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Particularities of Childbearing Determinants in East-European Countries after the Political Turnover

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One of the most emphasized population issues in nowadays European societies is the persistent low-fertility and, if maintained sufficiently long, it is also the most important factor of ageing process and of population decline. Almost without exception countries' fertility is below replacement level in Europe. Among them, the former socialist-countries and those from southern Europe have very low fertility, or "lowest-low" fertility, i.e. below the European average, calculated by Demeny (2003) as 1.37 children per women in 2000.

An important flow of scientific literature deals with theories, models, causes, and consequences of fertility decline, and national or international comparative studies try to find out the mechanisms behind these fertility developments. Not surprisingly, deeper analyses concern especially western countries, since they disposed more proper data for causal analyses. Classical studies, using macro-level data, were done as well for Eastern-European countries (for example the "Frejka book" from 2008), but those revealing mechanism behind manifestations, and using individual-level data, are more scarce. The new developments in fertility and family behaviors in former socialist-countries are very similar in manifestations with those in the western countries; however we suspect that the mechanisms behind them are quite different. We would like to deepen the field and form a research group dealing with the particularities of childbearing evolutions in East-European countries, with focus on the period following political turnover, when former pro-natalist policies vanished, and on the factors which played the main roles.

Fertility research has benefited greatly from *decomposition* and *proximate determinants* approaches. The former disaggregates fertility into constituent parts to assess which ones are responsible for overall change, distinguishing between timing and quantum effects. The latter links fertility to its most important proximate causes; in turn, these proximate causes become factors to be

understood. The rationale for this level of explanation is that it identifies more precisely "what needs to be explained."

Shifts to later childbearing are a significant part of the contemporary story of very low fertility. But the end of postponement would still leave many countries with fertility well below replacement. Low fertility explanations thus must account for both *fertility postponements* (changes in timing) and for *fewer births* per woman (lower quantum). The causal explanation may differ for these two components and decomposition analyses push researchers to understand these twin causes: fertility postponement and fewer births.

In settings where birth control and abortion are available and widely used, decisions to have children play a central role in models of fertility by linking more *distal determinants* to fertility. This framework does not suggest that intentions always play a dynamic role in contemporary fertility change. In fact, in developed countries fertility intentions have changed little in the past two decades and vary little across developed countries; there exists a remarkably persistent and pervasive desire for two children. Thus, cross-country and cross-time variation must be explained by timing changes and by women's/couples' ability and determination to realize intentions.

The *weakness of the decomposition and proximate determinants* approaches is that they leave the fundamental or exogenous cause unspecified. As a result, these explanations are only partial and beg the question: why is it that childlessness is greater or intentions are more likely to be met in one country compared to another?

Few would dispute that the transition from high to low fertility results from *industrialization and post-industrialization* that increased "costs" of bearing and raising children. The timing of these fertility declines related to particular aspects of socioeconomic change was variable because populations had to recognize and conceptualize changing child costs and rationalize new fertility regulation behaviors. The new fertility regime was one of small families. No country has become economically developed without experiencing the transition to small families.

But this powerful explanation for the fertility transition is not very useful for explaining variation in low fertility or for predicting its future course. Instead, there are two competing explanations. *The first* focuses on the *"cost" of childbearing* and rearing in all contemporary settings. But it views the degree of incompatibility as variable, contingent on a set of society-specific factors that decrease/increase incompatibility. For instance, all developed countries have experienced increases in *female labor force participation*. However, some societies experience increases in women's labor force participation with little change in

fertility; for others, similar changes have accompanied sharp fertility declines. To account for these variable responses, one needs to document the *institutional factors* that make life-long education, work and family more or less compatible for women in some countries than in others. The most complete explanations require idiosyncratic explanations. But general patterns can be described. Peter McDonald (2000) argues that societal gender equality reduces work/family incompatibility. Specifically, when women enter the workforce but other institutions (e.g., the family, gender relations) do not make adjustments, it makes the joint roles of mother/worker very difficult. Some employed women resolve this incompatibility by having no or only one child. Greater gender equality (accompanying increases in women's non-family work) eases women's work/family burden. Such adjustments facilitate women having the moderate number of children that they intend. The state can also respond with policies that encourage gender equality and that recognize the burden of bearing and caring for children. Public provision of children's health care and day care provide important examples. Finally, the market can respond; examples include widely available flextime for employees and consumer goods and services that substitute for home production.

A second explanation for variation in low fertility focuses on a putative irreversible shift toward an ideology that stresses *individualism and self-actualization*. This ideology encourages women/couples to consider whether becoming a parent or having another child would make them happier or their life more meaningful. Dirk Van de Kaa (2001) and Ron Lesthaeghe and Willems (1998) argue that this spreading ideology has fostered a second demographic transition – later union formation, greater cohabitation, frequent union dissolution, and very low fertility. Given the very high direct and indirect costs of childbearing and rearing, and this ideology that makes parenthood one of a range of acceptable lifestyles, subscribing authors are pessimistic about fertility recuperating to approximate replacement levels.

A key unanswered question is whether countries now undergoing a fertility transition will experience fertility well below replacement levels in the coming decades. Current evidence and theory suggest that settings with great gender inequality may experience the most dramatic fertility declines as women in these societies undertake non-familial employment. However, the experience of developed countries may encourage more rapid adoption of strategies to reduce work/family competition for women's time and energies. The widespread adoption of effective policy responses is a second plausible scenario. Thirdly, some societies may be able to maintain fertility at/above replacement levels by embracing fundamentalist ideology or identifying

motherhood/parenthood strongly with group identity. Such cultural/ideological responses gird families and women to accept the high costs of parenthood.

Finding out fertility mechanism in countries that already have low fertility is important for the course of future fertility. Fertility postponement explains a significant part of contemporary very low fertility, but when postponement abates, many countries will still have fertility levels well below replacements levels. One of the key questions for the twenty-first century is whether and how effectively societies will respond. Comparative research can contribute by *identifying effective responses* or "packages" of responses that prove effective. The challenge is fundamental because replacement of population is required for societal survival and because the costs of childbearing and rearing in contemporary settings are huge. The changes in institutions and redirection of resources toward parents and children that will likely be required pose a huge challenge for societies with very low fertility.

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The childbearing determinants and its' particularities in East-European countries after the political turnover was the topic discussed in a European Science Foundation exploratory workshop, which took place on 25-27 September 2008 at the Babes-Bolyai University, Cluj-Napoca, Romania. This special number of *Romanian Journal of Population Studies* is based on papers presented with that occasion.

The main invited countries were: Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Poland, Romania, Russia and Slovak Republic, since they have adequate data and are former socialist-countries. These countries dispose of recent survey data, mostly (but not exclusively) collected in the frame of *Generation and Gender Programme*, a trans-national, comparative, highly innovative and interdisciplinary project, initiated by Population Activities Unit of the United Nations Economic Commission for Europe (UNECE PAU).

Nineteen participants from ten European countries were present (Austria, Czech Republic, France, Germany, Hungary, Lithuania, Poland, Romania, Slovak Republic, and Sweden). Not all of participants came exactly from former-socialist countries, but surely they have studied population developments of one or even more of them. Four researchers from Max Planck Institute of Demographic Research, Rostock, Germany (institution known for its role in promoting and supporting GGP) were in this situation since they work on Bulgaria, Hungary, Romania, and Russia; the participant from Stockholm University is well known for her studies on Hungary, and one of the Czech researcher came from Austria where he recently located at Vienna

Institute for Demographic Research. All the other participants came directly from their origin countries (a former-socialist one), where their contribution to the development of demographic science is nationally recognized and internationally well known.

The workshop was organized in eight working sessions addressing theoretical and methodological issues, and presenting empirical findings regarding various childbearing determinants (see the conference website : http://socasis.ubbcluj.ro/anunturi/ESF/index.html).

Seven out of seventeen papers presented at the workshop are now published in this special number of *Romanian Journal of Population Studies*. The first paper, written by Traian Rotariu, includes a critical approach of the present theories of reproductive behaviour, especially of the ideational change as the main determinant of below replacement fertility. The second paper is authored by a group of four researchers, namely Jan M. Hoem, Dora Kostova, Aiva Jasilioniene and Cornelia Mureşan, and is dealing with trends in union-formation patterns in Romania since 1960. The next three papers are also focused on union formation as a classical main determinant of childbearing behaviour. They include an analysis of the increase of cohabitation, the delay of first birth and the interrelation between these events in Bulgaria ("The rise of cohabitation and childbearing outside of marriage in Bulgaria" authored by Elena von der Lippe), a discussion on the possibilities of computing alternative measures of fertility besides the conventional tempo distorted total fertility rate, exemplified on the Czech Republic ("The link between women's education and non-marital childbearing in the Czech Republic" signed by Kryštof Zeman"), and a study on the specific of non-marital births in Romania ("The growth in non-marital fertility and other related behaviours in Romania after 1989" by Cristina Oaneş and Mihaela Hărăguş). The role of educational attainment and educational enrolment as key determinants of the transition to the second birth in the context of changing family and fertility patterns in the Czech Republic, is then discussed by Anna Anna Šťastná in the next paper. The last paper reports interesting findings based on a qualitative approach, about the role of age norms in postponement of childbearing in Slovakia, and it is signed by Michaela Potančoková.

References

Demeny, P. (2003). "Population Policy Dilemmas in Europe at the Dawn of the Twenty-First Century" . *Population and Development Review* (29) : 1-28.

Frejka, T.; Hoem, J.; Toulemon, L. ; Sobotka, T. (eds.) (2008). *Special Collection 7: Childbearing Trends and Policies in Europe. Demographic-Research.* Rostock, http://www.demographic-research.org/special/7/.

Lesthaeghe, R. & Willems, P. (1999). "Is Low Fertility a Temporary Phenomenon in the European Union?" *Population and Development Review* (25) : 211-228.

McDonald, P. (2000). "Gender Equity in Theories of Fertility Transition". *Population and Development Review* (26) : 427-439.

Van de Kaa, D.J. (2001). "Post-modern fertility preferences: from changing value orientation to new behaviour". In: R.A. Bulatao and J.B. Casterline (eds). Global Fertility Transition. *Supplement to Population and Development Review* (27) : 290-331.

A Few Critical Remarks on the Culturalist Theories on Fertility with Special View on Romania's Situation

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Abstract: This article elaborates on the ideas presented at a scientific reunion[1] held in Cluj-Napoca in September 2008. Its major aim is to dismiss the attempt to attribute the decrease of fertility below the replacement level to cultural factors, particularly to the value system change that governs various behaviour patterns, the reproductive included.

This cultural determinism, most clearly stated in the theory of the so-called "second demographic transition," is a most convenient explanatory attempt, which has the great (dis)advantage that, by the very nature of the factors mentioned, cannot be submitted to a decisive test. We will bring logical and factual counter-arguments that we expect to accumulate in time, so that this theory (fashionable at present) will come to occupy its due place among the numerous constructs that account for human fertile behaviour.

Factual arguments have been derived from recent demographic developments in Romania, a country different in several cultural and structural aspects from the "hard nucleus" of modern and postmodern Western civilisation but which, nevertheless, has experienced sub fertile behaviour.

Keywords: fertility, Romania, culturalist theories, second demographic transition

The contributions to the consolidation of the demographic transition theory have focussed mostly on the fertility component of this process. Indeed, for the researcher in demography bent on distinguishing deep social determinations of the demographic behaviour patterns underlying statistical data, the understanding of the fertility trajectory of various populations caught in the transition process has been and will be the most difficult and challenging theoretical issue. "Modernisation," perhaps the most all-encompassing concept involved in this explanatory enterprise, has reunited a series of social and economic phenomena and processes that, each taken separately or grouped,

[1] *Particularities of Childbearing Determinants in East-European Countries after Political Turnover*, Cluj-Napoca, Romania, 25-27 September, 2008

have become the bases of various theories accounting for the fertility decrease of contemporary populations. For example, the respective trends have been explained by general processes such as industrialisation, urbanisation, secularisation, science development, improvements in literacy and educational levels, social democratisation of Western society, and women's emancipation. There are also other, more specific processes, deriving from the general ones, such as change in family roles and relationships, the increase of women's employment rate in out-of-home activities, increased costs of children, diminution of the productive function of the family, increased social mobility, weakening of traditional customs and beliefs system.

Consequently, a large number of theoretical attempts have been issued and their classification is a difficult enterprise in itself. Categorisations usually rely on two major criteria: the *level* of the explanatory elements and the *nature* of the major factor accounting for the explanation. Therefore, according to the first criterion, there are theories focussing on micro and macro social levels (such as the family group), on the individual, or the couple. According to the second, theories emphasise explanations based on economic, political, ethnical religious, educational, linguistic or cultural factors (understood as system of values and beliefs). There are, obviously, links between the two classification systems in the sense that, for instance, individualist theories, based on the rationality of human actions, correlate very well with the economic view on fertility, which considers assessing children's costs and benefits for an individual or for a couple. However, not all economic theories relate to the micro level; for instance, we may refer to the influence of the macroeconomic factors on fertility in terms of labour force, occupational rate, productivity, etc.

We could subsume most of the explanatory schemes into three larger categories: *macroeconomic theories*, *micro and/or individual level economic theories* and *macroeconomic theories based on cultural factors*. Rather than creating a random list, we have ordered them chronologically, according to their being fashionable at certain moments in time. This is also to suggest that lately the culturalist theories have been extremely popular and one of the most frequently mentioned paradigms is "the second demographic transition," developed jointly by Ron Lesthaeghe and Dirk van de Kaa between 1985 and 1987 and in the following years. Since we believe the above-mentioned theory to be the most articulated and the most frequently cited nowadays, we will take a closer look at it in order to prove that this approach of the fertility phenomenon is unsatisfactory due to multiple reasons, which we will put forth in the following.

Despite mentioning it on other occasions (Rotariu, 2006), we will start by referring to "the second demographic transition" and the way it came into being. All time-tested theories – forthcoming arguments will prove the classical transition theory to be so – refer only to phenomena comprised within their framework. Yet, it is somehow unusual that several decades ago, the classical transition theory was criticised for not accounting for the post transitional stage, in other words for a time interval situated outside its scope. Among other elements characterising it, the final moment of transition is known to have been defined by the equilibrium level between natality and mortality. However, no reputed demographer has ever claimed the levels of indicators rigorously stay the same and a zero population increase should continue for an indefinite time.

The UN long-range population projections are most likely to have engendered confusion by making use until recently of a rigorous balance that countries with both high and low fertility levels would attempt to reach. The lack of a sound theoretical foundation explaining the ulterior evolution of populations seems to be responsible for the adoption of this very convenient work hypothesis that does not originate in the initial transition theory. Similarly, neither does the equilibrium preceding the transition point out to indefinite time population stagnation. When cumulated data showed that for several decades numerous populations out of the transition stage reached very low fertility levels and no radical changes were foreseeable for the immediate future, experts of the UN Population Division adopted for their projections (target year 2050) fertility levels lower than 2.1 children/ woman[2]. Thus, they have given up the extension of a very unlikely equilibrium for the following half century.

Two terminological errors, not at all innocent, underlie the introduction of the concept "the second demographic transition." The first is related to the inappropriate use of the term transition for what we should rather call change. Indeed, "transition" qualifies the act of passing from a well-defined system state to another, equally well defined. In its classical sense, demographic transition meant the passage from high to low fertility and mortality rates; even if accurate values cannot be provided neither for the start nor for the end of the process, demographers can apprehend exactly its contents. The only mention the theory of the second transition makes as to the final state is that, when transition ends, there follows a new stage in the evolution of populations. Therefore, the use of the term transition is meant to transfer some of the reputation of the old concept onto the new one,

[2] For instance, at the 2006 Revision the target value was 1.85/ woman (United Nations, 2007).

suggesting that a similarly important theoretical construct has been put forth.

The second error refers to the use of the term "demographic" for describing a process that, undoubtedly, originates during the sixties in the heart of Western civilisation, and comprises a wide series of social changes, including the demographic, but is not limited to it. These changes have created the profile of a new civilisation type that has so far been called postmodern, post-industrial, or late/ reflexive modernity etc. Consequently, without denying the existence of these changes, we wish to emphasise the fact that one of the numerous elements that characterise this new social model, *the fertility decrease below replacement level* (the break of balance between births and deaths) *does not necessarily derive from the postmodern society model* (that is from its other features) in a double sense:

(i) it does not appear in all societies at this stage and
(ii) it manifests itself in societies that lack or have not developed all necessary conditions yet.

