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**THE EDUCATIONAL ATTAINMENT, LABOUR MARKET
PARTICIPATION AND LIVING CONDITIONS OF YOUNG
ROMA IN BULGARIA, HUNGARY AND ROMANIA**

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The educational attainment, labour market participation and living conditions of young Roma in Bulgaria, Hungary and Romania

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Abstract

This paper investigates the educational attainment, employment and living conditions of young Roma adults in Bulgaria, Hungary and Romania with the aid of national generations and gender surveys and other sources of information. It shows that in spite of a small improvement in the educational attainment of young Roma in comparison to the generation of their parents, the educational achievement and employment gaps have increased considerably during the post-communist period. The paper also compares living conditions of the Roma with other population groups. It concludes with a discussion of policy challenges.

JEL codes: I24, I31, J15, J71

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I. Introduction

The UN inter-agency report on the Millennium Development Goals in Europe and Central Asia identified a number of human development challenges in the region, including rising inequality. The report stated: “Ethnic minorities (especially the Roma), the disabled, and other vulnerable groups face considerable income disparities, as well as marginalization, stigmatization and other forms of social exclusion” (UNECE 2010, p. 5). This paper further investigates these issues by focusing on the marginalization of the Roma minority in three former communist countries, which are now member States of the European Union.

The Roma are one of the largest and most disadvantaged ethnic minorities in the pan-European region. According to diverse sources, the Roma left their ancestral homeland in the Punjab region of the Indian subcontinent in medieval times and migrated westward, reaching Europe sometime between the 8th and 10th century AD. Since the Late Middle Ages the Roma were persecuted by various European states. During the Second World War hundreds of thousands of Roma were murdered by German Nazis and their allies.

The number of Roma in the region cannot be established on the basis of population censuses because most of them have refused to identify themselves as such. The Council of Europe average estimate of the Roma population in the European region is close to 11 million.² This number includes 2.8 million Roma in Turkey and 1.2 million Roma in the former Soviet Union. Another 1 million Roma live in the Western Balkans. The remaining 6 million Roma live in the territory of the European Union (EU), some 70 per cent of them in the 10 former communist countries that joined the EU in 2004 and 2007. In relative terms, the Roma account for 1.4 per cent of European population and 1.3 per cent of the EU population. The share of Roma in the population of post-communist EU countries averages 4 per cent.

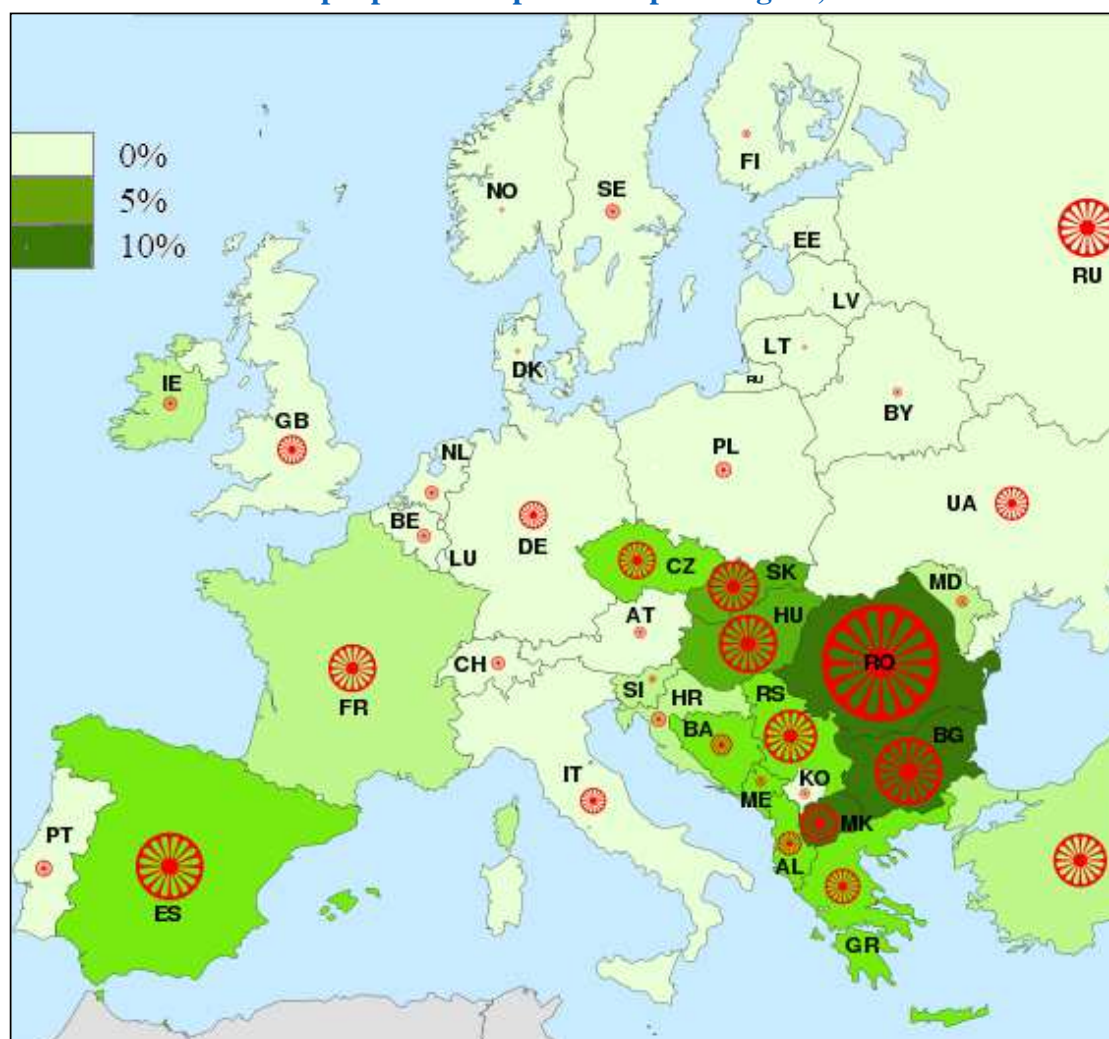
During the communist era, the authorities pursued policies that aimed to assimilate the Roma population with the aid of mandatory schooling, access to residential housing and steady employment. In late 1980s the communist regimes collapsed and the subsequent decade saw a process of political democratization and economic transition from a centrally planned system to a market economy.

Following the so-called transition recession that saw major industrial restructuring, economic growth resumed and levels of absolute poverty declined. However, some disadvantaged population groups, including the Roma, have become increasingly marginalized. The plight of the Roma reflects large losses of low-skilled jobs in agriculture, mining and manufacturing that were provided for them during the communist era and disappeared during the transition process. The resulting marginalization manifests itself today in the inadequate access to decent education and jobs in the formal sector, substandard housing, poor health and low life expectancy. Given the rapid ageing of the majority population and the comparatively high fertility of Roma, an important issue facing the countries of Central and South-Eastern Europe is a productive integration of this growing ethnic minority into mainstream society.

² For details, see the statistics link at http://www.coe.int/t/dc/files/themes/roma/default_en.asp

The process of political transition from a one-party regime to democracy with open borders changed the situation of the Roma minority in many ways. New opportunities for political participation and cross-border travel resulted in the emergence of numerous non-government organizations that work to advance minority rights as well as the migration of Roma to Western Europe and, to a lesser extent, North America. The Roma migration to the West, motivated by the desire to escape the poverty and discrimination facing them in Central Europe and South-Eastern Europe, has picked up with the gradual abolition of restrictions on cross-border travel and employment during the EU-accession process and afterwards.

Figure 1
Roma people in the pan-European region, 2007



Source: Wikipedia Commons, based on Roma population estimates of the Council of Europe.
Note: The size of the wheel represents the Roma population by country (e.g. Romania 1.85 million) while the shade of each country's background colour represents the share of Roma in total population (e.g. Romania 8.5%).

The recipient countries reacted to the influx of Roma with travel restrictions (e.g. Canada and United Kingdom) and recently with deportations (e.g. France, Germany and Italy). Nevertheless, over the last two decades, tens of thousands of Roma from Central and South-Eastern Europe settled in Western Europe while a few thousand obtained political asylum and permanent residence in Canada. However, the overwhelming majority of Roma continue to live in their countries of birth.

This paper investigates the educational attainment, employment levels and living conditions of young Roma adults with the aid of population surveys of Bulgaria, Hungary and Romania that have been produced in the framework of the UNECE Generations and Gender Programme (GGP). These countries have relatively high Roma populations; according to the Council of Europe average estimates, the Roma account for 7 per cent of total population in Hungary, 8 per cent in Romania and 10 per cent in Bulgaria. Although the GGP panel surveys have been compiled by national statistical agencies and are supposed to be representative, the extent of their coverage of the Roma population is probably subject to some under-representation.

The paper is organized as follows. The next section describes the educational attainment of young Roma men and women and compares it to that of their parents and the majority population. The subsequent section compares the labour market performance of young Roma adults to that of other population groups. It is followed by a brief description of the living conditions of the Roma in the countries investigated. The subsequent section analyzes their returns to education. It is followed by conclusions, including examples of good practice that might be of interest to policy makers, and the list of references. The GGP data used in this study are discussed in Annex 1 and selected descriptive statistics presented in Annex 2.

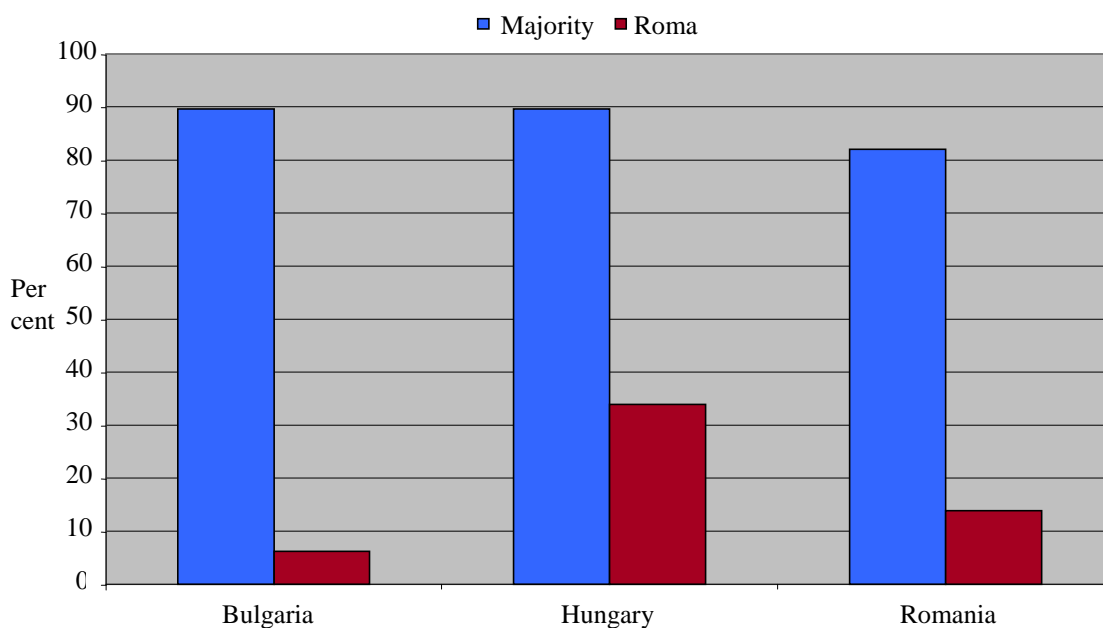
II. Education

This section describes the educational attainment of young Roma adults in mid-2000s and compares it to that of their parents and majority population peers. It shows that the average level of education of young Roma exceeds that of their parents. However, the educational attainment of comparable majority population cohorts has improved faster so that the achievement gap has widened. The level of education is positively correlated with the socio-economic status reflected in the type of employment, quality of housing, level of income and job satisfaction. The generations and gender surveys show significant differences in the educational outcomes of Roma among the three countries investigated. Such differences are consistent with national per capita income levels and scores in international literacy tests of 15-year old students conducted periodically by the OECD Programme for International Student Assessment (PISA).

Figure 2 illustrates the educational achievement gap between young Roma men (25–34 years old) and the comparable cohort of the majority population. Whereas in the majority population the share of young men with at least upper secondary education equals 90 per cent in Bulgaria and Hungary and 82 per cent in Romania, the comparable share of young Roma males ranges from 6 per cent in Bulgaria to 14 per cent in Romania and 34 per cent in Hungary.

Figure 3 illustrates the educational achievement gap between young Roma women (25–34 years old) and the comparison group of the majority population. Whereas in the majority population the share of young women with at least upper secondary education ranges from 74 per cent in Romania to 88 per cent in Hungary and 92 per cent in Bulgaria, the comparable shares of young Roma women amount to 11 per cent in Romania, 19 per cent in Hungary and 9 per cent in Bulgaria.

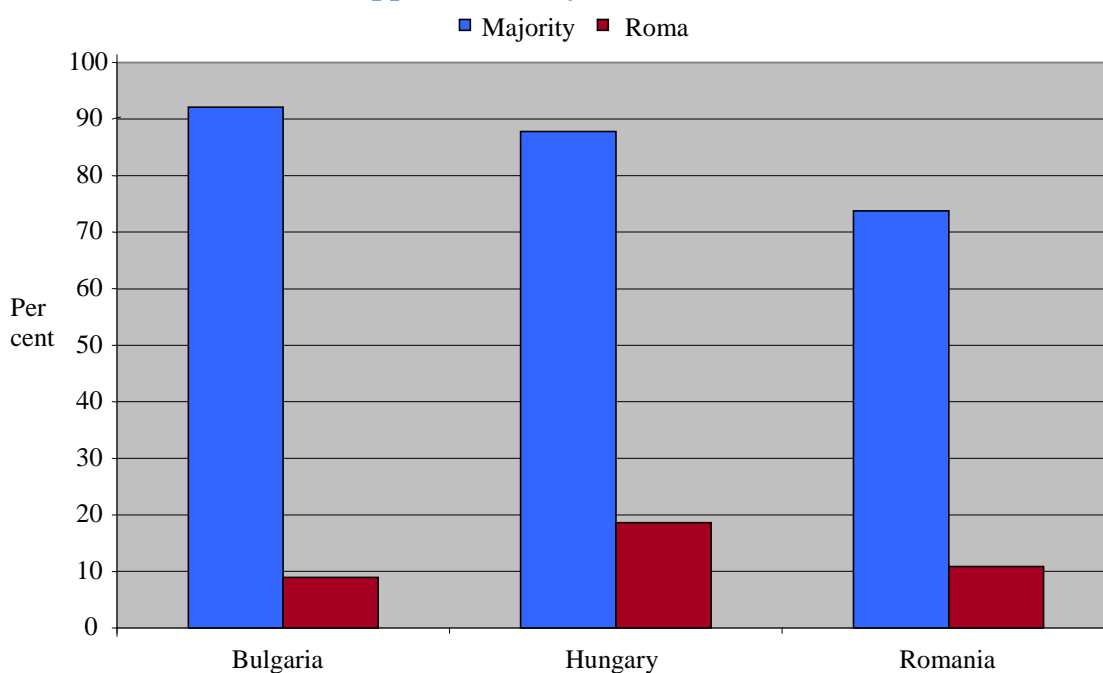
Figure 2
Proportion of young men (25-34) with
at least upper secondary education, mid-2000s



Source: Authors' calculations based on data from the Generations and Gender Surveys.

