Increasing understanding of the aspirations and expectations of Roma students

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Abstract

Roma are the largest ethnic minority in Europe, and despite the efforts of national governments and international institutions in many countries, the majority still live below the poverty line. It is estimated that only approximately 20 per cent of adult European Roma have attained higher than primary education, and Roma children are five times less likely to attend compulsory primary education compared to the majority populations. Scholars have identified different potential causes of the unfavourable school outcomes achieved by Roma students, and in the present study, we focus primarily on cultural explanations. According to numerous scholars, acquiring knowledge in Roma families differs from others in the mainstream schooling system. Cultural differences between the (traditional) way of life in Roma families and the values professed by the mainstream society are often blamed for high dropout rates and the low educational attainment of Roma youth. Yet there is also a group of researchers who disagree with this, and suggest that the weaker school outcomes are more to do with economic and other differences. Unlike previous studies on this topic, we do not base our results on direct questions to respondents which may be subject to a high level of social desirability bias. Instead, we focus on questions indirectly related to cultural differences, and assess them with respect to parents' educational aspirations for children. Our empirical study is based on a large representative sample of the UNDP/WB/EC Regional Roma Survey conducted in twelve European countries. We show that, on average, Roma respondents (in comparison to non-Roma) express remarkably lower levels of educational aspirations for their children. However, these differences diminish considerably when controlling for common individual and household characteristics, and again when including culture proxies. Consequently, our study contributes to questioning one of the negative stereotypes about the distinctiveness of Roma and their culture in relation to education.

Keywords

Educational aspirations, expectations, cultural capital, European Roma

Introduction

Children's future labour market outcomes, or any other form of "life success", can be attributed to numerous factors – many of them idiosyncratic. In this paper we focus on one potential factor that may contribute to those outcomes: aspirations, in particular, educational aspirations. Aspirations are believed to play an important role in the psychology of poverty, and there is a close connection between the average aspiration levels of poorer families, and their material deprivation and welfare (Dalton, Ghosal and Mani, 2016). Educational aspirations have also been shown to be strong predictors of children's actual educational attainment (Messersmith and Schulenberg, 2008, Glick and White, 2004). A meta-analysis by Fan and Chen (2001) found that parental aspirations for children's education achievements are strong predictors of the relationship between parental involvement and students' academic achievement.

Socioeconomic status and parents' own level of education have been identified as significant predictors of parents' aspirations for their children's educational attainment (Davis-Kean, 2005; Zhan, 2006). There is a considerable literature investigating the relationship between parental educational aspirations for children and ethnicity. While some studies show no differences in parents' educational aspirations for children

(Driessen, Frederik and Sleegers, 2005), other studies report lower levels for ethnic minority parents (Spera, Wentzel and Matto, 2009), and a few studies also concluded that ethnic minority parents revealed higher aspirations than majority parents (Solorzano, 1992). We contribute to this stream of literature by investigating parental educational aspirations in the context of European Roma.

Roma are considered a discriminated against ethnic minority, also living at high risk of poverty. European Roma attain very low educational outcomes. Only 20 % attain at least an upper secondary level of education (FRA, 2018). The proportions of Roma who have not completed any level of formal education (ISCED 0) vary across countries and age groups, with the worst outcomes reported in Greece: 42 % in the 16-24 age group, 56 % in 25-44 age group and 82 % in 45-64 age group (FRA, 2016). The proportion of young Roma (16-24) who are not in work, education or training (as their main activity), varies from 51 % in Czechia and Hungary to 77 % in Croatia and Spain. Further, self-declared ability to read and write varies between 43 % for Roma females in Greece to 97 % for Roma males in Hungary, with a total average of 77 % for women and 85 % for males (FRA, 2014). A report by Bloem and Brueggemann (2016) concluded that between 80 and 95 percent of Roma-speaking students sampled in an international PISA survey did not acquire basic cognitive skills and competencies through schooling.

In their review, Lauritzen and Nodeland (2018) identified the dominant discourses in research on Roma and education, and they presented their findings as representing nine problem:

- absence from school
- academic achievement
- socio-economic issues
- cultural differences
- invisibility
- teachers' competencies
- hostility
- segregation
- and misguided policy and action

These, perhaps among others, are different potential causes of unfavourable school outcomes for Roma students. Clearly, the topic is too complex to be fully captured by a single publication. In this paper, we focus on cultural aspects of the relationship. Cultural differences between the (traditional) way of life in Roma families and the values professed by mainstream society have been blamed for the high dropout rates and low educational attainments of Roma youth (see below).

We consider the following research question: "Assuming that Roma's aspirations are lower than of non-Roma, can we attribute the difference chiefly to ethnicity, culture, or socio-economic status?" This allows us to contribute to an ongoing debate by either supporting the previous evidence on "blaming Roma culture for low educational aspirations" or querying this negative stereotype about Roma.

The existing empirical work on this topic is primarily based on asking parents/children questions directly such as whether they value education. Some prior in-depth studies have been very small in scale (e.g. Sime et al. 2018), and some survey-based approaches can be criticized for a potentially high degree of social desirability bias. Here we use a large representative sample, but do not base our results on direct general questions such as whether parents/children believe that Roma culture does or does not value education (this is a research question not an instrument item). We focus on questions indirectly related to cultural differences and assess them with respect to parental educational aspirations for children, and the *actual* educational outcomes of children in the household.