Let us now take a closer look at the articulations of the respective theory. Firstly, we shall review the factors that have suffered major modifications in the past few decades. Even in their broadest meaning, they can hardly be considered as part of demography; moreover, Lesthaeghe and van de Kaa emphasised and systematised changes that other researchers, independently from them, had already mentioned. Briefly and randomly listed, here are the major *phenomena related to family and fertility* mentioned in this context:

1. Current marriage indicators underwent a rapid and sharp decline, and marriage turned from a quasi-universal into a less frequent phenomenon; longitudinal analysis, with emphasis on the decrease of persons who get married in a generation, subsequently confirmed the trend.
2. The marriage calendar changed while the age at first marriage steadily increased.
3. The divorce rate increased rapidly: marriage cohort analysis later confirmed the intense phenomenon of judicial separation; there were fewer and increasingly unstable marriages.
4. Consensual union markedly increased both among the young (single persons in premarital cohabitation) and among the elderly (divorced or widowed, in post marital cohabitation); generally, free union has replaced marriage to a great extent and is no longer a preliminary, preparatory stage for marriage, as it was initially considered. Marriages preceded by cohabitation do not become more stable.

5. An increasing number of persons use modern contraceptives, most of whom are women who use the contraceptive pill. Indeed, the spread of the contraceptive pill during the 1960s represented a contraceptive revolution, replacing both the traditional pregnancy prevention methods and the abortion practice (where it existed). Other efficient contraceptive means appeared and spread later.
6. Fertility dropped relatively abruptly, the current rates fell rapidly way below the replacement level; this reduction was mostly visible in the countries that benefited from a considerable recovery of fertility known as the *baby boom*.
7. Partially – but only partially! - this can be attributed to another phenomenon occurring at the same time: the change of the birth calendar in the sense of postponing pregnancy ("fertility aging"); the fact is confirmed both by transversal and longitudinal analyses.
8. Extra-marital births rose significantly among both cohabiting and single mothers.
9. Unwanted pregnancies (mostly premarital) and marriages forced by it decreased.
10. Women's status within the household changed due to the diminution of the domestic chores and their involvement in professional career; proof stands the increase of the feminine activity rates.
11. Single households have increased.

An attentive researcher of the theoretical texts on "the second demographic transition" will notice that all these elements (all together or partially) are regularly mentioned. Eventually, the attempt to order and include the phenomena that affected family and couple life in the past few decades into a coherent whole is essential. In order to do this, van de Kaa and his followers appeal to an essentially culturalist explanatory paradigm that attributes all these changes to a shift in the value system including attitudes, aspirations, and ideals of contemporary people. In other words, they view all the above-mentioned changes as a result of essentially cultural factors.

This theoretical approach is based mostly on two ideas: one originates with the famous French historian Philippe Ariès, who emphasised[3] the link between the long-term fertility rates pattern and the attitude towards the children. The central place attributed to children in the bourgeois family (the "king-child") during the first transition would explain the fertility decrease until the interwar period whereas the more diminished place of children in

[3] Among Ariès' numerous studies, the most frequently cited is one published in English (Ariès, 1980).

contemporary couples' concern would account for the present day birth decline. In even simpler terms, the bourgeois family centres on children, with emphasis on quality rather than quantity, so that their number decreases considerably, whereas in the postmodern family children lose not only this privileged position but the interest of their parents, facts that engender a marked decline of fertility.

The second idea, which Ariès derived from Alfred Sauvy, is obviously linked to the first and characterises the first transition as "altruistic" (the family sacrifices itself for the child's well being) and the second as "individualist" (in the sense that the child is sacrificed – actually, births are sacrificed – for the fulfilment of the couple's desires). Essentially, these attitudinal changes were initially considered responsible for the behaviour leading to current very low fertility levels and the resulting demographic imbalance. Later on, the theory has extended to comprise an increasing number of other phenomena in terms of effects on family life (listed above); on the other hand, the shift in attitude towards children has come to be just one among the various elements of a more general change in the value system.[4]

The extension of its content brought about a loss of the *demographic* character of "the second demographic transition." Consequently, it became a theory of change at the level of the family/ couple in Western society of the past few decades. In its turn, the enlargement of the concept added to its importance to such an extent that we could almost claim that whereas the first transition was based on modernisation, the second could be said to be based on the concept of postmodernity. The analogy is, however, risky, as it would set the two theoretical models of transition on equal foot, a fact that lacks grounds due to the flaws of the latter and its explanatory limitations as to the phenomena approached.

However, we could note that, despite its limited referential object, we should not underestimate the importance of the theoretical assumptions underlying the model of the second demographic transition. We consider it an attempt similar to Max Weber's in the field of sociology and the philosophy of history during early 20th Century. The German scholar aimed at replacing a determinism based on material factors (theorized mostly by Marxism) with a social change mechanism based on ideas and values, as can be seen in *The*

[4] In a relatively recent text, van de Kaa synthesises clearly the major founding idea of the respective theory: "Needless to say, Ron Lesthaeghe and I were greatly influenced by Ariès' way of thinking when we conceptualized the Second Demographic Transition as a framework for explaining the remarkable changes in family formation **and** the completely *unexpected and sudden decline* in total fertility that began simultaneously in the countries of Western Europe after the mid-1960s." (van de Kaa, 2004) (Author's emphasis).

Protestant Ethic and the Spirit of Capitalism. Now it was the turn of demography and the sociology of the family to get human behaviour out of the deterministic field (traditionally used for explanations based on material, economic, or institutional factors) and to place it within the system of values to which people adhere. It is an interesting but hazardous attempt since it contradicts a long-lasting demographic tradition that links population phenomena with economic aspects of society,[5] whether we refer to macro or to micro explanatory paradigms, such as models based on the postulates of rational choice theory.

Next, we should clarify further the nature of the cultural shift that includes the modification of the attitude towards children, initially stated as the major factor underlying the contemporary fertility decline. It is not easy to synthesise the contributions of the concept founders and of others since they have only scratched the surface and their discourse was mostly metaphorical. Obviously, a reputed paradigm is used as background: the shift from modern to postmodern values referred to by Inglehart as the "Silent Revolution" also originated in the 1960s, along with the previously mentioned behaviour patterns. Some more concrete elements of the value change process are listed below, adapted from a text authored by Surkyn and Lesthaeghe (2003):

a) Secularisation. Diminishing of the religious impact, decline of traditional religious beliefs, giving up on religious faith.

b) "Egalitarianism." Increasing individual availability/ tolerance/ acceptance of equality, thus discarding differences based on gender, social class, race, ethnic group, religion, culture, geographical area, etc.

c) Civic unconventionality. Increased tolerance to unconventional lifestyles and even to deviant behaviours such as drug consumption, homosexuality, cohabiting, abortions, suicide, etc.

d) Moral unconventionality. Relativism of moral norms and values, refusal of "metanarratives" (Lyotard) such as labour value, belief in progress, respect towards old age, the national/ sovereign state, family etc. (including religion, which we classified separately owing to its importance).

e) Individualism. Valorisation of individual attributes rather than those of the larger/ smaller group to which the person belongs. References have in view the idea of self-accomplishment, concern about oneself, gratification of one's personal pleasures, refusal to sacrifice oneself for the others.

f) Unconventionality of marital (couple) relationships. Greater importance given to the relationship with the other (communication, tolerance, understanding, sexual gratification) than to traditional and conventional aspects

[5] See, for example, de Santis and Livi Bacci's argumentation (2001).

of marriage, tolerance of unconventional couple relationships (acceptance of extra-marital affairs of both partners but refusal of women to accept long-lasting relationships of their spouses, which would alter the affective dimension of the relationship).
g) Orientation towards the "new left". Getting closer to liberal left or green political spectrum, propensity towards protest, and mistrust in institutions and authorities, etc.

The above list could continue with other aspects, but we think it comprises the majority of the most popular theses and gives a comprehensive view of the ideas underlying the theory of the cultural determinations of fertility.

Further, we can turn from the terminological objections listed so far to those pertaining to contents. In our opinion, the structure of the explanatory theory is based on a few ideas (on relationships among the previously mentioned aspects) that can neither be accounted for empirically nor offer a solid logic to the construct. Firstly, holistic explanatory theories based on macro social factors are less relevant for modern populations for which human reproduction rather than being sex-related is increasingly the result of a rational/ conscious decision. Then, the changes in the fertility trends have often been *extremely sudden and unexpected* (as van de Kaa acknowledges in the previous citation) whereas the "cultural" shifts, that is the changes at the level of value systems, mentality structure, attitudes, and beliefs, are long-lasting processes usually accompanied by important structural changes of the social life. Thirdly, my long experience in explaining social phenomena based on factual data, I have noticed that, typically, serious attempts in this field are generated by the extremely clear description of the social framework of human individuals' behaviour patterns and its understanding as transparent acts, in other words as well-motivated goal-oriented activities (for an external viewer). On the other hand, in the case of theories based on general factors, the latter are not so much abstract forces determining strictly human behaviour, but means to illuminate the context and the reasons of these activities. It is only when there are no other explanatory resources that we resort to obscure statements such as "change of mentality", "cultural heritage" etc., which cannot be identified strictly within empirical reality and whose impact cannot be proven in any way.

After these general and somehow abstract considerations, we will state a few more concrete, sometimes punctual, arguments, by focusing mostly on Romania. Our examples/ arguments, concise and randomly introduced, are actually theses that could be developed in longer studies.

1. First, we will illustrate the difference between the classic theory of demographic transition and the new fashionable theories from the point of view of the content and validity of the knowledge offered. We shall use the example of the UN demographic projections covering the period from 1950 and the end of the 20th Century. It is known that UN Population Division revises periodically demographic prognoses, based on the most recent data, elaborating three alternative sets of population figures called the high, average, and low-growth scenarios. For last century projections, the target year was for a long time the year 2000 (current UN projections are being done for 2050).

Therefore, we can make evaluations of the quality of the estimates. G. Caselli and J. Valin present a series of data from UN projections for 2000 in their 2004 study. With their help, we have calculated the data in Figures 1a and 1b. The two graphs refer to the population in the developed countries and, respectively, in the developing countries, showing the three-scenario estimates for 2000. The horizontal line shows the 2000 real figures. It is normal that the nearer to the target year, the more accurate the estimated values, closer to real data; there is no need for any comment here. In order to have an overall view of the quality of the estimates, we have to compare the position of the three lines corresponding to the mentioned variants with the horizontal line. A correct estimate means, on the one hand, a constant positioning of the real value between the high-growth and the low-growth values and, on the other hand, a minimum variation between the extreme values.

A review of the two graphs points out to a conclusion that, for many, would seem unexpected: the estimate quality for the developed countries' populations (for which base data are known to be accurate and consistent) is poorer than that for the developing countries. The explanation is very simple. At the moments of the estimates, the latter countries were passing through demographic transition and the transition theory offered the necessary bases for the work hypotheses (especially for those related to fertility); hence, the extremely accurate positioning of the real situation between the two extremes, in spite of the lesser quality of the statistical data that initially characterised these populations. In contrast, most of the developed countries were in the post transitional stage, for which current theories do not offer any support for the future evolution of the demographic phenomena, hence the precarious nature of the estimates. Let us add that, overall, the accuracy of the total world estimate (which we have not illustrated with a graph) is due to the increasingly prominent place of developing countries within world demography.

Figure 1a. The three estimate scenarios for 2000; developing countries' population (in millions) according to target year

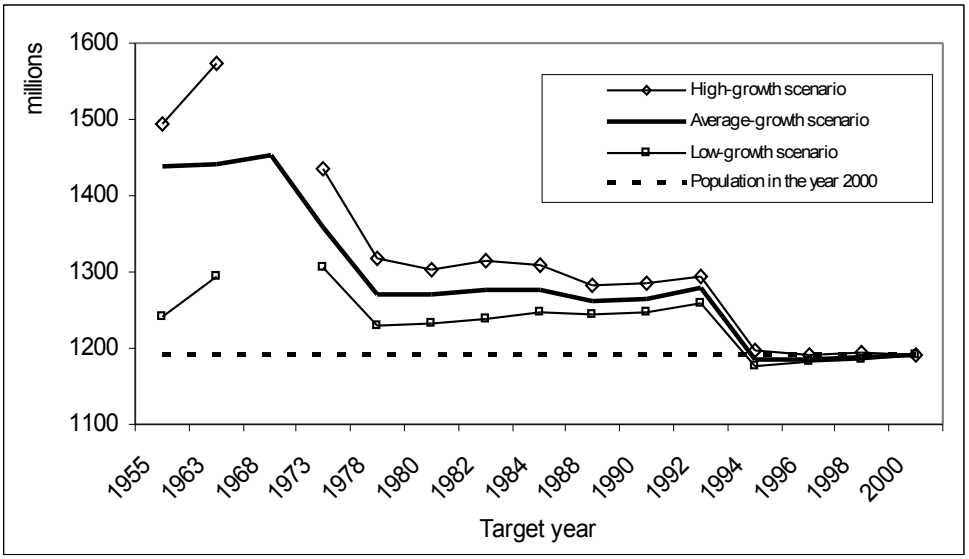
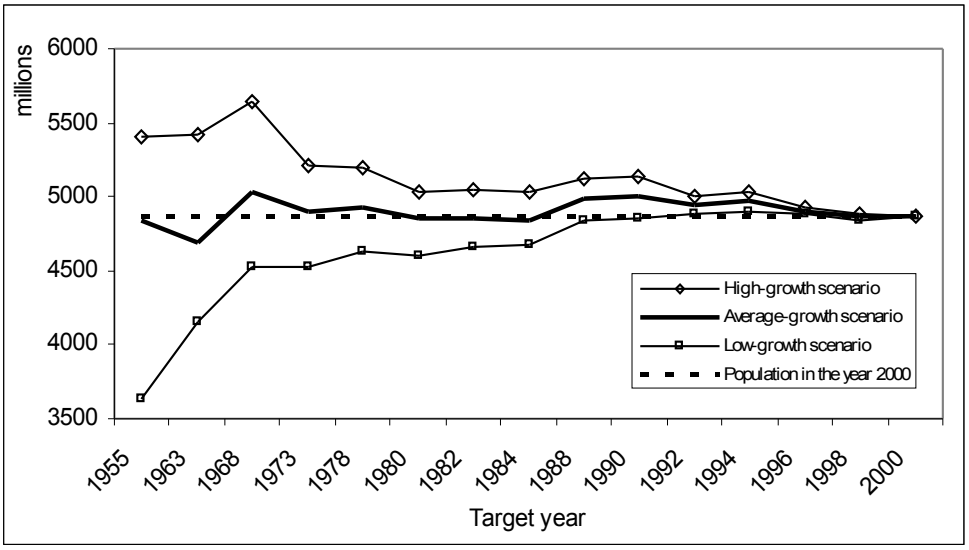


Figure 1b. The three estimate scenarios for 2000; developed countries' population (in millions) according to target year



2. Secondly, our arguments, based on Romanian demographical data, will emphasise the fertility issue. Figure 2a shows the evolution of the birth/ death rates covering the period between 1930 and 2005. Figure 2b shows the total fertility rate (TFR) for the same interval.[6] Indeed, after 1930, a sharp natality/ fertility decline started that, against the background of high marriage rates and the marriage stability characteristic for the period signified the decrease of conjugal fertility; in other words, there was an increased use of prevention and interruption of the married women's pregnancies. During the war and the post-war period, and the first years of the communist regime, fertility increased slightly and stagnated until about 1957 when, following the Soviet model, abortion was legalised in Romania as well. The decade between 1957 and 1966 registered another sharp fertility decline reaching a value below replacement level. In the autumn of 1966, Ceausescu issued his famous decree banning abortions whose provisions, with slight modifications, were enforced until 1989 and whose effects are evident in the graph. However, in spite of the drastic coercive measures, the fertility trend sloped down and all the tensions accumulated in those years seem to have discharged suddenly after 1990 when fertility dropped sharply to 1.3 children per woman (in 1994-1995), a rate that has remained stable so far.

The important thing to notice is the fact that, in spite of the general opinion, *radical decline of fertility in Romania is not necessarily linked to the period when the communist regime legalised the abortion*. It starts somewhere in the middle of the interwar period and, if it had not been for the war and the subsequent events, that trend is most likely to have continued as such[7] and would have reached levels even lower than the 1966 figures. Similarly, mortality would have followed a descending slope (certainly, more slowly than fertility) and we would have had the end of the transition in Romania in the late sixties. However, let us not risk such hypotheses and analyse what actually occurred. In the above-mentioned decade, Romanian women's fertility decreased from 2.9 children, in 1956, to 1.9 in 1966, a remarkably abrupt decline, which made Romania, together with other countries such as Japan and Hungary, rank among the nations with lowest fertility rates.