The educational achievement gaps between the majority population and Roma are huge in all three countries. The educational attainment of young Roma adults in Hungary exceeds that of their counterparts in Bulgaria and Romania. In addition, the

Figure 3
Proportion of young women (25-34) with
at least upper secondary education, mid-2000s



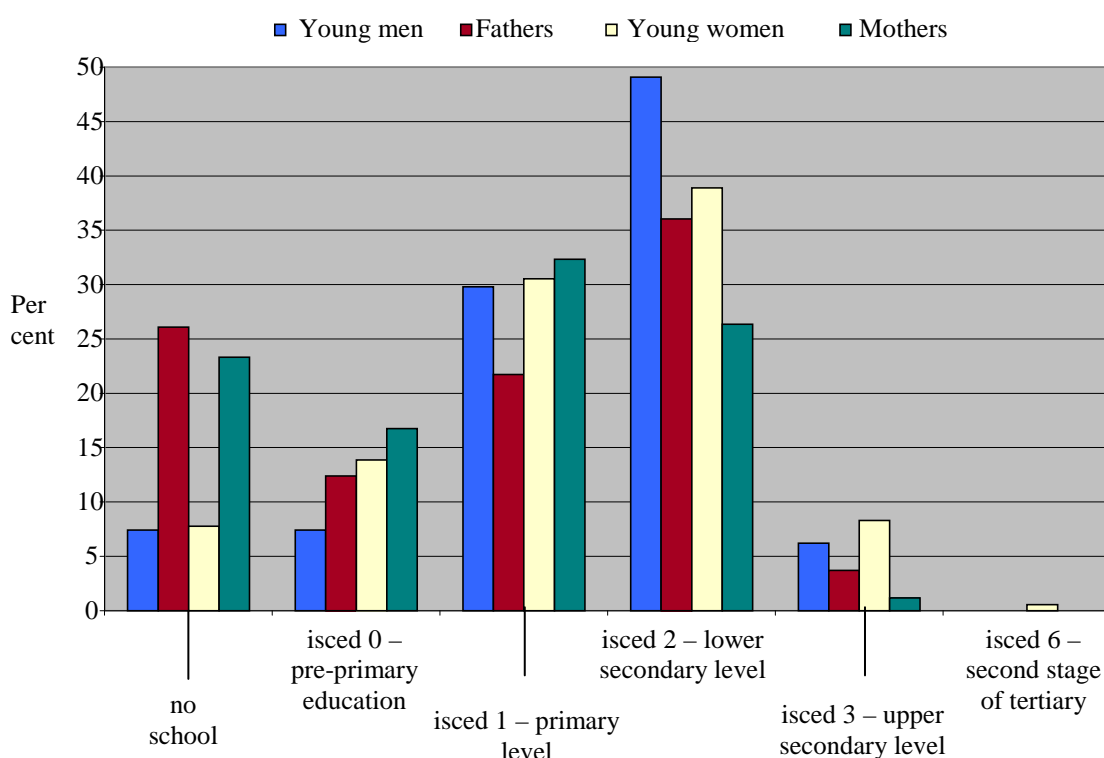
Source: Authors' calculations based on data from the Generations and Gender Surveys.

attainment of young Roma women in Hungary lags remarkably behind that of young Roma men. This reflects the relatively good attainment of young Roma men in Hungary as well as the negative impact of traditional gender roles on school attendance of young Roma women.

The extremely wide achievement gap between the majority and Roma populations implies social exclusion on the basis of ethnicity. Although it is widely believed that communist regimes provided all social groups, including the Roma, with decent education, the reality was different. According to the GGP surveys from the mid-2000s, a surprisingly high proportion of parents of the 25–34 years old Roma did not complete primary education in spite of growing up and becoming adults during the communist era. The proportion of mothers with less than complete primary education is particularly high in Romania (50 per cent) and Bulgaria (40 per cent) but significantly lower in Hungary (8 per cent). The proportion of fathers of the 25–34 years old Roma with less than primary education amounts to 39 per cent in Bulgaria and 6 per cent in Hungary. No data on the educational achievement of fathers is available for Romania.

Figure 4 shows that in Bulgaria the educational attainment of young Roma adults (25–34 years old) exceeds that of their parents. However, the attainment of majority population peers has improved faster. If one measures the achievement gap

Figure 4
Educational attainment of young Roma adults and their parents in Bulgaria, 2004



Source: Authors' calculations based on data from the Generations and Gender Surveys.

by the difference in proportions of population groups with at least upper secondary education, then this gap amounts in case of young Roma men and women to 83 per cent (see Figures 2 and 3). The gap equals 72 per cent and 77 per cent for the generation of fathers and mothers respectively. In other words, although the

educational achievement of Roma improved somewhat, their educational handicap increased over time. This could explain to some extent their weak labour market performance that is analyzed in the next section of the paper.

The Bulgarian generations and gender survey includes comparable data for the ethnic Turkish minority. Similarly as in the case of Roma, the educational attainment of young Turkish adults (25–34 years old) exceeds that of their parents. However, the achievement gap between the Turkish minority and majority population has decreased by the mid-2000s. Nevertheless, the gap is still large at 51 per cent for young Turkish men and 55 per cent for young Turkish women. The intermediate position of the Turkish minority with respect to education and other social status indicators (employment, income, job satisfaction, housing and living conditions) confirms that ethnicity is an important underlying factor of social stratification in Bulgaria.

An econometric analysis of the returns to education in terms of employment and wages in Bulgaria found that both Roma and Turkish minorities have very limited incentives to invest in education, given the very low returns in terms of prospective employment and wages in the labour market. The gap in returns to education is much wider for the Roma with respect to both employment and labour-market earnings. The evidence suggests that the Roma are more vulnerable to discrimination, with a high percentage of the employment gap unexplained by differences in observable skills or characteristics.³

Table 1
The educational achievement index, mid-2000s

Share of the 25–34 year old population with at least upper secondary education, per cent

	Young men	Young women	Fathers	Mothers
Bulgaria				
Majority	89.7	92.1	75.4	78.6
Turkish minority	39.0	36.8	16.5	9.3
Roma minority	6.2	8.9	3.7	1.2
Hungary				
Majority	89.7	87.9	76.5	60.5
Roma minority	33.9	18.9	17.9	3.5
Romania				
Majority	82.0	73.8	..	37.4
Hungarian minority	80.0	71.9	..	25.6
Roma minority	13.9	10.9	..	2.4

Source: Authors' calculations based on data from the Generations and Gender Surveys.

The generations and gender survey of Romania includes data for the population majority and two ethnic minorities, the Roma and Hungarians. The educational attainment levels are available for young people and their mothers. Young Roma adults have on average more years of education than their mothers and,

³ For details, see Trentini (2011).

presumably, their fathers. Similarly as in Bulgaria, the achievement gap of young Roma women is greater than a generation ago, increasing strongly from 35 per cent to 63 per cent over one generation. However, the same gap has diminished significantly for ethnic Hungarian women, falling from 12 per cent to 2 per cent (Table 1).

In the case of Hungary, the educational attainment of young Roma adults is higher than that of their parents. The educational achievement gap between them and the comparable cohort of majority population has declined somewhat for young Roma men but increased noticeably for Roma women (Table 1).

Cross-country comparisons are complicated by the uneven representativity of national survey samples. Whereas the Bulgarian GGP survey appears to be broadly representative, the Roma minority is underrepresented in the Hungarian and Romanian surveys (for details, see Annex 1). Nevertheless, the GGP surveys of the three countries provide valuable information about social stratification patterns. Inter-generational comparisons in the sphere of education reveal remarkable patterns of social inequality during the period of post-communist transition. As is well known, the income and wealth inequality has generally increased during this period (see e.g. UNECE, 2010). At the same time, some minorities have been able to improve their situation relative to the majority population. This is clearly the case of the Hungarian minority in Romania and, to a lesser extent, the Turkish minority in Bulgaria.

Which policies could accelerate the slow progress in the educational attainment of the Roma minority? Successful policies would improve both educational equity and quality. With respects to equity, affirmative policies are needed most for poor children living in urban ghettos and segregated settlements in depressed areas. Such children are academically disadvantaged as a result of material deprivation and limited education of their parents. Pre-school attendance can improve considerably educational outcomes, especially for children from disadvantaged backgrounds.

In Hungary, the integration of young children from disadvantaged families in pre-school facilities has been promoted, at least in principle. Hungarian municipalities must provide pre-school places for at least one year but a longer enrolment of children from disadvantaged families has been encouraged with the aid of cash benefits for parents. However, the majority of Roma children living in segregated settlements cannot benefit from early pre-school education, given a shortage of kindergarten places that is most acute in disadvantaged areas. Moreover, the quality of kindergarten services in such areas is poor due to over-crowding as well as under-financing. In contrast, kindergartens in more prosperous residential areas have superior facilities for sports and language instruction and provide excellent remedial intervention services with the aid of speech therapists, remedial teachers and psychologists (Havas, 2009). The availability of pre-school education in Bulgaria and Romania is generally more limited than in Hungary.

Forward-looking policies should provide children of poor parents with the opportunity to attend kindergartens from an early age, preferably three years (UNICEF, 2010). Whereas this could be achieved in Hungary through a more equitable distribution of existing resources, the provision of kindergarten services to children from disadvantaged backgrounds would require new funding in Bulgaria and

Romania. Some financing for this purpose could be provided by the EU structural funds for education of Roma, especially if the complex administrative procedures governing the use of such funds were simplified.

In countries of Central and South-Eastern Europe, a significant proportion of poor Roma children are either streamed into remedial classes in general public schools or are sent to special schools for mentally challenged pupils. Both types of remedial schooling provide Roma pupils with substandard primary education while limiting their exposure to majority population peers. Not surprisingly, only a minority of Roma students enters secondary schools. Approximately one-half of Roma students at secondary schools drop out before graduation and only a few of those who graduate continue their education in colleges or universities. By contrast, a relatively large proportion of Roma who complete primary education continue to study at vocational schools that are characterized by low academic requirements and inadequate training standards.

A number of authors have argued that the social and ethnic selection in primary education should be reduced in order to improve educational equity. Ethnic segregation in Hungarian schools has increased during the transition period due to the early streaming of students into advanced, regular and remedial classes or schools and growing concentration of marginalized populations in ghettos and segregated settlements (Havas, 2009). According to a survey of Bulgarian schools and preschools in 2005, over 10 per cent of them had a majority of Roma children. Not surprisingly, such segregated schools have provided education of poor quality (UNDP, 2008). According to unofficial data, the extent of segregation in Romanian schools appears to be similar (Rostas, 2009). In all three countries, the early streaming of students has been supported by the relatively well educated middle-class parents aiming to maximize the chances of their children to benefit from higher educational standards. By contrast, the less educated parents of Roma students have more often than not accepted segregation of their children in substandard schools. Nevertheless, in response to the growing educational divide, a number of school integration initiatives have been launched over the last decade.

The evidence of benefits of school integration for students from disadvantaged backgrounds has been provided by empirical studies of the impact of school desegregation on the educational attainment of black students in the United States. This literature suggests that desegregation resulted in improved educational attainment for blacks. The policies equalizing chances for black and white students were often accompanied by increased per-pupil spending.

Kézdi and Surányi (2009) provide a comprehensive evaluation of a school integration programme in Hungary. Their study compared 30 schools participating in the Hungarian voluntary desegregation programme with 30 control schools. Results of the study indicate that both Roma and non-Roma students in programme schools achieve somewhat higher grades, acquire somewhat better reading skills and are more likely to pursue further education in secondary schools that provide a graduating examination (a pre-requisite for University admission) than their peers in control schools. The effects on cognitive and academic development are largest for Roma students but are also positive, albeit to a lesser extent, for non-Roma students. The

effects on non-cognitive (social) skills are also positive and larger than effects on cognitive skills.

The positive results of integrated education in the participating schools, which saw both Roma and non-Roma students improve their mental skills and social attitudes, were made possible with the aid of teacher training and modest incentives provided by the national government. In principle, similar outcomes could be achieved on a national scale, if the Hungarian government would provide adequate financial incentives and most schools were willing to participate. However, the decentralised nature of the school system in Hungary would prevent the national government from mandating desegregation in public schools, even if it were willing to do so. Nevertheless, since the mid-2000s the government has provided funding for a school integration programme for disadvantaged groups, including the Roma who account for 13 per cent of primary school children. By now some 1,500 schools participate in the programme. However, the number of segregated school classes appears to have increased at the same time (Havas, 2009).

Although the Hungarian school integration programme increases short-term budgetary outlays, the available economic analysis indicates that policies resulting in improved educational attainment should generate net budget savings of some €70,000 for each successful Roma student who completes secondary school (Kertesi and Kézdi, 2006). From the fiscal point of view, the integration programme would be self financing if at least one out of five beneficiaries would complete secondary school.

The financial feasibility of integrated schooling is also implied by pension models that factor in ethnic population trends. Demographic projections indicate that the share of Roma in the Hungarian population is bound to keep increasing over time (Habicsek, 2008). Given the overall population ageing trend, the improvement of the educational attainment and labour market performance of the comparatively young Roma minority would be beneficial to the long-term sustainability of the Hungarian pension system. The OECD simulations using a simple productivity catch-model and demographic scenarios for Hungary indicate that a higher employment of Roma could increase GDP growth by 0.2 per cent per year and improve the pension balance in the long run (Burns and Cekota, 2002).