The European Roma context

We start by describing the context for our new analysis. In Europe, particularly with respect to the terminology used by the Council of Europe, the term "Roma" has varied since 1969. The current definition is the following: "The term "Roma" used at the Council of Europe refers to Roma, Sinti, Kale and related groups in Europe, including Travellers and the Eastern groups (Dom and Lom), and covers the wide diversity of the groups concerned, including persons who identify themselves as Gypsies" (Council of Europe, 2012, p. 4). The main Roma groups include Sinti (mainly German-speaking regions, Benelux, Scandinavian countries, Northern Italy, and Southern France; Kale (mainly Iberian peninsula and Southern France); Travellers (the UK and Ireland); Yenish (Switzerland), Lom (mainly Caucasus region), Dom (mainly Middle East and North Africa) [Liégeois, 2012]. The current term thus also includes "Travellers", who are mainly located in Ireland and the UK, who differ ethnically from Roma/Sinti/Kale groups, and importantly, whose ancestors do not usually originate from Northern India (Liégeois, 2012).

The Roma are believed to have entered Europe from Northern India during the middle ages (14th century), but according to some sources they can be tracked in Europe back to the 12th century (Crowe, 2007; Council of Europe, 2012). After the Battle of Mohács (1526), Roma in Royal Hungary were seen as spies and numerous restrictions aimed toward them are believed to be one of the causes of their nomadic way of life. In the post-WWII period, many socialist governments aimed to obtain economically equalized societies, and as such, little attention was given to specific minorities needs. At the end of the 1950s, Roma Travellers in east Europe were often forced to settle down by communist governments in many socialist countries. Attempts at assimilation resulted in difficulties for Roma children in adapting to mainstream schools (Roth and Moisa, 2011) and they were often separated in schools/classes for the 'mentally retarded' (Gheorghe and Mirga, 2001). This created a further separation of Roma from the majority.

Education in Roma families

According to numerous scholars, acquiring knowledge in Roma families differs remarkably from the mainstream schooling process, perhaps leading to a clash of culture, values, and expectations (Lauritzen and Nodeland, 2018). Schools can be viewed as interfering with or even endangering a Roma way of life (Matras, 2011, Miskovic, 2009). Traditionally, family and community play a crucial role in the education and socialization of Roma children (Bhopal, 2004, Lambrev, 2015). The institution of school, on the other hand, is characterized by features such as rigid rules, respecting teachers who are not part of the family, or separation of children from their family (and its influence) during school hours . This is associated with a threat that educated Roma will simply leave their communities. Literacy is then perceived as a means to identify with another (alien) culture (Levinson, 2007), which could lead to an "acting white" phenomenon and rejection by the community (Fordham and Ogbu, 1986). Teachers may say that Roma culture is one of the major factors of low educational attainments in Roma families (Zachos, 2017). At the same time, the Roma cultural background is neglected by schools and is not integrated into mainstream education, making schools unfamiliar places (Lambrev, 2015). Some authors also describe a practise of pulling girls from school in order to preserve their virginity, and prepare them for marriage and "the" wedding night (Kyuchukov, 2011). These issues contribute to stereotypes about Roma, such as aiming to preserve their culture and excluding themselves from mainstream education (Flecha and Soler, 2013). Pahic, Vidovic and Milijevic-Ridicki (2011) compared Croatian Roma and non-Roma parents and came to conclusions that Roma parents had lower academic aspirations for their children and that Roma parents expressed lower interest in school decision-making. Therefore, and in this view, Roma themselves are seen as to blame.

On the other hand, some studies conclude that Roma do indeed value education (e.g. Zachos and Panagiotidou 2019). Parents consider attending school as important, seeing it as the only way to get a good job and have an independent life (Luciak and Liegl 2009, Lambrev 2015). Roma families themselves have

identified other issues responsible for poor educational outcomes, such as deteriorated living conditions (Peček and Munda, 2016) or the unrecognizability of Roma culture in education (O'Hanlon, 2010).

The role of culture and cultural capital

Culture may be relevant to different aspects of individuals' lives, as well as to society as a whole, and the metaphor of cultural 'capital' has been linked to the academic achievement of children (Bourdieu 1973). Based on this idea and the social exclusion that may follow for those without high status cultural signals, Lamont and Lareau (1988, p. 158) describe self-elimination as where "individuals adjust their aspirations to their perceived chances of success. They also exclude themselves because they do not feel at ease in specific social setting where they are not familiar with specific cultural norms". Cultural transmission can play a role in the formation of cultural traits leading to self-elimination, due to socialization decisions within the family (Bisin and Verdier, 2011). As suggested by the literature (above), differences in the perceptions of education can exist between European Roma and non-Roma, while culture is often considered as one of the drivers of the differences.

Cultural discontinuity as a cause for dropout and truancy

While from a general perspective "for any child there is a discontinuity in the social-emotional socialization received in the home and school" (Ogbu, 1982, p.292), higher levels of discontinuity can be reported by ethnic minority children visiting majority schools. There have long been studies of cultural differences as a cause of dropout from education by minority students. See Hewett (1905) on the 'Americanization' of indigenous Americans and Filipinos, or Malinowski (1936) on European schooling in Africa.

