

**Ethnic Effect? Structural Effect? Childbirth Among Roma and Non-Roma  
Women of Low Educational Level in Hungary**

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## Introduction<sup>1</sup>

Fertility in Europe is a widely-studied phenomenon, and the general trends and possible causes are well known. Falling fertility (and the general improvement of mortality) has led to a blurring of the historic demographic boundaries of Europe (cf. J. Hajnal 1965, 1983, P. Laslett 1983). Concurrently with this, steady immigration from countries outside Europe has generated new demographic delineations by cultural identity instead of country and region. The demographic consequences of Europe's rising ethnic-cultural diversity is still a lesser-researched area (Coleman 2006)<sup>2</sup>. In countries where there has been such research, substantial fertility differences have been found among ethnic groups. In Britain, where there is substantial data from censuses and several questionnaire surveys, the number of children is particularly high – over twice the national average – among mothers born in South Asia (Bangladesh, Pakistan). (Penn – Labert 2002, Coleman - Smith 2003). In France, arrivals from the Maghreb countries and Turkey show similar fertility differences from the national average (Toulemon 2004). The TFR of Turks living in Austria and Belgium is considerably higher than that of Austrians and Belgians. (Kytir 2006, Schoenmaeckers - Lodewijckx – Gadeyne 1999). It has also been found that the differences diminish as a function of time since immigration, reinforcing the adaptation hypothesis, the proposition that immigrants adapt to their new environment after a few generations, one of the signs being the increasing similarity of their demographic behaviour to that of the host country.

Ethnic differences in childbirth in Europe are not solely due to international migrations. Ethnic groups which have been living here for centuries also show considerable differences in demographic indicators.<sup>3</sup> Of particular interest is the special demographic behaviour of the Gypsies, one of Europe's largest ethnic minorities, usually involving relatively high numbers of children and childbirth at an early age. Large Roma minorities in Europe are found principally in Central-Eastern European countries and Spain, and so information on their demographic characteristics mainly originates from these countries.

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<sup>1</sup> This research was supported by the Hungarian Scientific Research Fund (OTKA K62157) and the Hungarian Academy of Sciences (Bolyai Scholarship).

<sup>2</sup> Ethnic differences in fertility have been much more deeply explored in the United States.

<sup>3</sup> In Russia, for example, where there is a large number of ethnic groups, the TFR of different groups varies by up to a factor of two (2002 Census of Russia).

## **Patterns of Birth among Romas in Europe**

The few published demographic studies have all shown the Gypsies, despite their linguistic, religious and ethnic heterogeneity, to share the characteristics of having many children and bearing children young, the figures for these being distinctly higher than the averages in all countries where Gypsies are present. (Tomova et al. 2000, Vano 2002, Martín 2003, Kemény – Janky – Lengyel 2004). Despite the consistent figures, there are surprisingly few studies which give comparable demographic data in this respect. Researchers usually deduce the high fertility of Gypsies from indirect data: high natural increase and youthful age pyramid.

Problems in calculating more suitable demographic indicators arise from ideological considerations defined by the relationship between state and ethnic minorities, and severely hamper the gathering of ethnic-based data. In some countries, Gypsies' political emancipation has over the years caused them to disappear as an identifiable group in official censuses.

Quantification of ethnic differences thus requires special studies. (For the case of Spain see Martin – Gamella 2005.) In Central-Eastern European countries, the post-transition period has also brought changes in ethnic data collection, as sensitivity to minority rights has strengthened (such as in the case of the Slovaks, see Vano 2001).

Uncertainties in demographic indicators also arise from problems of the categorisations used in censuses. For an ethnic group which has been present in Europe for centuries, ethnic classification cannot be based on the place of the respondent's birth and often not even on native language. It is most commonly based on cultural identity. (For the comparative history of ethnic categorisation efforts see Kertzer – Arel 2002.) In countries where regular state censuses gather ethnic data, however, the number of people declaring themselves as Gypsies is much lower than the number of Gypsies determined by other classification methods (e.g. classification by interview). This can only partly be explained by fear of discrimination, another likely reason is the double identity which has emerged among a large section of the Roma population over the long period since they settled in the country.<sup>4</sup> Declaration of ethnic affiliation is situation-dependent for Romas in the sense that many people who declare their Roma identity within the family and among friends and the local community are apt to declare affiliation to the majority ethnic group in official censuses. Recognising this, researchers in some countries apply multipliers of 2 or 3 to estimate Roma numbers on the basis of census

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<sup>4</sup> Iván Szelényi and associates recently carried out comparative research in Central-Eastern Europe, using ethnic data using different classification procedures, and found that the divide between Romas and non-Romas is much sharper in Bulgaria than in Hungary or Romania. They concluded from their results that social construction was predominant in ethnic categorisation. (Ladányi – Szelényi 2004)

data. (See Ghetau 2004 for Romania, Kemény 2004 and Hablicsek 2007 for Hungary). Complex identity formations mean that ethnicity cannot be regarded as a dichotomy variable such as, for example, sex.<sup>5</sup>

In consequence of the above, we have no comprehensive survey of today's Roma population. The problem cannot be resolved by estimating its number and composition from census data and then calculating demographic indicators accordingly, because it is not known whether those who declare themselves Roma in the official censuses may be regarded as a representative sample of Romas as a whole.