The example of Romania is relevant in several ways; among them, the manner in which political regimes applying strong constraints (authoritarian or totalitarian) can influence the "natural" course of evolution, in the sense that it

[6] If not otherwise mentioned, all demographical data concerning Romania are provided by various publications of the National Institute of Statistics.

[7] Our estimates, during the mid-thirties the TFR decreased in Romania from 4.5 children/ woman to 3.4, in other words Romanian families reduced their descendants on average by one child.

can produce, by drastic measures, significant variations of phenomena, and can slow down evolution. However, in spite of the slower pace and of meanderings, the trend eventually fell back into the logical course. There is yet another thing that is of interest to our study. Romania, a country that by the mid-sixties had already passed through the two brief intervals of abrupt fertility decrease (the first interrupted by the war and the set up of a new regime and the second by political-administrative measures) makes an interesting example by the following:

a) Romania, similarly to Hungary and Japan, does not belong to the hard nucleus of postmodern civilisation;

b) no major cultural shift, in the sense of value system changes, occurred in Romania in the late 1950s and early sixties, when fertility was obviously heading towards a rate lower than the replacement level;

c) from a social and economic point of view, Romania was at that time a country with strong rural and agrarian components (the industrialisation process was just beginning), with low educational level and whose population resorted to abortion as a method of fertility control;

d) to sum up, Romania was on its way to end the transition stage and enter a subfertility stage without practically meeting any of the requirements of the cultural theorists.

Figure 2a. Evolution of birth rate and death rate in Romania, 1930-2005

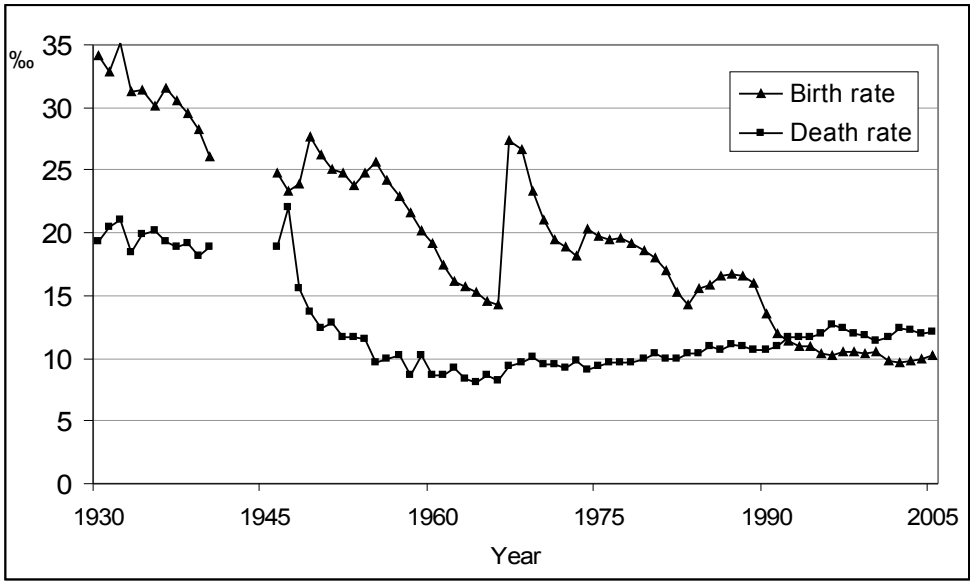


Figure 2b. Evolution of the TFR in Romania, 1930-2005

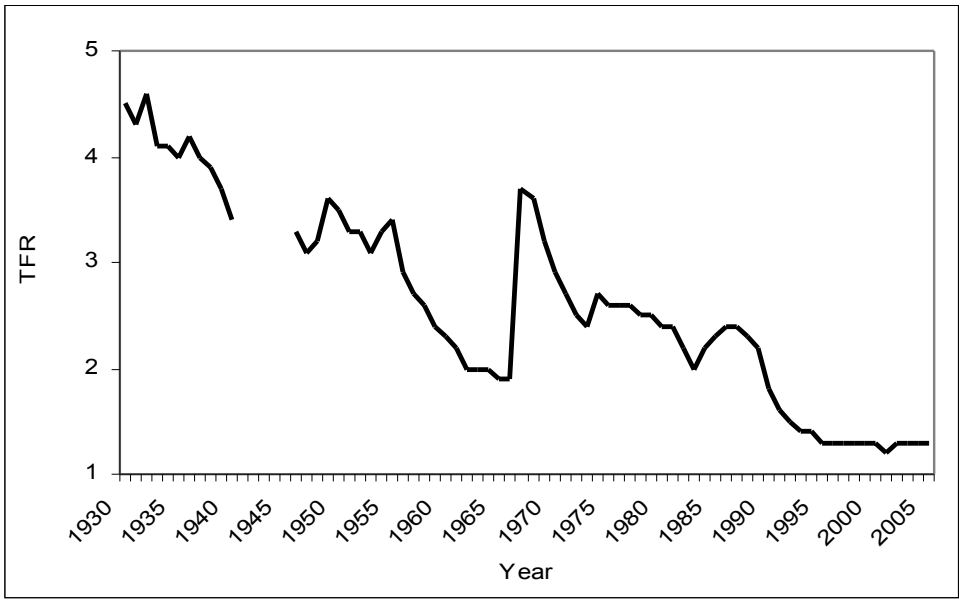
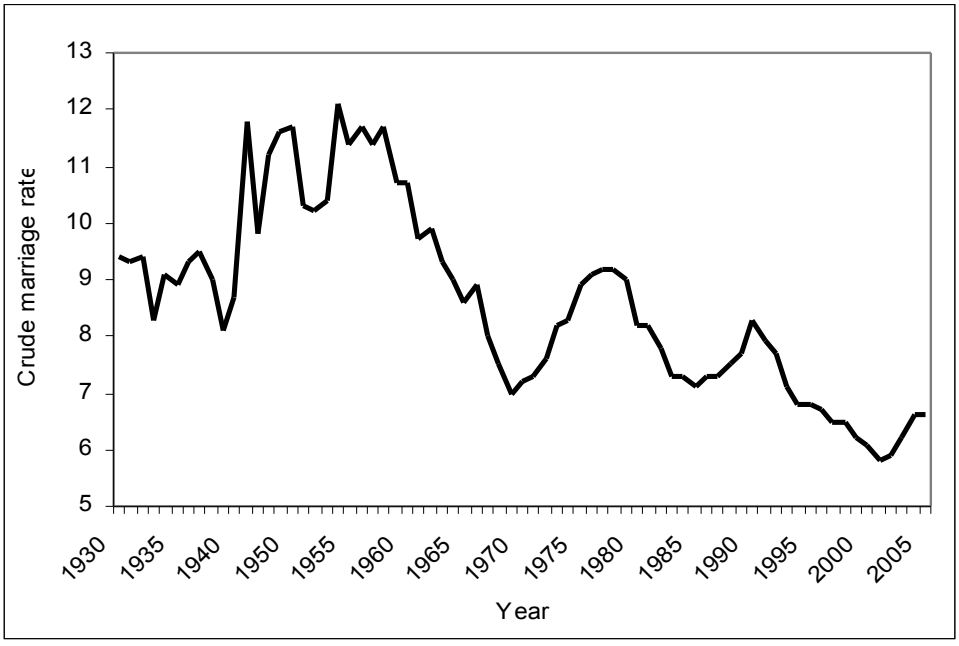


Figure 3. Evolution of crude marriage rate in Romania, 1930-2005



Following the fertility trend in Romania, we notice that at the end of the communist period, in 1988 and 1989, in spite of all the pressures and repression of the totalitarian regime, fertility got closer to the replacement level (2.2 children per woman). In the first year of freedom, 1990, the value of the TFR decreased to 1.8 children and became stable about 1995, with a value of 1.3 children/ woman. Interestingly, this very low and *constant* fertility rate for over a decade is the result of *variable* methods. Actually, whereas at the beginning of the 1990s, abortion was the major regulation factor,[8] birth-control methods have prevailed lately, so that the abortion rate has become sub-unitary. Again, significantly for our approach, *the sudden and abrupt fertility decrease manifested itself not because of some change in people's world or life views but because of the disappearance of some artificial barriers from the previously started evolution.* This supports both our claim that the transition period in Romania could have ended in the 1960s and the hypothesis that what happened after 1990 could have occurred in the interval between 1970 and 1980.

3. The third set of arguments against "the second demographic transition" deals with demographic phenomena other than natality and mortality. We will see that not all trends meet the requirements set by this theory.

As far as marriage is concerned, Figure 3 shows the evolution of its simplest characteristic indicator, the crude rate. Overall, in spite of high variations generated by social and political events as well as by the age modifications, there is a decreasing trend. In other words, the population of Romania, which had been previously been characterised by an intense nuptiality,[9] started to get less involved in the marriage institution, even if part of the decrease is also attributable to the second process evident after 1990: the increase of age at first marriage, that is the postponement[10] of the marriage moment. Indeed, as Figures 4a, b, and c point out, the age at first marriage increased spectacularly in two decades: from 22.8 years old in 1987 to 25.1 in 2005, with two and a half years difference between urban (26.1 years old) and rural (23.5 years old) areas. This process is linked, (though not perfectly) to a third, the increase in mother's age at first birth, also shown in Figure 4.

[8] Between 1990 and 1992, there were over 1,000,000 abortions to 300,000 births, which is a rate of three abortions to one birth.

[9] The censuses made in the late 20th Century registered among subjects aged 50 to 60 only 2-4% persons who had never been married.

[10] Demographers are well aware of this process; there are even methods to measure the impact of postponement on current indicators. There is one problem, though; in the absence of longitudinal analysis, we cannot find out whether it is a matter of postponement only or postponement and diminution. In the present case, both aspects are likely to have a significant presence.

Figure 4a. Evolution of mother's age at first marriage and at first birth in Romania, 1980-2005

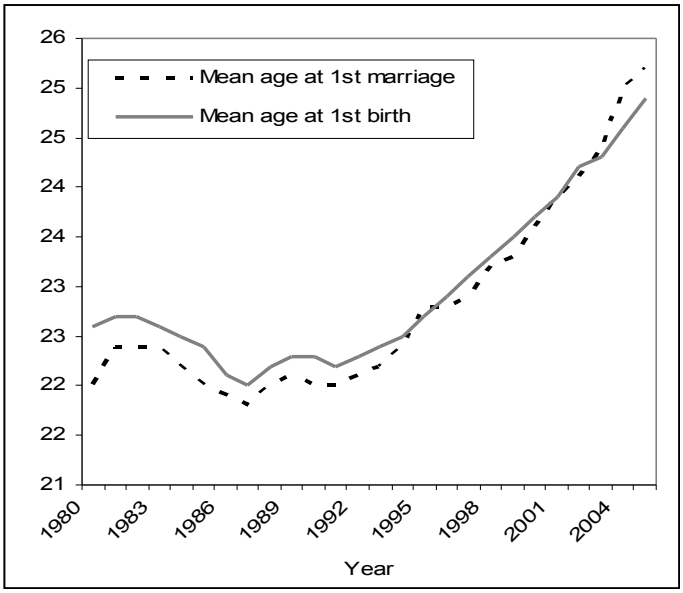


Figure 4b. Evolution of mother's age at first marriage and at first birth in Romania 1980-2005, in urban area

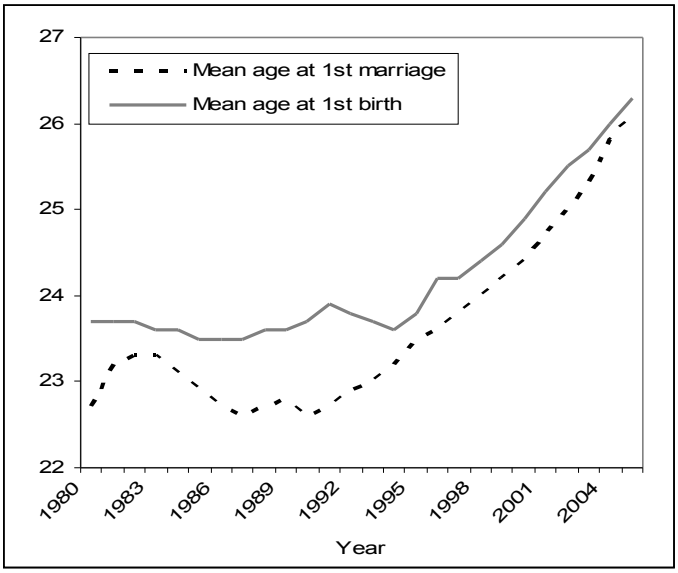
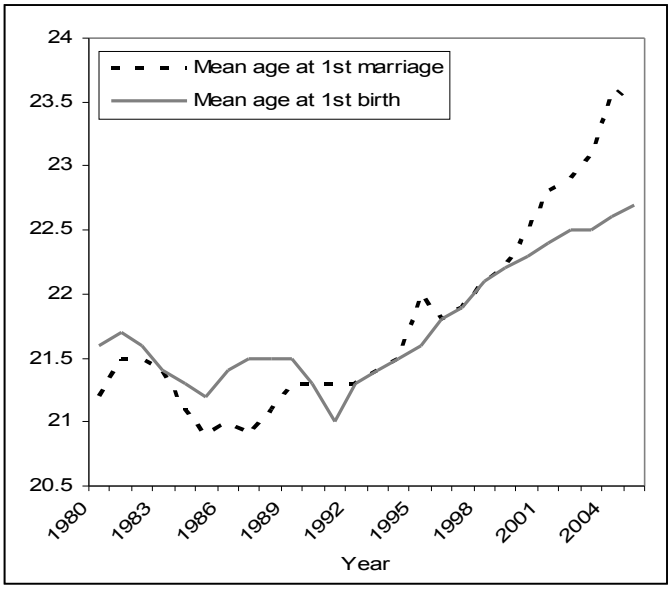
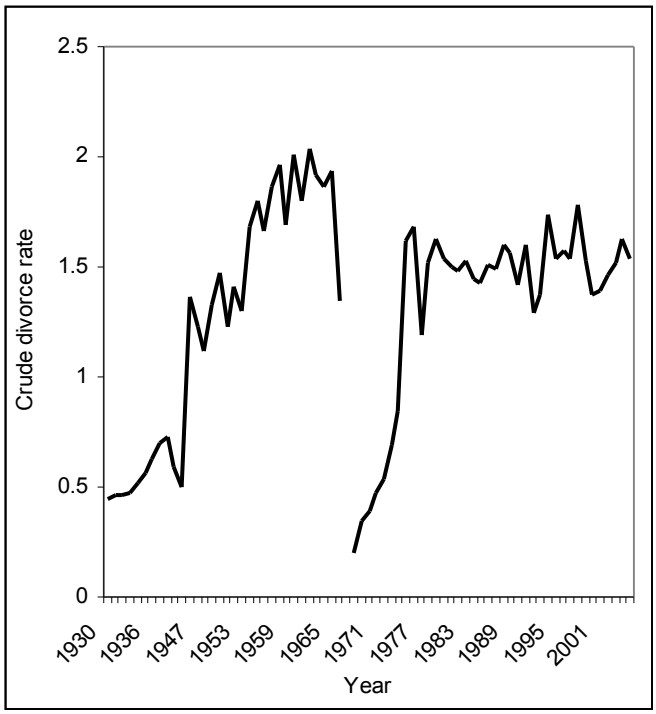


Figure 4c. Evolution of mother's age at first marriage and at first birth in Romania 1980-2005, in rural area



Though with a certain delay, the evolution of the three phenomena – the decrease of marriage intensity, and the increase of mother's age at first marriage and at first birth – places Romania on the same trajectory with the other European populations. Actually, these are the only family and reproduction related elements that match the described theoretical model. Indeed, when we consider other phenomena, they differ significantly from the general assumptions. In this sense, in contrast with other European countries, Romania's divorce rate has not increased lately, maintaining its value from the early 1970s (as shown by Figure 5) when the impact of the radical measures against divorce imposed by the dictatorial regime in 1966 subsided. The high marriage stability (the crude divorce rate is set around 1.5‰) is due mostly to some particular features of present-day Romanian society, which lead married couples into strategies that do not frequently envisage divorce.