Similarly as in Hungary, government programmes for the education of Roma in integrated schools have been launched in Bulgaria and Romania in mid-2000s. In Bulgaria, the number of segregated schools decreased by 40 per cent between 2005 and 2007 (Republic of Bulgaria, 2008). In Romania, government initiatives encouraged the use of the Roma language in some schools, reserved some places for Roma students in schools and universities, and introduced a special food programme for Roma school children (European Parliament, 2008). UNICEF (2010) describes examples of good practice in Roma education in Central and South-Eastern Europe, including a desegregation project in Bulgaria and an education equity project in Romania. Such projects have improved the school performance of participating Roma students and could be successfully replicated. In spite of positive evaluations, the lack of government funding limits the scaling-up of school integration projects (European Commission, 2010). To some extent, the lack of funding seems to result from administrative capacity bottlenecks that limit the utilization of the structural funds available for education equity programmes in the EU member States.

In addition to improving the graduation rates of students from disadvantaged backgrounds, it is extremely important to enhance the quality of education, a key factor for successful labour market participation. The OECD Programme for International Student Assessment (PISA) evaluates the quality, equity and efficiency of school systems in more than 60 countries, including Bulgaria, Hungary and Romania. PISA measures 15-year-old students' literacy in reading, mathematics, and science every three years. All three countries participated in PISA surveys since 2000; however, Bulgaria and Romania did not participate in the 2003 survey. The latest survey, conducted in 2009, indicates that the reading performance of students from all three countries improved since 2000 (OECD, 2010a). However, the available data do not identify ethnic minority students so that it is unclear whether they benefited from the educational progress.

According to OECD (2010b), GDP per capita explains 6 per cent of the differences in average student performance in PISA tests. This implies that public policy can have a significant impact on the quality of education. The education systems in OECD countries with excellent PISA results, such as the Republic of Korea or Finland, have been able to achieve strong and equitable learning outcomes.

All three countries investigated in this paper exhibit educational equity below the OECD average with respect to the performance variation explained by students' socio-economic background (OECD 2010b, Figure II.1.4). The performance variation within all three countries tends to be large and most students from disadvantaged backgrounds tend to perform poorly.⁴

Given the above-average strength of the relationship between the socio-economic status and learning outcomes in Bulgaria, Hungary and Romania, socio-economically targeted interventions are of particular relevance. In all three countries early tracking amplifies socio-economic disadvantages. This system tends to place students from low-income families in vocational schools while students from higher-income families go to more demanding secondary schools that provide them after graduation with access to university education (World Bank, 2003).

A recent study based partly on PISA methodology attempts to explain the ethnic test score gap of 8th grade students in Hungary (Kertesi and Kézdi, 2011). The study shows that for this age group test score gaps between Roma and non-Roma students in mathematics and reading are close to one standard deviation and thus quite similar to gaps between African American and white students in the early 1980s. In Hungary, the ethnic test core gaps almost disappear when one factors in the following variables: health status, parenting, school and class fixed effects, and family background. The results of the study thus confirm the decisive impact of socio-economic status on learning outcomes.

Due to relatively high birth rates, the population share of the Romani minority has a tendency to increase in all countries of Central and South-Eastern Europe. At present the share of Roma students in primary schools in the countries investigated ranges from 13 per cent in Hungary to 22 per cent in Bulgaria (Kolev *et al*, 2010). This implies that the economic costs of social exclusion are bound to grow over time unless forward-looking policies help to integrate better the minority into the economy

⁴ See also World Bank (2010b).

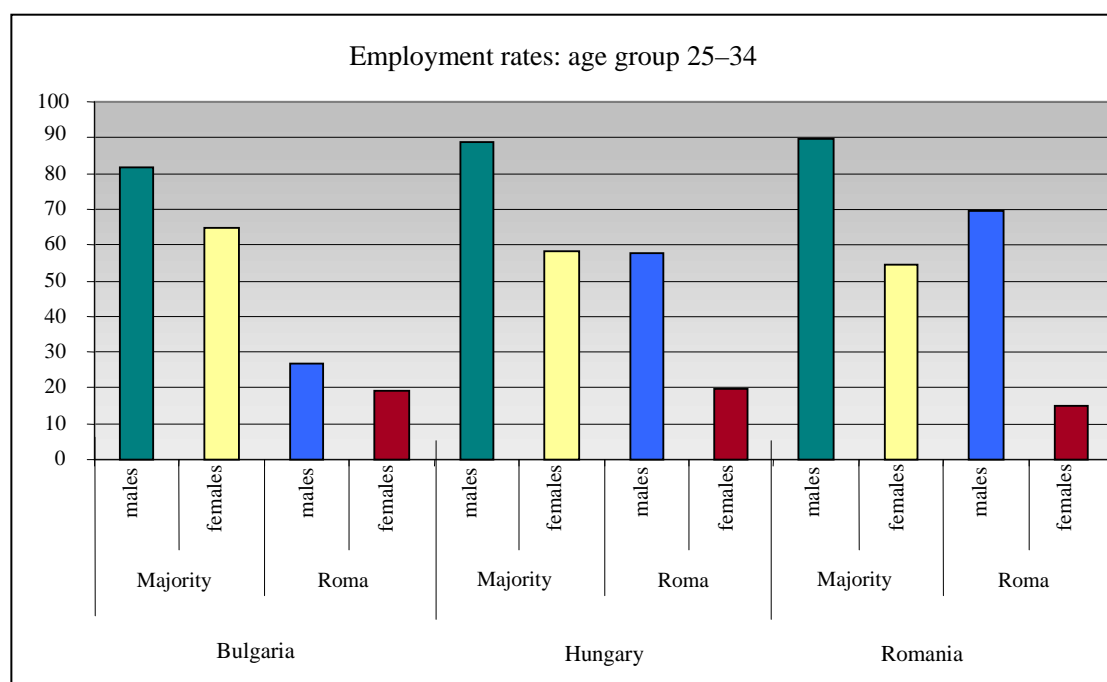
and society. Such policies should include affirmative action measures for the most disadvantaged Roma communities living in isolated settlements (Cekota *et al*, 2004).

III. Economic activity

Employment

The low level of education limits the chances of Roma to find gainful employment, especially in the formal sector. Employment to population rates of young Roma males are generally lower than those of the comparable majority population.⁵ Employment rates of Roma women are even lower. Figure 5 shows self-reported employment rates of majority and Roma youth in the countries investigated. In the data used we are not able to distinguish between formal and informal/irregular employment, and as a consequence employment rates reported here include both forms of employment and result in some cases in higher rates than those reported in other studies (O’Higgins (2010), Kertesi and Kézdi (2010), UNDP (2002), O’Higgins and Ivanov (2006), Ringold *et al* (2005)). Another important difference is determined by our focus on the age group 25–34 years; in fact, Roma of older age groups have

Figure 5
Employment rates of young adults, mid-2000s



Source: Authors’ calculations based on data from the Generations and Gender Surveys.

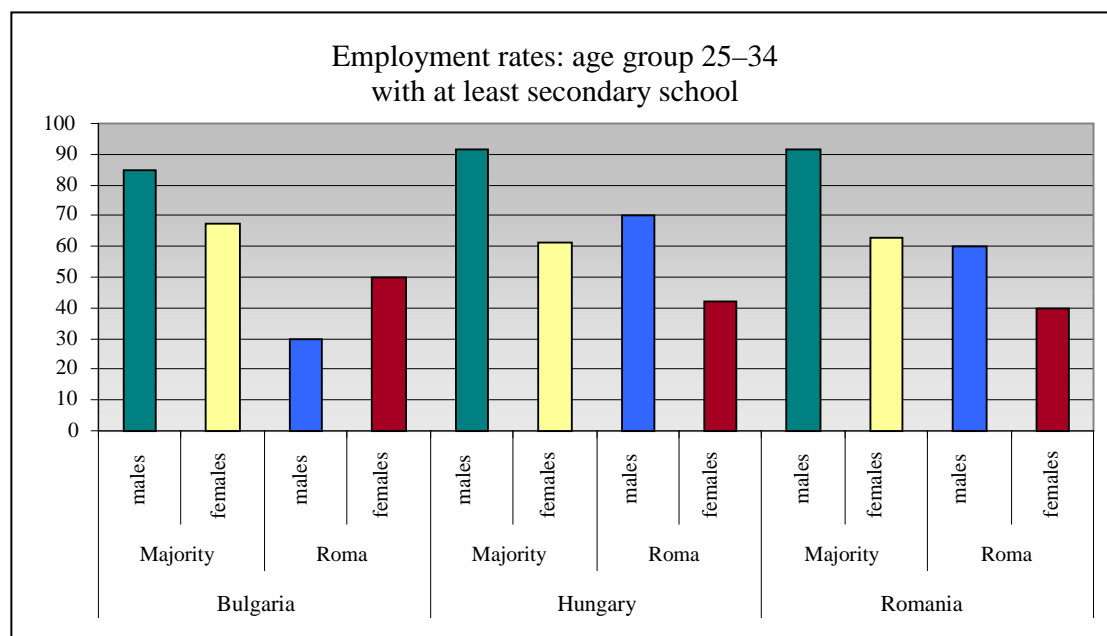
typically even lower employment rates. Employment rates for young Roma males vary considerably among the countries investigated, ranging from 26.7 per cent in Bulgaria to almost 70 per cent in Romania. These rates compare unfavourably with the majority rates of about 80–90 per cent. Roma females report employment rates below 20 per cent; about a third of majority rates.

⁵ Employment to population rates are defined for each ethnic group as the ratio of the number of currently employed to the total population of the respective group.

Differences in female employment rates are particularly sensitive to the age range chosen and the overlapping of this with the childbearing age. However, employment rates for older Roma women, for example in the age range 35 to 44 years are clearly higher only in Bulgaria (29.6 per cent) while are about the same or even lower than in the reference age range in Hungary and Romania (respectively 23.7 and 13.2 per cent). Roma male employment rates in the older age range are — with the exception of the already very low Bulgarian case with 29 per cent — even lower than in the younger range reaching only 43.3 per cent of the Roma population in Hungary and 62 per cent in Romania. This is at odds with employment patterns of the majority population where employment rates of the age group 35 to 44 are usually comparable with the younger group for males and markedly higher for females.

Education reduces employment gaps especially for women, who seem to profit more than men from schooling. Those few Roma women who achieve at least secondary education more than double their probability to be employed (Figure 6). Calculating unemployment rates from self-reported socio-economic activities, might give misleading results, depending on the respondent’s interpretation of the definitions of employment and importantly of unemployment.⁶ For example, over 50 per cent of Romanian and Hungarian Roma females report being inactive — either

Figure 6
Employment rates of young adults with at least secondary education, mid-2000s



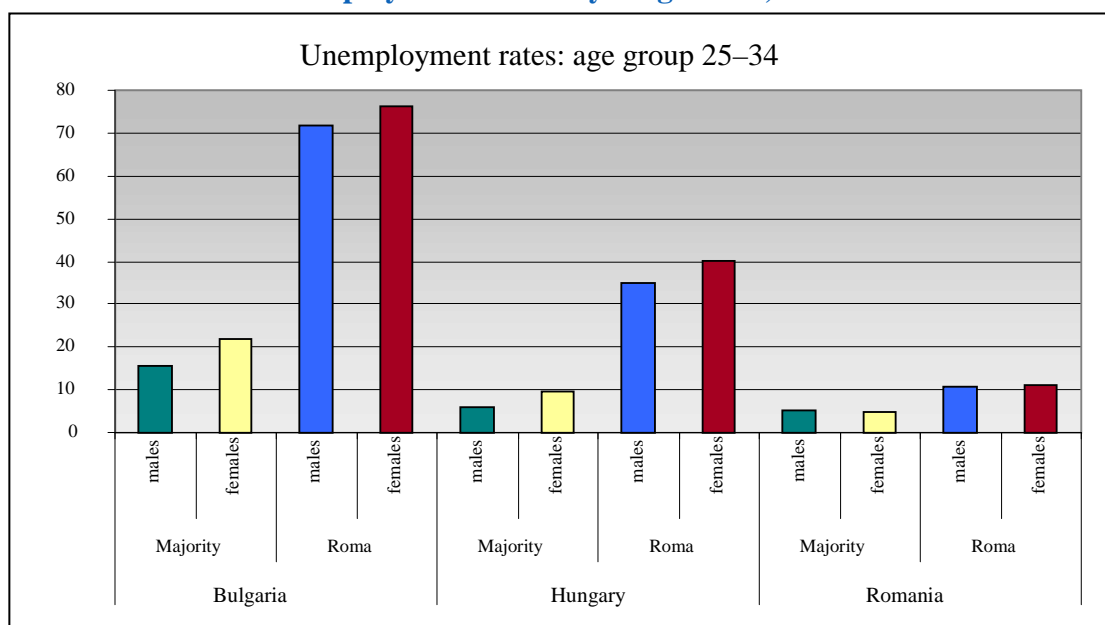
Source: Authors’ calculations based on data from the Generations and Gender Surveys.

looking after the home or on parental leave — while over 60 per cent of Bulgarian ones report being unemployed. However, it is questionable whether Bulgarian Roma females are really actively seeking jobs. The resulting unemployment rates range quite strikingly from over 70 per cent in Bulgaria to about 10 per cent in Romania (Figure 7), roughly corresponding to rates reported by UNDP (2002). Notably,

⁶ According to the standard ILO definition, an unemployed person is one who is willing, able and actively seeking work. Unemployment rates are defined by the ratio of unemployed to active population where active population is given by unemployed and employed population.

Romanian Roma report very low unemployment rates which for males possibly reflect the extensive engagement in the informal sector and casual employment activities and for females reflect the high inactivity rate as already mentioned.

Figure 7
Unemployment rates of young adults, mid-2000s



Source: Authors' calculations based on data from the Generations and Gender Surveys.

In the case of Bulgaria (Table 2) it is possible to investigate a bit further Roma's unemployment conditions: of the unemployed males, only less than half report having had a job before the unemployment spell while for females this percentage shrinks below 30 per cent. The reported average unemployment duration is above 5 years for male Roma and almost 8 years for females. Even though the

Table 2
Unemployed population in Bulgaria, mid-2000s

	Majority		Turkish minority		Roma	
	males	females	males	females	males	females
% had a job before unemployment	77.7	72.1	54.5	43.2	44.6	28.4
average unemployment duration in months	41.2	44.6	72.8	79.6	69.3	92.3
% receives unemployment benefit	10.1	9.7	4.6	5.7	7.9	6.2

Source: Authors' calculations based on data from the Generations and Gender Surveys.

Bulgarian majority's unemployment spells are relatively long (around 3 years and a half for men and a couple of months more for females), the minorities' unemployment durations are much longer for the population of young workers. At their age, they seem to have spent more time unemployed than actively engaged in economic activities. Given the long unemployment durations, it is not surprising that only a minority of them receive unemployment benefits.

Determinants of employment and the gap decomposition

In this sub-section we analyze the determinants of employment and decompose the employment gap for the whole working age population (18–65). We consider as employed all individuals engaged in any form of gainful employment: formal and informal, day work, self-employment. To increase the sample size all adults aged 18–65 of the households surveyed are considered. This, however, limits our analysis to a purely descriptive exercise.