The following is a compilation of census-based estimates of Roma fertility in various countries, so as to obtain at least a rough picture of ethnic variations. The figures show that although fertility in the Central-Eastern European region was very low at the turn of the millennium, that of Romas living here remained above the simple reproduction level.

Table 1: Total fertility rate of the Roma population estimated from census data

	Year	Roma population	Total population	Source
Hungary	2001	2.9	1.3	Hablicsek 2007
Macedonia	1996	3.1	2.1	Courbage – Wilkens 2003
Slovakia	2002	2.3	1.2	Vano 2002

There is also little quantitative information on the change of Roma fertility with time. In Slovakia and Hungary, decreases in Roma fertility have been registered since the 1970s, and a further fall is forecast. In Bulgaria, a similar trend has been detected since the transition, although among some poorer Roma groups, numbers of children actually increased in the second half of the 1990s. (Tomova et al. 2000) An interesting coincidence is that Roma fertility also fell in Spain during the 1990s, even though their situation was not influenced by an economic and social transition of the magnitude experienced by those living in Central-Eastern Europe. (Martin – Gamella 2005)

To overcome the measurement problems of census data, additional representative surveys to collect ethnic data are carried out in some countries. In Hungary, where there have been three surveys investigating the social-economic-demographic situation of Romas since

<sup>5</sup> For more details on this, see the “Who is a Roma” debates in the literature, e.g. in Hungary Havas-Kemény-Kertesi 1998, Ladányi-Szelényi 2004.

the 1970s, is probably in the best position in this respect.<sup>6</sup> The next section discusses the principal findings on fertility from the latest Roma survey.

### **Childbirth among Roma Women in Hungary**

The first national Roma survey in Hungary took place in 1893, a full census of the Roma population living in the country.<sup>7</sup> The ethnic classification was made by local administrative officials. (Kertesi – Kézdi 1998) No similar survey was carried out in the eighty years which followed, for which period ethnic distinctions can only be inferred using census data on native language. A question on ethnic affiliation was added to the census in 1941, and remained in essentially the same form until 2001. Two further questions were included in the 2001 census: one on national cultural affiliation and the other on the language spoken within the family. Response to questions on ethnic affiliation was not compulsory.

The next national Roma survey, in 1971, and repeated in 1993 and 2003, used methodology differing from that of the censuses. They regarded as Roma people regarded as such by local non-Romas (primarily government officials and school and health workers) and those who were willing to take part in the survey as Romas.

A comparison of the results of the latest survey with the 2001 census shows that the Roma population numbers between 190,000 (census, by declared ethnic affiliation) and 570,000 (estimate by external classification), or between 2 and 6 per cent of the total population. (Kemény et al 2004)

Despite the wide divergence between population figures measured by different methods, both sets of data show a significantly high level of fertility among Romas. Ethnic differences are particularly pronounced in the timing of childbirth: whereas the rate of birth among women under 20 years old is relatively low in the population as a whole, births among Romas is as common before the age of 20 as between the ages of 25-29. Comparison of the 1993 and 2003 Roma studies show that the national fertility level of Romas remained considerably higher than of the total population, but the trends were in the same direction (Kemény et al.

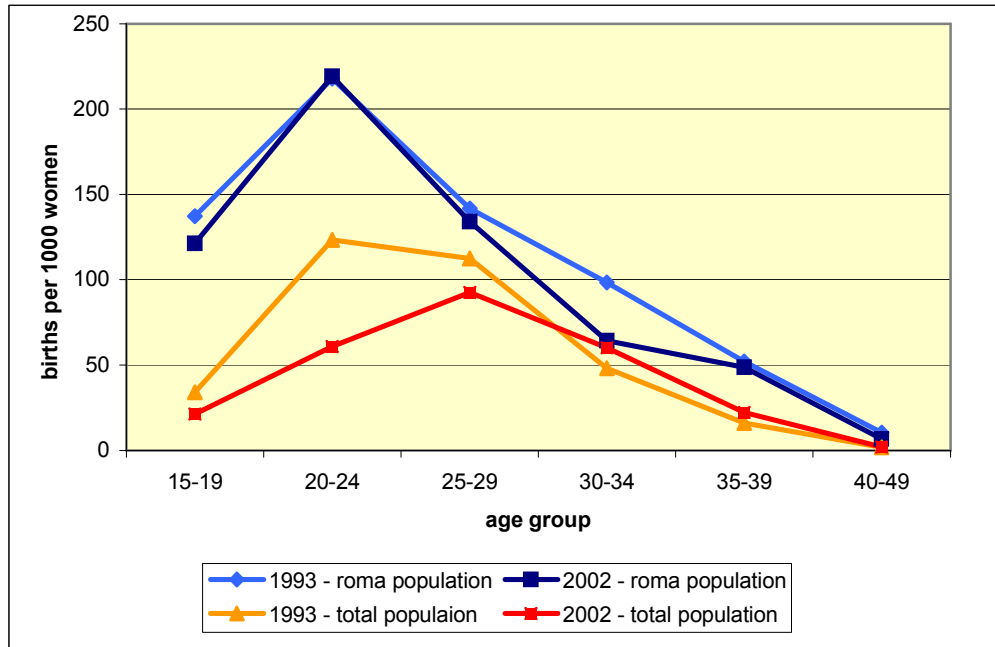
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<sup>6</sup> János Ladányi and Iván Szelényi's Central-Eastern Europe underclass research, which included a comparative study of the Roma and non-Roma poor populations, was based on national surveys. However, it was not aimed at determining ethnic differences in fertility, and so the figures are of limited usefulness in this respect. (Ladányi-Szelényi 2004) A demographic analysis of the database was carried out by Judit Durst, but the small sample numbers make her findings difficult to interpret. (Durst 2006).