Figure 5. Evolution of crude divorce rate, 1930-2005 (‰)



Extra-marital births are another interesting phenomenon worth considering and explaining. The increasing number of these births (some of the Northern countries registered percentages higher than 50) is considered characteristic for postmodern societies, which entails the change of the woman's status in the couple (emancipation, attaining economic independence etc.) and the growing number of consensual unions as an alternative to marriage. In the past few years, Romania has registered a similar phenomenon but to a lesser extent. The extra-marital births almost doubled from 15% in 1992 to 29% in 2006, a fact that signals that the adoption of the Western model is almost imminent. Unfortunately, there are only few statistical data on the situation of these mothers, but the available figures show that most of them are extremely young,[11] live in the rural area and have low educational

[11] We can also infer it from Figure 4, where the curve showing mother's age at first birth is several times below the mean age at first marriage registered for that particular year; this difference is extremely visible in the rural area (Figure 4c), where births occur way below marriage age!

attainment. They are indeed unwanted pregnancies that occur at young girls from poor families and with a precarious educational level (early dropouts) and women who live in consensual union but adopt a pre-modern lifestyle. Some of these children may result from more "evolved" situations but their number is difficult to find out and, most likely, the large number of out-of-wedlock births registered after 1990 is attributable rather to the disappearance of the social control methods used by the previous dictatorial regime.[12] To conclude, transition to postmodern society does not account for the number of extra-marital births; on the contrary, it is the prevalence of a pre-modern lifestyle, lack of culture and education, birth control included.

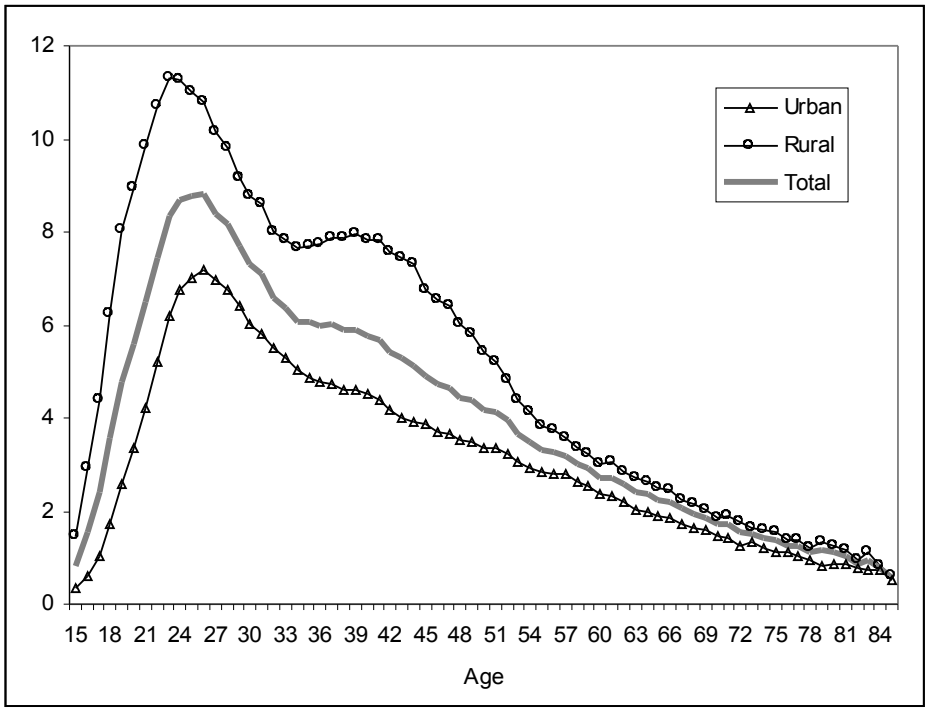
More and more frequent consensual unions are closely linked to previously mentioned phenomenon and largely generate it. In Romania, the 2002 Census provides the only data available: 400,000 such couples were registered, a figure that somehow underestimates the incidence of the occurrence. However, both this and the previous facts confirm the presence of pre-modern features in our society that in this part of Europe was more permissive in terms of civic cohabitation than their Western, catholic and protestant, counterparts. Indeed, there is a higher occurrence in the rural area, as the graph in Figure 6 shows, and it applies across all age groups, a further proof that it is the least evolved population that adopts this lifestyle in Romania. Moreover, an analysis based on ethnical categories corroborated these findings: within the majority population, i.e. Romanians, there are 79 women living in free union to 1,000 married women; then there are 78 Hungarian women cohabiting to 1,000 married women; finally, 876 Rroma women lived in free union at 1,000 legally married. These figures account for 47% of Rroma women living in free union as compared to 7% of the Romanian or Hungarian women. No matter what, by no means could we state that the lifestyle of Rroma population[13] illustrates the model of the postmodern couple, be it only because its fertility rate is significantly higher than that of the other ethnic groups. The Census data show that there is an average of 2.1 children per a Romanian/ Hungarian woman aged 45-49 whereas there are 4.1 children for a Rroma woman of a similar age, that is almost double.

[12] An argument supporting this statement is the fact that the number of out-of-wedlock births registers a fast increase in the 1990s and a significant slowing down in the following decade.

[13] All studies on issues concerning quality of life, poverty, or social exclusion carried out in Romania in the past fifteen years have shown that, undoubtedly, Rroma people have the most precarious situation; their way of life and their lifestyle both perpetuate and deepen the disparity between them and the rest of the population (they are captive in a vicious circle of poverty and social exclusion).

In her comments on the data of a 2005 survey, R. Popescu (2007) reveals similar features for persons who declare living in free union: a great number of Rroma people, low income and educational levels, rural residence. The author finds this "surprising" because, she reminds us, cohabitation is "an indicator of postmodern lifestyles" (p. 195). Similarly, it is surprising for her that this practice does not occur only among youth, so it is not a matter of "juvenile cohabitation" but a phenomenon spread across all age groups. Actually, there is nothing surprising about it because this is not a postmodern behavioural pattern; on the contrary, in this area of Europe widely spread pre-modern behavioural patterns have lived on, as confirmed by historical demography studies.

Figure 6. The percentage of women living in consensual union, by age and urban/rural residence



4. The fourth set of arguments will consider the contemporary Romanians' "value system" and its links with the above-mentioned aspects. We will only briefly refer to the topic of women's attitudes towards family and

children since we elaborated on it in 2006, based on findings of our research on a national sample of fertile women.

Both our findings and those of opinion polls published periodically in the media or journals[14] show that Romanians' adherence to postmodern, individualistic values is relatively low in favour of a set of traditional values, attitudes, and beliefs. For example, our survey emphasises that:

- almost ¾ of Romanian women are centred on family life and only a little above ¼ on career;
- over 85% consider that parents have to "sacrifice" themselves for their children instead of pursuing their own interests;
- about 85% do not believe that marriage is an obsolete institution;
- almost 95% consider that a child has to grow up in a complete family (with mother and father);
- over 90% believe that a man or a woman should have at least one child in order to reach personal fulfilment.

Additionally, all surveys conducted since 1990 have invariably noted that the Romanian population has a high level of confidence in the church and in the army.

Obviously, value orientation is not homogenous; some aspects prevail and a few components show that some of the major opinion trends are similar to those encountered in Western countries, contradicting the view that Romania's population is a homogenous mass, which refuses to acknowledge the value changes occurring in Western countries. However, the majority of the population is still caught in the traditional ideology of the first modernity (valorisation of the family, gender inequality, confidence in the state institutions or in the adjusting and regulating mechanisms of social life etc.) or even of pre-modern societies, rural and agricultural, which have survived in this area of Europe until recently. Consequently, contemporary Romanian society is a non-homogenous conglomerate of various trends: the incipient postmodern have added to the traditional-bourgeois and the traditional-rural, often with great discrepancies among them. Yet, the new acquisitions are not yet statistically significant and characterise mostly the young, urban, highly educated segment of population.

To sum up, we will highlight again our major assumption, which is that the fertility decrease below the level of balance with mortality does not originate in the mentality changes considered staple values of postmodernity.

The marked fertility decrease occurred during the interwar period,

[14] The volume coordinated by B. Voicu and M. Voicu (2007) comprises extremely consistent contributions on many of the components of the Romanian population's value system.

before the transition to postmodernity, in many Central European cities and even more noticeably during the 1960s in a series of countries such as Romania, Japan, and Hungary, which do not belong to the "hard nucleus" of postmodern avant-garde countries. The family model of the Japanese or other Asian countries with very low fertility rates does not match the one stated by "the theory of the second demographic transition" not even to this day. Moreover, there is no evidence that in the future these countries, or others such as the Muslim ones, situated already at the level of 2 children/ woman and on their way to complete the classical transition, will adopt this model.

Secondly, postmodernity does not induce either logically or *de facto* a marked subfertility. As it is known, the countries that form the hard nucleus of postmodernity (situated mostly in western and north-western Europe) are closest to the equilibrium between births and deaths with a TFR of 1.7-2 children/ woman whereas in the south, centre and east of the continent the level reaches a low of 1.2-1.5 children.

Thirdly, subfertility is compatible with a series of *behaviour patterns* and with certain *values* that neither pertain to nor match the features of postmodernity. Furthermore, as previously mentioned, it is very difficult to understand how a very fast, sudden and widespread evolution of fertility can be attributed to the change in the value system, a naturally very slow and long-lasting process. Let us remember that one of the major arguments of the supporters of fertility's cultural determinism is based on survey data correlations between indicators of adherence to a value model on the one hand and those of opinions and behaviour patterns related to fertility and family on the other. More precisely, those that adhere to components of postmodern value system are on average more prone to express opinions on fertility and family along the mentioned lines and even practice cohabitation and divorce to a greater extent, having on average fewer children, than those with an opposing value system. Yet, these correlations (no matter how sophisticated the statistical models used) are not enough evidence that there is a real determination relationship between the stated factors, even less in the context that correlates value options with fertile behaviour. Unfortunately, we cannot further elaborate here on this idea, which is worth all our attention in the sense that it needs a serious critical analysis of the texts that, based on survey data, try to persuade us that subfertility is the consequence of the passage to the postmodern value system.

References

Ariès, Philippe. (1980). "Two successive motivations for the declining birth rate in the West", *Population and Development Review*, 6 (4):645-650.

Caselli, Graziella, Vallin, Jacques, Wunsch, Guillaume. (2002). *Démographie: analyse et synthèse,* II., *Les déterminants de la fécondité*, Paris: INED.

Caselli, Graziella, Vallin, Jacques, Wunsch, Guillaume. (2004). *Démographie: analyse et synthèse, V. Histoire du peuplement et prévisions*, Paris: INED.

Caselli, Graziella, Vallin, Jacques. (2004). "Les projections de population mondiale des Nations unies", in Caselli, Vallin, Wunsch, *Démographie: analyse et synthèse, V. Histoire du peuplement et prévisions*, Paris: INED: 339-404.

Popescu, Raluca. (2007). „Valori ale familiei în România şi Europa", in Voicu B., Voicu M.(eds), *Valori ale românilor, 1993-2006*, Iaşi: Institutul European: 181-204.

Rotariu, Traian. (2006). „Romania and Second Demographic Transition. The Traditional Value System and Low Fertility Rates", in *International Journal of Sociology*, vol. 36, No.1.

De Santis, Gustavo, Livi Bacci, Massimo. (2001). *Reflections on the economics of the fertility decline in Europe*, presentation at Bad Herrnalb, Germany, 23-28 June 2001.

Surkyn, Johan, Lesthaeghe, Ron. (2003). *Values Orientations and the Second Demographic Transition (SDT) in northern, western and southern Europe: An update*,

http://www.ssc.uwo.ca/sociology/ftsc/Surkyn%20Lesthaeghe%20SDTeurope.pdf

UNITED NATIONS (2007). , *World population prospects. The 2006 Revision. Highlights*, New York.

van de Kaa, Dirk J. (2002). *The Ideea of a Second Demographic Transition in Industrialized Countries*, paper at Sixth Welfare Policy Seminar of the National Institute of Population and Social Security, Tokyo, http://www.ipss.go.jp/English/WebJournal.files/Population/2003_4/Kaa.pdf

Voicu, Bogdan, Voicu, Mălina.(2007). *Valori ale românilor, 1993-2006*, Iaşi: Institutul European.

The Structure of Recent First-Union Formation in Romania

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Abstract: By European standards, consensual first unions have been rare in Romania, and they remain so even though their incidence has increased by a factor of almost five since the early 1960s. Rates of conversion of consensual unions into marriages have been cut in half over the same four decades or so, and marriage rates have declined by a similar factor since the fall of state socialism, which is more dramatic because this period is so much shorter. There have been strong ethnic differentials in union-entry rates in the country.

Keywords: first-union formation, cohabitation, marriage, conversion of cohabitation to marriage, Romania

1. Introduction

There is a general impression that there is very little non-marital cohabitation in Romania (e.g. Mureşan et al., 2008). This does not really square easily with other findings by Mureşan (2007a, Table 5.5), who has estimated that one-fifth of all Romanian women would have entered a consensual union by age 40 according to the data for 1980-89 and that as many as over one-third would do so according to the data for 1996-2005.[1] In fact, cohabitation may not be as rare in the country as is often supposed. In order to provide better insight into the issue of first-union formation, we use this paper to give an account of the size and structure of the incidence of marital and non-marital first-union formation over the period 1960-2005, much in the spirit of Hoem et al. (2007), where a brief extract of some of our results has appeared in a comparative context. We concentrate on the incidence (or entry "risk") because it is more sensitive to change over time and to differentials between population groups

[1] Each estimate is produced by a competing-risk period life-table computation of first-union formation with entry into marriage as the competing risk, bassed on data from the national Gender and Generations Survey.

than other representations of union formation. We show that over the years since 1960 there has been a steady growth in the incidence of cohabitation. This increase is quite surprising, since the rigidity of the Romanian political system before 1989 must have suppressed the individualization of family forms suggested by the narrative of the Second Demographic Transition (Lesthaeghe and van de Kaa. 1986, Sobotka 2008) and generally prevented the change in values implied by the growth in non-marital union formation.

2. Data and method

We are fortunate in having early access to the data from the first wave of the Romanian Gender and Generations Survey (GGS), conducted in 2005. We use single-decrement intensity-regression to bring out the impacts of the risk factors included in this survey. We study entry into marital and non-marital unions separately and describe each of our two intensities by a piecewise-constant proportional-hazard model with age attained as process time and some fixed and time-varying covariates.

In this analysis, fixed covariates include some indicators of the respondent's socialization, namely whether at age 15 she lived with both her parents and whether she lived in an urban or rural setting.[2] Another fixed covariate is the respondent's self-reported *ethnicity* (Romanian, Hungarian, Roma, or "other"). As reported, Romanians contribute some 90 per cent of the exposure time observed in our data, the Hungarians give some 8 per cent, and the Roma constitute a little less than 1 per cent. The specification of our other fixed covariates appears in Table 1 later in this paper.

To account for the impact of a pregnancy (which a priori we expect to boost the entry intensities), we include a time-varying covariate which we call *parity-and-pregnancy status*. A woman is counted as childless and non-pregnant until nine months before her first birth, as childless and pregnant throughout the pregnancy, and as a mother after the arrival of her first child. (Note that we have no direct observation of pregnancies in our data, so we can only impute her pregnancy status when we know the time of her birth. Since we are dealing with the time until a woman first enters a union, there is little observed exposure after her entry into motherhood.)

Another time-varying covariate in our analysis is the respondent's *educational attainment*. For this covariate the first wave of the GGS (our data)

[2] We have also included the number of siblings in our analysis, since studies sometimes show that individuals with (more) siblings are more likely to form unions than individuals who grew up as an only child. The impact of the number of siblings has been so small in our study, however, that we do not even report their relative risks in Table 1 below.

contains only her educational attainment recorded at the time of the interview and the month in which she reached that attainment according to her own report. From this information we impute her educational progress using a method suggested by Hoem and Kreyenfeld (2006).

We finally pick up the change in effect over time by including a third time-varying covariate called *period*. We have divided the years between 1960 and 2005 into five-year periods (1960-64, 1965-69, …, 2000-2005). For each such period we take the entry risks to be constant, but they may (and apriori probably will) vary from one five-year period to the next. For a comparison between the time trends in the intensities of our two competing risks we apply a technique described most completely by Hoem and Kostova (2008), a procedure where the mode of union formation appears formally as a covariate additional to the real risk factors. Following the recommendation of Hoem et al. (2007, Appendix) we disregard differential impacts of our risk factors in this part of our study and use them only as control variables intended to hedge against compositional effects.

