Childbearing Outside Marriage in Romania

- Draft version -

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Abstract: More than one quarter of all births registered annually in Romania are non-marital. We investigate this phenomenon, in our attempt to see whether this behaviour is post-modern or is an expression of socio-economic disadvantages. We conduct our analysis on *Generations and Gender Survey* (2005) data, whose retrospective design allows us to reconstruct the partnership and fertility histories of almost 6,000 women. Thus, we can approach the topic of non-marital childbearing from the life course perspective, by the technique of event history analysis. We will investigate the effect of different factors on the risk of childbearing in a context different than marriage: characteristics of parental home and the family environment where the woman grew up (urban/rural, residence with both parents, number of siblings, mother's education), as well as the effect of personal characteristics (education level). We will differentiate and approach separately births of single mothers (those not being in a co-residential relationship at the moment of birth) and births in consensual unions, comparing them with marital births. Results show that childbearing outside marriage in Romania is rather associated with socio-economic disadvantages and a low level of education.

Keywords: First births, marriage, cohabitation, single mother, education, life-course, Romania

Introduction

During the last decade, more than a quarter of all births in Romania happened outside marriage (29.4% in 2004, 27.7% in 2010). Few European countries show a lower level, such as Greece with only 6.6% non-marital births in 2009, or catholic countries such as Italy (25.4% in 2010) or Poland (20.65 in 2010). In the rest of the continent, levels of 2009-2010 are above 50% in Norway, Sweden and France, above 40% in Austria, Finland, Denmark, Great Britain, Czech Republic or Hungary and above 30% in Germany and Spain. These figures alone do not reflect the complexity and diversity of the non-marital fertility process.

Births outside marriage can occur in two situations: from lone mothers (who don't have a co-residential couple relationship) or from women in consensual unions. Studies show that most of the growth of fertility outside marriage in Europe in recent decades occurred in consensual unions (cohabitation) (Kiernan 2004, Musick 2007).

There are two main approaches of the issue of non-marital childbearing. On the one hand, there is the U.S. approach, which does not differentiate between birth in a stable consensual union and birth by a single mother. On the other hand, there is the European approach, which accentuates the idea of cohabitation stability and tend to treat it as similar with marriage, emphasizing the importance of the existence of union, no matter legalized or not. In the U.S., extramarital childbearing, even combined with cohabitation and not as single mother, has been considered a social problem, while in Europe cohabiting unions are assumed to be stable and very similar to marriages (Perelli-Harris et al. 2009). Still, many studies show that marital and cohabiting unions differ substantially in many aspects, especially in terms of the risk of union dissolution (Thomson 2005).

Which are the women who give birth outside marriage in Romania? What factors and what characteristics predispose to procreating in contexts different than marriage? Is this an assumed and planned behavior or is the result of an unplanned pregnancy? These are questions to which we look for answers in this paper, analyzing the data from the Generations and Gender Survey, conducted in Romania in 2005. The survey's retrospective design allows the reconstruction of partnership and fertility histories for almost 6000 women and the life course approach of non-marital childbearing. Unlike in cross-sectional approach, each individual biography is viewed as a complex process, and we are able to investigate how a particular event from someone's life can influence his/her subsequent life course and how certain characteristics can influence an individual to adopt behavioral patterns that differ from those of other individual (Courgeau and Lelievre, 1992; Courgeau, 2007).

Theoretical considerations/literature review

Most of the studies that address the topic of non-marital childbearing come from U.S., where the subject has been intensively studied since the early 1990s. Results of U.S. studies show that cohabitation and non-marital births are more frequent among people with less education and less economic resources (Smock and Greenland 2010, Upchurch, Lillard and Panis 2002). Also, unmarried mothers (cohabiting or single) have higher poverty rates and welfare dependency and a high share of non-marital births come from teenagers. It seems that cohabitation in the U.S. tends to be an arrangement of economic necessity or an unstable relationship and not a normative choice

reflecting a change in values and attitudes toward family and marriage (Perelli-Harris and Gerber 2010).