<sup>7</sup> The census did not extend to Budapest or the Croatian and Slavonian regions of the Kingdom. It is the data published on numbers and age composition which are of interest, showing that demographic patterns among the Gypsies at that time showed similar but much smaller differences from the population as a whole compared to today.

2004) The crude live birth rates for 1971-2003 also show that this decrease started not at the transition, but much earlier, in the 1980s.

Figure 1: Age-specific fertility rates for the Hungarian Roma and total population 1993, 2002.



Source: Kemény et al 2004. Table 1.22. and Demográfiai Évkönyv 1993, 2002

From the 2003 survey, the estimated number of live births per thousand Roma women of childbearing age was 102.2, roughly equivalent to that of Hungary in the early 1920s. However, the phenomenon of young pregnancies was not typical of the Hungarian population even at that time. In 2003, there were 121 live births per thousand 15-19 year-old Roma women, while the national figure in 1921 was only 40.7 (Janky 2005). There has also been a change in this area recently, in that the frequency of young childbirth among Roma women shows a slight decrease. (Kemény et al. 2004)

The survey also revealed characteristics of the Roma population – all things being equal – which affect the tendency to high child numbers and early birth. The most important of these are:

- A higher proportion of Romas than the population as a whole have permanent partner relationships, and this favours childbirth. Cohabitation accounts for many of these, but in many Roma communities this counts as full marriage, and so the phenomenon presumably does not significantly affect the rate of childbirth. In addition, Romas get married or form permanent relationships at earlier ages.

– The distribution of educational level among Romas is substantially different from that of the total population. In 2003, 81% of the over-15 population had no more than 8 years' primary education, 16% a skilled work qualification, and only 3% at least *érettségi* (certificate of secondary education). The corresponding figures for the total population were 45% - 19% - 36%.<sup>8</sup> Since, at national level, the fertility of the first two groups by level of education is above average and of the third below average (Husz 2006), the distribution of levels of education itself would suggest higher numbers of children.<sup>9</sup> The education rates have changed slightly since the transition: there are a few per cent more with trade qualifications and certificates of secondary education.

– Among Roma women – as among men – the unemployment rate is considerably higher than the national figure. Whereas nearly every second Roma woman of working age worked in the mid-1980s, only 15% did in 2003 (53% in the total female population). This sharp drop is partly due to the low level of education, because the economic recession had a more severe effect on those with lesser qualifications. Female unemployment tends to increase the number of children born, whereas male unemployment, owing to lost income, tends to reduce it.

Some field-based research projects carried out among Romas in some North Hungarian villages in the 1990s put the results of these large surveys in a new light with the discovery that numbers of births, particularly teenage births, were actually increasing there. (Gyenei 1998, Durst 2001, Ladányi – Szelényi 2004) The phenomenon could not be convincingly backed up by demographic indicators, but these findings certainly directed attention at the significance of regional considerations in research of Roma demographic patterns.<sup>10</sup>

The national figures for some demographic indicators in Hungary conceal substantial regional variations. TFR is lowest in Budapest, around 1, and highest in North Hungary at around 2.2. Completed fertility rates also span a broad range (1.46 to 3.28). The ethnic composition of each region undoubtedly plays a part in these differences, especially in the high fertility in the north of the country. About a third of Hungarian Romas are concentrated

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<sup>8</sup> The figure for the total population is from the Microcensus 2005, and for the Romas from Kemény et al 2004.

<sup>9</sup> At the time of the 2001 census, the TFR among people with at least 8 years of primary education was 1.48, that of skilled workers 1.53, and that of people with at least a certificate of secondary education 1.19 (authors calculation).

<sup>10</sup> It is possible that the intensity of childbirth among Romas did indeed temporarily rise in the immediate post-transition years. The TFR figures by level of education for the country as a whole show that in the first half of the 1990s, the fertility of mothers with 0-7 years of education increased and their age at first birth slightly decreased (Spéder 2003, Husz 2006). Romas are highly over-represented in this relatively small group. The trend in every other group by level of education was in the opposite direction.

in North Hungary, and particularly in a few multiply-disadvantaged subregions.<sup>11</sup> For a large proportion of the Romas living there, the interaction of poverty and ethnicity results in a unique demographic pattern: their fertility is considerably higher even than the Roma average; some estimates put it at 3.5 or 4 (Hablicsek 2007).

Nevertheless, it is unlikely that the high North Hungarian fertility is exclusively due to the relatively high numbers of Romas who live there and their above-average number of children.<sup>12</sup> A large proportion of non-Roma inhabitants of these areas are also disadvantaged in terms of socio-economic indicators (level of education, labour market activity). Some sociologists claim that the post-transition recession resulted in a new kind of poverty, an ethnically-mixed “underclass” concentrated in the areas most afflicted by the recession. (Ladányi - Szelényi 2004, 2006) It is therefore possible that the high number of births is a feature not of ethnic culture but of the culture of poverty.