3. Trends and levels in entry risks since 1960

The trends in entry risks appear in Figure 1, in which we have plotted maximum-likelihood estimates of the period-specific entry risks relative to the marriage intensity in 1960-64.[3] In the language of classical demographic methodology, the trends have been standardized (using indirect standardization) with respect to the control variables listed in Table 1 below. It is immediately apparent in Figure 1 that the incidence of entry into cohabitation is much lower than that of marriage formation. We also see that there was a strong and sudden drop in the latter after the early 1990s; the marriage intensity was cut in half over the decade after the fall of state socialism. In the incidence of cohabitation there was a steady growth over the 40-odd years of our period of observation. In fact we see an increase by a factor of between four and five between the early 1960s and the early years of the present century. The low level of the incidence of cohabitation is visible similarly in the age profiles given in Figure 2, which is based on single-decrement models for our two competing risks.

[3] Using the symbolism suggested by Hoem et al. (2007) we include the two entry intensities jointly in the analysis by specifying the model $A+B+CD$, where factor A stands for Age, B for the combination of Background factors, C for Calendar period, and D for Decrement, i.e., for entry into marital vs. non-marital first unions. Note that we use C and D in interaction, and that this is the only interaction included.

Figure 1. Trends in union-entry risks, model A+B+CD, Romania

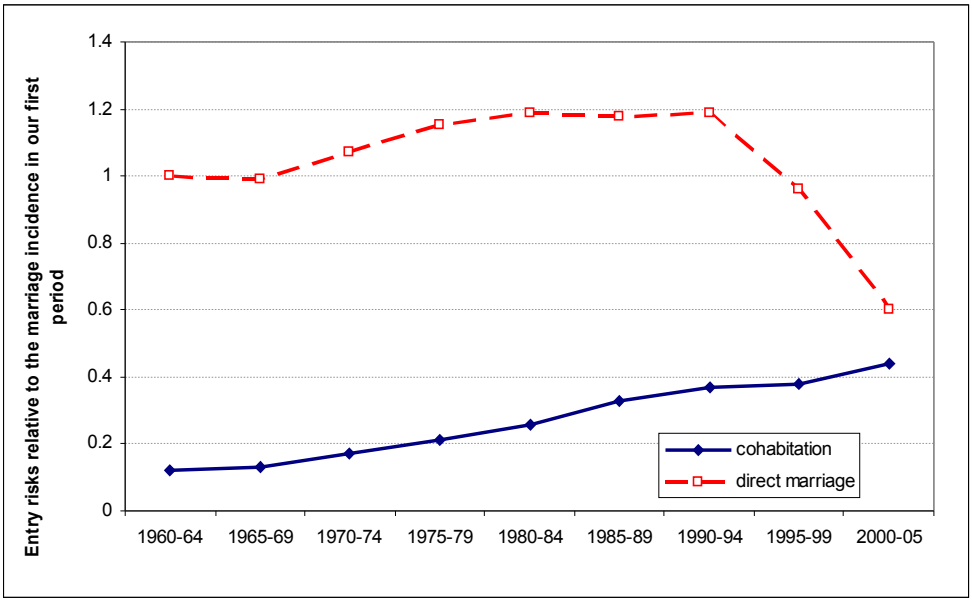
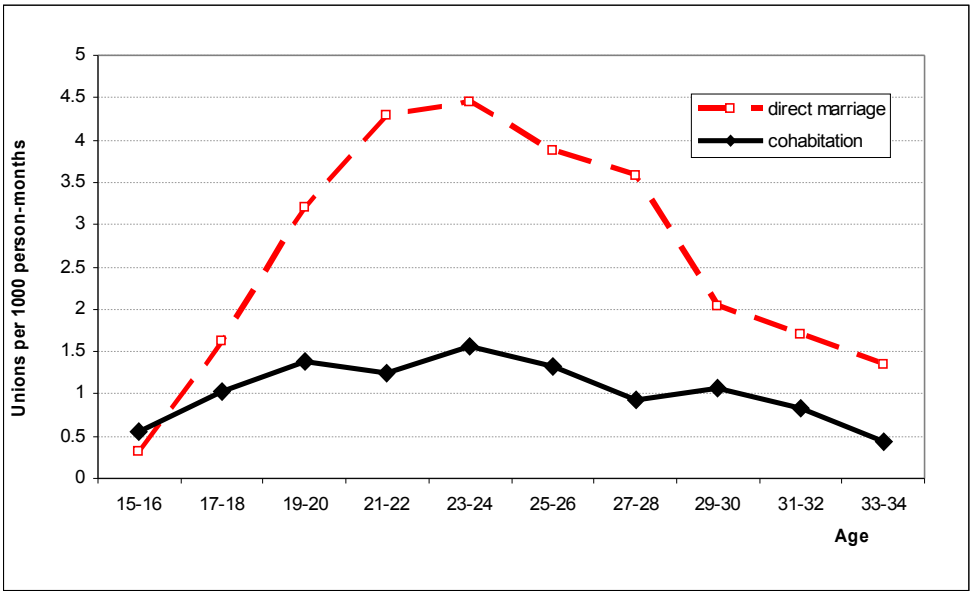


Figure 2. Age profiles, single decrements. Romania, A+B+PE+C



4. The structure of single-decrement first-union entry risks

Figure 2 displays the baseline hazards in models where we have estimated entries into marital and non-marital first unions separately. The effects of our other covariates appear in the form of the two first columns of relative risks in Table 1 (plus the interaction in its Footnote d). The baseline level on each covariate is indicated by a relative risk of 1 (without decimals). Note that risk levels cannot be compared *across* the two modes of union entry.

As we see from the coefficients for the parity-and-pregnancy status, the arrival of a pregnancy *will* boost the rate of entry into either kind of union, as expected. There are also great differences in union-type-specific entry rates among the various ethnic groups. While Hungarians and "other" non-Romanian women have particularly low rates of entry into consensual unions, the Roma have particularly high rates. The latter can most likely be explained at least partly by the different perception among the Roma of what in fact is a marriage as acknowledged by their own community. (See, e.g., Koytcheva 2006, Section 4.5.2).[4] This is probably also behind the low rate of conversion of consensual union into marriages among the Roma respondents that we will meet below.

In our model for entry into a non-marital union, the ethnicity covariate (Factor *E*, say) turns out to appear in a strong interaction with whether the respondent lived with both parents at age 15 (Factor *P*).[5] We show the interaction in Footnote *d* of Table 1 and see that Romanians and particularly Roma have strongly elevated entry risks for cohabitation if they did not live with their parents at age 15. Not living with the parents at that age may be a sign of early entry into adulthood, which perhaps is a particularly important determinant (or in fact a consequence) of union entry for the Roma.

Women who grew up in a rural district have increased rates of entry into either type of union. Finally, as is common in most populations, our respondents have a reduced tendency to enter a union of either type as long as they are enrolled in education, and once they have finished studying, their rates of entry into marriage tend to increase with educational attainment while their entry rates for non-marital unions decrease.

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[4] The questionnaire invited a union to be regarded as a marriage only if it was registered as such by the authorities. Otherwise it was supposed to be recorded as a consensual union.

[5] In our model for entry into *marriage*, adding the same interaction causes divergence of the iteration process that we use to find the maximum likelihood estimates.

Table 1. Relative risks for control variables in single-decrement models

		Mode of union entry:		Conversion of cohabitation to marriage[b]
		Cohabitation[a,c]	Marriage[a]	
Parity-and-pregnancy status				
	Childless*	1	1	1
	Pregnant**	7.93	8.20	1.60
	Mother	0.75	0.71	1.09
Lived with parents at age 15				
		(Romanians[d])		
	Yes	1	1	1
	No	1.73	0.93	0.77
Ethnicity		If lived with parents at age 15[d]		
	Romanian	1	1	1
	Hungarian	0.57	1.05	0.53
	Roma	1.80	0.75	0.28
	Other	0.33	1.26	0.53
Location at age 15				
	Urban	1	1	1
	Rural	1.23	1.27	1.11
Education				
	Enrolled	0.22	0.35	1.52
	Low	1	1	1
	Middle	0.60	1.02	1.59
	High	0.54	1.29	2.05

Notes:

* Childless and not pregnant

** Childless and pregnant

[a] Standardized for current age (= process time in columns 1 and 2), calendar period, and number of siblings. (Effect differentials in the latter factor are ignorable for each entry risk.)

[b] Correspondingly standardized for union duration (= process time in column 3), current age, calendar period, and number of siblings. Note the different role of current age (now a time-varying covariate) in this column. For age effects, see Figure 5.

[c] Model with interaction between ethnicity and indicator of whether lived with parents at age 15.

[d] The factors "ethnicity" and "whether lived with both parents at age 15" appear in interaction, as follows:

With parents?	Romanian	Hungarian	Roma	Other
Yes	1	0.57	1.80	0.33
No	1.73	0.51	4.98	0.00

5. Conversion of a non-marital to a marital union

In many populations, a consensual union is seen as a temporary arrangement on the way to marriage. To the extent that this is the case in the Romanian population, we would expect non-marital unions to be converted rather quickly into marriages. When behavior is represented by means of intensities, this would show up as high rates of union conversion at short union durations, which is also what we find in plots like Figure 3, which shows two versions of the outcome of a model specification of type *UC+B*. In Figure 3a, the interaction between union duration (Factor *U*) and calendar period (Factor *C*) is shown with duration along the *x*-axis and with one curve for each period. Figure 3b is a different take on the same interaction, in that it shows how the conversion risk at each duration (measured in groups of months of duration) develops over calendar time. In both representations we see that unions are converted (from non-marital to marital status) most readily at early durations, but that this tendency is dampened over time and essentially disappears as we get into the first years of the 21st century.

Figure 3a. Conversion risk by duration of union, for selected periods. Romania 1960-2005

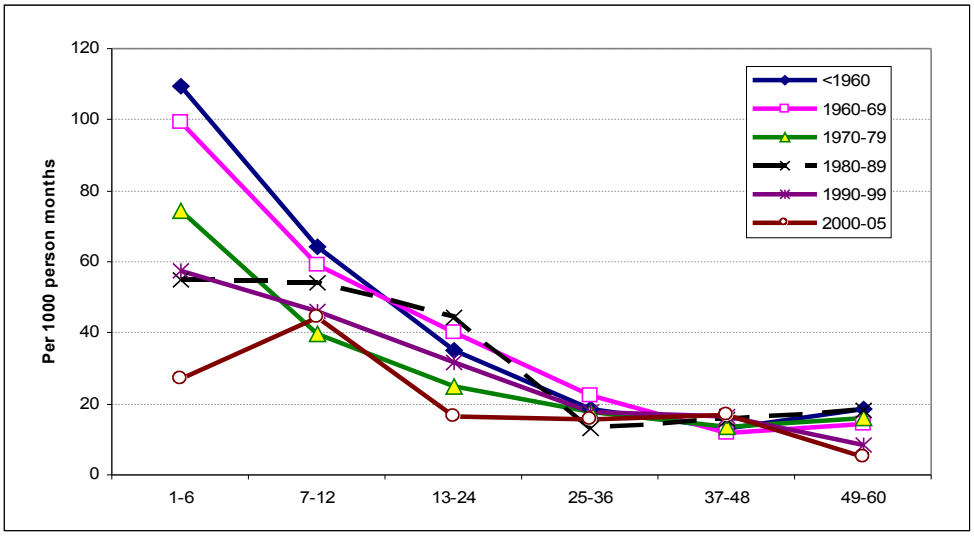


Figure 3b. Risk of union conversion, by period, for selected months of duration. Romania 1960-2005

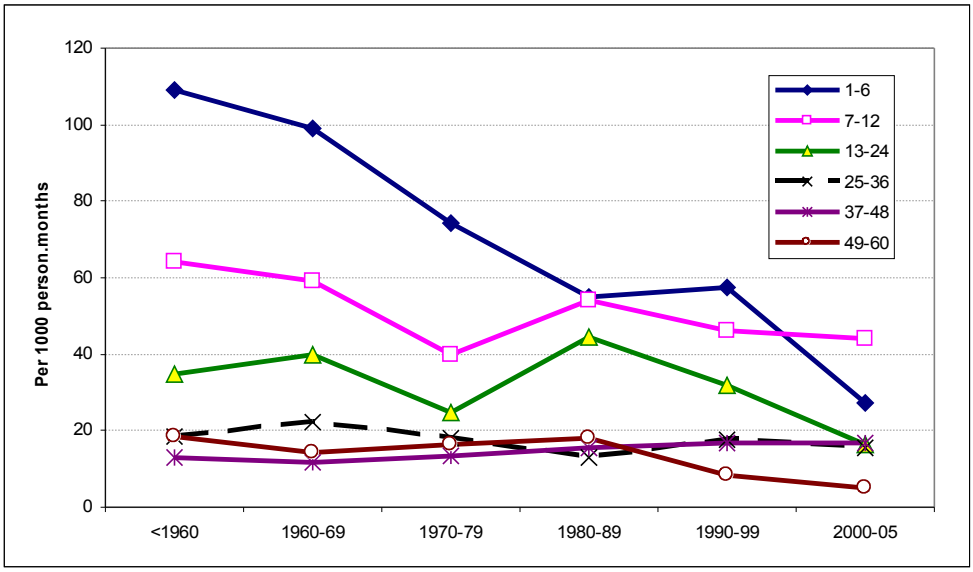


Figure 4a. Conversion trend. Romania 1960-2005

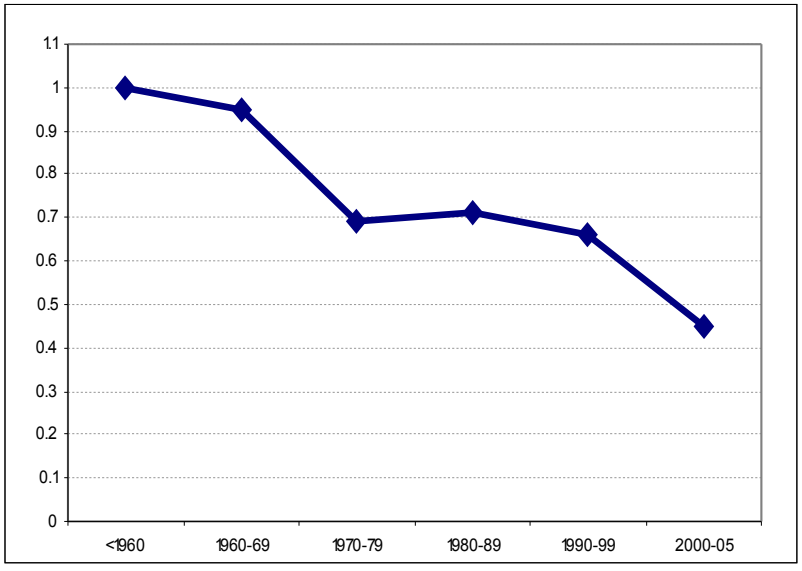
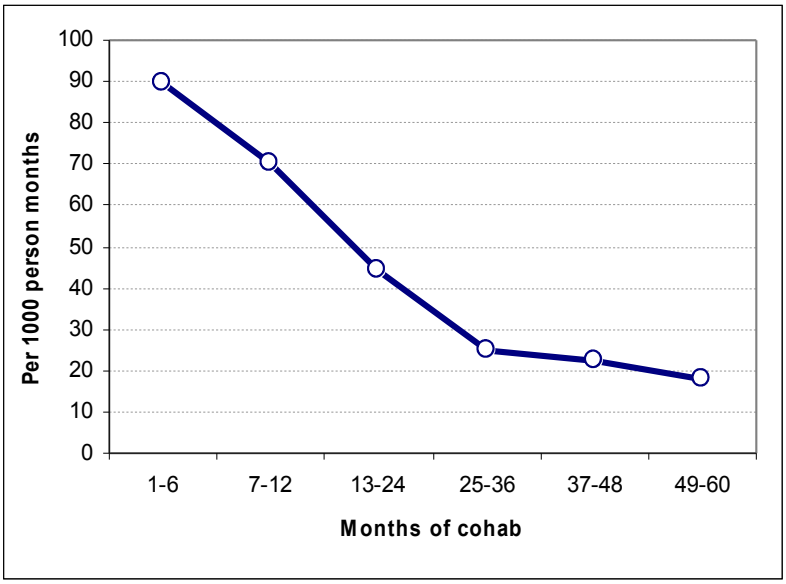


Figure 4b. Conversion risk by months of cohabitation. Romania 1960-2005



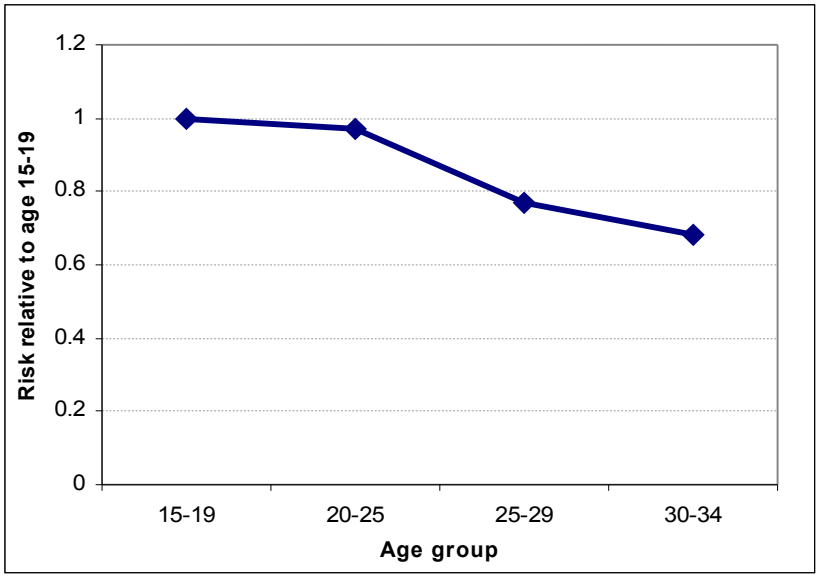
These patterns show up more clearly (but also with less detail) in Figure 4, which contains a "pure" period effect in Figure 4a (as an average over union durations) and a similarly "pure" duration effect in Figure 4b (as an average over calendar time).[6] Figure 4a shows that conversion risks have declined in steps over our entire period of observation.