The traditional cultural discontinuity (or 'mismatch') hypothesis is that minority children come from a cultural background in which goals and values, ways of acquiring knowledge, communication and interaction styles, all differ from those expected by the majority at school (Ogbu, 1985; Cooper, Chavira and Mena, 2005). Such culturally based differences between minority students' home environment and the majority school culture lead to conflict, misunderstanding, and a higher failure of minority students (Epstein 1990, Ledlow, 1992). However, this discontinuity may not be the key determinant of dropout and truancy. For detailed and recent reviews on school dropout, see, for instance, De Witte et al (2013) and Lauritzen and Nodeland (2018). In many cases, minority students also come from poor neighbourhoods, are discriminated against, their parents attained lower educational levels before them, and have to face unemployment and often a poorer socioeconomic status. These factors can also play a key role in predicting adverse educational outcomes. It is not clear which of these is the more important.

However, this cultural discontinuity hypothesis has been challenged by numerous researchers presenting empirical findings from different cultural settings, most frequently in the US, investigating different subpopulations of Americans, such as African, Native American, European, Mexican, or Southeast Asian origin (Ogbu, 1982; Ledlow, 1992; Azmitia et al, 1996; Collignon, Men and Tan, 2001). There are also studies of the native peoples of Australia, New Zealand, Canada, Chile, Mexico, and Taiwan (Folds, 1987; Phillips, McNaughton and MacDonald, 2004; Antone, 2003; Kanu, 2007; Lepe-Carrión, 2015; Mier, Rocha and Rabell Romero, 2003; Tsou, 2010). The European context is somewhat different, as unlike the US, Canada, and Australia, Europeans do not consider themselves to be 'settler societies', which influences the perception and acceptance of minorities by the majority (Luciak, 2004). In the European setting, examples include, for instance, immigrants in the Netherlands (Van Tubergen and van Gaas, 2016), whereas the topic has rarely been studied in the context of European Roma.

Concerted cultivation and the accomplishment of natural growth

The reproduction of social inequalities is associated with the transmission of cultural capital (Georg, 2004), which is typically via the family or the educational system (Hunt, 2016). Lareau (1987) investigated the relationship between social class on the one hand and childrearing practices on the other hand. She suggested that cultural capital, conceptualized as the social and cultural elements of family, can help explain social class differences in children's school experiences. In her further research, she introduced the term "concerted cultivation", describing parenting strategies focusing on parents' involvement with school and children's participation in extracurricular activities, and parents' active role in organizing activities for children (Lareau, 2003). This refers primarily to middle-class families. An alternative concept, "accomplishment of natural growth", refers to working-class and poorer families, in which children may have more control over the character of their leisure activities. This concept assumes a "boundary" between children and adults; poorer parents tend to use directives, and do not consider organized leisure activities as an essential aspect of good parenting. According to this idea, children reared under these two concepts differ, among others, in terms of trust in institutions (with a lower level of trust for children raised under the latter concept).

Bodovski (2010) presents evidence suggesting African American parents are less engaged in concerted cultivation than white parents. In addition, Siraj-Blatchford (2010) analysed the Effective Provision of Pre-School Education project data and found that disadvantaged families often have high aspirations for their children and provide significant educational support through "concerted cultivation". This kind of evidence contradicts the proposed distinction between concerted cultivation (middle-class families) and the accomplishment of natural growth (working-class and disadvantaged families).

The conceptual framework of our study

Bodovski (2010, p. 144) suggests that parents' educational expectations and race (ethnicity) are linked to concerted cultivation. Using this model, we have investigated the role of culture (cultural capital) and socio-economic status in explaining parental educational aspirations for children, in the context of European Roma.

As shown, the existing empirical literature suggests that, in general, Roma parents consider schools as "distant" institutions, interfering with their traditional perceptions of how children should acquire education. This is accompanied by relatively high truancy and drop-out rates for Roma children. Consequently, the accomplishment of natural growth appears to be the primary childrearing strategy in this context. Nevertheless, the conceptual model proposed by Bodovski (2010) raises a question of reversed causality (or no causality at all) in the relationship between parental educational expectations and childrearing strategies. If childrearing strategies are a part of cultural capital of an ethnic minority, they should be independent of parental educational aspirations for children, or they may affect aspirations (Levinson, 2007; Fordham and Ogbu, 1986).

We modify the original model by considering that childrearing strategies can be directly linked to cultural capital, as well as to socio-economic status. Then if cultural capital predicts parental aspirations for children, it may in turn determine childrearing capital. Parental aspirations are further linked, in aggregate, to socio-economic status. In this study we focus on the link between parental aspirations on the one hand, and ethnicity and socio-economic status on the other.