### **Possible Explanations for Fertility Rates among Hungarian Romas living in disadvantaged regions**

Most of the literature on Romas takes their high fertility more or less for granted and does not offer much in explanation. Such explanations as there are usually dwell on general cultural reasons, attributing the high numbers of children primarily to family-centredness and preference for traditional gender roles. This explanation is inadequate to account for either the geographical or the time variations in fertility. In recent decades, other arguments have been put forward, drawing largely on American theories for the demographic behaviour of ethnic minorities.

One group of arguments based on the assimilation theory (Gordon 1964, Alba and Nee 1997) may be employed to explain the *national decrease in fertility* among Romas. One study carried out in the 1970s in South Hungarian villages showed that it was in fact the Romas’ specific socio-economic characteristics, most of all low level of education relative to the majority population, that lies behind the high fertility.<sup>13</sup> (Hoóz 1973) Falling fertility may thus be interpreted as a demographic manifestation of Romas’ successful assimilation attempts.<sup>14</sup>

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<sup>11</sup> In these subregions with poor infrastructure, unemployment is several times the national average.

<sup>12</sup> Despite the high concentration, Romas make up no more than 15% of the population of any county.

<sup>13</sup> For cultural differences among the Roma populations of the South Transdanubian and North Hungarian villages, see Fleck – Virág 1999.

<sup>14</sup> It should be noted, however, that Romas’ convergence with the majority population up to the transition showed up principally in labour market participation and not in level of education.



This trend was broken by the economic recession of the 1990s, which afflicted the Romas much more severely because of their low level of education.

Another set of theories set out to explain *growth of fertility* found in field studies *in the North Hungarian region*. The starting point for this was the observation that Roma segregation considerably intensified in the north of the country, where the economic recession had been the deepest after the transition. The effect of this on the demographic behaviour of Romas living there was explained by an argument similar to the minority group status theory (Goldscheider – Uhlenberg 1996). The researchers claimed that the section of Romas in post-communist countries who had become economically marginalised increasingly give up on aligning themselves with the majority, and one consequence is a “fatalistic”, loss-of-control state which shows up in increasing numbers of children (Ladányi – Szelényi 1994). Another approach adapted a gender-role theory by P. F. Kelly (1998), arguing that with the loss of jobs, the only way open to Roma women to raise prestige was motherhood. (Durst 2006) Much more “prosaic” than these is the explanation that the family benefit system encouraged Romas to have more children, because with unemployment high and market income therefore uncertain, benefits were a dependable source of income for the family.<sup>15</sup> (Gyenei 1998)

The above theories have different empirical consequences for the relative fertility of the Roma and non-Roma population of disadvantaged regions. Under the slowed-assimilation hypothesis, Romas’ childbearing behaviour must, if slowly, approach that of non-Romas in these regions as well as in the other parts of the country, which implies decreasing fertility among both groups. If the segregation hypothesis is borne out, then divergence from the national trend, i.e. rising fertility and younger motherhood, will be observed here in both groups, and the differences will be less ethnically based and more aligned with structural positions (see ethnically mixed underclass). The explanation based on the fertility-raising effect of family benefits should also work in both ethnic groups and to the same extent, because there are no ethnic considerations in awarding state benefits. Finally, the gender-role explanation points to women bearing children at lower and lower ages, but only among Romas, because there is no reason to suppose that non-Roma women, faced with a lack of alternatives, would consider childbirth to be a factor in raising their social position. It should be noted that this argument says nothing about the trend in fertility, because a young woman becomes an honoured member of the community with a single child and has no reason to bear more children.

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<sup>15</sup> At present, the combination of GYES (child-care benefit) and family benefit for a family with three children is slightly higher than the net minimum salary.

The theories explaining increasing numbers of children, although based on observations in single villages, implicitly suggest that they also apply to other Roma communities subject to segregation and/or long-term unemployment. There was no data, however, on the spatial extent of this divergent demographic phenomenon. This formed part of the inspiration for the present research, i.e. the desire to find out whether the demographic pattern of youthful births and increasing numbers of children could also be observed in the villages neighbouring those in the previous study, villages whose inhabitants are in a similarly peripheral situation and suffer from high unemployment.

The other purpose of the research was to examine the role of the large Roma population in the high fertility of the North Hungary region, and whether high unemployment and social disadvantage has a similar effect on the non-Roma population as it has on the Roma.

This research question is difficult to answer by secondary analysis of national representative surveys, because after controlling for differences in levels of education and other socio-economic characteristics between the two ethnic groups, the cell element numbers are too small for statistical analysis. The present research therefore employed a separate survey with a sampling framework designed so that the socio-economic characteristics of the respondents were as homogeneous as possible. Financial limitations confined data collection to a single area, although it would have been useful to compare the results with those from similar research in an area in south Hungary. The following sections discuss the principal results of this questionnaire survey.