In this part of the analysis, the age factor (*A*) appears as a time-varying covariate intended to catch the effect of age attained on the conversion risk.[7] Figure 5 shows that this effect declines with increasing age, and is about two-thirds at age 30-34 of its impact at ages in the teens. (The last point in Figure 5 has an ordinate of 0.68, relative to 1 at ages 15-19.)

[6] For model *aficionados*, Figure 4a is a plot of the estimated c_k parameters and Figure 4b a plot of the estimated u_i parameters of an intensity specification of type $U+A+B+C$, which means that the analysis is standardized with respect to the other control variables collected in Factor *B*. The estimated b_j parameters appear in the last column of Table 1 and the estimated age parameters a_h have been plotted in Figure 5.

[7] Remember that process time is union duration (Factor *U*).

Figure 5. Age profile in conversion risk. Romania 1960-2005



The structure in the rates of conversion of non-marital to marital unions appears as relative risks in the final column of Table 1. Several features strike the eye:

1. A pregnancy will also raise the *conversion* rate, but "only" by about half and not nearly by as much as the first-entry rates increased, namely by a factor around 8 for each mode of entry. It is as if the interest that the prospective parents have in the circumstances of the birth are largely taken care of when the union has been established. There may also be an element of selectivity in this behavior, in that a couple who have entered a consensual union may be less interested in marriage even when the woman becomes pregnant.

2. The Roma have a particularly low conversion risk. It is as if conversion of an existing union into a formal marriage is less important to the Roma than to other members of the Romanian society, perhaps because many of our Roma respondents regard themselves as married even when a marriage has not been registered by the authorities, but this is not caught in the data collection.[8]

[8] A possible explanation may be that in the Roma population a first union is the outcome of a negotiation between the families of the bride and the groom. The union may then be a recorded marriage (with a marriage certificate from the state) or a non-marital union regarded

3. Enrolled respondents have particularly *high* rates of conversion, something that surprises us and calls for further reflection. The method we have used must include enrolment in unorthodox forms of education, such as in after-work high-schools, tertiary education by distance learning, and so on (Mureşan 2007b). Young people who choose such forms of education probably regard marriage as a needless complication initially and start their unions as non-marital, but subsequently seek marriage as a socially better approved form of partnership. For respondents who have completed their education, conversion rates increase strongly with educational attainment.

6. Conclusions and reflections

Our study suggests that certain features of the narrative of the Second Demographic Transition can be discerned in Romania over the last forty years or so. In particular, the rate of marriage formation dropped precipitously after the fall of state socialism in 1990. The rate of entry into cohabitation has been much lower over our entire period of observation, but it is important that it has not been negligible. It has also increased gradually since the early 1960s, though the change in the political system made no major impact on it. Despite its low level this incidence was subject to visible differentials between population groups. In particular, respondents recorded as Roma had a higher incidence of cohabitation than others while those who called themselves ethnic Hungarians had unusually low entry rates (of both kinds) for reasons that we refrain to speculate over. A pregnancy boosted entry rates considerably, perhaps in reflection of a long-standing pattern of avoidance of single (actually unpartnered) motherhood.

Acknowledgement

We are grateful for insightful comments from Gerda Neyer.

References

Hoem, Jan M. and Michaela Kreyenfeld. (2006). "Anticipatory analysis and its alternatives in life-course research. Part 1: The role of education in the study of first childbearing". *Demographic Research* 15 (16), 461-484.

as a marriage by the Roma natives if it was approved and celebrated by their community. Once the union has been established there may be less interest in transforming it into a recorded marriage.

Hoem, Jan M., Dora Kostova, Aiva Jasilioniene, and Mureşan, Cornelia. (2007). "Traces of the Second Demographic Transition in four selected countries in Central and Eastern Europe: Union formation as a demographic manifestation". *MPIDR Working Paper* WP-2007-026.

Hoem, Jan M. and Dora Kostova. (2008). "Early traces of the Second Demographic Transition in Bulgaria: a joint analysis of marital and non-marital union formation, 1960-2004". *Population Studies* 62 (3), 1-13.

Koytcheva, Elena. (2006). *Social-demographic differences of fertility and union formation in Bulgaria before and after the start of the societal transition.* MPIDR doctoral dissertation, University of Rostock.

Kulik, Margarete C. (2005). The emergence of cohabitation and its later stability: the case of Hungarian women. *MPIRD Working Paper*, http://www.demogr.mpg.de/papers/working/wp-2005-031.pdf

Lesthaeghe, Ron and Dirk J. van de Kaa. (1986). "Twee demografische transities?" In.: Dirk J. van de Kaa and Ron Lesthaeghe (eds.), *Bevolking: groei en krimp.* Van Loghum Slaterus, Deventer, pp. 9-24.

Manting, Dorien. (1996). "The changing meaning of cohabitation and marriage". *European Sociological Review* 12(1), 53-65.

Michael, Robert T. and Nancy B. Tuma. (1985). "Entry into marriage and parenthood by young men and women: the influence of family background". *Demography* 22(4), 515-544.

Mureşan, Cornelia, Paul-Teodor Hărăgus, Mihaela Hărăgus, and Christin Schröder. (2008). "Romania: Childbearing metamorphosis within a changing context". *Demographic Research* 19 (23), 855-906.

Mureşan, Cornelia. (2007a). "Family dynamics in pre- and post-transition Romania: a life-table description". *MPIDR Working Paper,* http://www.demogr.mpg.de/papers/working/wp-2007-018.pdf.

Mureşan, Cornelia. (2007b). "Educational attainment and second births in Romania". *MPIDR Working Paper*, http://www.demogr.mpg.de/papers/working/wp-2007-028.pdf

Santow, Gigi and Michael Bracher. (1994). "Change and continuity in the formation of first marital unions in Australia". *Population Studies* 48, 475-496.

Sobotka, Tomáš. (2008). "Overview Chapter 6: The diverse faces of the Second Demographic Transition in Europe". *Demographic Research* 19 (8), 171-224.

Sobotka, Tomáš, Kryštof Zeman, and Vladimira Kantarová. (2003). "Demographic shifts in the Czech Republic after 1989: a Second Demographic Transition view". *European Journal of Population* 19, 249-277.

The Growth in Non-Marital Fertility and Other Related Behaviours in Romania after 1989

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Abstract: Before 1989, transition to adulthood in Romania was occurring at early ages, marriage was universal and fertility was above the replacement level. In 1990, the mean age of first marriage was 22.0, the mean age of the first birth was 22.4, the total fertility rate was 1.8, and the proportion of non-marital birth was 4%. After 1990, many sharp and rapid changes have taken place in the demographic behaviours: postponement of marriages, postponement of first birth, decline of total fertility rate. However, marriage postponement has not translated entirely into postponement of the first birth. The interval between marriage and the first birth has declined, because of the very high and rapid increase of the proportions of non-marital births. This increase is really surprising, for age of marriage and age of first birth are still very low. In 2000, the mean age of first marriage was 23.4, the mean age of first birth was 23.6, the total fertility rate was 1.3, and the proportion of non-marital birth was 25.5%. In order to underline variables associated with changing behaviours, we want to perform different analyses on the several steps of marital and reproductive behaviour (first sexual intercourse, use of contraception, type of union, marital and non-marital birth), using new survey data.

Keywords: non-marital births, cohabitation, contraception, Romania

1. Introduction

Before 1989, transition to adulthood occurred at early ages in Romania, marriage was universal, divorces were rare and fertility was above the replacement level. This demographic behaviour was sustained by incentives for marriage and pro-natalist measures. Moreover, legal abortions were limited and modern contraception not encouraged. Most of the other Eastern European countries shared this general picture.

After 1990 many sharp and rapid changes have taken place in the demographic behaviours in Eastern countries (Table 1): postponement of

marriage and decline in marriage rates, postponement of first birth and decline of TFR. However, marriage postponement has not translated entirely into postponement of the first birth. The interval between marriage and first birth has narrowed, because of the very high and rapid increase of the proportions of non-marital births.

These trends are in line with what happened and is still happening in Western European countries (with some exceptions for TFR, where levels are sustained by welfare policies). However, what is really surprising in Eastern countries is the fast rate of the increase of non-marital births, although age of marriage and age of first birth are still very low.

Concerning sexual behaviour, age of first sexual intercourse for women is high and a double standard model persists, with women experiencing their first sexual intercourse 1-2 years later than men (Table 1); concerning union formation, rates of cohabitation are low, although marriages are postponed and non-marital birth rates are high.

Table 1. Some indicators of union formation and reproductive behaviour in selected Eastern European countries as compared to some Western countries

		Poland	Hungary	Czech Rep.	Slovak Rep.	Bulgaria	**Romania**	France	Spain	Italy	Sweden
Mean age of first marriage (1)	1980	22.7	21.2	21.5	21.9	21.3	**21.5**	23	23.4	23.8	26
	1990	22.6	21.9	21.6	21.9	21.4	**22**	25.6	25.3	25.5	27.5
	2000	23.9	24.6	24.5	24	24.1	**23.4**	27.8	27.8	27.0	30.2
Mean age of first birth (2)	1980	23.4	22.4	22.4	22.7	21.9	**22.4**	25	25	25.0	25.3
	1990	23.3	23.1	22.5	22.6	22.2	**22.7**	27	26.8	26.9	26.3
	2000	24.5	25.1	24.9	24.2	23.5	**23.6**	28.7	29.1	…	27.9
(2) – (1)	1980	0.7	1.2	0.9	0.8	0.6	**0.9**	2	1.6	1.2	-0.7
	1990	0.7	1.2	0.9	0.7	0.8	**0.7**	1.4	1.5	1.4	-1.2
	2000	0.6	0.5	0.4	0.2	-0.6	**0.2**	0.9	1.3	…	-2.3
TFR	1980	2.26	1.91	2.1	2.31	2.05	**2.43**	1.95	2.2	1.64	1.68
	1990	2.05	1.87	1.9	2.09	1.82	**1.84**	1.78	1.36	1.33	2.13
	2000	1.34	1.32	1.14	1.29	1.26	**1.31**	1.89	1.24	1.24	1.54
Age specific fertility rate (age 15-19)	1980	32.9	68	53.1	48.2	81.2	**72.3**	25.4	25.8	20.9	15.8
	1990	31.5	39.5	44.7	45.5	69.9	**51.5**	13.3	11.9	9.0	14.1
	1995	21.1	29.5	20.1	32.3	49.6	**42**	10	7.8	6.9	7.7
Non-marital births %	1980	4.8	7.1	5.6	5.7	10.9	**2.8**	11.4	3.9	4.3	39.7
	1990	6.2	13.1	8.6	7.6	12.4	**4**	30.1	9.6	6.5	47
	2000	12.1	29	21.8	18.3	38.4	**25.5**	42.6	17.7	9.7	55.3

Median age of females having first sexual intercourse	c. 1950	20.9	19.1	18.4	19.5	19.9	**20.1**	18.9	20.1	20.6	--
	c. 1970	19.6	18.5	17.8	18.8	18.7	**19.5**	17.6	19.1	19.4	--
Median age of males having first sexual intercourse	c. 1950	20.0	18.5	18.4	18.3	--	**18.3**	17.9	18.5	18.6	--
	c. 1970	19.7	18.0	17.2	18.3	--	**17.3**	17.4	18.2	18.4	--
Female – male median age having their first intercourse	c. 1950	0.9	0.6	0.0	1.2	--	**1.8**	1.0	1.6	2.0	--
	c. 1970	-0.1	0.5	0.6	0.5	--	**2.2**	0.2	0.9	1.0	--

Source: Billari, 2004; Billari, Caltabiano, Dalla Zuanna, 2007

Romania in European context

In Romania, 25.5% of the registered births were outside marriage, the age of women at first marriage was 23.4 years and first birth occurred at 23.6 years old in 2000. In 2004, the share of non-marital births of the total births has raised to 29.4%. Consequently, it is very important to study the particularities of changes in marital and reproductive behaviour in the Eastern European countries, especially in Romania.

A main question arises: to what extent are these changes the result of a choice or of some constraints? The rapid increase of non-marital births, generally concentrated among first births, is a sign of a new form of entry into motherhood, freely chosen by women and couples or, rather, is a clue of marriage postponement due to economic restriction and uncertainty?

Another possible explanation is the extended occurrence of sexual intercourse among unmarried women. The difference between the median age of first intercourse and the median age of marriage widens from 1-2 years for Romanian cohorts born around 1960 to 4-5 years for the cohorts born twenty years later. In Romania, the proportion of women virgin at 16 and 18 years old has declined starting with the 1970s cohorts, who were adolescent during the 1990s (Table 2). At the same time, contraception practices have spread, especially among young women: the proportion using contraception at first intercourse grows from 25.5% for women born between 1972-81 to 59.2% among women born between 1980-86.

Table 2. Percentage of virgin women at 16 and 18 years old, by cohorts. Romania

Cohort	% of virgins at 16 years	% of virgins at 18 years
1985-1986	78.13	37.88
1980-1984	89.31	51.57
1975-1979	90.52	59.72
1970-1974	91.89	73.75
1965-1969	93.05	71.81
1960-1964	91.15	71.88
1955-1959	91.90	68.02
1950-1954	95.29	71.37
1945-1949	84.75	60.09
1920-1944	92.47	68.82
Total	90.83	66.06

Source: Survey on Demography and Lifestyle of Romanian Women, 2004

Taking into account the level of extra-marital births and the proportion of young women cohabiting, Lesthaeghe (2000) grouped the European countries that had participated in *Fertility and Family Survey* (FFS) in four categories. High prevalence of cohabitation combined with parenthood characterize Scandinavian countries and France; high prevalence of cohabitation but low non-marital fertility is specific for most of the western countries, but the trend is towards the previous type of behaviour; low extra-marital fertility combined with a low incidence of premarital cohabitation is found in Mediterranean countries; low prevalence of cohabitation but high non-marital fertility (especially single mothers) characterize not only Eastern European countries, but also countries like Portugal, Ireland, Great Britain and United States of America. According to this model, the non-marital births belong mainly to single mothers, who live with their children in a separate household or co-reside in the parental home. In this way, the structure of parental home becomes three-generational. The second situation is more often met in ex-communist countries, due to the increase in adolescent fertility. In this part of Europe, it is a common path for these young women to pass through a short period of single motherhood and then to engage in a matrimonial relationship, at a younger age than that of women from the rest of Europe. In fact, this path generates the combination between a high rate of non-marital fertility and a low level of cohabitation, together with the maintenance of a younger mean age of marriage as compared to the rest of Europe.

Authors that have studied the Eastern European countries (Philipov, 2001) found other possible explanations for this combination of phenomena. One is connected with the inefficiency (or the total lack) of actual contraceptive behaviour, particularly among teenagers; the early start of sexual life spreads more rapidly during transition than the use of modern contraceptives. A second explanation is connected to a certain sub-population group - such as Roma-Gypsies - that traditionally have a high level of non-marital fertility which has been maintained during the transition period, with a relatively low decline in its fertility. A third explanation is the fact that conception can precede marriage, and the couple can have legal marriage after the birth of the first child.