There is an important body of literature, both in U.S. and in Great Britain, that documents the effects of the social and family environment where the woman grew up on the risk of conceiving and giving birth in other contexts than marriage. In a study that combine quantitative and qualitative analysis, Rowlingson and McKay (2005) find for Great Britain very low risks to become single mothers for women whose fathers had professional occupations, compared with women whose fathers had unqualified manual occupations, and an elevated risk for women who lived only with their mother during childhood. Upchurch, Lillard and Panis (2002) show that women whose parents were high-school drop-outs had much higher risks of conceiving non-marital than women whose fathers were high-school graduates. Also, women coming from non-intact families show increased risks compared with women from intact families. Same authors find also a negative relation between the risk of non-marital conception and the family income.

Numerous studies suggest a negative relation between education and non-marital childbearing, with highest educated women showing the largest risks of non-marital births (Smock and Greenland 2010, Perreli-Hariss and Gerber 2010). In order to explain more frequent non-marital births in case of low educated women, Upchurch, Lillard and Panis (2002) suggest that parenthood is a sign of adulthood for women whose educational opportunities are blocked at a low level. Perreli-Hariss and collaborators (2010) study cohabitation and non-marital childbearing in eight European countries and find, for all countries they investigated (both countries with long tradition of cohabitation and countries where cohabitation is more recent), that cohabiting women with lower education have higher risks to have the first birth inside this living arrangement, compared with women with higher education.

One concern in connection with non-marital childbearing consists in the effects on children. Smock and Greenland (2010) find for U.S. that single mothers and cohabiting couples tend to have lower incomes than married couples, children poverty rates are higher for children living with a lone or cohabiting mother, compared with children raised inside marriage. Regarding the stability of parental relations for the children, authors mention the higher vulnerability of consensual unions, compared with marriages.

Previous studies for Romania showed that consensual unions and non-marital childbearing are associated with a low level of education, a low socio-economic status, with economic inactivity and rural residency (Rotariu 2006, 2009, Hărăguş 2008, Oaneş and Hărăguş 2009). Among cohabiting women, those with highest education, socio-economic status and residence in urban areas are rather childless (Hărăguş 2008).

Researchers (Hoem et al. 2009, Mureşan 2007, 2008) showed that the attractiveness of direct marriage (not preceded by cohabitation) decreased since the 1990s, while that of cohabitation as a form of partnership grew steadily. The proportion of women who have ever entered a consensual union before age 40 is 35% for the period 1996-2005, compared with 20% for the period 1980-1989 (Mureşan 2007).

In a comparative study about cohabitation and non-marital births, Perelli-Harris et al. (2009) show considerable differences across countries in connection with the partnership status at first conception and at first birth, with Nordic countries having the highest share in consensual unions. Eastern countries, and also Italy, show a more traditional family pattern, in the sense that although the first child might be conceived outside marriage, in many cases the birth takes place inside marriage, with marriage being preferred as the proper context for delivering and raising the child. This change in the partnership context between conception and birth suggests that many pregnancies were unplanned (Perelli-Harris et al. 2009). There is a group in our country, too, who do not marry once the child is coming and who have repeated non-marital births. Rotariu (2009) show that the highest incidence of non-marital births is found, on the one hand, for very young women who are at their first birth, and on the other hand, for higher order births (three or higher), suggesting the existence of a sub-population of women with multiple non-marital births.

In the same study of 2009, Rotariu analyze data about all children born in 2007 and their mothers' characteristics and shows that non-marital births generally affect women with no education, living in poverty, and they occur at a lower age than marital births. Below age 20, there are more non-marital than marital births. Four out of five women that give birth outside marriage before age 20 have only primary education. Active women show lower level of non-marital childbearing than inactive ones, for each educational level. The phenomenon is more present in rural than in urban areas, and it has a high incidence among Roma population, which has a very low standard of living, whose social integration is poor, and who practice a pre-modern lifestyle (Rotariu 2009). Although these results are based on cross-sectional data, they suggest that non-marital births in Romania are the expression of particular disadvantages that women are confronted with during their life course.

Researchers tried to find the mechanisms that make persons with low socio-economic status to choose alternative living arrangements and to bear children outside marriage. Smock and Greenland (2010), in a decade review of studies on the diversity of pathways of family formation, argue that both qualitative and quantitative studies emphasize the importance of financial aspects for the transition to marriage.