## **Data and Methods**

The questionnaire survey was taken among the female population of some North Hungarian villages in autumn 2007. The area was chosen because the population of this region of Hungary has a high proportion of Romas and the highest fertility rate<sup>16</sup>, so that any differences among socio-ethnic groups should be most noticeable here. The 25 closely-grouped villages in the sample belonged to the statistical subregions Edelény and Encs, which are among the most disadvantaged in the country in regional development terms. Most have rates of unemployment considerably above the national average. The selection criteria included population of not more than 1000, and the presence of high, medium and low proportions of Roma.

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<sup>16</sup> In the north of Borsod county, the TFR is nearly twice that in the Hungarian subregions with the lowest figures.

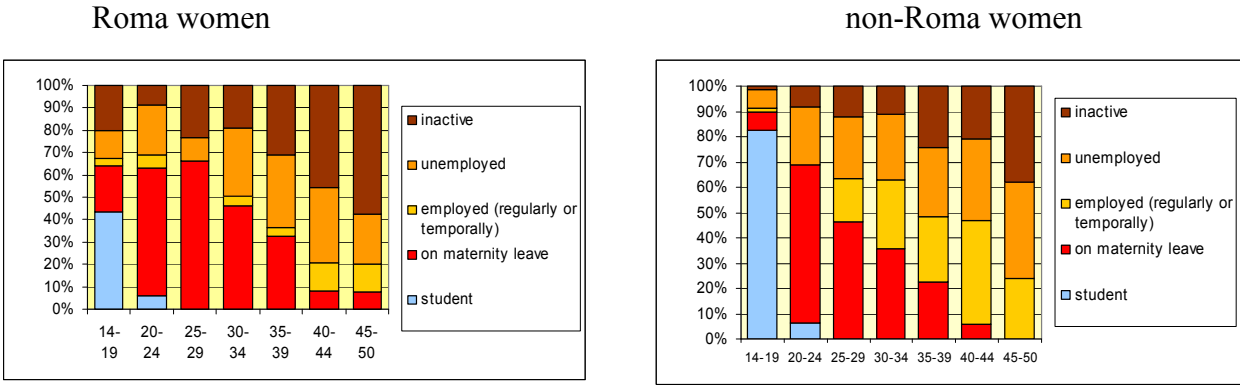
Since the Roma population substantially differs from the national average in terms of age structure and level of education, to ensure comparability of the two sub-samples, the survey was restricted to women between 15-49 and without a secondary education certificate. The reason for this restriction was that in the researchers' experience, the secondary education certificate is a dividing line for chances of advancement in Hungary. The survey included everyone with the appropriate parameters in the selected villages, and the resulting non-probability sample had 809 members.

The age structure of the two groups in the sample selected as above was approximately identical, but the composition by level of education was different – significantly higher among the non-Roma respondents. The difference is also observable in the labour market position, the main cause of disadvantage: in every level-of-education group the proportion of unemployed was approximately identical in the non-Roma and Roma sub-samples, but in addition, the non-Roma sub-sample had an above-average number in permanent work or in education, whereas the majority of the Roma women received child-care benefit or were housewives. (Figure 2) 60% of the Roma women without regular paid work stated that they had never had permanent work, as against 34% of the corresponding group of non-Roma women. Taking into account the labour market position of the women's spouses and partners, there were even greater distinctions among the two groups in terms of disadvantage: for 58% of non-Roma couples, at least one member had regular income from work<sup>17</sup>, as against only 40% of Roma couples. This difference is much smaller, however, if child care benefit is included among regular income: 80% of non-Romas and 72% of Romas had regular income by this criterion. The rarity of working income in Roma families is therefore compensated by more common child care benefit.

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<sup>17</sup> Pension was included among regular income from work.

Figure 2: Labour market positions among Roma and non-Roma women by age group



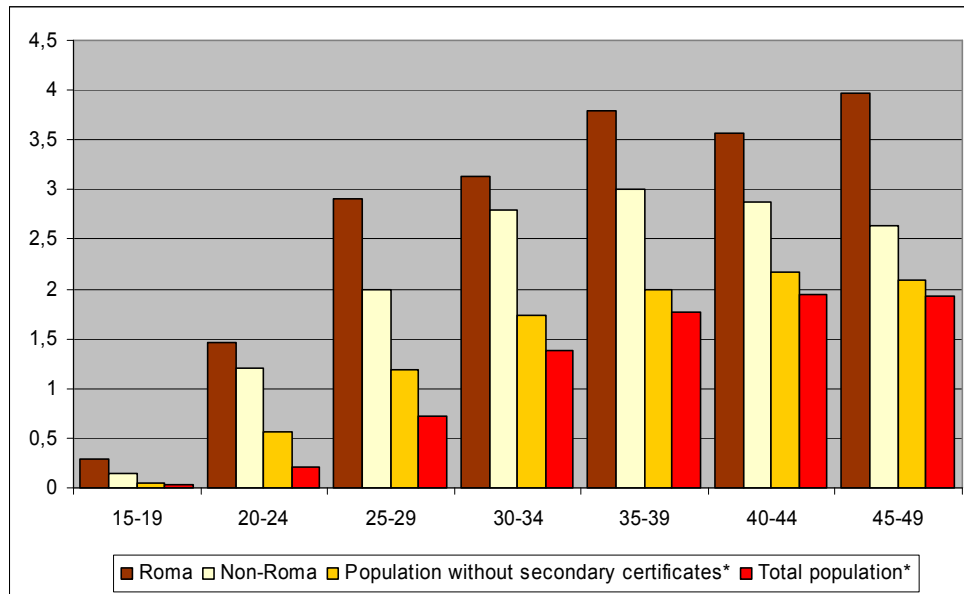
The sample size did not permit the use of complex multivariable procedures. The main research question was whether there was a difference in terms of number of children born and the timing of childbearing between Roma and non-Roma groups in the sample of women of low educational level. The analysis of ethnic differences in numbers of children involved comparison of averages, and the results were checked by an independent t-test. Age effects were screened out using a linear regression where the dependent variable was the number of children born and the independent variables were age and ethnic self-classification (binary variable). The change of fertility with time was established firstly using information in the questionnaire on the respondents’ number of siblings and secondly by comparing births by the older and younger members of the sample. Ethnic variation in the timing of childbirth was also approached by comparison of averages, and odds ratios were calculated for the teenage birth rate.