Which is the relationship between sexuality, use of contraception, union formation and entry of motherhood in this context of rapid changes? Is Romania following the pattern of Western European countries? Which sub-population groups are the forerunners of these changes? As our previous descriptive analyses show that early sex is more and more extended among less educated people and in rural areas (Oaneş, 2007), may we say that Romania is following the pattern of a second demographic transition?

2. Data and methods

New individual survey data allow us to look deeper into these behaviours: the *Demography and Lifestyle of Romanian Women*, conducted in 2004 (DLRW 2004) on a representative sample of 1982 women aged between 18-84 years and national *Reproductive Health Survey* carried out in 2004 (RHS 2004).

In order to answer the questions suggested above, we will perform different analyses concerning the steps of marital and reproductive behaviour: first sexual intercourse, use of contraception, type of union, marital and non-marital birth. The descriptive picture of these behaviours will be accompanied, where data allow it, by means of logistic regression models.

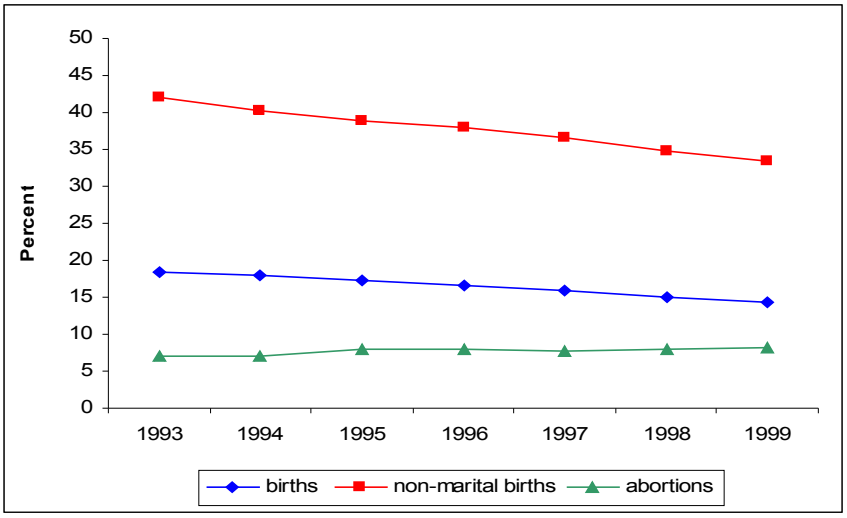
3. Descriptive analysis of the evolution of non-marital births in Romania after 1989

In Romania, marriage still has a high level of stability, cohabitation is still marginal, lifelong celibacy is rare and the use of the contraceptive means is not yet a very common practice.

Between 1993-1999, period for which data by age-groups is provided, non-marital births were frequent occurrence, to a large extent, among women below the age of 20, in a percentage that varied from 42% in 1993 and 33.5% in 1999. Although in a slow decline during the seven years interval, women in

this age-group have continued to deliver most of the non-marital births, while they have contributed the smallest share of the total births and they have registered the smallest percent of abortions compared to women from other age-groups (Figure 1).

Figure 1. Women below age 20: the share of births, of non-marital births and of abortions in the total (all women), 1993-1999



The following age-group (20-24 years) is characterized by the biggest share of the total births, even if there is a slight decline during the investigated period, from 46% to 38%. Women in the age-group 20-24 show very high levels of non-marital births and abortions. In 1999, figures show a decrease of share of the total births, together with a slight increase in the percent of non-marital births (from 35% to 38%), while the evolution of abortions remains constant, but at higher levels than younger women (Figure 2).

Women aged 25-29 break the record with the share of abortions, at the same time holding the second place for the share of the total births. Although for this age-group the percentage of non-marital births is less than half of the value for the previous age-group, a slight increase starting with 1996 (from 12% to 17%) can be noticed. (Figure 3).

Figure 2. Age-group 20-24: the share of births, of non-marital births and of abortions in the total (all women), 1993-1999

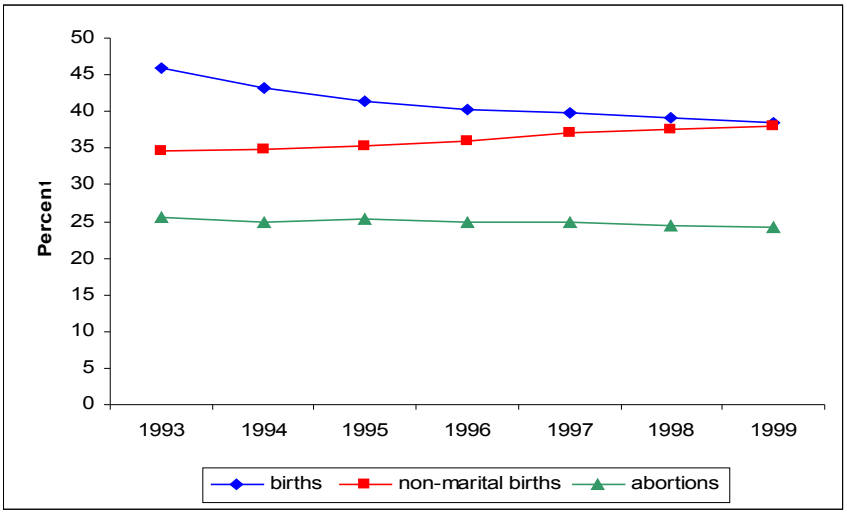
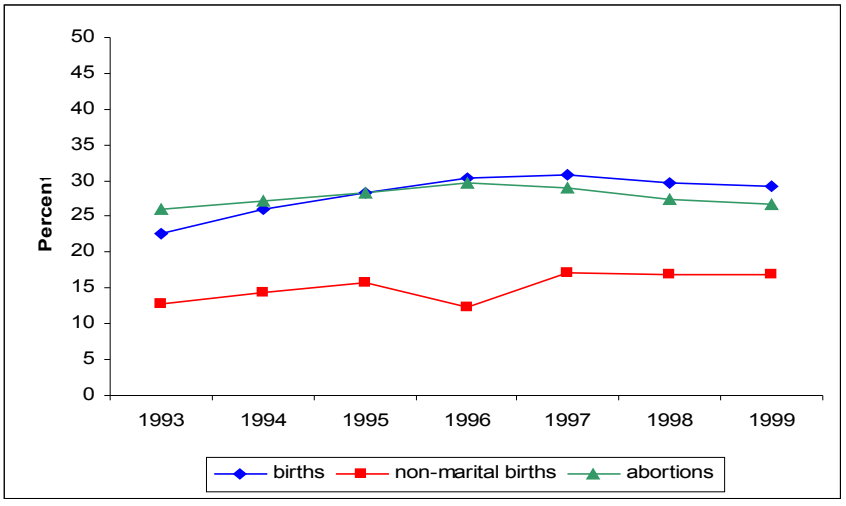


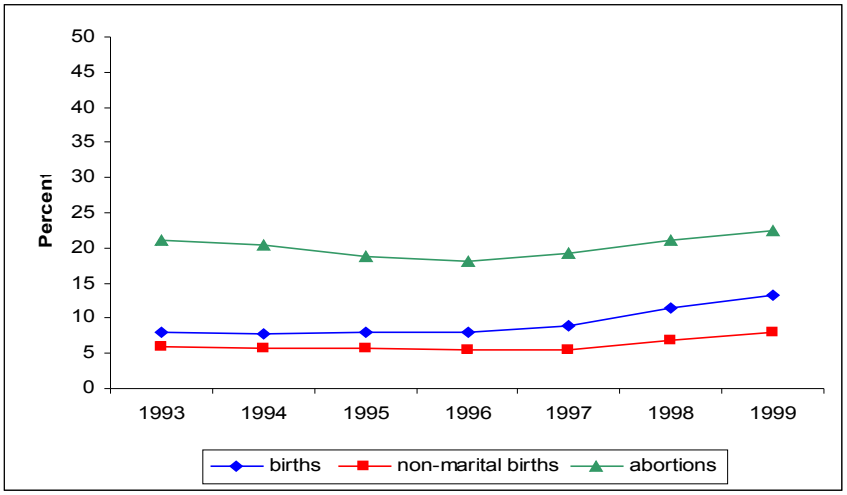
Figure 3. Age-group 25-29: the share of births, of non-marital births and of abortions in the total (all women), 1993-1999



Although women belonging to the 30-34 age-group start the period with the smallest values for all three aspects considered, a clear tendency on the increase has been recorded. In spite of the percentage growth of non-

marital births, this does not exceed 10% of the total of non-marital births in 1999. The increase of the percentage of both abortions and births is visible, beginning with 1996 (Figure 4).

Figure 4. Age-group 30-34: the share of births, of non-marital births and of abortions in the total (all women), 1993-1999



One can conclude from the analysis that older women tend to have higher abortion rates, while younger women give more often births outside of marriage.

4. Behaviours related to the non-marital fertility of Romanian women

The debut of the sexual life

After 1990, a tendency among young people in Romania to marry at older ages than before has been noticed. Thus, the mean age of women at their first marriage has increased from 22 to 25 years during the period 1990-2004[1]. Although sexual abstinence before marriage was a usual practice for Romanian women before 1990, during the last twenty years, women have reported having begun their sexual life before the establishing of the first formal union to a greater extent. This indicates a transition in the sexual behaviour of the younger generations. In all the four RHS, a greater proportion of teenage women have reported to have had premarital sexual relationships, as compared

[1] http://www.demogr.mpg.de/cgi-bin/databases/cdb/cdb.php?di=1&ci=10, Generation and Gender Contextual Database for Romania, MaxPlanck Institute for Demographic Research;

to the age-group 20-24. In most cases, women who have had their first sexual experience have reported that this event happened in the context of premarital relationships. In 1993 and 1996 about half of sexually experienced young adults reported premarital sexual experience; in 1999 these proportions increased to 77% and in 2004 reached about 90%. Almost all young male adults reported their first sexual experience to be premarital in 2004. The vast majority of young men reporting premarital sexual experience remained basically constant in all the four studies (2004 RHS, Summary Report 2005).

Although in Romania young women do not start their sexual life early (only before the age of 25 almost half of the young women become sexually active) (2004 RHS, Summary Report 2005), there is evidence that the period of time between the sexual debut and the founding of the first stable union is increasing (Oaneş, 2007). In this context, we can find a credible explanation for the obvious increase of the non-marital births in Romania after 1989. The great majority of these births can be located in the period of time between the first sexual intercourse and the moment of first marriage, occurring, as we have seen above, at a young age of the mother.

The contraceptive behaviour of Romanian women

The spread of modern contraceptives had a direct impact on the norms governing sexual and reproductive behaviour and, consequently, on demographic trends. According to van de Kaa (1997), the introduction of the contraceptive pill was the main cause of the chain of events that he and Lesthaeghe had earlier identified as the "second demographic transition" (Lesthaeghe and van de Kaa, 1986). This transition involved three major shifts in fertility and family behaviour: 1) changes in contraceptive behaviour, 2) changes in the level and pattern of fertility, and 3) changes in the timing, frequency, type and stability of unions (Sprangers and Garssen, 2003). The various developments that are part of the second demographic transition are related to social, cultural, economic, political and technological developments, such as the emancipation of women, changing moral standards with respect to sexuality and family, increased prosperity, welfare provisions, financial policies and regulations and practices with respect to contraception and abortion. It is well known that the dramatic decrease of fertility occurred more or less simultaneously throughout Europe, independent of the differences among countries in as far as the economic development, unemployment, social security, female labour participation are concerned. The drop in fertility has taken place in sub-populations differing widely with respect to religion, level of education, social status and economic prosperity. However, the evolution of

non-marital fertility has followed a less linear path. In the opinion of the Dutch authors Sprangers and Garssen (2003), tradition seems to play an important role in explaining the differences between neighbouring countries.

In a period when the desired family size declines, as it does in Romania where fertility is below the replacement level (TFR=1.3), the effectiveness of contraceptive practice becomes one of the most important determinants of fertility (2004 RHS, Summary Report 2005). In Romania, modern contraception has been forbidden in the communist period. At the beginning of the 1990s, women's concerns about contraceptive side effects, fears of infertility and limited access to modern contraceptives are frequently cited reasons for contraceptive discontinuation (Curtis and Blanc 1997). The introduction of contraceptives in 1990 was sponsored by governmental and nongovernmental organizations, both relying on informational and financial assistance from international sources. Starting with the second half of the 1990s, family planning services became widely available in Romania, but suspicion still lingered from years of propaganda against use of contraception (Creangă et al. 2006: 3).

Contraceptive discontinuation and failure has been shown to be dependent on the specific method used. Individual socio-economic and demographic characteristics of women and couples have been studied and linked with the probability of discontinuation or failure. Curtis and Blanc (1997) found an association between the place of residence and specific-method failure, and showed that this relationship varies by country. Users of young age are seen to have higher discontinuation rates caused by method failure (Moreno, 1993; Steele et al., 1996), while parity, which is closely related to age in most countries, have been shown to be positively associated with longer duration of method-specific use (Riley et al., 1994). In the same time, women who already have a child have a lower likelihood of experiencing a failure with their methods as compared to nulliparous women (Steele et al., 1996). Higher educational levels of both women and their partners, as well as higher socio-economic status, were found to be good predictors of lower discontinuation rates in many retrospective studies (Moreno, 1993; Bhatt and Halli, 1998). Moreno (1993) and Ali and Cleland (1995) identify motivation as an important determinant of contraception practice. Using Demographic and Health Survey data from 15 countries, Moreno (1993) finds that women using contraception for birth spacing had higher failure rates than women who have achieved their desired family size.

The results of the study realized by Andreea Creangă and collaborators (2006: 17) using Romanian *Reproductive Health Survey* data from 1999 show that

contraceptive failure is significantly influenced by postsecondary education, high socio-economic status, age, being single and prior abortion history. Many of these are also found to be correlates of failure among women practicing withdrawal.

Modern contraceptive options to Romanian women and men have been limited until recently and research regarding knowledge and informed choices has been equally limited. Table 3 shows that Romanian women remain very faithful to withdrawal – a method extremely popular among Mediterranean and Eastern European countries. Thus, in 2004, near 20% of Romanian women use withdrawal, and the percentage of use for women in couples reaches 25%.

Data of the last *Reproductive Health Survey* carried out in Romania in 2004 shows an increase in contraceptive use in the period 1993-2004, among all women and among women in couple, this last category registering at each moment of inquiry a higher use of contraceptives (Table 3). Despite this positive evolution, in 2004, traditional contraception continues to keep at high values (24%), and, on the other hand, Romania still registers a high percentage of women who do not use any contraceptive means (42%). For women in a couple, as compared to all women, the percentage of contraceptive non-use is lower (30%), but the preference for traditional methods is higher (32%). Even in 2005, only 17.5% of women aged 15-44 were using contraceptive pills (Mureşan, 2007: 57, on *Gender and Generation Survey* 2005 data).

Table 3. Prevalence of modern and traditional contraceptive use among women and men of reproductive age. Reproductive Heath Surveys Romania 1993, 1999 and 2004

A. All women			
	1993	**1999**	**2004**
Current use of contraceptive methods (%)	**40.5**	**48.2**	**58.1**
Modern	10.0	23.3	33.9
Condoms	3.0	7.7	13.1
Pills	2.3	6.5	12.7
IUDs	2.5	4.9	4.4
Spermicides	0.5	2.0	1.4
Female sterilization	1.0	1.9	1.8
Other modern methods	0.0	0.3	0.5
Traditional	30.5	24.7	24.2
Non-users	**59.5**	**51.8**	**41.9**

B. Women and men in union			
	1993	**1999**	**2004**
Current use of contraceptive methods (%)	**57.3**	**63.8**	**70.3**
Modern	13.9	29.5	38.2
Condoms	4.0	8.5	12.1
Pills	3.2	7.9	14.1
IUDs	4.3	7.3	6.7
Spermicides	0.8	2.8	1.8
Female sterilization	1.4	2.5	2.8
Other modern methods	0.2	0.5	0.7
Traditional	43.4	34.3	32.2
Non-users	**42.7**	**36.2**	**29.7**
C. Women in couple, by place of residence in 2004			
	Urban	**Rural**	
Current use of contraceptive methods (%)	**70.2**	**70.5**	
Modern	42.2	33.0	
Condoms	15.9	7.1	
Pills	14.1	14.1	
IUDs	7.4	5.8	
Spermicides	2.3	1.3	
Female sterilization	2.3	3.5	
Other modern methods	0.2	1.2	
Traditional methods	28.0	37.5	
Coitus interruptus	19.8	32.9	
Calendar method	8.1	4.5	
Other traditional methods	0.1	0.1	
Non-users	**29.8**	**29.5**	

If we take into account the place of residence for women in couples, although the level of contraceptive use is similar, we can notice differences in what concerns the type of the method used. Thus, in urban areas, women use modern contraception to a greater extent than women in rural areas (42% versus 33%), and the condom is used twice more by urban women (16% versus 7%). However, for the use of contraceptive pill, the values for both places of residence coincide (14%). A determinant role in the egalitarian use of pill can be surely attributed to information-communication campaigns and to the development of private and public services of family planning under aegis of the Ministry of Health, following the results revealed by the successive

Reproductive Health studies. Concerning the traditional contraception, withdrawal is a practice more frequently used by women from rural than by women from urban areas (33% versus 20%). Calendar method, although less extended than withdrawal, is almost twice more used by urban women (8% versus 4.5%) (Table 3). This differentiation could be explained by the fact that in rural areas, men traditionally control sexuality matters, while in urban areas women regulate their own sexual and reproductive behaviour to a greater extent. This fact exposes women from rural areas to a greater risk of contraception failure than women from urban areas.