Marriage institution includes expectations about economic roles, and cohabiting unions require less initial commitment to fulfill long-term economic responsibilities (Seltzer 2000). To

marry, couples think they should reach specific economic goals, such as stable employment, house of a certain quality, before making this step. Those with low incomes may also think that marriage, with its legal rules about marital property and inheritance, is irrelevant for them given their few material assets (Cherlin, 1992, apud Seltzer 2000). Bumpass, Sweet and Cherlin (1991) found for U.S. a positive relation between the income of cohabiting couples and expectations to marry the partner, and a negative relation between income and expectations to never marry. In other words, among cohabiters, those with more financial resources are those with higher expectations to marry the partner and they are also more likely to realize these intentions. Smock and Manning (1997) show that economic resources are important for the transition from cohabitation to marriage only for men (those with higher incomes, higher education and full time employment are more likely to marry); woman's economic situation has no impact on the transformation of the relationship. Upchurch, Lillard and Panis (2002) found that less educated women have less human capital to transform into economic resources and are likely to choose partners with fewer economic resources, too, and therefore the economic incentives for marriage for these women are small. When economic circumstances of adult men are constrained, they postpone the marriage; those with unsecure economic prospects, including those enrolled in education, rather choose cohabitation over marriage (Seltzer 2000). Persons with high education and/or high income are more likely to marry, to make the transition from cohabitation to marriage sooner and to stay married, compared with those with low education/income. In present, marriage represents achievement and signifies prestige (Cherlin 2004) and there is a widely accepted view that marriage should come after a certain financial situation is achieved. Low-income women generally view marriage as something to which to aspire, whereas parenthood is attainable regardless of financial stability or marital status (Smock and Greenland 2010). This is because children bring social capital to their parents, Schoen and Tufiş (2003) show that women who view children as an important source of social capital are more likely to have a non-marital birth, since parenthood intensify interactions and support from the other members of the family. Although these arguments refer to U.S., they may be valid in Romanian society, too.

An alternative explanation regarding non-marital childbearing is connected with the second demographic transition theory and the changes in the value system. Briefly, the theory refers to changes in family connected behaviors that appeared in northern and western countries in the second half of the 1960s: well established trend for below replacement fertility, the spread of multiple living arrangements alternative to marriage, separation of marriage and procreation, accompanied by the increase of divorce. Van de Kaa (2001) specifies that the changes in family related behaviors occurred in a sequence and he distinguishes 15 steps in this process, as experienced by a number of Western European countries. Started with the decline in total fertility

rate due to reduction in fertility at higher ages, the process advances with the postponement of childbearing within marriage and postponement of marriage itself, concluding with a strong increase in cohabitation, even in countries where this was not a traditional practice, and a strong increase in the proportion of births outside marriage. In other words, non-marital childbearing is one of the signature elements of the second demographic transition (Perelli-Harris and Gerber 2010).

These behavioral changes are the result of the changes of the value system: increased emphasize on individual autonomy, rejection of authority, greater importance of self-actualization needs (Lesthaeghe and Surkyn 2002). A re-ordering of Maslow's pyramid of needs takes place: as societies become richer and basic needs are fulfilled, higher order needs become priority. Lesthaeghe and van de Kaa refer to Inglehart's (1997) theory of value change: when material needs are met, a shift from materialist to post-materialist value appears.

The theory has been confronted with multiple critiques, one of the most important being that the theory was built based on the experience of northern and western countries, researchers being skeptical to its spread in the south, center and east of the European continent. Then, there is the complexity of the link between attitudes and behavior and the difficulty to establish the direction of causality. Norms and attitudes can change in order to adapt to behavior and not the other way around.

There is evidence (Mureşan 2007b, Sobotka 2008, Hoem et al. 2009) that the manifestations of the second demographic transition are spreading in Eastern and Central Europe, too, and behavioral changes in these countries from the 1990s were not simply the effect of the socio-economic crisis brought by the change of political regime. In many of these countries the effects of the crises have come to an end, while cohabitation and procreation outside marriage are spreading. Lesthaeghe (2010) notices that the second demographic transition seems to advance faster in the countries with the more successful economic and political performance. Lesthaeghe (2010) has no doubt that the second demographic transition has spread in central and eastern Europe and considers the increase of the share of the non-marital births a clear indicator of the spread of new contexts for procreation, in form of cohabitation or in form of single mothers.