**Number of Births Among Roma and non-Roma Women of Low Levels of Education**

The first graph shows the average numbers of births for Romas and non-Romas beside two national figures for women of corresponding age: births among women with low educational level (no secondary education certificate) and births among all women. In all age groups, Romas had higher numbers of children than non-Romas, and both Romas and non-Romas had considerably higher numbers of children than the national averages (women in general and women without a secondary education certificate). In all, the average number of children was 2.6 for Romas in the sample and 2.1 for non-Romas, and this difference was significant ( $t = 3.29, df = 806, p < 0.05, r = 0.12$ ). Among those who were married or had

permanent partners, the difference was even higher: 3.1 and 2.7 ( $t = 2.72$ ,  $df = 599$ ,  $p < 0.05$ ,  $r = 0.11$ )

Figure 3: Average number of children among 15-49 year old women by age and ethnic group, and nationally



\* Source: Microcensus 2005

The above figures show that in terms of number of children born, there are significant differences among Roma and non-Roma women without secondary education certificates. Analysing the relationship between ethnicity and number of children for each level-of-education group separately, however, gives a much more complex picture.

As expected, the average number of children decreased with increasing level of education in both groups. For each level of education, however, ethnic affiliation had a different relationship to number of children. Those with less than 8 years of primary education had similar numbers of children regardless of ethnic group, but there was a significant, positive difference among those who had completed primary school and a significant negative difference among those with trade qualifications.

Table 2: Average numbers of children by level of education and ethnic group

	Roma	non-Roma	T-test
0 – 7 years of primary education completed	3.23	3.47	$t = - 0.592$ , $df = 199$ , $p > 0.05$ ( <i>n.s.</i> ) $r = 0.04$
primary school	2.33	1.89	$t = \mathbf{2.409}$ , $df = 438$ , $p < 0.05$ $r = 0.11$
skilled work qualification	1.36	1.81	$t = - \mathbf{1.895}$ , $df = 165$ , $p < 0.05$ $r = 0.15$

It was proposed that the reason why no ethnic effect showed up among those of the lowest level of education was that this group is in fact more ethnically homogeneous than the self-declaration showed. This is because three-quarters of the members of this group who declared themselves non-Romas were in fact regarded as Romas by the interviewer. The corresponding figure for those who had completed primary school was only 32%, and for those with trade qualifications, 12.5%. Therefore, it is in the group of lowest educational level where it is probably most common to find people who in other situations would consider themselves Romas. It is true that the effect of ethnicity on number of children does not show up in the group of lowest educational level even if the interviewers' categorisation is used to measure ethnicity, although the numbers categorised as non-Roma in this case are so small that this result must be treated with care.

Since the number of children born strongly depends on the mother's age, the above relationships were checked using linear regression where age was entered as an explanatory variable alongside ethnicity. This to some extent altered the results: for those who had completed primary school, the relationship between ethnicity and number of children remained even after controlling for age, whereas for those with trade qualifications it proved to have been only apparent, because it can be explained by the different ages of the two groups.<sup>18</sup> The table below shows the results of the regression analysis for groups of each level of education.

<sup>18</sup> The average age of Roma women with trade qualifications was 7 years lower than that of similarly-qualified non-Romas.

Table 3: Linear regression models explaining numbers of children born, by level of education

	0 – 7 years of primary education			completed primary school			skilled work qualification		
	B	SE B	Beta	B	SE B	Beta	B	SE B	Beta
Step 1									
Constant	3.47	0.36		1.89	0.13		1.81	0.12	
Ethnicity	-0.25	0.42	-0.04	0.44	0.18	<b>0.11*</b>	-0.45	0.24	<b>-0.15*</b>
Step 2									
Constant	-0.46	0.59		-1.07	0.26		-1.27	0.34	
Ethnicity	-0.22	0.37	-0.04	0.52	0.16	<b>0.14**</b>	0.23	0.21	0.08
Age	0.12	0.02	<b>0.49**</b>	0.10	0.01	<b>0.51**</b>	0.09	0.01	<b>0.63**</b>
R2 (for Step 2)	0.24			0.27			0.37		

Two means were employed to determine the time-variation of fertility in the two ethnic groups. For this, the sample was divided into two equal parts by age: the 15-31 and the 32-49 sub-samples. The average number of siblings in each cohort were then compared. By this procedure, it was possible to compare the fertility of the 1960s and 70s with that of the 1980s and 90s. The results showed a decrease in both groups, the trend being substantially stronger among the Romas: while the oldest Romas had an average of 5.4 siblings, the youngest had only 4. Among non-Romas, these figures were 3.4 and 2.8.