Description of the data and methods used in this study

The analyses in this study are based on the UNDP/WB/EC survey. The survey was conducted by the IPSOS polling agency in May to July 2011 using a random sample of Roma and non-Roma households living in areas with higher density (or concentration) of Roma populations in the EU Member States of Bulgaria,

Czech Republic, Hungary, Romania, Slovakia, and the non-EU Member States of Albania, Bosnia and Herzegovina, Croatia, FYR of Macedonia, Montenegro, Republic of Moldova and Serbia. In each of the countries, approximately 750 Roma households and approximately 350 nearby non-Roma households were interviewed. The survey collected basic socio-economic data on the household, as well as on individual household members, and perception data from selected adult members from each household (Ivanov, Kling and Kagin, 2012). The key questions of interest were administered to a randomly selected adult person from the interviewed household (aged 16+) employing the closest birthday method. The enumerators were instructed to hold a face-to-face interview with that respondent only. Participation of other household members was not allowed.

In this study, we examine whether the overall lower level of Roma's parental aspirations for children, assuming it exists, can be largely attributed to ethnicity itself, cultural beliefs, socioeconomic status, or some combination or something else like bias in the system(s).

The main results of this study are based on regression analyses, whilst we use different operationalisations of parental aspirations for children's educational level, employed as outcome variables. We distinguish between primary and secondary outcomes (see details in Table A.1 in the Appendix). We use two sets of variables: primary (sufficient level of education for a child, also referred to as "*years of schooling"*, and appropriate age to stop education), and secondary (preventing a child from studying either by marrying a daughter off before completing basic education, or by accepting that a primary school-age child should work instead of going to school). We believe that while the primary outcomes directly express respondents' beliefs concerning educational aspirations for children, secondary outcomes reflect attitudes towards the relative importance of education, and can be considered as indirect proxies for educational aspirations.

Two of the questions were asked separately for a male and a female child (variables Y2 and Y4 in Table A.1). When estimating the respective models, we pooled the data for male and female children and included a dummy variable (1 = if response for a boy child) to control for gender. We use the same approach also for explanatory variables collected separately for males/females.

With respect to the measurement level, we employ two different types of regression models: linear regression model for primary variables (years of schooling and age), and binary logit model for secondary variables (1 = preventing a child from studying is acceptable). In the models, we use three sets of right-hand-side predictor variables: (i) ethnicity; (ii) culture proxies; (iii) SES and demographic control variables. The control variables include country dummies, gender, age, highest attained level of education, current economic activity, religious identity, practising religion (going to church), household size, type of residential area, type of dwelling, marital status, household income earned last month (expressed in purchasing parity standard), subjective assessment of economic situation, and whether the respondent or anyone in their household ever went to bed hungry (in the past month) because they could not afford enough food.

The respondent's ethnicity is a key potential explanatory variable. We use a set of five explanatory variables as proxies for culture (see details in Table A.2 in the Appendix). These are the ages: at which respondents believe it is appropriate for a male/female to start sexual life, get married, and have children. In a factor analysis, age for starting a sexual life and having children were strongly linked to a purported culture latent variable (both factor loadings of 0.96). Thus, instead of using both variables, we only use a single variable defined as an arithmetic average of these two variables' values (we believe that using the average allows straightforward interpretations as opposed to using factor score values). "Start sexual life" remains as a separate variable. In addition, we employ two binary variables to pick up possible cultural differences: acceptability of the arrangement of children's marriage by their parents, and acceptability of a girl losing her virginity before getting married (the literature does not suggest this is viewed as a problem for boys).

As ever with secondary data analysis, we are constrained by the nature of the data already collected, which does not permit us to investigate the same issue about boys, for example.

Some of the stereotypes concerning Roma culture are related to family life. Based on the prior literature, we selected five proxies that were available in the secondary survey data we are using here. These are the age it is considered appropriate for a child to:

- get married,
- have children,
- start having sex

And the acceptability of:

- parents arranging their child's marriage
- a girl having sex before marriage

In order to simplify interpretations related to the role of culture, we create a simple variable reflecting the "intensity" of cultural attitudes. Taking into account common stereotypes related to Roma culture and the set of culture proxies employed in this study, we define five dichotomous indicators in the following way:

- age appropriate to get married lower than modal value of responses to this question by Roma sub-population
- age appropriate to have children lower than modal value of responses to this question by Roma sub-population
- age appropriate to start sex lower than modal value of responses to this question by Roma sub-population
- arranging marriage for children by parents is considered as acceptable
- a girl losing virginity before marriage is considered as unacceptable

To further demonstrate the importance of culture, we perform a simple analysis of the relative importance of the right-hand-side variables employed in the model. We follow the approach proposed by Grömping (2006), in evaluating the relative importance of predictors based on quantifying an individual regressor's contribution to a multiple linear regression model. We adopt two metrics:

- The Lindeman, Merenda and Gold (1980) measure based on decomposing R^2, taking the average link with any predictor by averaging the difference when entered in any order
- The weighted version PMVD, employing data-dependent weights (Feldman, 2005)

In the main model, we conduct the analysis with complete cases, and then again replacing "refused, don't know, missing" with a category "other outcome" and "never" with the maximum value. Finally, we conduct the analysis after imputation of the missing values in the predictor variables. The results are consistent across all three approaches.