Fifteen years after launching the concept of the second demographic transition, its proponents (van de Kaa 2001, Lesthaeghe 2010) admit that three dimensions of social change played a role in the important demographic shifts that we have mentioned: social-economic change and progress in society, the population's cultural endowment and the changes in value systems, and technological improvements and their application. Lesthaeghe stresses that the second demographic transition theory fully recognizes the effects of macro-level structural changes and of micro-level economic calculus, but it does not consider these explanations as being sufficient (Lesthaeghe 2010). Ideational and cultural changes such as increased emphasis of individual autonomy, the rise

of values connected with higher order needs of self-actualization (Perelli-Harris and Gerber 2010), rejection of authority (mainly religion), are brought into picture for a better understanding of the changes of family formation behavior. Values change when material needs are met and post-materialist values develop. Lesthaeghe concluded, on results from the World Value Survey, that "secular, egalitarian, anti-authoritarian orientations, expressive values and values stressing individual autonomy are strong predictors of life courses that include "unconventional" states such as pre-marital cohabitation and parenthood among cohabiters" (Lesthaeghe 2010: 18).

Education is an important factor for the spread of post-materialist values, a central component of the second demographic transition. Sobotka (2008) offers references that support the idea that highly educated individuals have been the forerunners in the values and behaviour associated with the transition, but also mentions that in post-communist countries, the lower educated persons are often the early adopters in the spread of cohabitation, non-marital childbearing, and unstable living arrangements. In their study from 2010, Perelli-Hariss and collaborators did not find a positive association between cohabitation and education in any of the countries under investigation, as the second demographic transition theory would predict.

Starting from the approach of Perelli-Harris and Gerber (2010) and Perelli-Harris and collaborators (2010), we investigate whether childbearing in contexts different from marriage in Romania could be an expression of the second demographic transition (meaning it is associated with high education, considering it a proxy for the ideational shifts in values) or it is rather the expression of certain socio-economic disadvantages of the environment the woman grew in (meaning it is associated with low education, considering education as a proxy for disadvantages this time). We also want to see to what extent childbearing in cohabitation differs from childbearing outside a co-residential couple relationship. In other words, if childbearing in cohabitation would be an expression of the new values associated with the second demographic transition, then the relation with the education level and the background characteristics would be opposite than in the case of childbearing as single mothers.

Data and method

Analysis is done using data from Romanian Generations and Gender Survey, conducted in 2005, which has a retrospective design and allows us to reconstruct women partnership and fertility histories and to approach the issue of non-marital childbearing from the life course perspective (Vikat, Speder, Beets, Bilarri, Buhler et al., 2007). The survey was conducted on a sample of almost 12000 people but our analysis considers only women (aprox. 6000 persons) and we focus only on first births. Speaking of different contexts of first birth, we address births before forming the first partnership (single mother), births inside first cohabitation and births inside first marriage.

We analyze the impact of different background factors and of educational attainment on the timing of first birth using event history analysis, namely the piece-wise constant exponential models. All variables included in this type of models are categorical.

Having time as one dimension, this method of analysis gives the possibility to include time-varying explanatory factors. The role of these variables is to show that a causal factor had changed its status over time and, consequently, the event under study has been exposed to different causal condition (Blossfeld and Rohwer, 2002). Another advantage brought by event history analysis is the inclusion of censored individuals into analysis. Censored individuals are those who were exposed to the risk of experiencing the event under study (the first childbearing) but did not experience it (women who are childless at the moment of the interview). Being under risk but eventually not experiencing an event is itself important.

The event of interest is first birth, differentiated by the partnership situation at that moment, with three possibilities: birth inside marriage, birth inside consensual union and birth outside a co-residential relationship. We investigate each situation separately, seeing the effects of educational attainment and background characteristics on the risk of having a first child in that respective situation.

We model the time to first birth and the process time (i.e., the baseline hazard) is different for each partnership situation. For births before first partnership the process time is the age of the respondent measured in months since January of the year she turned age 14. For births in first consensual union or first marriage, the process time is the duration (in months) since the union formation. Since we study first births, when we model age we stop the process time at age 40 and when we model duration we stop the process time at 15 years after union formation.

Our dependent variable is the risk of having a first child in the respective situation (marriage, cohabitation, single mother), which is given by the hazard or intensity function, whose values are estimated by the occurrence-exposure rates of the event (number of events/(population under risk x duration of exposure to the risk)), given the individual is under the respective risk.

For each partnership situation, we consider in the analysis only the periods when the woman was under risk to have a birth in the respective situation. If, for example, a single woman marries or starts a consensual union while childless, from that moment she is no longer under risk of having a first child as single mother. Or if a cohabiting woman marries or separates while she is single, from that moment she is no longer under risk of having a first birth in cohabitation.