Since this procedure could only show the pre-transition condition, another method was used to determine the more recent trends. The numbers of children of the members of the older cohort 17 years ago, in 1990, were calculated and the average compared with the present average number of children among the younger cohort. Since there was a slight difference in the age composition of the two cohorts, the averages were standardised to the age composition of the younger sub-sample. The figures showed no increase in fertility among either Romas or non-Romas (see table 4). Overall, therefore, the calculations showed that trends in this multiply disadvantaged area of North Hungary conformed to those of the national Roma study. Of the four hypotheses put forward above, the slowed-assimilation explanation seems most appropriate for fertility trends in the area.

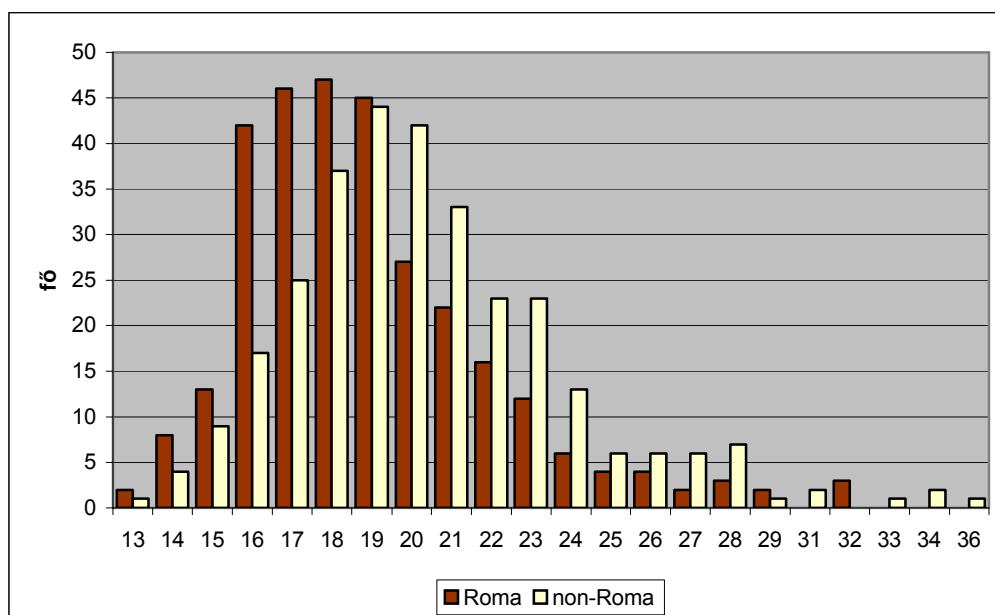
Table 4: Average numbers of children by ethnic group in two different cohorts

	Roma	non-Roma
The average number of children in older sub-sample in 1990	1.71	1.20
The average number of children in younger sub-sample in 2007	1.68	1.15

### Age at First Birth

The age of bearing the first child in both sub-populations was substantially lower than the national figure (27.3 years in 2006), and there were also ethnic differences (figure 4). Roma mothers were on average 19.0 years old when their first child was born, and non-Roma mothers 20.3 years. ( $t = 4.99$ ,  $df = 608$ ,  $p < 0.001$ ,  $r = 0.2$ )

Figure 4: Distribution of mothers' ages at birth of first child, by ethnic group



The age of first birth – as expected – was positively influenced by level of education. Within each level-of-education group, the ethnic effect was only significant in the largest group in the sample, those with 8 years of primary schooling: there was a one-and-a-half year difference between non-Romas and Romas. Among those of lowest educational level, the results were similar to those for number of children: non-Romas seem to bear their first children even earlier than Romas. This impression remained even using the interviewers'



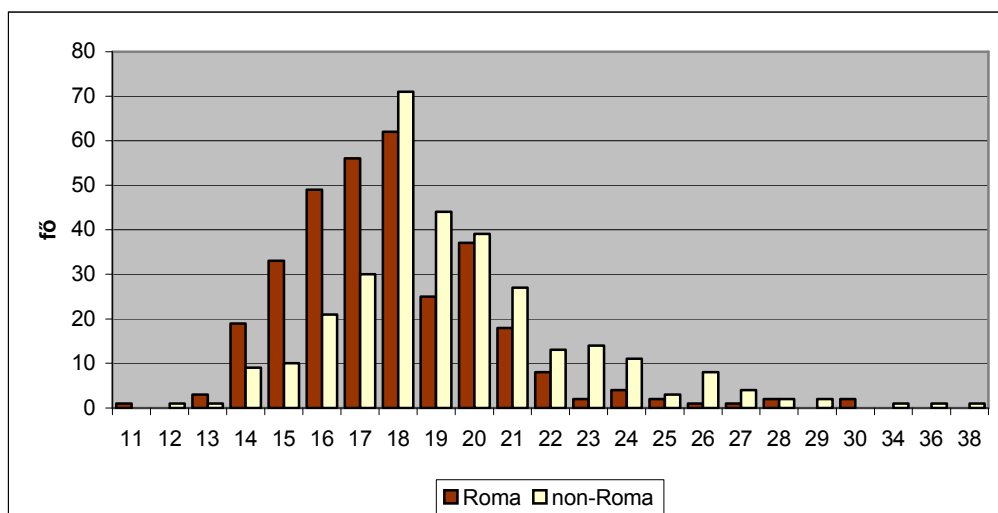
categorisation, but here, too, the small number of cases demands caution in interpreting the results.

