whose members are unemployed, since there is a significant risk of unemployment persisting across generations. Measures against discrimination appear to be effective in increasing the chances of being employed, but not in generating self-employment. Second, social-service workers should promote measures in Roma enclaves to promote inter-ethnic social contacts, while maintaining the special characteristics of the Roma community in order to enhance the level of self-employment in the community and decrease the probability of being unemployed. Third, promoting education for the Roma, and encouraging positive discrimination in favour, especially, of Roma women would increase their levels of self-employment, and thus would combat unemployment.

4.- Conclusions

Being a member of an ethnic minority often implies a disadvantage in terms of labour market outcomes. The Roma population in Spain is no exception. Our analysis considers not only discrimination and education as variables affecting the labor market outcomes of this ethnic group, but also social networks, the same- and cross-ethnic social contacts, and family background. In this study, the drivers of labor market outcomes of the Roma are identified, and the results can be summed up in three statements. First, discrimination reduces the chances of being employed and increases

the probability of being unemployed. However, discrimination is not a push factor to self-employment among the Roma population; it is education that encourages their self-employment. Second, both same- and cross-ethnic social contacts increase the chances of self-employment and reduce the probability of being unemployed. Third, unfavorable family backgrounds tend to encourage the persistence of social exclusion across generations.

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APPENDIX

Variable	Obs	Mean	Std. Dev.	Min	Max
Situation in the labour market					
employee	1859	0.1350	0.3418	0	1
self-emloyed	1859	0.1490	0.3562	0	1
unemployed	1859	0.2792	0.4487	0	1
Social networks					
Discriminated	1773	0.3017	0.4591	0	1
Friends only Roma	1854	0.0922	0.2894	0	1
Friends predominantly Roma	1854	0.2848	0.4514	0	1
No friends	1854	0.0140	0.1176	0	1
Do not care ethnicity	1854	0.6090	0.4881	0	1
parent employee	1862	0.0317	0.1752	0	1
parent self-employed	1862	0.0704	0.2558	0	1
parent unemployed	1862	0.0440	0.2052	0	1
Socio-economic characteristics					
Age	1862	35.87	14.20	16	91
Age square	1862	1488.11	1194.85	256	8281
Civil Status					
Single	1860	0.2527	0.4347	0	1
Married	1860	0.5704	0.4951	0	1
Living together	1860	0.0774	0.2673	0	1
Widow/-er	1860	0.0430	0.2029	0	1
Divorced	1860	0.0220	0.1469	0	1
Separated	1860	0.0344	0.1823	0	1
Gender					
Male	1862	0.4866	0.5000	0	1
Female	1862	0.5134	0.5000	0	1
Children					
No	1862	0.3002	0.4585	0	1
Yes	1862	0.6998	0.4585	0	1
Education					
none	1497	0.1797	0.3841	0	1
incomplete primary school	1497	0.4135	0.4926	0	1
complete primary school	1497	0.1884	0.3911	0	1
incomplete secondary school	1497	0.1196	0.3246	0	1
complete secondary school	1497	0.0741	0.2621	0	1
higher level training cycle	1497	0.0140	0.1176	0	1
university diploma	1497	0.0053	0.0729	0	1
university degree	1497	0.0047	0.0682	0	1
university doctorate	1497	0.0007	0.0258	0	1
Health perceived					
Very bad	1859	0.0312	0.1739	0	1
Bad	1859	0.0430	0.2030	0	1
Average/ill	1859	0.1791	0.3836	0	1
Good	1859	0.4761	0.4996	0	1
Very good	1859	0.2706	0.4444	0	1
Religion					
Ortodox	1829	0.1214	0.3267	0	1
Catholic	1829	0.1892	0.3918	0	1
Protestant	1829	0.0016	0.0405	0	1
Evangelist	1829	0.5364	0.4988	0	1
Others	1829	0.0202	0.1408	0	1
None	1829	0.1263	0.3323	0	1
Don´t know	1829	0.0049	0.0700	0	1
Residence					
Urban	1860	0.4188	0.4935	0	1
Rural	1860	0.5812	0.4935	0	1