Results are presented in form of relative risks: the increase in the hazard function (the risk of experiencing the event under study) when one goes from one category to another of the explanatory variables. A relative risk greater than 1 indicates the risk of becoming young mother is greater in that group than in the reference group, whereas a relative risk lower than 1 indicates the opposite.

Based on previous results in the literature, we use as independent covariates several background factors, such as the type of residence during childhood (until age 15, urban vs. rural), whether the woman had lived with both parents during her childhood (until age 15), number of siblings, mother's education, all of them being time-constant covariates.

We consider the type of residence during childhood an indicator of the socioeconomic and educational resources of the family of origin, where rural residence is associated with fewer such resources. Whether the woman had lived with both parents during her childhood is important because in most cases the absent parent is the father and this means the lack of significant resources for the daily care responsibilities, the involvement in child activities, the financial situation or emotional support. The absence of the father may also mean less control and supervision for the teenage child, and the single mother family model can be easier embraced by the child. We use the number of siblings as a covariate assuming that women who come from a bigger family develop a higher family orientation, so earlier family related transitions, and as an indicator of family's control over the teen's behavior, assuming that more siblings mean less control from behalf of the parents. Mother's education is a measure of the human capital of the family of origin.

To see whether non-marital childbearing is an expression of certain background disadvantages, we expect that women who grew in rural settlements, in large families, who did not lived with both parents or whose mothers were low educated, to show elevated risk of childbearing in other contexts than marriage.

Education is an important covariate for both of the alternative explanations. If non-marital childbearing in Romania is an expression of the second demographic transition, then we have to find that procreation outside marriage is associated with higher education; if non-marital childbearing is an expression of disadvantages, then the association is with low education.

We created a time-varying covariate accounting for the woman's current educational attainment. First wave of Generations and Gender Survey did not registered completed educational histories, but only the highest educational attainment, at the moment of the interview, and the date when this level was attained. Using the final educational level as registered at the interview as a covariate assumes that education is a fixed trait of the individual. This is anticipatory analysis and it may not be problematic if education is completed before childbearing begins; but childbearing itself may influence the educational career of women and then assuming that educational level is a time-constant covariate may be wrong. Education may be interrupted and continued some years later, and the final educational level would be different than the one at the moment of childbirth. Following the approach of Hoem and Kreyenfeld (2006) and Mureşan (2009) for data with no complete educational histories, we assumed that the respondent was enrolled in education all the time before they attained the level reported at the interview, and continuously out of education (with the

reported level attained) between the date of attainment and the interview. We constructed a time-varying covariate which combines educational enrollment and educational attainment, with the following categories: enrolled in education; not enrolled, low educational attainment (pre-primary, primary and lower-secondary education); not enrolled, medium educational attainment (upper-secondary and post-secondary non-tertiary education) and not enrolled, high educational attainment (tertiary education). As literature suggests, we expect that being enrolled in education to highly reduce the risk of having a birth, since participation in formal education is seen incompatible with childbearing (Blossfeld and Huinink, 1991).

To consider the national socioeconomic and political context where the birth appeared and to compare the period before and after the fall of the socialist regime, we distinguish between the two periods and introduce the calendar period as a time-varying covariate.

Results

Descriptive findings

We omitted from the initial sample the women with incomplete partnership and fertility histories, as well as Roma women (90 persons). Their small number in the sample would bias the final results, since the boundaries between consensual union and formal marriage are overlapping for Roma persons. Our working sample has 5911 women. There are 397 first births (8.3%) from single mothers, 268 first births (5.6%) from cohabiting women and 4054 (84.5%) from married women. 1.6% of first births happened after the end of first partnership, but this category is not in our attention in this study.

Looking at the women's age at first birth, we notice that a quarter of births before age 18 belong to single mothers, but their share decline as the woman's age increases. Only 4.2% of births of women aged 35-39 years came from single mothers. 16.3% of first births before age 18 happened in a consensual union, the share declining to 3.4% for age group 25-29 years, increasing than to 6.9% for age group 35-39. Births inside marriage are most numerous; their proportion is highest at ages of 25-29 years. Non-marital births appear mostly at young ages, but for cohabitation there is a slight increase after age 30.