Table 5: Average age at birth of first child by level of education and ethnicity

	Roma	non-Roma	T-test
0 – 7 years of primary education	18.5	17.6	$t = - 1.564$ , $df = 161$ , $p > 0.05$ ( <i>n.s.</i> ) $r = 0.12$
completed primary school	19.1	20.5	$t = \mathbf{3.671}$ , $df = 321$ , $p < 0.001$ $r = 0.20$
skilled work qualification	20.3	21.2	$t = 1.377$ , $df = 122$ , $p > 0.05$ ( <i>n.s.</i> ) $r = 0.12$

The difference in the timing of childbirth showed a relationship with the age of forming the first cohabiting relationship or marriage<sup>19</sup>, which also showed substantial ethnic differences. Although the modal age in both groups was the 18th year of life, there was a difference of more than a year and a half between the average ages (figure 3). The start of the first permanent partner relationship in both sub-populations was followed very soon – about a year later – by the birth of the first child. The correlation between the two variables showed up very strongly among both Romas and non-Romas. ( $r = 0.67$ ,  $p < 0.001$ )

Figure 5: Distribution of women by first marriage and age of cohabitation



<sup>19</sup> The questionnaire asked the actual marital status, and did not distinguish between marriage and cohabitation.

The women of low educational level included in the study, as well as having children earlier than the national average, had a higher proportion of young pregnancies. Among Romas, more than a third of children had been born when their mother was under 18, whereas among non-Roma respondents this proportion was less than half, 18%.<sup>20</sup> These figures contrast starkly to the number of teenage births relative to total live births for the country as a whole: only 2%. The odds ratio by level of education shows that the odds of a teenage birth among Romas who have completed primary school was 2.1 times higher than non-Romas of the same level of education. Among those of lower level of education, it is again not possible to show a significant relationship between teenage births and ethnicity. Among those with skilled work qualifications, the number of teenage births was so tiny that no meaningful statistics could be calculated from them.

In order to find how the timing of childbirths changed with time, the date of the first birth was compared between the 18-34 and 35-49 age groups. The frequency of teenage births among non-Roma mothers did not differ substantially between the two age groups, but had decreased considerably among Romas: compared with their elders, only about two-thirds as many younger Romas had given birth in their teens. This result lies closer to the trends found in the national Roma study than to the results of the village-level surveys, and again reinforces the slowed-assimilation hypothesis.

## **Summary**

This research, carried out in a multiply-disadvantaged area of high unemployment, examined what lay behind the high fertility typical of the area. We were particularly interested in whether low educational level is connected to similar fertility patterns among Romas and non-Romas living there. The empirical consequences of four preliminary hypotheses were derived.

The results suggest that the situation is best explained by the slowed-assimilation hypothesis. Fertility among both the Roma and non-Roma populations in this disadvantaged region was found to be higher than might be expected from the national average calculated for people of low educational level. This shows that the economically disadvantaged conditions of the area reinforce the effect of low level of education on promoting a childbirth. At the

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<sup>20</sup> When those without children are included, the frequency of teenage births among the over-18s was 30.2% for Romas and 15.5% for non-Romas.

same time, no evidence was found to suggest that this phenomenon is the consequence of the post-transition economic recession. It seems rather that the number of children among people living here decreased considerably before 1990, especially among the Romas, but the trend now seems to be stagnating.

As for the effect of ethnicity on fertility, the examination by level of education had some surprising results. For those who had completed primary school – the largest proportion of the sample – fertility was significantly higher, and the age of first childbearing considerably lower, among Romas than non-Romas. The differences in average child numbers between the two groups remained even after adjusting for differences in age composition. Among those of lowest educational level, however, no substantial difference was found between Romas' and non-Romas' numbers of children. It is proposed that this is partly due to this education-level group being more ethnically homogeneous than the self-declared categorisation shows. On the other hand, it cannot be ruled out that we have found representatives of a small “non-Roma underclass” which has almost merged into the surrounding Roma population; the people in the sample of lowest educational level declaring themselves to be non-Romas were mostly from villages where there is a very high proportion of Romas. In the North Hungary region, among those who have not completed primary school, there thus seems to be a non-ethnically delineated poverty culture whose features include high fertility and early childbirth.

Neither did we find significant ethnic differences among those who had completed trade schools. This is not surprising. The choice between school and having children is, whether consciously or unconsciously, always a statement against or in favour of traditional female roles.<sup>21</sup> Of course there it must be to a some extent a matter of chance who among Roma girls acquire a trade or go on to further study and who stay away from school because of early childbirth. But it is to be expected that the desire of alignment with the majority population is more common among those whose lives follow the former course. The assimilation hypothesis is principally aimed at explaining the demographic behaviour of Romas who go on to further study; the pattern of fertility among these women, however, is almost completely unknown.

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<sup>21</sup> On conflicts between school and bearing children, see e.g. Kovai (2008).

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