The Annex Table 2.1 provides descriptive statistics on the sample used. Statistics are broadly similar to the one analyzed in the previous sections for the younger population. Employment rates are below 50 per cent for males and below 20 per cent for females. On average the Roma population is 4 years younger than the majority and has completed only primary schooling. Even if the number of children per Roma adult is almost double that of the majority population (two children versus less than one per adult), Roma are less frequently married (with the exception of Hungarian ones). The low percentage of married Roma couples reflects the fact that traditional Romani marriages are not always registered.⁷ In Bulgaria and Romania, most Roma live in rural settlements.⁸

Following Kertesi and Kézdi (2010), we decompose the employment gap into differences in education, age, geographical location (dummies for regions within each country), number of children and civil status. Education and age are proxies for skills, while regional dummies and an indicator for rural settlement capture the geographical differences in available jobs; marital status and number of children are proxies for differences in labour supply decisions. The decomposition is based on the linear probability models (OLS) estimated separately for the Roma and majority populations and for males and females in each of the countries considered.⁹ The resulting standard Oaxaca-Blinder decomposition of the employment gap is shown in Table 3.

Raw differences in employment rates range from 9 per cent for Romanian males to 43 per cent for Bulgarian males. Education explains in all cases, almost half of the gap and it is more important for females than for males as already seen in previous sections. Age on the contrary plays in favour of Roma population that is considerably younger. As expected family structure influences labour force participation: the high number of children contributes to explaining low Roma female labour participation, while the marital status has some influence on males. Geographical location does not explain the Romanian employment gap, probably because many Roma in Romania work in the agricultural sector and are thus not disadvantaged by living in rural settlements. If Roma had the same endowments as the

⁷ In some Romani communities arranged marriage, child marriage and forced marriage are still prevalent as „traditional practices”. These traditional marriages often take the form of "custom law" marriages. However, Roma "custom law" marriages are not to be confused with the Anglo-Saxon "common law" marriages and are not recognized by the state as legally binding. "Custom" means that the couple is viewed as married by the community, relatives and their own but not in the eyes of the administration (UNDP 2002, European Commission 2009).

⁸ Unfortunately Hungarian data do not include any geographical indicator. Geographical indicators and rural environment indicator might have a very important impact in explaining employment patterns. As a consequence, results for this country need to be interpreted with caution.

⁹ The same analysis performed on the basis of probit models is not significantly different.

majority population, employment gaps would be reduced by as much as 72 per cent for Bulgarian women to virtually nothing for Hungarian males.

Table 3
The Oaxaca-Blinder decomposition of employment gaps

	Bulgaria		Romania		Hungary	
	males	females	males	females	males	females
Raw Gap	0.429	0.387	0.095	0.322	0.264	0.351
	(0.019)***	(0.018)***	(0.041)**	(0.028)***	(0.031)***	(0.023)***
Explained						
education	0.172	0.215	0.057	0.189	0.083	0.161
	(0.012)***	(0.014)***	(0.012)***	(0.016)***	(0.006)***	(0.009)***
age	-0.036	0.005	-0.062	-0.050	-0.090	-0.064
	(0.007)***	(0.010)	(0.017)***	(0.012)***	(0.012)***	(0.013)***
No. of children	0.007	0.022	0.001	0.045	-0.008	0.081
	(0.005)	(0.005)***	(0.005)	(0.008)***	(0.004)*	(0.009)***
married	0.020	0.000	0.017	-0.003	0.003	-0.001
	(0.003)***	(0.003)	(0.004)***	(0.004)	(0.003)	(0.001)
rural	0.029	0.023	-0.001	0.016		
	(0.004)***	(0.004)***	(0.001)	(0.004)***		
region	0.022	0.013	-0.003	-0.002		
	(0.005)***	(0.004)***	(0.003)	(0.004)		
Total explained	0.214	0.278	0.009	0.195	-0.013	0.177
	(0.016)***	(0.018)***	(0.022)	(0.022)***	(0.015)	(0.017)***
% explained	0.4982	0.7182	0.0951	0.6064	-0.0481	0.1128
Unexplained						
	0.215	0.109	0.086	0.127	0.277	0.175
	(0.024)***	(0.023)***	(0.044)***	(0.034)***	(0.031)***	(0.025)***

Source: Authors' calculations based on data from the Generations and Gender Surveys.

Working conditions

The Roma seem to encounter not only more difficulties in finding a job, but also the type of occupation and the conditions of work they are able to access are clearly worse than those of the majority population. Most of the young Roma men report being employed in elementary occupations.¹⁰ Often they work in the public sector and part-time, notably in public employment projects. This is worrisome because public employment projects, combined with incentives built into the welfare

¹⁰ Elementary occupations include: cleaners and helpers, non-skilled labourers in agricultural, forestry, fishery, mining, construction, manufacturing and transport, food preparation assistants and refuse workers.

system, are likely to contribute to the short employment spells and thus likely to reinforce welfare dependency.¹¹

Table 4
Typical occupation of young men and their fathers

	Young men	Fathers
Bulgaria		
Majority	Craft and related trades workers (20.2 %)	Craft and related trades workers (26.1 %)
	Plant and machine operators, assemblers (19.5 %)	Plant and machine operators, assemblers (24.9 %)
	Technicians and associate professionals (16.8%)	Technicians and associate professionals (12.3 %)
Roma	Elementary occupations (70 %)	Elementary occupations (60.1 %)
	Craft and related trades workers (11.1 %)	Plant and machine operators, assemblers (15.2 %)
	Plant and machine operators, assemblers (5.6 %)	Craft and related trades workers (13.8 %)
Hungary		
Majority	Craft and related trades workers (32 %)	-
	Plant and machine operators, assemblers (12.7 %)	-
	Professionals (12.3 %)	-
Roma	Elementary occupations (28.1 %)	-
	Plant and machine operators, assemblers (23.8 %)	-
	Craft and related trades workers (23.5 %)	-
Romania		
Majority	Craft and related trades workers (25 %)	Craft and related trades workers (37.2 %)
	Plant and machine operators, assemblers (17.1 %)	Plant and machine operators, assemblers (28.8 %)
	Skilled agric., forestry, fishery workers (11.6 %)	Elementary occupations (17.7 %)
Roma	Elementary occupations (32 %)	Elementary occupations (65 %)
	Skilled agric., forestry, fishery workers (32 %)	Craft and related trades workers (15 %)
	Service and sales workers (16 %)	Plant and machine operators, assemblers (15 %)

Source: Authors' calculations based on data from the Generations and Gender Surveys.

Table 4 reports the three most popular occupations for young men of the majority population and for the Roma population and the occupation of their fathers when they were 15 years old.¹² A comparison with the majority population offers a picture of highly segmented labour markets where Roma are only able to access low-

¹¹ For the analysis of welfare dependency in Hungary, see Kertesi (2010).

¹² A corresponding table for females is not available given the small share of young Roma women employed.

skilled occupations. Where it is possible to make a comparison with the previous generation, the position of Roma on the labour market does not seem to have improved much in spite of the educational progress achieved. In Bulgaria and Romania, the decline of the manufacturing industry clearly brought about a reduction in the occupational share of plant and machine operators, and assemblers.

Even more worryingly, the share of young Roma able to gain a living from traditional skills in the craft and related sales sector is relatively small and shrinking in comparison to the previous generation.¹³ This means that traditional Roma activities are no longer demanded in the current economic environment and that their skills need to be upgraded and adapted (O'Higgins and Ivanov, 2006). The Romanian Roma seem to have specialized in the agriculture, forestry and fisheries sector.¹⁴

Confirming that there is also a qualitative employment gap, interviewed Roma workers report being less satisfied with their jobs than the majority population workers (Table 5). However, differences in job satisfaction rates are not as big as one would expect given the inter-ethnic differences in working conditions and salaries.

Table 5
Employment characteristics of the majority and minority workers
Percentages of employed

	Bulgaria			Hungary		Romania	
	Majority	Turkish	Roma	Majority	Roma	Majority	Roma
job satisfaction	7.1	7.1	5.8	7.3	6.1	7.5	6.6
working in public enterprises	29.3	25.1	38.5	27.5	33.0	57.7	50
working part-time males	6.2	14.4	33.3	4.6	10.5	8.7	28
self-employed	7.9	10.8	8.1	9.7	7.2	17.7	45.5
having health care/insurance (private plan from employer)	18.3	7.6	7.7	-	-	69.1	37.5
having training	9.3	1.7	0	-	-	13.8	0
permanent type of contract	73.2	50.4	31.3	-	-	-	-
continuous employment through much of the year	95.1	80	60.4	-	-	-	-
retired (50–65yrs) receiving pension	78.2	73.8	75.0	88.9	80.5	65.9	44.4

Source: Authors' calculations based on data from the Generations and Gender Surveys.

The Bulgarian and Romanian survey data offer an insight on this from two different perspectives: while Bulgarian Roma are usually salaried workers, almost half of Romanian ones are self-employed. In both cases, the percentage of Roma covered by

¹³ The craft and related sales sector includes basic skills occupations such as bricklayers, roofers, blacksmiths, toolmakers and related trades workers, and handicraft workers.

¹⁴ See also Ringold *et al* (2005) for a description of Roma's working experiences and living standards in several European countries.

healthcare or medical insurance is half of that of the majority and their ability to take advantage of work-related training is nil. Not surprisingly, less than a third of Bulgarian Roma workers report having a permanent contract and only 60 per cent of them are employed on a continuous basis through much of the year. These percentages are considerably lower than those of the majority working population of which nearly 75 per cent enjoy a permanent contract and 95 per cent are continuously employed throughout the year.

The professional instability is perhaps one of the main factors behind the very high level of frustration and feeling of powerlessness registered in Roma communities. When asked about their ability over the next 3 years to control their household financial conditions, their work, health and family situation, the Roma respondents both in Bulgaria and in Romania seem to feel particularly helpless. About 50 per cent of Bulgarian and around 30 per cent of Romanian young Roma irrespective of their gender declare to have no control at all over their financial situation or work (Table 6). These perceptions of “powerlessness” are 2–3 times those

Table 6
The ability of young people to control their lives

How much control in the next three years: % declaring not at all	<i>age group 25-34</i>				
	Bulgaria			Romania	
	Majority	Turkish minority	Roma	Majority	Roma
Financial situation					
female	15.9	29.6	47.3	8.9	36.0
male	11.5	27.3	48.1	8.4	30.0
Work					
female	18.3	33.1	54.3	6.8	27.3
male	11.4	29.6	58.5	4.5	16.7
Housing conditions					
female	12.4	16.7	31.5	5.3	16.0
male	9.0	20.5	26.3	5.3	5.3
Health					
female	7.6	12.4	15.9	4.6	4.0
male	6.1	11.3	25.3	4.2	10.0
Family life					
female	4.4	6.5	13.9	1.5	4
male	4.8	5.2	13.9	2.3	0.0

Source: Authors’ calculations based on data from the Generations and Gender Surveys.

of the majority population, even for more amenable issues like family life. There is a small tendency for females to feel more powerless with the exception of health issues where Roma females feel more in control than their male counterparts. This may be due to the fact that although Roma women use health care services less than the rest of the population, they are nevertheless primary care providers within their families

and communities and also beneficiaries of healthcare services (for example by going to the hospital to give birth) and, often, they represent the main liaison between their families/communities and these services (European Commission (2009)).

Responses about the control of the financial situation and work conditions are literally dramatic, especially in Bulgaria, showing that Roma minorities do not believe and do not think to be able to control their working life and consequently their earnings but rather live on a day-to-day basis. We did not report statistics for older age groups, as these do not add to the picture. One would expect that at the beginning of the working life uncertainty would be greater than later on in life; however, the data show a progressive worsening of the ability to control over the life cycle, with a total collapse for all groups during the retirement age (above 55).

It is often claimed that Roma minorities suffered a much deeper transition crisis than the majority population and that the working and consequently living conditions of the current generation worsened considerably with respect to those of their parents. We verify whether retired Roma in the age of their parents (50 to 65 years) receive pensions. The right to receive retirement pension is matured after a certain number of working years in the formal sector (registered employment), and can thus reveal if the generation of parents enjoyed higher employment rates and more stable working conditions. In Bulgaria and Hungary, the retirement pension coverage rates are relatively similar across ethnic groups and above 75 per cent of the population. In Romania, the pension coverage rate for the Roma is much lower and the gap with respect to the majority population is more important. This would confirm at least partially the hypothesis that parents had a better working life and have nowadays a stable and safe source of income. However, while in all three countries parents of the majority population report being mainly either retired or still active with negligible unemployment rates, Roma parents who are not retired report unemployment rates similar to the ones of the young population.¹⁵ Thus only those who managed to retain their job across the transition period accumulated pension rights, while the others most likely share the difficult working conditions and high unemployment rates of the younger Roma population.

Most worrisome is the future prospective. The intergenerational gap in living conditions seems bound to increase with the much lower percentages of today's young Roma being able to accumulate enough pension contribution years to secure a stable source of income when old.