Table 1. Partnership type at first birth, by age at first birth

	Age group						Total
	Below 18	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	
Single mothers	25,5%	12,5%	7,9%	5,4%	4,7%	4,2%	8,3%
Cohabitation	16,3%	10,1%	4,8%	3,4%	4,7%	6,9%	5,6%
Marriage	58,2%	76,8%	86,1%	89,1%	85,5%	80,6%	84,5%
After 1st partnership	0,0%	0,6%	1,2%	2,0%	5,0%	8,3%	1,6%
N	153	656	2494	1104	317	72	4796
	100%	100%	100%	100%	100%	100%	100%

Source: Generations and Gender Survey, author's calculations

Looking at partnership situation of first birth by cohorts, we find a decrease of births to single women for younger cohorts: 13.3% of births came from single mothers for women born before 1940 and only 4.1% for women born after 1970. For births in consensual union, the trend is opposite: the share of this category increased for younger cohorts.

Table2. Partnership type at first birth, by cohort

	Cohort					Total
	Before 1940	1940-1949	1950-1959	1960-1969	After 1970	
Single mothers	13,3%	11,3%	7,4%	4,1%	4,1%	8,3%
Cohabitation	2,6%	3,0%	5,7%	7,4%	10,3%	5,6%
Marriage	83,2%	83,9%	85,5%	86,8%	83,2%	84,5%
After 1st partnership	1,0%	1,9%	1,3%	1,7%	2,4%	1,6%
N	1116	880	1065	931	804	4796
	100%	100%	100%	100%	100%	100%

Source: Generations and Gender Survey, author's calculations

Multivariate analysis

First births before any partnership appear mostly at ages 20-29, while first births inside marriage or consensual union appear mostly during first three years of union.

For each partnership situation we ran two regression models: the first one includes the background characteristics and the calendar period, and the second one adds the woman's current educational attainment. For first births before first partnership (Table 3) we find that women who grew up in a social and familial environment characterized by certain disadvantages are at higher risk of having a first birth of this type, compared with women who grew up in more advantageous environments. Rural residency during childhood increase the risk of first birth outside any union with 30%, compared with urban residency. Not having lived with both parents increase the risk with

57%, and having many siblings raise the risk with 29%. Women whose mothers were medium or high educated have a diminished risk of childbearing before first union, compared with women with low educated mothers. After the change of the political regime in 1989, the risk of first childbearing as single mother strongly decreased, with 59%.

When we introduce the woman's current educational status, the effects of background characteristics disappear (except living with both or only one parent). Compared with women with low education, women with medium or high education show much smaller risks of first birth while single. The smallest risk belongs to women still enrolled in school (19%).

Table 3. Results of event history model, relative risks for the transition to first birth outside a union (as single mother)

		Model 1		Model 2	
Residence during childhood	Urban	1		1	
	Rural	1.30	**	1.03	
Living arrangement during childhood	With both parents	1		1	
	Not with both parents	1.57	***	1.38	*
Number of siblings	Less than 3 siblings	1		1	
	3 or more siblings	1.29	***	1.11	
Mother's education	Not specified	1.12		1.12	
	Low education	1		1	
	Medium education	0.56	***	0.90	
	High education	0.32	**	0.61	
Calendar period	Before the fall of the socialist regime	1		1	
	After the fall of the socialist regime	0.41	***	0.48	***
Current educational status	Enrolled in education			0.19	***
	Low education			1	
	Medium education			0.59	***
	High education			0.38	***

Source: Generations and Gender Survey, author's calculations

Note: *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

For births inside consensual unions, only mother's education has a statistically significant effect on the risk of having a first birth (Table 4): women with medium educated mother show 38%

smaller risk of first birth in cohabitation, and women with high educated mothers show 73% smaller risk, compared with women with low educated mothers. When we introduce current educational status in the model, mother's education effect disappears. Women still enrolled in education and those with high educational attainment have strongly reduced risks: 55% for those still enrolled, and 32% for highly educated.