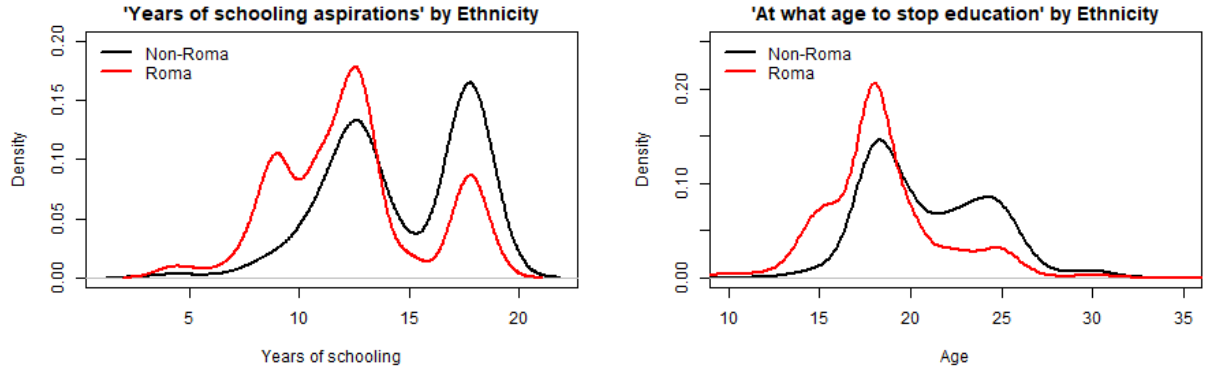
The emphasis throughout is on patterns, and "effect" sizes such as R^2. The cases in the survey have not been randomly selected, nor randomised to groups such as Roma and non-Roma. Therefore, there is no role in our analysis for significance tests, confidence intervals and the like. Nor are any of the assumptions for regression analysis, based on the desire to use significance tests, relevant here (Gorard 2021).

Results

In this section we present differences between Roma and non-Roma respondents with respect to aspiration outcomes and culture proxies. Then we investigate differences in parental aspirations while controlling for culture proxies and demographic and socio-economic controls.

Differences between Roma and non-Roma parental educational aspirations for children

The distributions in Panels A and B of Figure 1 indicate both similarities and differences in aspirations between Roma and non-Roma respondents. For example, both groups present a two mode response pattern (two peaks) for years of schooling (actually age of stopping school) in Panel A. These occur at around 12 or 13, and then again at around 18 years of age. Both groups have a modal value of around 18 again for age to stop education in Panel B. However, Roma respondents also present a smaller peak for leaving school at around age 9. There is a non-negligible group of Roma respondents who consider primary education as a sufficient level, even though most Roma respondents aspire to secondary education for their children. Both Roma and non-Roma respondents present a smaller peak for stopping education by age 24 or 25, suggesting a sizeable subset wanting tertiary or even post-graduate education for their children.



Panel A Panel B

Figure 1: Distribution of primary outcome variables

There are more obvious differences between Roma and non-Roma subsamples in terms of the secondary outcomes (Figure 2). Only just under14% of non-Roma parents would consider it acceptable for a primary-age child to work instead of attending school, compared to over 34% of Roma parents. Only just over12% of non-Roma parents would consider it acceptable for a primary-age child to marry instead of attending school, compared to nearly 31% of Roma parents. The raw-score differences between these four outcomes are interesting. It is not clear from these alone that they are *due* to being Roma or not, nor whether they are explicable by differences in culture or economic and other circumstances.

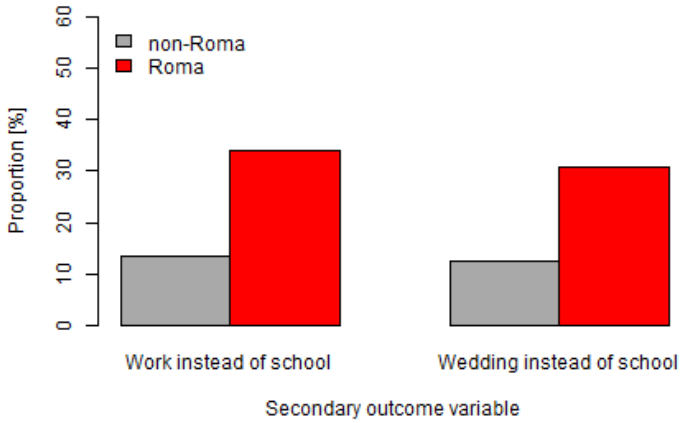
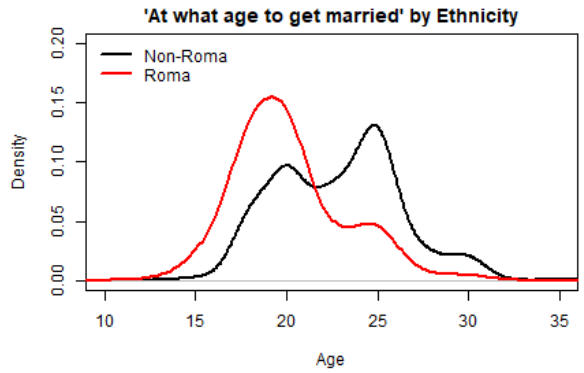