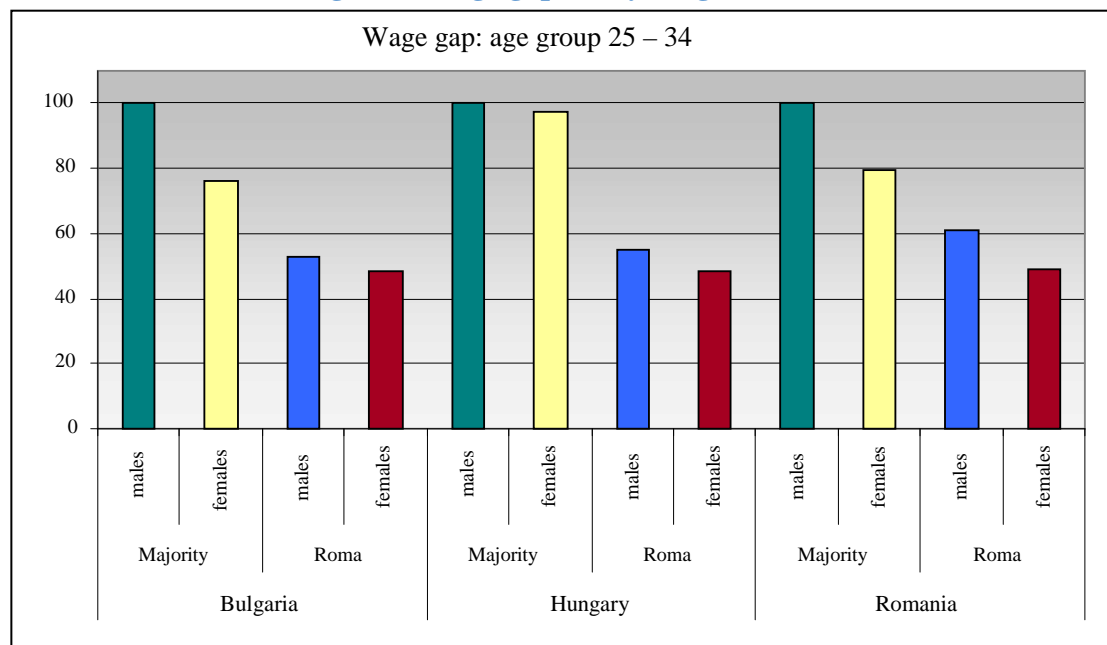
The poor working conditions and the unskilled occupations are mirrored in quite high wage gaps. In Figure 8, we report wages of the different groups and gender as a percentage of the average wage earned by males of the majority population (this group's earnings index is set to 100).¹⁶ Wage gaps are quite wide ranging from almost 50 per cent for male Roma in Bulgaria to about 40 per cent in Romania. Interestingly gender wage gaps for Roma do not seem to be much higher than for the majority of population with the exception of Hungarian workers. This is in

¹⁵ Almost 38 per cent of Hungarian Roma parents report being inactive because ill or disabled. These receive in 95 per cent of the cases some kind of disability allowance. This allowance can be viewed as a sort of social assistance/income support.

¹⁶ Bulgarian data reflect monthly total income and not only earnings from main occupation/business as in the Romanian and Bulgarian cases.

contradiction with some literature according to which gender pay gaps were higher in Roma communities because of the stronger traditional role of females (European Commission, 2009).

Figure 8
Ethnic and gender wage gaps for young adults, mid-2000s



Source: Authors' calculations based on data from the Generations and Gender Surveys.

If accumulating experience on the job allows improving productivity and thus salaries, one would expect, considering the precarious working conditions and the little training Roma workers are undergoing, to observe wider wage gaps in older age groups. Looking again at the age range 35 to 44 years, wage gaps for male Roma are higher than those in the reference age group by 2 and 5 per cent in Bulgaria and Hungary, and by more than 30 per cent in Romania. Increases in the wage gaps for older females are much greater ranging from 5 and 10 per cent in Hungary and Bulgaria to over 40 per cent in Romania. Likely this is due to the accumulation over their working histories of disadvantages, i.e. long unemployment spells, work discontinuity, and poor working conditions. As a result the gender pay gap for Roma also increases.

Raw wage gaps reflect many factors, most importantly differences in education. However, wage gaps for workers who have accomplished at least secondary schooling (Figure 9) are bigger than for the whole group aged 24 – 35 by almost 10 per cent in Romania and roughly the same in Bulgaria while being clearly smaller only for Hungarian males and Romanian females.¹⁷ This indicates that for Roma workers education slightly increases the probability to be employed but does not contribute to closing the income gap with the majority population.

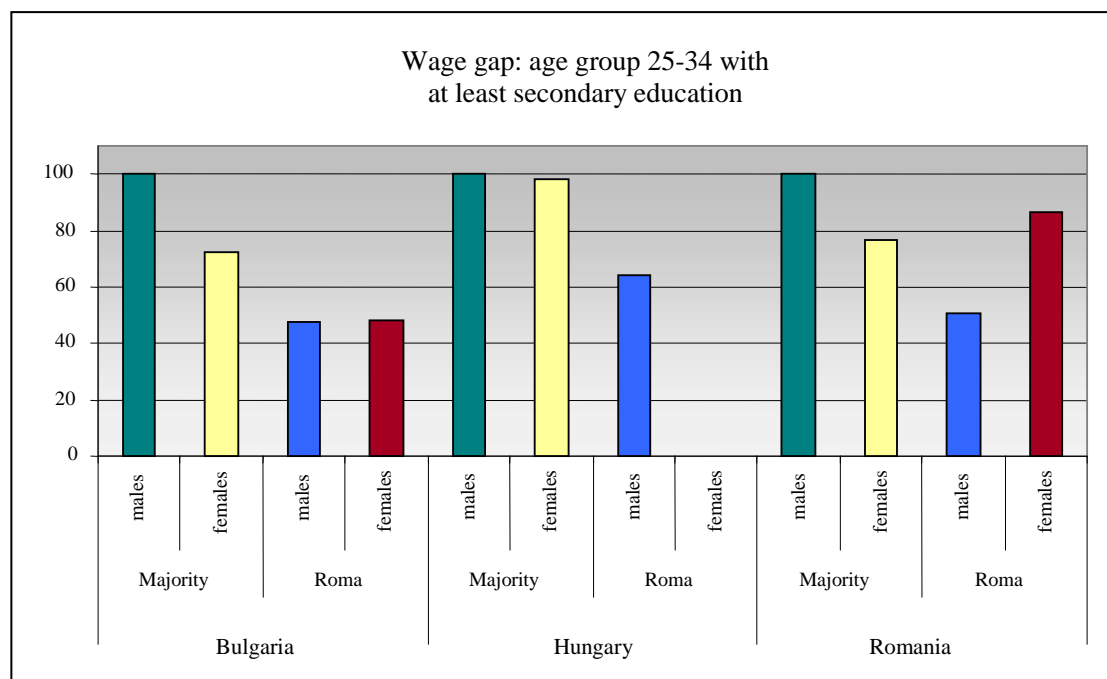
Not having more detailed data, it is difficult to rule out straightforward discrimination as an explanation for these wage gaps. As a matter of fact, many reports, e.g. UNDP (2002), EU (2009), Decade Watch (2010), cite heavy

¹⁷ Data on wage gaps for Hungarian Roma females is not available.

discrimination as one of the main factors determining the poor performance of Roma in the labour market.

Figure 9

Ethnic and gender wage gaps for young adults with at least secondary education



Source: Authors' calculations based on data from the Generations and Gender Survey.

IV. Living conditions

The large wage gaps highlighted in the previous section, low employment rates and the poor working conditions determine wide gaps in the standard of living. The following figure shows the gaps in monthly total household income. The Bulgarian Roma households' average income represents less than 30 per cent of the majority's average. The Hungarian and Romanian Roma families' average incomes reach more than 60 per cent of the majority's average.

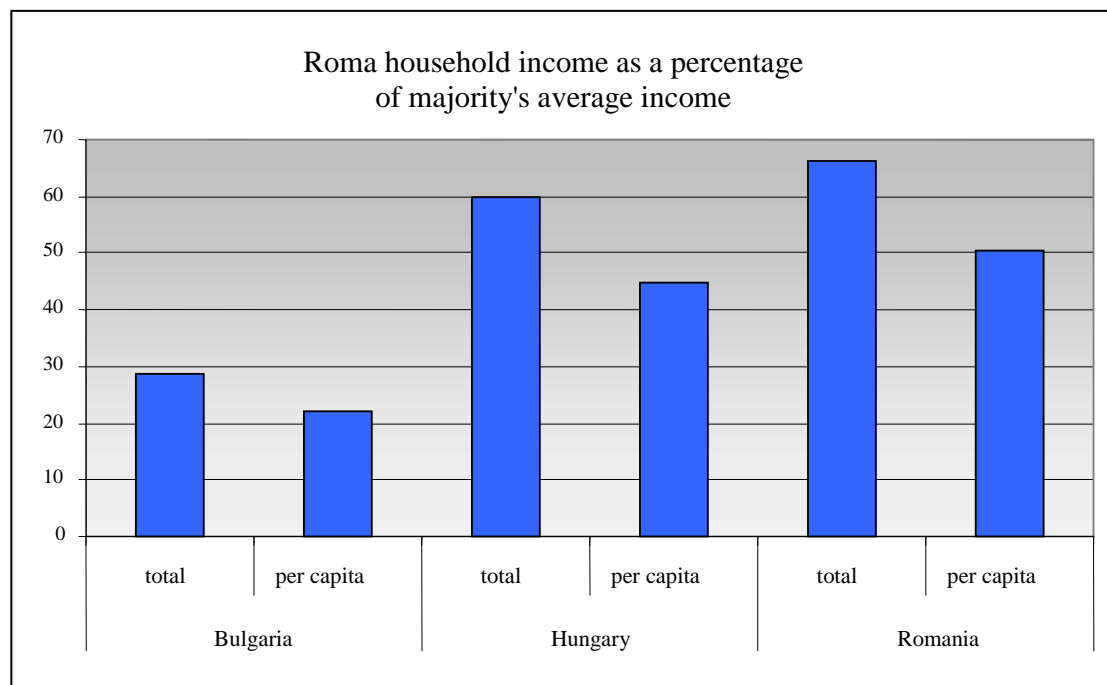
The second bars of the graph show the gap in per capita household income. Gaps increase by 6 per cent in Bulgaria to 16 per cent in Hungary and Romania, due to the fact that Roma households are on average composed by 4 – 5 members, while the majority's households are smaller (3–4 persons). Due to the different demographic trends¹⁸ and the widening income gaps over the working life already mentioned in the previous paragraph, family income gaps increase with the age of the household head. For household heads aged 35 to 44 Roma per capita incomes are, across the countries under study, around 30 per cent of the majority's average per capita income.¹⁹

¹⁸ Roma women not only procreate more but their fertility period also seems to last longer. The number of household members increases with the age of the household head: for Roma household heads aged between 35 and 44 years, the average household size is above 5 while the size of the majority population families remains stable across age groups.

¹⁹ A similar analysis by educational group is not possible due to the limited sample size.

The high inactivity and unemployment rates lead to a marked dependency on social welfare benefits; in other cases informal and occasional employment prevents

Figure 10
Per capita income gaps between the Roma and majority population, mid-2000s



Source: Authors' calculations based on data from the Generations and Gender Surveys.

Roma from accessing unemployment benefits or other social security contribution-based benefits (i.e. child-raising allowance), especially in countries where social benefits are related to the employment status and social assistance is based on residential criteria.

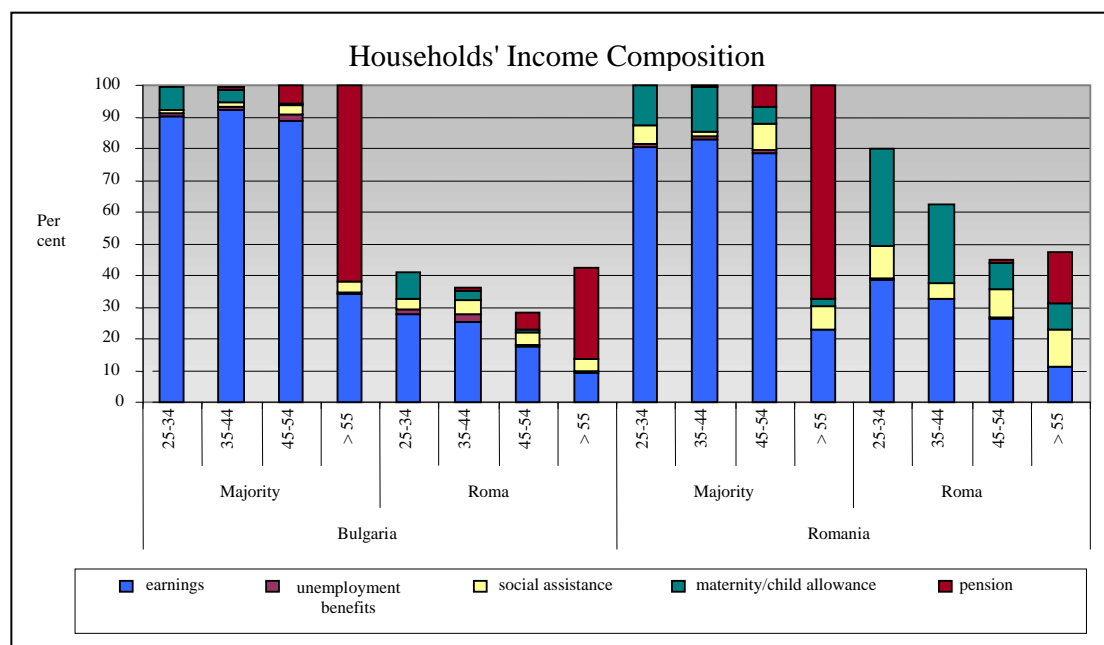
In figure 11, we report for Bulgaria and Romania the household income composition for different age groups defined on the basis of the main respondent's age: 25–34, 35–44, 45–54, and over 55 years. Here, we focus on the different composition of incomes across age- and ethnic groups and not on the life cycle properties of incomes; thus we set for each age group the average household income of the majority population to 100 and show the average income of the corresponding age group of the Roma population as a percentage of it. This highlights once again the income gap across groups while providing an overview of the relative importance of social welfare benefits for the two populations. To construct this graph, we sum all income sources for all family members; as a consequence there might be small discrepancies with the previous figure on income gaps as some types of income (such as interest or rent) are not correctly reported for each member of the household, while they are most probably included in the total monthly income used in figure 10.

We classify income types from 5 major sources: earnings, unemployment benefits, social assistance, maternity/child allowances, and pensions.²⁰ The category

²⁰ This analysis only refers to monetary incomes/transfers. For Roma a very important source of support from the state is represented also by non-cash social assistance (energy costs rebates, health programmes, food) and housing. The share of Roma families (considering the whole population, all age

earnings includes wages and earnings from self employment, as well as earnings from second occupations and occasional jobs.

Figure 11
Composition of household incomes in Bulgaria and Romania, mid-2000s



Source: Authors' calculations based on data from the Generations and Gender Surveys.

The category 'social assistance' includes social assistance and disability benefits. Maternity/child allowances include also child-rearing benefits. The pension category includes old-age pensions, social pensions, and survival pensions.

Bulgaria and Romania seem to have very different welfare structures, with the Bulgarian majority population mainly benefiting only from child allowances and pensions while Romanian social assistance programmes seem to play a bigger role across ethnic groups. This can most probably be explained by the better targeting of Bulgarian social protection schemes such as family allowances and social assistance (World Bank, 2009) in comparison to the Romanian social policy mainly aiming at sustaining families and thus fertility (Cenar, 2010).²¹

Another important aspect of welfare benefits is their importance for Roma incomes, representing from a minimum of 30 per cent to more than 75 per cent (for retired) of their total income. In both countries, child allowances are fundamental to younger groups' incomes while pensions effectively sustain older Roma generations, reducing — for this age group — the income gap with respect to the majority

groups) reporting to benefit from non-cash social assistance was over 32% in Bulgaria, 15.5% in Hungary and almost 9% in Romania while for housing the shares were 2%, 8.6%, and 21.6% respectively. The percentages of majority population benefiting from this support were in contrast minimal; for non-cash social assistance: 4.5% (Bulgaria), 5.4% (Hungary), and 7.3% (Romania), while for housing the shares of recipients were: 0.5% (Bulgaria), 1.4% (Hungary) and 8.5% (Romania).