Table 4. Results of event history model, relative risks for the transition to first birth in consensual union

		Model 1		Model 2	
Residence during childhood	Urban	1		1	
	Rural	1.00		0.94	
Living arrangement during childhood	With both parents	1		1	
	Not with both parents	1.05		1.02	
Number of siblings	Less than 3 siblings	1		1	
	3 or more siblings	1.10		1.04	
Mother's education	Not specified	0.93		0.97	
	Low education	1		1	
	Medium education	0.62	*	0.73	
	High education	0.27	*	0.51	
Calendar period	Before the fall of the socialist regime	1		1	
	After the fall of the socialist regime	0.85		0.90	
Current educational status	Enrolled in education			0.55	**
	Low education			1	
	Medium education			0.82	
	High education			0.32	**

Source: Generations and Gender Survey, author's calculations

Note: *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

For the first births inside marriage (Table 5), we find slightly elevated risks for women who grew up in rural environments and who didn't lived with both parents. Unlike non-marital births, mother's education does not have an effect, except the category that didn't specify mother's education, who have smaller risks of first birth inside marriage. Considering calendar period, the risk of first birth inside marriage is slightly higher after 1989 than before. When personal educational status is

introduced in the model, the effects of other covariates do not change, unlike for non-marital births. Compared with the low educated, only women with medium education have a higher risk of having a first child inside marriage.

Table 5. Results of event history model, relative risks for the transition to first birth inside marriage

		Model 1		Model 2	
Residence during childhood	Urban	1		1	
	Rural	1.12	**	1.12	***
Living arrangement during childhood	With both parents	1		1	
	Not with both parents	1.11	*	1.11	*
Number of siblings	Less than 3 siblings	1		1	
	3 or more siblings	1.05		1.05	
Mother's education	Not specified	0.82	*	0.83	*
	Low education	1		1	
	Medium education	0.94		0.97	
	High education	1.04		1.16	
Calendar period	Before the fall of the socialist regime	1		1	
	After the fall of the socialist regime	1.12	***	1.10	**
Current educational status	Enrolled in education			0.95	
	Low education			1	
	Medium education			1.09	**
	High education			0.88	

Source: Generations and Gender Survey, author's calculations

Note: *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

Conclusions and discussions

We have approached in this article the issue of childbearing in contexts different from marriage, namely births outside a couple relationship and births inside consensual unions, from the life-course perspective. We have found variation in the partnership context of first births: at very young ages (below 18) a quarter of the total births happened before the first union formation and 16% inside a consensual union, with percentages dropping as age at first birth increase. If only 58% of first births before age 18 were inside marriage, the share is 89% for the age group 25-29. Young cohorts have a

low share of births as lone mothers, compared with older cohorts, but they have a higher share of births in cohabitation.

Scientific literature suggest that the timing and the context of first birth are influenced by previous events and circumstances in woman's life-course, including background characteristics, such as socio-economic and family environment during childhood. Woman's educational attainment and enrollment have also strong influence on the timing and context of first birth.

Our intention was to see the characteristics of women who had a non-marital birth during their life and to investigate the impact of different factors on the risk of this behavior, comparing with marital births. We have tried to see whether non-marital childbearing is associated with a background environment characterized by certain disadvantages, also in terms of personal educational attainment, or, on the contrary, this behavior characterizes highly educated women, as suggested by the second demographic transition.

We have separately investigated each partnership situation for first births, by event history analysis. Considering that socio-economic and educational resources during childhood are important for the demographic behavior in adulthood, we have studied the effect of the type of residence (urban vs. rural), co-residence with both or one parent, number of siblings and mother's education. Our results indicate an association with a disadvantaged socio-economic and family environment during childhood for births before any union (rural residency, having lived with only one parent, many siblings and low educated mother). For births inside cohabitation, the association is only with mother's education: having a low educated mothers increase the risk of first birth in a cohabiting union. Once we introduce the woman's education in the model, it takes the effects of background characteristics and we find a strong negative association with non-marital births: compared with women with low educational attainment, women with medium or higher education show much reduced risks of the first birth outside marriage. We have also found a strong negative effect of education enrollment on non-marital childbearing. The effect of women's educational attainment and enrollment is much less visible for births inside marriage.

Given these results, especially the effect of personal level of education, we can reject the hypothesis that non-marital childbearing in Romania is an expression of the second demographic transition and of changes in the value system. A low level of education predispose to non-marital childbearing not as an expression of post-modern value orientation, but as an expression of socio-economic disadvantages. This creates the premises for challenges in the social, financial and emotional development of children born and raised outside marriage. Of course, single motherhood or cohabiting mother may be temporary living arrangements and woman's marital status can change after the birth of the child. The subsequent life-course of women after a non-marital birth is the

subject of future research, using the same Generations and Gender Survey, whose retrospective design allows such investigations.

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