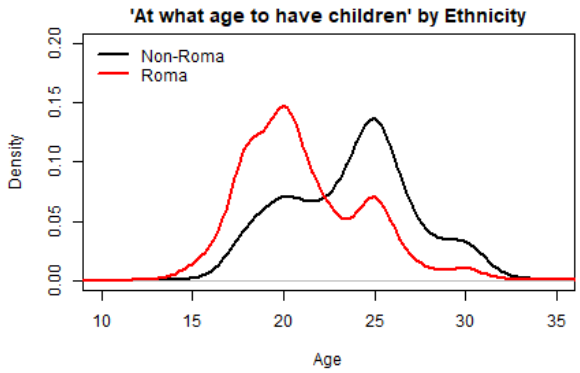
Figure 2: Distribution of secondary outcome variables

Differences in culture proxies between Roma and non-Roma

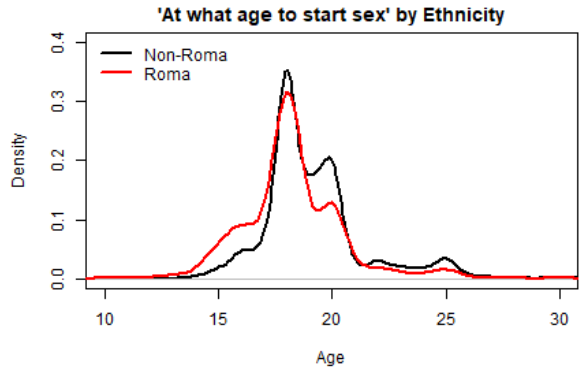
For several of the cultural proxy variables, there are differences between the two groups (Figure 3). Non-Roma parents, on average, think that children should be getting married (assuming they marry) later (around age 25), compared to around age 19 for Roma parents. And there are similar differences concerning the age at which first to have children (Panel B). Roma parents are much more likely to find it acceptable for a girl to have sex before marriage, and for parents to arrange their child's marriage (Panel D). Both groups agree on roughly the age at which it would be appropriate for a young person to start having sex (mode of around age 18, Panel C). The potentially cultural differences could explain the differences in aspirations for education outcomes. However, these differences are still not contextualised in terms of respondents' socio-economic characteristics.



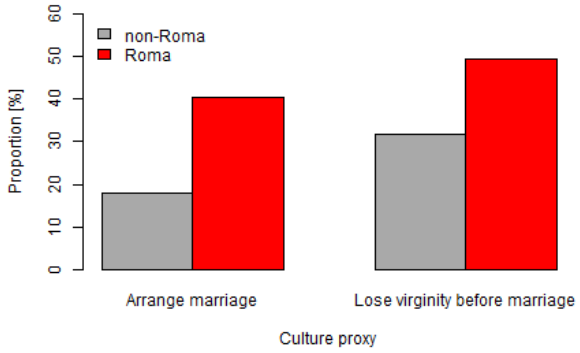
Panel A



Panel B



Panel C



Panel D

Figure 3: Distribution of culture proxies

The role of ethnicity in predicting parents' educational aspirations for children

Translating the results in Figures 1 and 2 into numbers, Roma parents report, on average, 2.35 years' lower educational aspirations, in terms of what they consider to be sufficient years of schooling in comparison to non-Roma parents (column 1, Table 1). A similar result occurs for the age considered appropriate to stop education (2.48 less, column 5). These differences are substantial, representing around the same as the difference between consecutive ISCED levels.

However, Roma respondents differ from non-Roma in numerous characteristics other than ethnicity and possible culture. Roma respondents tend to be poorer, and have lower educational attainments, than non-Roma. We control for these characteristics in regression models, predicting years of schooling, and age to stop education. Model 2 for each outcome controls for background, model 3 for cultural differences, and

model 4 for both. Certain cultural traits are also believed to be different between Roma and non-Roma. This reduces the apparent gap between Roma and non-Roma by one year (columns 2 and 6 in Table 1). If we control for these (columns 3 and 6), the difference between groups similarly goes down by over one year. When we control for both background and cultural proxies, the gap between Roma and non-Roma diminishes to 0.75 and 0.67 years (columns 4 and 8 in Table 1), which corresponds to only 9 or 8 months' difference. This regression model does not explain most of the variation in responses (R^2=0.3 or just above), but it does show that much of the surface difference in responses many not be primarily about ethnicity as such.

Table 1: Linear regression output: Primary outcome variables (coefficients)

	Dependent variable							
	Years of schooling				Stop education			
Models	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ethnicity = Roma	–2.35	–1.35	–1.32	–0.75	–2.48	–1.50	–1.09	–0.67
R^2	0.10	0.23	0.21	0.31	0.09	0.20	0.27	0.34
Background controls	NO	YES	NO	YES	NO	YES	NO	YES
Culture proxies	NO	NO	YES	YES	NO	NO	YES	YES
N=24,004								

Similar substantive results are obtained when considering the secondary outcome variables using logistic models (Table 2). Not controlling for individual/household characteristics, Roma respondents are, on average, 3.3 times more likely than non-Roma to agree on the appropriateness of a school-aged child working instead of going to school (column 1). Similarly, Roma are 3.1 times more likely to accept a school-aged girl getting married instead of studying (column 5). As above, adding either background (columns 2 and 6) or cultural proxies (columns 3 and 7) reduces the odds, here to 2 or less. Adding both together creates a model with moderate ability to explain outcomes, that brings the odds down to 1.3 to 1.4 (columns 4 and 8).