²¹ However, some recent literature highlights the fact that in Bulgaria since 2004 conditions to access social assistance benefits have become increasingly selective and restrictive as well as complicated while the period of payment of social benefits was reduced four times, leaving considerable shares of poor population uncovered (Bogdanov and Zahariev, 2009).

population. As a matter of fact, the biggest income gap is registered for the group aged 45 to 54 years when the child allowances are no longer available and pensions are not yet accessible.

In both countries, one can notice that the amounts of welfare benefits Roma receive are quite important both in absolute and relative terms. The degree of welfare dependence of minorities is considered a key issue in determining the support of the majority population for integration policies and thus on the minorities' ability to participate more actively in the economy. The fact that Roma communities are largely beneficiaries of welfare states without contributing taxes to finance them considerably increases the majority population's intolerance and rejection of them. On the one hand, extensive dependency of minorities on social transfers increases the social tax burden and, on the other hand, it reduces the resources available for other public uses. This increases the income-generating population's concerns about the uses of their social security contributions (UNDP, 2002). Moreover, as for any benefit, too generous transfers can reduce incentives for beneficiaries to actively look for employment and other sources of income, leading to a vicious circle. In this respect, the World Bank has calculated that breaking this vicious circle in countries of Central and South-Eastern Europe and giving young Roma the same working opportunities as the majority population could increase GDP up to 3 per cent and government budgets by 4 per cent (World Bank, 2010a).

In spite of the relatively high amount of benefits they receive, Roma families remain in the lowest half of the per capita income distribution and can easily be classified as poor. This is evident from the following table reporting the results of a small income survey included in the GGP questionnaire. The majority of Roma households with a head aged 25 to 34 is declaring in all three countries to have difficulty or even great difficulty to make ends meet. Virtually none are able to save.

Roma households are more likely than other households to rent their dwelling or benefit from social housing. Almost half of them are unable to pay rent for their accommodation. More than half cannot afford paying utility bills. In all countries, these percentages are 2, 3 and sometimes 4 times higher than those of the majority population in the same age group. The poverty of Roma households is both a consequence and a cause of their low incomes. Their inability to afford adequate clothing, housing and food is likely to negatively impact their children's schooling performance as well as their employability. The data show that very few Roma households have a sufficient protein intake. This corroborates UNDP (2002) survey findings that substantial numbers of Roma children suffer from undernourishment. This has negative effects on their health and educational capacities.

Moreover, considering that a big part of the Roma population lives in rural areas, the fact that only a minority of them have a means of transport and a telephone reduces their ability to reach a school or to find a job. Poor access to transport is increasingly being recognized as a barrier to employment and other key activities and, thus, an important contributing and reinforcing factor in reduced social participation and social exclusion even in G7 countries (Lucas, 2003). In a rural context where public transport is less available, a car can be a determining factor for employability. Their complete lack of access to new technologies (computers) also excludes the Roma from the labour market and undermines their future employability.

Table 7
Selected characteristics of Roma and non-Roma households, mid-2000s

	Bulgaria		Hungary		Romania	
	majority	Roma	majority	Roma	majority	Roma
Percentage of households:						
having difficulty or great difficulty to make ends meet	47.7	91.5	13.2	46.7	24.2	55.6
with money left for savings	12.8	1.1	-	-	21.4	11.1
own their dwelling	76.4	62.8	74.6	64.6	84.2	82.2
rent	8.5	8.9	8.2	14.6	7.0	11.1
social housing	14.0	26.2	8.3	14.6	6.6	4.4
Percentage of households having:						
Colour TV	97.5	63.5	98.0	95.8	94.6	84.4
Video recorder/DVD player	58.1	11.1	80.9	55.0	33.0	13.3
Microwave	42.9	2.7	-	-	21.9	6.7
Washing machine	89.9	20.5	87.9	33.6	74.4	26.7
Computer	27.7	0.5	56.1	11.2	31.0	2.2
Dishwasher	5.3	0.5	8.9	0.9	1.3	0.0
Telephone (whether fixed/mobile)	92.6	23.7	88.8	60.6	79.0	31.1
Car/van available for private use	63.3	13.2	66.1	27.5	33.1	13.2
Second car	8.3	1.6	-	-	3.3	0.0
Second home	10.4	1.6	-	-	3.3	0.0
Percentage of households which can afford:						
keeping home adequately warm	87.4	67.9	97.6	87.8	89.1	64.4
a week's annual holiday	36.0	2.1	57.8	10.9	41.6	6.7
replacing any worn-out furniture	21.1	1.1	28.6	16.7	21.2	4.4
buying new, rather than second-hand clothes	75.7	13.2	59.9	21.9	71.9	20.0
eating meat, chicken or fish every second day	65.3	11.6	69.7	40.0	71.3	31.1
having friends/family for a drink/meal once a month	65.4	16.3	-	-	56.9	15.6
Percentage households unable to pay in the last 12 months:						
rent for accommodation	24.2	44.4	10.8	45.6	15.4	57.1
utility bills	23.5	70.2	14.6	52.3	15.3	45.5

Source: Authors' calculations based on data from the Generations and Gender Surveys.

Looking at tables 7 and 8, one should consider the geographical distribution of different communities. In Bulgaria, the majority population is mainly urban and only 20 per cent live in rural areas. However, Roma seem to be particularly disadvantaged and enjoy a very low rate of access to water and sanitation, also in comparison to the Turkish minority which has a significant share of rural population (63 per cent of all the Turks interviewed are living in rural areas) that is relatively similar to the Roma one (58 per cent). Housing conditions can contribute to the vicious circle: poverty – low education – no employment – bad housing and health – poverty. Researchers found that poor housing conditions in part contributed to Roma poverty in several countries. In many cases, this is because Roma were left out of the property and land privatization processes that occurred during the early 1990s (Ringold *et al*, 2005).

The poor living conditions translate into poorer health, especially in the older age. Several European studies show that Roma women and men have an average life expectancy at birth considerably lower than the rest of the population. This is a consequence of their bad housing and living conditions, as well as their patchy access to screening and healthcare (Fundación Secretariado Gitano, 2009; European Commission, 2009).

For Bulgaria it is possible to verify the water and sanitation access of minorities.

Table 8
Access to water and sanitation in Bulgaria, mid-2000s

Percentage of households:	Majority	Turkish	Roma
with access to piped water	99.4	95.0	78.5
with bath or shower	96.5	78.1	34.7
with a flush toilet	89.0	42.7	22.0

Source: Authors' calculations based on data from the Generations and Gender Surveys.

In the following table, we report three indicators of health conditions for two age groups, between 25 and 34 years and above 45 years. The first indicator is the percentage of individuals reporting good or very good health, the second shows whether the individual has any long standing illness or chronic condition, and the third one is an indicator for any health related limitation or disability. In general, it seems that while for Roma females the gap in health conditions is already present when young and it exacerbates when getting old; for Roma males the gap is only evident in the older age.

The difference across genders is certainly related to different hygienic conditions and care necessities that females require, especially during the fertile period. With respect to non-Roma women, Roma women tend to experience greater health risks, because of early and multiple pregnancies and abortions, a heavy workload at home, poor housing, malnutrition, etc.

Table 9
Selected health indicators, mid-2000s

	Bulgaria				Hungary				Romania			
	Majority		Roma		Majority		Roma		Majority		Roma	
	f	m	f	m	f	m	f	m	f	m	f	m
good / very good health 24 – 35 yrs	89.8	91.5	77.0	85.9	84.8	85.7	78.7	85.7	89.2	93.5	84.0	80.0
good / very good health > = 45 yrs	37.5	50.5	29.0	43.6	38.3	43.5	31.2	21.1	34.8	46.8	25.6	42.4
Any long-standing illness / chronic condition 24 – 35 yrs	10.0	8.0	13.3	9.0	11.1	11.8	14.9	6.1	5.3	4.7	8.0	10.0
Any long-standing illness / chronic condition > = 45 yrs	50.5	39.0	50.0	51.6	54.5	46.9	63.9	59.7	40.9	31.2	44.2	39.4
Any health-related limitation / disability 24 – 35 yrs	2.3	2.2	2.7	2.6	8.0	8.0	12.8	4.1	2.0	1.8	0.0	5.0
Any health-related limitation / disability > = 45 yrs	13.0	11.8	20.0	19.4	43.5	40.0	49.2	59.0	16.7	13.2	20.0	11.1

Source: Authors' calculations based on data from the Generations and Gender Surveys.

The health gap for Roma women can be at least partly explained by the different contraceptive methods used. There is very scant use of family planning services among the Roma, partly explained by cultural beliefs that discourage the use of contraception: abortion is still adopted as a method of 'birth control' even though the tendency is decreasing. In some countries (such as Slovakia, the Czech Republic and Hungary), cases of involuntary sterilization of young Roma women have been reported (Balogh and Kóczé, 2011). Many pregnant Roma women (including underage Roma mothers) are not registered with a family physician and fail to go through prenatal check-ups because of lack of information and cultural barriers such as lack of trust in professional care and the difficulties of discussing their health problems with strangers, especially men (European Commission, 2009). The inclusion of a gender perspective in designing inclusive policies for Roma in the health sector is not only justified by the inequalities detected between men and women, but also by the multiplying effect of interventions aimed at women, for their pivotal role in the organization of the family and the transmission of values and habits. Fundación Secretariado Gitano (2009) in a study of Roma health conditions in EU countries calls for interventions seeking to promote a greater visibility (as mediators, educators) of and access to health resources by women.

In the following table, we report the percentage of Bulgarian and Romanian women aged between 18 and 44 years using different contraceptive methods.²² Given their relatively high fertility rate, it is not surprising that more than 40 per cent of Roma women do not use any contraceptive method. This can certainly be due to their family values, discussed in the following section, but it could also mean that their access to family planning methods and health care is rather limited. As a matter of

Table 10
Use of contraceptive methods in Bulgaria and Romania, mid-2000s
Percentage of women aged 18 to 44 using the following contraceptive method

	Bulgaria			Romania	
	Majority	Turks	Roma	Majority	Roma
pill	9.7	4.9	1.5	22.7	11.8
condom	25.0	11.0	7.6	27.8	14.7
withdrawal	33.8	41.0	43.9	10.8	17.6
safe period method	6.0	7.1	5.6	32.3	23.5
other contraceptive methods	15.6	7.8	5.1	12.8	2.9
nothing	24.7	37.8	41.4	21.9	44.1

Source: Authors' calculations based on data from the Generations and Gender Surveys.

²² The different methods can add up to more than 100 per cent as in some cases more than one method is used at the same time.

fact, some European studies (Fundación Secretariado Gitano, 2009; European Commission, 2009) discovered that Roma women use healthcare services less than the rest of the population, because medical treatment may conflict with the Roma rules of hygiene and modesty, and because they often feel excluded by the negative attitudes/racism/discrimination of some healthcare workers and hospitals. Moreover, social disorganisation and poverty are often underlying causes for reduced access to information, especially in isolated Roma communities. Their access to services is also hindered by language problems, as the Roma language lacks many specific words in the fields of medicine and health and social care.

The hypothesis that Roma women could wish to have more control over their fertility is supported by the high percentage of them using withdrawal as a contraceptive method and the very low use — both in absolute terms as well as in relative terms (in comparison to the majority women) — of the pill, condom and any other contraceptive method requiring access to a physician or a pharmacy (excluding thus the safe period method).

Gender

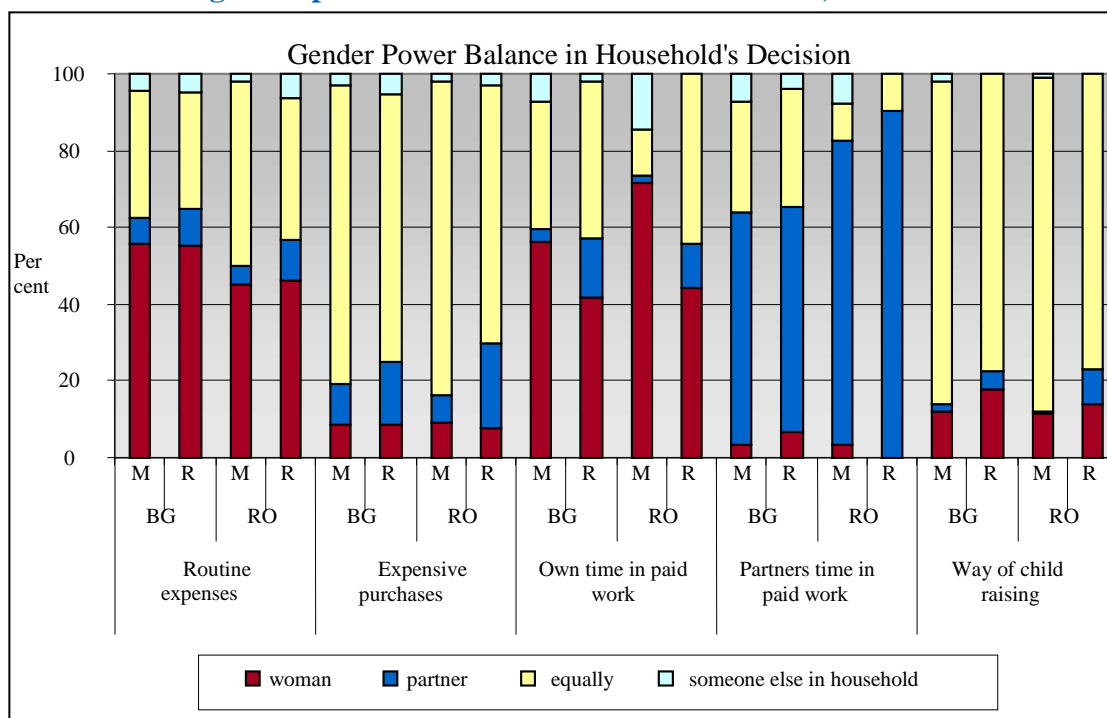
Statistics about labour market participation, education and health presented thus far highlight the vulnerable position of Roma women, being at higher risk of poverty and social exclusion. The handicaps of Roma women with respect to the men from their community and ethnic majority women, especially in accessing employment, education, health and social services, are due to some extent to the gender roles persisting in some of the most disadvantaged communities.

Subsequently, we further investigate the role of Roma women in their community, presenting the results of a survey on gender power balance within households. We look at women who were the main respondent in a household and have a partner/family, without focusing on a particular age group to avoid having too small samples for Roma women.

We first investigate the gender power balance in the households' decisions with respect to routine expenses, expensive purchases, woman's own time in paid work, male partners' time in paid work and the way of child-raising. The following figure shows for Bulgaria and Romania who within a household takes "always or usually" the specified decision: the woman, her partner, if both take it equally often or if someone else in the household takes it. The bar denoted with M refers to the majority population while the R bar refers to Roma.

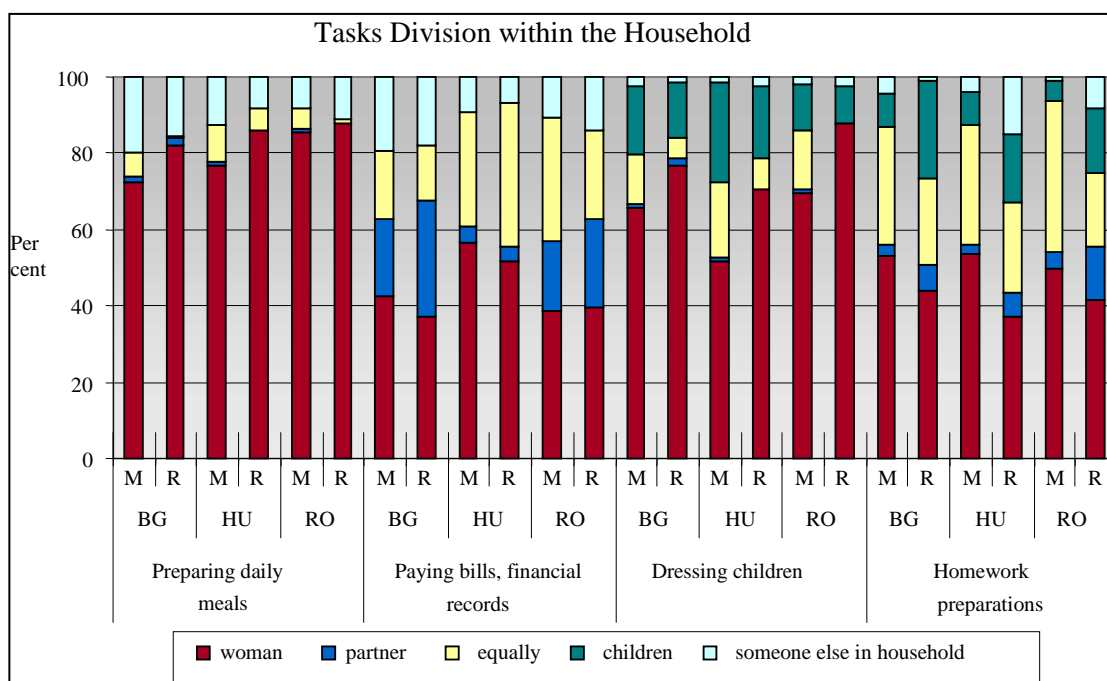
Figure 12 shows that Roma males have more decision-making power in the household even in typically female domains like routine expenses or the way of child-raising. What is really striking is the high influence of Roma male partners in the decisions on women's time spent in paid work, while women's influence on their partners' time in paid work is rather marginal. This suggests the presence of stronger gender roles within Roma families, with Roma women enjoying less decision-making power outside their traditional domains (e.g. routine expenses, child-raising), and it is confirmed by the division of tasks reported in figure 13.

Figure 12
The gender power balance in household decisions, mid-2000s



Source: Authors' calculations based on data from the Generations and Gender Surveys.

Figure 13
The division of tasks within the household



Source: Authors' calculations based on data from the Generations and Gender Surveys.

However, even within Roma families women seem to have a strong participatory role in family decision-making — with the important exception of the partner's time in paid work — not only as the main decision takers in many female

domains but also as being often involved in joint decision-making processes. This has important implications for policies and projects targeting Roma households. A gender sensitive approach and a broader participation and involvement of women are important. European Commission (2009) lists a whole range of examples of good practice in social inclusion of Roma women across the EU members. These examples include interventions in the provision of public education and health services with some countries like Romania setting up cultural mediators or Hungary improving access to services at the local level. With respect to the labour market inclusion, the main activities focus on training of Roma women (Bulgaria, the Czech Republic, Romania). All initiatives listed in the report are either pilot projects or applied in small areas; moreover, any evaluation of these projects is missing. This highlights the fact that practical efforts for Roma inclusion and in particular of Roma women are still very limited (geographically and financially) and/or very recent and only rarely entail a wide ranging programme targeting disadvantaged youth.

In figure 13, we show how tasks are divided among household members. Roma women seem to have a higher share of traditionally female tasks like preparing daily meals and dressing the children, while they have a less predominant role with respect to majority women when the task involves money management or is related to financial records. The most worrisome picture is given by the last task analyzed: helping children with their homework. Here, even if childcare is predominantly a female task (one can see that in the child-dressing task), Roma women do less than their majority counterparts, most probably because of their poor education while their partners are slightly more involved than those of the majority population. Unfortunately Roma parents' poor educational attainment results in higher proportions of children doing their homework by themselves, partly explaining governments' difficulties in improving educational outcomes of Roma.

The gender roles emerging from Figures 12 and 13 fully reflect the predominant Roma view of family relations. In the following table we report the percentage of respondents agreeing or strongly agreeing with statements in the first column. In the first row we report females' answers and in the second line men's. Women are considered to be primary care takers in the household, both of children as seen in the figures mentioned above and of seniors as in the first question asked in the table below. Men are seen as principal breadwinners who should be older and better able to take care of political and financial issues. Roma respondents agree more often with the statements confirming stronger gender roles in their communities. As it was evident from the task division and the household power balance, Roma women are less likely than non-Roma women to be able to decide how to spend money. Not surprisingly, both Roma women and men consider having children as a necessary condition for personal fulfillment and this is mirrored in their relatively high fertility.

Most studies addressing gender issues in Roma communities report high levels of domestic violence against women. This is a delicate question where surveys often do not capture the full extent of the problem, with many respondents, females as well as males, underreporting or not answering questions on this subject. While this misreporting behaviour is arguably common across the whole population, the very

nature of the issue combined with the different gender role perceptions might bring about some ethnic differences in reported violence.²³

Table 11
Percentage of respondents agreeing with the following statements

First row women, second row men	Bulgaria			Hungary		Romania	
	Maj.	Turks	Roma	Maj.	Roma	Maj.	Roma
When parents in need, daughters should take more caring responsibility	22.9	38.7	41.2	29.2	53.0	31.2	41.1
men	18.3	35.3	39.7	23.7	45.8	25.6	39.0
In a couple it is better for the man to be older than the woman	52.4	62.1	57.1	51.9	65.9	44.8	61.1
men	53.7	55.3	52.5	47.1	60.1	46.1	57.9
On the whole, men make better political leaders than women	26.7	35.4	35.8	30.4	37.8	35.7	48.9
men	50.5	59.3	57.9	39.1	48.0	53.8	54.7
Women should be able decide how to spend money without asking	63.0	42.9	47.0	26.0	26.3	43.8	41.1
men	40.5	26.8	22.0	18.8	14.9	21.0	16.8
When jobs scarce, men have more right to jobs than women	19.3	39.5	44.9	25.3	45.7	25.6	43.3
men	37.4	54.2	74.3	32.1	58.1	38.3	56.8
A woman has to have children in order to be fulfilled	60.6	75.7	73.4	87.1	95.1	79.5	88.9
A man has to have children in order to be fulfilled	54.9	69.4	70.8	71.9	80.9	77.4	83.3

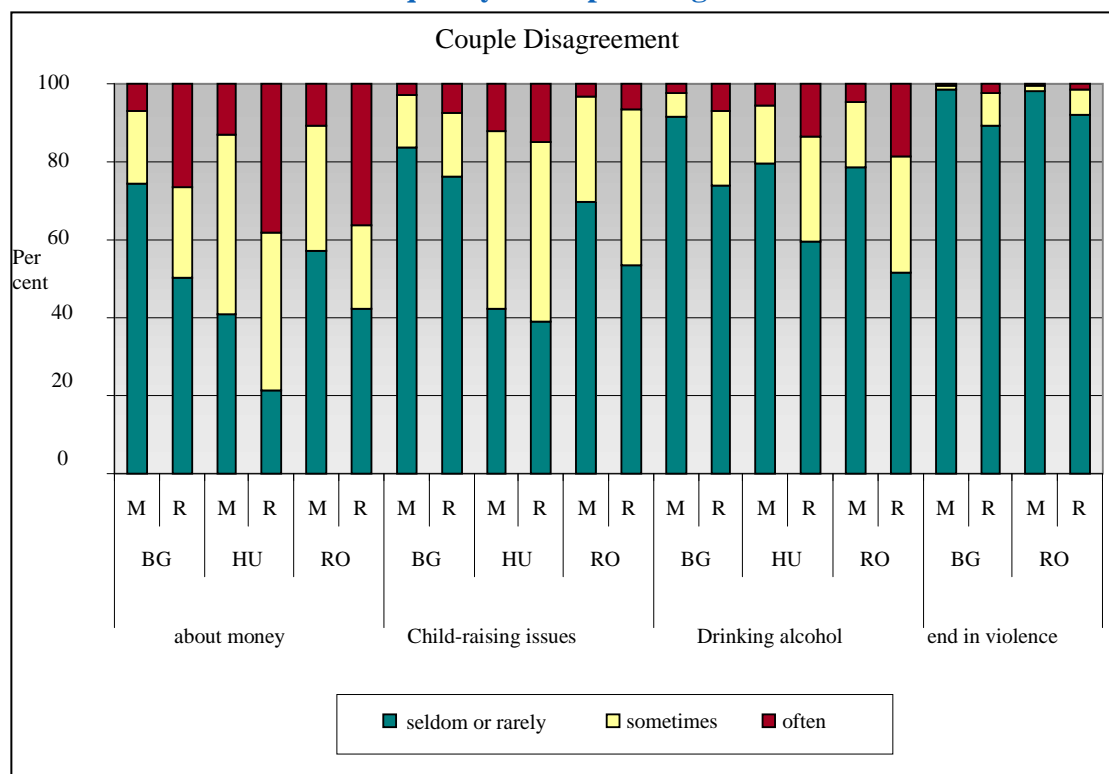
Source: Authors' calculations based on data from the Generations and Gender Surveys.

In Figure 14 we report slightly different statistics, the frequency of couple disagreements about different issues: money, child-raising and alcohol consumption. The last set of bars is available only for Bulgaria and Romania and shows the frequency of disagreement episodes that become violent. Roma couples seem to argue more about all issues considered, including relatively neutral topics like child-raising ways. Money, as already mentioned above, is clearly a highly debated issue, as well as alcohol consumption. These findings not only corroborate the idea that relations within Roma households are relatively tense but also might give some support to the evidence about Roma men's abusive behaviour with regard to alcohol consumption that was presented in a recent study (Fundación Secretariado Gitano, 2009). The last four bars in the graph show that couple disagreements end up becoming violent more

²³ Preliminary results of a recent UNDP survey on Roma population show that Roma are more tolerant of domestic violence than the majority population.

frequently for Roma than for the majority population couples. The difference is relevant, keeping in mind the misreporting problems mentioned above.

Figure 14
The frequency of couple disagreements



Source: Authors' calculations based on data from the Generations and Gender Surveys.

V. Conclusions

This paper describes the living conditions, educational attainment and labour-market performance of young Roma adults in Bulgaria, Hungary and Romania with the aid of UNECE generations and gender surveys from the mid-2000s and other sources of information. The historically disadvantaged Roma minority suffers from social exclusion in all three countries that manifests itself in poor housing conditions and a lack of decent education and employment opportunities.

Although the educational attainment of young Roma adults (25–34 years old) exceeded somewhat that of their parents by the mid-2000s, the educational achievement and employment gaps between the Roma and the majority population increased considerably over the generation. The labour market participation and employment rates of young Roma adults have been relatively low and below the levels achieved by their parents in all three countries investigated, reflecting the impact of supply-side factors such as lack of adequate skills and personal transportation as well as the economic restructuring and racial discrimination limiting demand for Roma workers.

The paper highlighted the particularly vulnerable position of young Roma women. Having lower educational attainment, lower employment rates and poorer health they are at higher risk of poverty and social exclusion. Roma women's comparative disadvantage with respect to men from their community and ethnic majority women, especially in accessing employment, education, health and social services is due to some extent to what is called a "triple discrimination"; for being women in a patriarchal society, for belonging to an ethnic minority that is affected by most negative social perceptions, and for belonging to a culture whose gender values have been associated almost exclusively with the function of mother and spouse (Fundación Secretariado Gitano, 2009). This particularly severe discrimination against Roma women calls for targeted interventions which aim at improving Roma women health, education, labour market participation and more generally inclusion into society.

Given the rapid ageing of the majority population in Central and South-Eastern Europe, a greater educational attainment and higher employment in the formal sector of the demographically more dynamic Roma population would be beneficial from the economic point of view. In addition to boosting economic growth, the high employment of Roma in the formal economy would provide them over time with social security benefits that are based on the number of years of contributory service.

The higher tax revenue and social security contributions as well as the lower welfare payments associated with higher employment of Roma would result in considerable net savings to the general government sector and improve the long-term sustainability of the social security system. To reap such benefits, however, current education and employment policies would have to be reformed in a major way with a view to providing Roma with equal access to quality education and decent jobs. Such reforms appear to be affordable. According to recent World Bank estimates, the annual fiscal gains from bridging the ethnic employment gap exceed considerably the total cost of investing adequately in public education of Roma to ensure that their educational attainment catches up to the majority population (World Bank, 2010a). The World Bank economists assume that the required education expenditure would amount to at most 50 percent *more* per Roma pupil than per non-Roma pupil. Such outlays on education would have to be accompanied by additional investment in health and housing services that would enable the Roma to escape the poverty trap.

The findings of this paper imply that the improved quality of education available to the Roma would not ensure by itself their high employment in the formal sector, given the apparently strong racial discrimination in the labour market that is reflected to some extent in the relatively low returns to education for the Roma population (Trentini, 2011). However, this problem could be addressed with reforms that strengthen the implementation of the existing anti-discrimination legislation pertaining to employment and procurement policies that would award government contracts only to business firms that practice anti-discrimination. The fiscal cost of such reforms would be probably marginal.