Table 2: Logistic regression output: Secondary outcome variables (odds ratios)

	Dependent variable							
	Work instead of school				Wedding instead of school			
Models	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ethnicity = Roma	3.32	1.72	2.09	1.31	3.14	1.91	1.77	1.39
Pseudo-R^2	0.07	0.20	0.22	0.29	0.07	0.20	0.22	0.29
Background controls	NO	YES	NO	YES	NO	YES	NO	YES
Culture proxies	NO	NO	YES	YES	NO	NO	YES	YES
N	24,004				12,008			

Heterogeneity and robustness of results

Given that country or residence, and highest attained level of education, are among the most important predictors of aspirations, in this section we focus on the differences across countries and among respondents with different levels of education.

When estimating separate models for each country (Table 3), we get results very similar to the pooled model as reported in Table 1. Also, as in the case of separate models, the initially large differences between the

Roma and non-Roma diminish when controlling for socio-economic and demographic characteristics. Thus, the main results remain robust despite differences between the sub-samples for different countries.

Table 3: Differences between Roma and non-Roma respondents by countries

	Model without controls		Model with controls	
Country	Years of schooling	Age to stop education	Years of schooling	Age to stop education
Albania	–3.31	–4.12	–1.26	–1.16
Bosnia and Herzegovina	–2.78	–2.86	–1.35	–0.30
Bulgaria	–2.94	–2.44	–0.32	–0.32
Croatia	–1.81	–1.98	–0.51	–0.18
Czechia	–1.86	–2.18	–0.35	–0.65
Hungary	–0.70	–0.79	–0.12	–0.32
Macedonia	–2.06	–2.63	–0.48	–0.59
Moldova	–3.33	–2.99	–0.41	–0.91
Montenegro	–2.87	–2.48	–1.13	–0.60
Romania	–2.16	–2.58	–0.32	–0.16
Serbia	–2.56	–3.35	–0.48	–1.05
Slovakia	–2.06	–1.34	–0.68	–0.97

Finally, we do a similar analysis, splitting the sample according to the highest attained level of respondent's education. However, due to disproportionate educational attainment between Roma and non-Roma, we run two partial analyses. First, we divide the sample into subsamples ISCED-1 and lower, ISCED-2 and higher, and then also into ISCED-2 and lower, and ISCED-3 and higher. We perform these partial divisions due to the fact that only 13 per cent of non-Roma respondents attained educational level ISCED-1 and lower, whereas only 12 percent of Roma respondents attained educational level ISCED-3 and higher.

The results again support the previous findings, indicating consistency of results, and their robustness to subsampling observations according to the highest attained level of education (Table 4). However, the first and last row in Table 8 have to be interpreted cautiously, as only relatively small fraction of non-Roma attained the level ISCED-1 and lower, and a small fraction of Roma attained level ISCED-3 and higher (as the highest attained level of education).

Table 4: Differences between Roma and non-Roma respondents by education level

	Years of schooling		Age to stop education	
Subsample	No controls	Controls	No controls	Controls
ISCED-1 or lower	-2,25	-1,25	-2,50	-0,93
ISCED-2 or lower	-2,04	-0,92	-2,23	-0,70
ISCED-2 or higher	-1,83	-0,82	-1,96	-0,84
ISCED-3 or higher	-1,42	-0,85	-1,76	-1,11

Discussion

The educational aspirations of parents for their children are important predictors of student's educational attainment. Socioeconomic status and parents' levels of educational attainment have been identified as predictors both of children's educational attainment, and of parental educational aspirations for children. Scholars also argue that differences between family background culture and mainstream schools culture

can result in minorities' defiance toward education provided by the mainstream schools. This paper focuses on the Roma minority in eastern European countries, addressing the question of whether Roma culture is responsible for the low educational aspirations of Roma parents for their children.

A first observation from this study is that the initially large gap between the Roma and non-Roma educational aspirations of parents for children cannot be attributed solely to the ethnicity *per se*, but rather to a set of individual and household characteristics differentiating between the Roma and non-Roma cases in the sample. Simply comparing the differences in parental aspirations between Roma and non-Roma suggests, on average, 2.5 years' difference in how long they want their children to stay in education. This finding would support a stream of literature suggesting that Roma culture is "responsible" for low parental aspirations. However, controlling for socio-economic and demographic characteristics, the differences diminish to approximately 8 months' gap in aspirations between Roma and non-Roma. Consistent with some previous findings (e.g., Davis-Kean, 2005; Zhan, 2006; Zachos and Panagiotidou, 2019) we argue that being Roma *per se* does not determine negative attitudes toward formal education, and much of the lower level of educational aspirations can be attributed to the socioeconomic status of an individual, independent of their ethnicity. Perhaps aspiration is the wrong word anyway. Perhaps the findings reflect the expectations of parents of different backgrounds – a sense of what is appropriate for someone like themselves (Gorard and Rees 2002).