Given the expected fiscal benefits of social inclusion, the obvious question is why governments in Central and South-Eastern Europe do not develop and implement comprehensive policies that would integrate the Roma better into society. Aside from the political arithmetic constraints that limit the scope for pro-Roma policies, the lack

of reliable data poses an important obstacle to social progress. Accountable governments need to evaluate the impact of policies and concentrate scarce public funds in most effective programmes. This implies an urgent need for better disaggregated data.

Robust ethnic monitoring is urgently needed but seldom available. Examples of good practice from the Central European region include a well developed demographic model of the Roma population in Hungary (Habicsek, 2008) and a detailed labour-force survey of the Roma working-age population in the Czech Republic (World Bank, 2008). Outside the region, an important example of good practice is provided by the British labour force survey that reports quarterly labour market trends for the mainstream population and ethnic groups on a consistent basis (Office for National Statistics, 2006).

Population census data that represent adequately ethnic minorities should provide the principal source of information for policy makers. Such data seem to be available only in a few countries of the UNECE region. A relevant example of good practice is provided by the 2006 census in the Irish Republic that includes comprehensive socio-economic data on the Irish Traveller Minority (Central Statistical Office, 2007). The British 2011 census will provide similar information about the Roma and Travellers living in the United Kingdom. Given the history of Roma persecution in Central and South-Eastern Europe, most members of this ethnic group are understandably reluctant to identify themselves as Roma in census questionnaires. The Czech Statistical Office has attempted to overcome this problem in its 2011 population census with the aid of Roma assistants who were tasked to help the respondents living in excluded areas to complete accurately the census questionnaire.

In the absence of accurate census data, special surveys can provide valuable information. Surveys of the Roma population in five Central and South-East European countries were prepared by UNDP in the early 2000s and similar survey data are to be collected by UNDP later this year. The UNECE Generations and Gender surveys, prepared by national statistical agencies in a 3-year cycle, are supposed to be representative and thus should provide valuable information about the socio-economic situation of Roma and other disadvantaged minorities. For instance, the GGP survey of Bulgaria provided the authors of this paper with such information. By contrast, the GGP surveys of Hungary and Romania have apparently underestimated the Roma population in the first wave. Perhaps this shortcoming could be addressed in the next wave of the respective GGP surveys with a view to providing researchers and policy makers with representative data.

In the area of education, all three countries participate in PISA surveys of 15-year old students in a 3-year cycle. The PISA assessment in 2012 and subsequent surveys could be used by the Education Ministries of Bulgaria, Hungary and Romania to monitor the achievement for students based on their ethnic classification. In addition, the authorities could explore the financial feasibility of collecting and evaluating extensive data on the performance of students from the mainstream population and ethnic groups in surveys with larger samples than those used for PISA assessments. An example of good practice in this area is provided by the statistical monitoring of education outcomes in the United States (U.S. Department of

Education, 2010). It would also be important to have reliable administrative data on school performance of the majority population and ethnic groups. For example, such administrative data are collected each year in England by the Department for Education for all pupils in public primary and secondary schools.

The quality and equity of public education should be enhanced by comprehensive reforms that provide adequate resources for the sector while eliminating the practice of early streaming of pupils to academically oriented institutions and less demanding vocational schools. An example of good practice is provided by Poland where separate Roma classes are to be phased out in 2011. Another example is provided by local education support services for Roma and Traveller students in the United Kingdom.

The problem of low employment of the Roma is multi-layered and inter-generational. Therefore, policies should promote the advance of Roma and other disadvantaged minorities in a coordinated framework that would improve their access to decent housing, good education and employment in the formal sector. Increasing labour-force participation of the Roma in the formal sector is a key task for forward-looking structural reforms. An equally important task for the authorities is to tackle the widespread prejudice and discrimination with a view to increasing employment of Roma while reducing the earnings differentials based on ethnicity.

All three countries investigated are member states of the European Union. That means that they are eligible for financial support from the EU for programmes that would enhance the skills and formal employment of Roma. An example of good practice is provided by the ACCEDER training programme in Spain, financed by the European Social Fund, which improved the access of the Roma population to the labour market. This as well as other examples of good practice are listed in the following table.

So far we have not considered the policy-making process. Generally, peer reviews are powerful tools for the dissemination of good practice. Peer reviews in social protection and social inclusion provide officials of EU member states with an interesting mechanism for sharing successful policies in this area. For instance, a recent peer review examined how Hungary tackles child poverty and Roma exclusion in disadvantaged regions.

Last but not least, it is important that the Roma and other disadvantaged groups become active participants in the formation of policies that are designed to help them. Given the proliferation of Roma NGOs, it is not obvious which of them represent significant sections of the Roma population. A discussion of strengths and weaknesses inherent in diverse approaches to political participation of minorities is beyond the scope of this paper. However, it has to be noted that a meaningful political participation of Roma would be conducive to the development of pro-poor policies that are both comprehensive and feasible.

Table 12
Examples of good practice

Country	Area	Reference
EU member States	Peer reviews in social protection and social inclusion	http://www.peer-review-social-inclusion.eu/newsletter
Poland	Phasing out of separate Roma classes in public schools	http://www.coe.int/t/dghl/monitoring/ecri/Country-by-country/Poland/POL-CbC-IV-2010-018-ENG.pdf
Hungary	School integration programme	Kezdi & Suranyi (2009); UNICEF (2010)
Hungary	Demographic modeling of the Roma population	Hablicsek (2008)
Czech Republic	Support for Roma during the census process	http://www.scitani.cz/slodb2011/redakce.nsf/i/se_scitacimi_komisari_vyrazi_do_terenu_take_specialni_romsti_asistenti
Irish Republic	Population census, including comprehensive social data on the Irish Traveller Community	Central Statistical Office (2007)
Czech Republic	Labour force survey of the Roma population	World Bank (2008)
United Kingdom	Quarterly labour force survey, including classification by ethnic origin	Office for National Statistics (2006)
United States	Systematic evaluation of data on performance of students from different ethnic groups	U.S. Department of Education (2010)
United Kingdom	Collection of comprehensive administrative data, including ethnic origin of students, on the achievement and attainment in English primary schools, secondary schools and colleges	http://www.education.gov.uk/researchandstatistics
United Kingdom	Local education support services for Roma and Traveller students	European Commission (2010)
Spain	ACCEDER training programme	European Commission (2010)

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Annex 1: GGP data

We use data from the surveys collected in the framework of the *Generations and Gender Programme* (GGP). The GGP is made of two major components, totally independent from each other at the data gathering level, but that could be interactive at the statistical analysis level: the Generations and Gender Survey (GGS) and the Contextual Database (CDB). The GGS consists of a panel survey of three waves (three years apart) in which 10,000 individuals aged from 18 to 80 are followed. The CDB on the other hand, relates to more than 200 variables, of national and/or regional level, sometimes qualitative but more frequently quantitative (time series from 1970 up to present in most cases), related to a wide range of topics: health, economy, employment, culture, education, demography, pensions, etc.

While for some topics, as for example welfare state provisions and educational systems, we referred to the CDB, our main source of data is the GGS. The surveys are nationally representative surveys which ensure international comparability of data at least for the core questionnaire. Some of the modules are optional, e.g. housing, ethnicity and nationality, previous partners, intention to break-up, preventing some cross country comparisons. The first wave was conducted in the mid-2000's: 2004 for Bulgaria, mainly 2005 for Romania and Hungary. The second wave is being collected. The GGS questionnaire covers a wide range of topics related to the household and the relations among genders and generations. Main respondents can be either men or women aged between 18 and 80.

The interviews are done face to face in the main language of the country. This most probably negatively influenced the inclusion of Roma communities in the surveys for all countries analyzed in this study. Moreover, samples can exclude up to 5 per cent of the target population (United Nations, 2005). Unfortunately, exclusions are due to frame limitations or practical constraints — such as eliminating remote regions where survey collection would be prohibitively expensive. These two survey limitations can bring about an exclusion of Roma from the survey and — what is even more worrying — they imply an exclusion of the most disadvantaged among them: those living in the most remote areas and/or having the lowest exposure to majority population and to education. As a consequence we can argue that the situation we are depicting in this paper while providing interesting insights of Roma communities most probably overstates their real living conditions.

The ethnic composition of all households' main respondents (without imposing age limits) in our sample is given in table 1.1.

Roma percentages are well below the European Council estimates, and are only slightly higher when counting individuals in each household; percentages increase to 7.3 per cent of the persons living in the households surveyed in Bulgaria, 3.4 per cent in Hungary and only 2.3 per cent in Romania. Also percentages are a little bit higher if one focuses on the younger cohorts due to the different fertility (higher) and life expectations (shorter) of Roma. As in the paper we focus on the age group from 25 to 34 years (with the exception of some sections where we specify the different sample) we often pool available information from all the household members of this age group to increase the sample. For more information on the GGP design,

data availability and for accessing the data go to <http://www.ggp-i.org/data/data-access.html>

Table 1.1
Ethnic composition of respondents in the GGS

	Bulgaria		Romania		Hungary	
	obs	%	obs	%	obs	%
Majority	10,745	83.9	10,747	89.7	12,987	95.9
Roma	644	5.0	185	1.5	326	2.4
Turkish	1,127	8.8	-	-	-	-
Hungarian	-	-	922	7.7	-	-
other	297	2.3	132	1.1	227	1.7

Table 1.2
The 25–34 years old age group in the GGS

	Bulgaria				Hungary				Romania			
	Majority		Roma		Majority		Roma		Majority		Roma	
	m	f	m	f	m	f	m	f	m	f	m	f
Obs (25-34 yrs)	1716	2135	161	181	2277	2309	87	89	1318	1591	36	46
age	30.1	29.9	29.3	29.2	29.4	29.3	29.3	29.4	30.1	30.0	29.9	29.7
education: higher degree obtained, percentages												
has not studied in school, incl. illiterate	0.1	0.3	7.5	7.8	-	-	-	-	-	-	-	-
pre-primary	0.4	0.2	7.5	13.9	0.2	0.1	-	1.0	0.1	0.4	13.9	26.1
primary	0.8	0.8	7.0	7.4	0.5	0.9	13.5	16.0	1.4	1.2	27.8	28.3
lower secondary	9.0	6.6	49.1	38.9	9.7	11.2	52.6	64.4	16.5	24.6	44.4	34.8
upper secondary	69.5	54.5	6.2	8.3	44.5	26.3	25.6	13.7	60.8	51.9	13.9	8.7
post secondary non-tertiary	-	-	-	-	27.0	37.2	7.3	2.9	5.1	7.4	-	-
first stage of tertiary	20.1	36.9	-	0.6	18.1	24.3	1.1	2.0	14.3	13.6	-	18.8
second stage of tertiary	0.1	0.8	-	-	-	-	-	-	1.8	0.9	-	-
main activity, percentages												
employed or self-employed	81.7	65.0	26.7	19.4	88.9	58.3	57.6	19.7	89.7	54.2	69.4	15.2
helping in a family business	0.6	0.4	0.6	-	0.2	0.2	-	-	1.0	5.5	-	2.2
unemployed	15.1	18.3	70.2	62.8	5.7	6.2	30.8	13.1	5.2	3.1	8.3	2.2
Student (school, voc. Training)	1.2	1.4	-	-	1.6	1.7	-	-	0.7	0.6	-	-
retired	0.4	0.4	0.6	2.8	0.4	0.2	-	-	0.2	0.3	2.8	-
on parental leave	0.1	10.9	0.6	8.3	0.5	26.8	-	47.4	1.0	7.0	2.8	-
ill or disabled for a long time	0.6	0.6	0.6	-	1.2	1.1	3.9	4.4	0.5	0.4	-	-
military service or social service	0.1	-	-	-	0.1	-	-	-	1.7	0.3	13.9	2.2
looking after the home or family	-	2.8	-	6.7	-	3.3	-	6.4	0.2	28.5	2.8	78.3
other	0.2	0.2	0.6	-	1.6	2.4	7.7	9.0	-	-	-	-
monthly pay (leva BG, forint HU, lei RO)	161.3	115.7	79.8	73.1	777.5	758.7	426.6	375.3	195.3	155.8	118.7	96.0
nr of household members	3.3	3.7	4.8	4.4	3.2	3.3	4.4	4.5	3.4	3.5	4.2	4.8
no. of children	0.6	1.1	1.7	2.0	0.6	1.0	2.0	2.3	0.8	1.2	1.9	2.5
age of females at first birth	-	22.5	-	18.7	-	23.1	-	19.9	-	22.9	-	20.2
rural	21.5	17.8	61.5	55.8	-	-	-	-	42.1	42.5	45.0	60.0

Annex 2: Descriptive statistics

Table 2.1

Sample used for the analysis of the determinants of employment gaps in Bulgaria, Hungary and Romania, mid-2000s

	Bulgaria				Romania				Hungary			
	Majority		Roma		Majority		Roma		Majority		Roma	
	m	f	m	f	m	f	m	f	m	f	m	f
obs	7725	8014	544	555	7412	7777	154	150	8698	9515	262	283
Employed	0.676 (0.468)	0.575 (0.49)	0.246 (0.43)	0.187 (0.39)	0.679 (.46)	0.448 (.497)	0.584 (.494)	0.126 (.333)	0.686 (0.46)	0.533 (0.49)	0.414 (0.49)	0.171 (0.37)
age	41.57 (12.41)	40.23 (12.73)	35.36 (11.01)	34.49 (11.63)	44.02 (12.12)	43.57 (12.23)	40.55 (11.12)	39.56 (11.51)	43.36 (12.66)	43.38 (12.79)	39.20 (10.89)	38.95 (11.58)
schooling	13.08 (2.60)	13.46 (2.86)	6.86 (3.80)	5.98 (3.80)	12.67 (2.63)	11.88 (3.11)	6.7 (4.34)	5.34 (4.22)	11.88 (5.18)	12.47 (4.63)	9.26 (3.76)	7.96 (3.59)
married	0.700 (0.458)	0.713 (0.452)	0.489 (0.500)	0.472 (0.500)	0.787 (.409)	0.807 (.394)	0.525 (.500)	0.526 (.500)	0.598 (0.490)	0.624 (0.484)	0.621 (0.485)	0.605 (0.489)
No. of children	0.933 (0.877)	0.975 (0.869)	1.743 (1.418)	1.737 (1.363)	0.954 (1.038)	0.982 (1.026)	1.9 (1.860)	2.11 (1.796)	0.934 (1.033)	0.984 (1.023)	1.861 (1.553)	1.911 (1.573)
rural	0.229 (0.420)	0.218 (0.412)	0.561 (0.496)	0.542 (0.498)	0.43 (.495)	0.428 (.494)	0.577 (.495)	0.58 (.495)	-	-	-	-

Source: Authors' calculations based on data from the Generations and Gender Surveys.