Using proxies believed to reflect some of the 'stereotype' Roma cultural traits, we assess to what extent the low educational aspirations of parents for children can be attributed to culture. A second observation from this study is that cultural traits typically attributed to Roma are strong predictors of parental aspirations for children's educational outcomes. However, it is necessary to note that the role of culture is of similar importance for both the Roma and non-Roma subpopulations. Put differently, the available culture proxies collected within the survey, and used in this analysis, appear to be similarly strong predictors of both Roma and non-Roma parents' aspirations (controlling for socioeconomic and demographic characteristics). This supports the first observation, indicating that when we control for socio-economic and demographic characteristics, the differences in aspirations between Roma and non-Roma diminish substantially.

As further suggested by the literature, parents' own level of education is believed to be a strong predictor of parental aspirations for children. In addition to controlling for educational attainments, we further estimate separate models for different levels of attained education. A third observation from this study is that within groups of respondents with similar level of education, the outcomes for Roma and non-Roma are comparable. Our findings tend to support the literature not attributing low average educational aspirations to Roma ethnicity/culture. Our results support those findings and explanations arguing that socioeconomic status and educational background is crucial for predicting the educational aspirations of Roma for their children, just as they are for non-Roma families. The differences are not largely to do with ethnic origin.

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APPENDIX

Table A.1 Outcome variables

Question/Variable	Measurement level	Responses	Transformations
[Y1. Primary] What do you believe is a sufficient level of education for a child?	Original: ordinal variable. Transformed to: years.	1. Lower basic (1-4); 2. Upper basic (5-8); 3. Secondary vocational/technical/arts; 4. General secondary; 5. Associate (2 years) College; 6. University and higher; 10. Special school for disabled; 98. Refused; 99. Don't know.	As each country's definitions of educational levels differ, we recoded responses into a number of "years of schooling", respecting specific countries definitions. Categories "10", "98", and "99" were treated as missing values.
[Y2. Primary] At approximately what age do you feel that it is appropriate to (answer for both a female and a male) stop education?	Years.	Years of age. 888. Never; 98. Refused; 99. Don't know.	Responses "888. Never" were replaced by the maximum value recorded in their municipality. Categories "98" and "99" were treated as missing values.
[Y3. Secondary] People often have to choose between different options in life. Which one would you choose if you face each of these options?	Dichotomous variable	A: Marrying your daughter off before she completes basic education to make sure she marries still as a virgin. B: Allowing her to study even if she could start sexual life before marriage. 98. Refused; 99. Don't know.	Created a binary variable: 1 == "Preventing a child from studying", i.e., marrying the daughter off. 0 == "Other outcome", including: missing values, refused, don't know.
[Y4. Secondary] Please tell me, whether you think it can be acceptable for you that a *boy/girl* at primary school age to work instead of going to school.	Original: ordinal variable. Transformed to: binary.	1. Fully acceptable; 2. Somewhat acceptable; 3. Not acceptable; 98. Refused; 99. Don't know.	Created a binary variable: 1 == "Preventing a child from studying", i.e., fully/somewhat acceptable. 0 == "Other outcome", including: missing values, refused, don't know.

Table A.2 Explanatory variables

Question/Variable	Measurement level	Responses	Transformations
[X_K. Key explanatory] Ethnicity	Dichotomous variable	1. Roma 2. Non-Roma	
[X_{c1}. Cultural explanatory] At approximately what age do you feel that it is appropriate for a *boy/girl* to START SEXUAL LIFE?	Years.	Years of age. 888. Never; 98. Refused; 99. Don't know.	Responses "888. Never" were replaced by the maximum value recorded in their municipality. Missing values and categories "98" and "99" were replaced by means.
[X_{C2}. Cultural explanatory] At approximately what age do you feel that it is appropriate for a *boy/girl* to GET MARRIED?	Years.	Years of age. 888. Never; 98. Refused; 99. Don't know.	Responses "888. Never" were replaced by the maximum value recorded in their municipality. Missing values and categories "98" and "99" were replaced by means.
[X_{C3}. Cultural explanatory] At approximately what age do you feel that it is appropriate for a *boy/girl* to HAVE CHILDREN?	Years.	Years of age. 888. Never; 98. Refused; 99. Don't know.	Responses "888. Never" were replaced by the maximum value recorded in their municipality. Missing values and categories "98" and "99" were replaced by means.
[X_{C4}. Cultural explanatory] Please tell me, whether you think it can be acceptable for you that parents arrange the marriage of their *boy/girl* child.	Original: ordinal variable. Transformed to: binary.	1. Fully acceptable; 2. Somewhat acceptable; 3. Not acceptable; 98. Refused; 99. Don't know.	Created a binary variable: 1 == "Acceptable", i.e., fully/somewhat acceptable. 0 == "Other outcome", including: missing values, refused, don't know.
[X_{C5}. Cultural explanatory] Please tell me, whether you think it can be acceptable for you that a girl loses her virginity before getting married.	Original: ordinal variable. Transformed to: binary.	1. Fully acceptable; 2. Somewhat acceptable; 3. Not acceptable; 98. Refused; 99. Don't know.	Created a binary variable: 1 == "Acceptable", i.e., fully/somewhat acceptable. 0 == "Other outcome", including: missing values, refused, don't know.