Contraceptive behaviour of Romanian women also presents differences by other socio-demographic characteristics. If we follow the use of contraceptives by regions in the country, we find once again the confirmation that in less economically developed areas, the level of contraception use is lower and the spread of traditional contraception is larger. Second to Bucharest, which represents the forerunner of the changes in sexual and reproductive behaviour, the modern contraception is used to a greater extent in the north-western and the western parts of the country, due to the proximity and to the more powerful influence of the Western European countries and to a more rapid and easier access to modern contraception. Once again, the risk of contraception failure increases in less socio-economically developed areas, from the North-East and South of the country.

We present below the results of the regression models referring to the use of contraceptive methods by women of reproductive age (Table 4). Women included in the model are those who answered the question related to the use of contraceptives at present; the dependent variable is the use or non-use of contraceptive means, be it traditional or modern.

A high level of education and the present enrolment in education, as well as the age under 25, a high socio-economic status and a medium church attendance increase the likelihood of contraceptive use. Cohabitation as a form of partnership reduces to 60% the odds of using contraceptive means, while not having a resident partner more than doubles the odds. Having a previous induced abortion increases by 20% the chances to use contraceptive means at present, in order to avoid another unwanted pregnancy. In the case of the first birth outside a union (outside a stable partnership), the odds decrease to 20%, these women being more inclined to assume the risk of an unplanned pregnancy. Obviously, when women wish to have a(another) child, the odds reduces to the half. Women who have accomplished or are closer to the desired number of children show 2.5-3 times higher odds than childless women.

Table 4. The results of logistic regression (odds ratios) for the present use of contraceptive means (traditional or modern)

Variable	Category	Cases	Odds ratios	
Education	less than high school	906	1	
	high school	1619	1,64	***
	more than high school	361	2,84	***
	still in education	214	3,04	***
Partnership status	married	2549	1	
	in cohabitation	198	0,60	***
	with non-resident partner	353	2,68	***
Church attendance	often	480	1	
	medium	1416	1,24	*
	rare or never	1204	1,05	
Age-group	15-24	424	1	
	25-34	1436	0,65	***
	35-49	1240	0,33	***
Socio-economic level	low	998	1	
	medium	1105	1,37	**
	high	997	1,35	**
Previous induced abortion	no	1884	1	
	yes	1216	1,21	**
Place of residence	urban	1663	1	
	rural	1437	1,30	**
Intention to have a(another) child	no	2047	1	
	yes	1053	0,53	***
First birth before the first union	no	2750	1	
	yes	350	0,78	*
Parity	no children	600	1	
	1 child	1138	2,46	***
	2 children	996	3,39	***
	3 or more children	366	2,46	***
Employment status	employed	1950	1	
	unemployed	1150	0,87	
Nagelkerke R Square		0,12		

Note: *** for p<0,01, ** for p<0,05, * for p<0,1.

We will focus now on women who use contraception at present, the dependent variable being the use or non-use of the modern contraceptives, keeping the same independent variables.

Table 5. The results of the logistic regression (odds ratios) for the present use of modern contraceptives, models with different explanatory variables

Variable	Category	Cases	Model 1		Model 2	
			Odds ratios		Odds ratios	
Education	less than high school	597	1		1	
	high school	1237	1,09		0,96	
	more than high school	292	1,88	***	1,50	**
	still in education	182	2,03	***	1,69	**
Partnership status	married	1901	1		1	
	in cohabitation	111	0,64	**	0,68	*
	with non-resident partner	296	1,36		1,16	
Church attendance	often	342	1		1	
	medium	1082	1,15		1,09	
	rare or never	884	1,28	*	1,17	
Age-group	15-24	322	1		1	
	25-34	1102	0,72	**	0,79	
	35-49	884	0,38	***	0,48	***
Socio-economic level	low	688	1		1	
	medium	842	1,74	***	1,60	***
	high	778	2,50	***	2,28	***
Previous induced abortion	no	1375	1			
	yes	933	0,98			
Place of residence	urban	1250	1		1	
	rural	1058	0,89		0,96	
Intention to have a(nother) child	no	1587	1			
	yes	721	0,75	**		
First birth before the first union	no	2066	1			
	yes	242	1,27	*		
Parity	no children	597	1			
	1 child	1237	1,03			
	2 children	292	1,01			
	3 or more children	182	1,13			
Employment status	employed	1487	1		1	
	unemployed	821	0,85		0,90	
The risk of using pills for women's health	no risk	349			1	
	low or medium risk	1270			0.55	***
	enough or high risk	235			0.38	***
	don't know	454			0.26	***

The risk of using condom for women's health	no risk	1598			1	
	low or medium risk	333			0.80	*
	enough or high risk	28			0.68	
	don't know	349			0.72	**
Nagelkerke R Square		0,13			0,18	

Note: *** for p<0,01, ** for p<0,05, * for p<0,1.

A post-secondary level or the enrolment in education doubles the odds of using modern contraceptives. Rare or none church attendance, age below 25 and a medium or high socio-economic status significantly increase the odds. Similar with the case of contraception use in general, being in cohabitation reduces the odds to 60%. This result indicates once again the different character of cohabitation in our country, as compared to the Northern and Western European countries, aspect that will be further discussed in this paper. Having experienced an induced abortion, the number of children, employment status and the place of residence do not have any effect on the use of modern contraceptives. Obviously, once again, women who want (more) children show smaller odds. Unlike in the previous model, women who had the first pregnancy outside a stable union show higher odds for using modern contraception; in other words, if these women use contraception, they choose modern means.

We introduced in the model two other covariates: the perceived risk of using two modern contraceptives – pill and condom – and, as we expected, women who do not perceive any risk have the highest odds to use them. Women who are not well-informed ("don't know") also show lower odds for using modern contraception.

The rapid increase of non-marital births in Romania, stressed by the strong decrease of the general fertility, could be explained by the contraceptive behaviour of women, namely by the insufficient and inefficient use of contraceptive means, due to the insufficient information and to the absence of sexual and contraceptive education. We will see further on that the abortion still plays an important role in the birth control of Romanian women.

Abortion as solution to unwanted pregnancies

At the beginning of the 1990s, as a consequence of the liberalization of abortions, Romania became the country with the highest rate of abortions in Europe.

The analysis made by Andreea Creangă et al. (2006: 18) provides strong statistically significant evidence that women who rely on abortion as means to

regulate their fertility are more likely to discontinue and experience failure with the contraceptive method they use, be it female or male-oriented, modern or traditional. It also proves that unintended pregnancies, as a result of contraceptive failure, are related to the practice of induced abortion. A large majority of failures, irrespective of the method, end in induced abortion, largely due to women's original contraceptive intentions. To sum up, the authors observed that almost 50% of all contraceptive episodes are discontinued after one year, 14% of them resulting in accidental pregnancies, and 85% of the failures ending in induced abortion. The use of abortion as a birth control method is rather used to limit the number of children in accordance with the desired family size and to a less extent at the beginning of the reproductive life (Mureşan, 2007: 58).

Data from 2004 RHS, nonetheless, show induced abortion practice to be decreasing. The total abortion rate (TAR) declined from 2.2 as reported in the 1999 RHS to 0.84 in the 2004 RHS. Official statistics on abortion for the latter period, however, show a higher TAR and analysts estimate the actual rate to be approximately 1.2. It is further suspected that official records may still underestimate actual number of abortions (2004 RHS, Summary Report 2005).

Not all induced abortions are the result of contraceptive failure, many unintended pregnancies being the result of not using contraception. Cleland and Ali (2004) find that the contribution of contraception failure to unintended births and fetal loss in developing countries is much less than 50% estimated for the United States. Non-use of contraception thus remains a predominant direct cause of unwanted births (Creangă, 2006: 19).

In the context of the discussion about abortion as solution to unwanted pregnancies, it is interesting to see which factors influenced the planning of the last pregnancy. We use for this the same data from RHS 2004 for women who had at least one pregnancy, being interested whether the last pregnancy was intended, unintended or unwanted.

Because we have to include in the analysis explanatory factors previous to the moment of the last pregnancy, we can use only a limited number of covariates. The great absentee among these variables is the situation of partnership at the moment of the last pregnancy, since the data from RHS contain only the date of the first union (not specifying its type, marriage or cohabitation) and the present marital status. We do not have a history of partnerships, so we could not identify the situation at the moment of the last pregnancy.

The independent variables that could be constructed are: the age of the respondent at the last pregnancy, having experienced an induced abortion

before the last pregnancy, parity at the moment of the last pregnancy, the calendar period in which the last pregnancy occurred. We have also used some variables that we considered to be constant in time (although there are for sure respondents for whom this is not valid, but we consider such cases to be few): the place (urban/rural) and region of residence, registered at the moment of the interview. We also used church attendance (at the moment of the interview), considering it as time constant, although this aspect is arguable.

Our dependent variable has two categories: intended pregnancy and other situation (including here unintended and unwanted pregnancies).

Women aged between 25 and 34 at the moment of the last pregnancy have the highest odds for the pregnancy to be intentional (with 80% higher than for women below age 25). The previous experience of an induced abortion sharply decreases the odds. The more children the woman has at the moment of the last pregnancy, the less the odds that pregnancy is intended. The age at the sexual debut does not have any effect in any model. Surprisingly, women from rural area show 50% higher odds for the last pregnancy to be intended. This result does not indicate a more efficient family planning for women in rural areas, but it is rather related to a post-factum rationalisation of these women. Residence in the western part of the country reduces the odds to the half, as compared to the reference category North-East. This result, somehow surprising, can be explained in the same sense as for the urban-rural differences, namely the presence of a post-factum rationalisation of women from the north-eastern region, which is more traditional than the western. We did not choose Bucharest as the reference category, because we would have obtained a different behaviour compared to the rest of the regions, without the possibility to notice the differences among the other regions.

The model also includes as covariate the calendar period when the last pregnancy occurred, and we used a time division closer to the one used in the RHS, choosing the periods before and after the year 2000[2]. We consider the period after 2000 to correspond to a better information provision and to a larger spread of contraceptive methods, and consequently to a better management of family planning resources. The occurrence of the last pregnancy after year 2000 increases the odds by 5 times, and the low church attendance significantly reduces the odds for the last pregnancy to be intended.

[2] Initially, we wanted to differentiate between before and after 1990, but then we would have obtained very few cases in our categories (for example intended pregnancies before 1990).

Table 6. The results of the logistic regression (odds ratios) for the planning of the last pregnancy, models with diverse explanatory variables

Variable	Category	Cases	Model 1		Model 2		Model 3	
			Odds ratios		Odds ratios		Odds ratios	
Age group	below 25	391	1		1		1	
	25-34	940	1,81	***	1,72	***	1,73	***
	35 and over	140	0,70		0,67		0,67	
Induced abortion before last pregnancy	no	875	1		1		1	
	yes	596	0,38	***	0,41	***	0,41	***
Age at first sexual intercourse (ascending)			1,04		1,03		1,04	
Parity	no children	376	1		1		1	
	1 child	607	0,14	***	0,14	***	0,14	***
	2 children	360	0,03	***	0,03	***	0,03	***
	3 or more children	128	0,03	***	0,03	***	0,03	***
Period	before 2000	350	1		1		1	
	after 2000	1121	5,51	***	5,57	***	5,80	***
Place of residence	urban	694	1		1		1	
	rural	777	1,54	***	1,54	***	1,58	***
Region of the country	North-East	245					1	
	South-East	219					0,84	
	South	246					0,75	
	South-West	210					1,40	
	West	127					0,51	*
	North-West	137					0,98	
	Centre	170					0,60	
	Bucharest	117					0,78	
Church attendance	often	234			1		1	
	medium	658			0,66	**	0,64	**
	rare or never	579			0,44	***	0,46	***
Nagelkerke R Square			0,51		0,52		0,53	

Note: *** for p<0,01, ** for p<0,05, * for p<0,1.

The specific of cohabitation in Romania

The proportion of non-marital births has increased dramatically immediately after the fall of the communism in Romania, reaching more than 25% of the total number of births in the year 2000. Sobotka (2003, in Mureşan, 2007: 55) has shown that extra-marital births happen increasingly in cohabiting couples

in Romania. Information about cohabitation has been obtained for the first time in our country at the last census (in 2002), when the results showed that 8.5% of women of age 20-29 live in cohabitation. Using *Gender and Generation Survey 2005* data, Hoem et al. (2007) showed that in Romania, even the popularity of marriage has begun to decrease after 1990, however, the relative risk of starting a first union as a direct marriage is still higher than the risk of starting a non-marital union.

In Romania, cohabitation as a fashionable, modern behaviour is at the beginning, while cohabitation as a working class phenomenon is more widely spread. This might show that the high percentage of non-marital births do not indicate a modern behaviour of eluding the marriage institution, but rather the insufficient contraceptive education and inefficient, insufficient use of modern contraceptives. We can speculate that a big share of these births were unplanned.

Data from the RHS 2004 allow us a deeper view of cohabitation. Of the women who are in a co-resident partnership at the moment of the interview, 7.7% are in a consensual union, and the rest are married. We will further investigate the women who are in a partnership and the factors that favour cohabitation instead of marriage (see Table 7).

The presence of children lowers the odds of being in cohabitation to 30%. As expected, the non- attendance of church doubles the odds, and women below age 25 and those from urban area show the highest odds to be in cohabitation. Up to now, it seems we have dealt with cohabitation as a modern behaviour, characteristic for the northern and western European countries. However, looking through the results of the regression model, we can notice that the inactive persons, with a primary or inferior secondary level of education and those with a lower socio-economic status show the highest odds of being in cohabitation. Among the regions of the country, cohabitation is more spread in the centre and in Bucharest, though it has a substantial occurrence in the West, South and South-East too, as compared to the North-East, considered the reference category. These regions are characterized by socio-economic disparities and the meaning of cohabitation is different, in other words, we consider that in Bucharest the cohabitation is rather a modern behaviour, while in the South of the country it is rather a working class phenomenon. The age at the sexual debut does not have any effect.

Table 7. The results of the logistic regression (odds ratios) for cohabitation as the current partnership

Variable	Category	Cases	Odds ratios	
Children	no	353	1	
	yes	2752	0,31	***
Age at the first sexual intercourse (ascending)			1,00	
Church attendance	often	504	1	
	medium	1402	1,32	
	rare or never	1199	2,09	***
Employment status	employed	1908	1	
	unemployed	1197	1,40	*
Education	less than high school	1016	1	
	high school	1660	0,36	***
	more than high school	320	0,33	***
	still in education	109	0,72	
Age-group	15-24 years	298	1	
	25-34 years	1473	0,25	***
	35-49 years	1334	0,15	***
Region	North-East	514	1	
	South-East	400	1,99	**
	South	546	2,33	***
	South-West	398	1,26	
	West	266	3,25	***
	North-West	338	1,52	
	Centre	370	5,20	***
	Bucharest	273	4,32	***
Place of residence	urban	1546	1	
	rural	1559	0,58	***
Socio-economic level	low	1096	1	
	medium	1087	0,34	***
	high	922	0,18	***
Nagelkerke R Square		0,29		

Note: *** for p<0,01, ** for p<0,05, * for p<0,1.

In conclusion, if the contraception failure or the non-use of contraception leads to unwanted pregnancies, these have a greater probability to be registered for less educated women and with a lower socio-economic status. Taking into account that in Romania cohabitation is more frequent

among less educated women with a lower socio-economic status, we can speculate that a part of the extra-marital births can be attributed to this segment of the Romanian women.

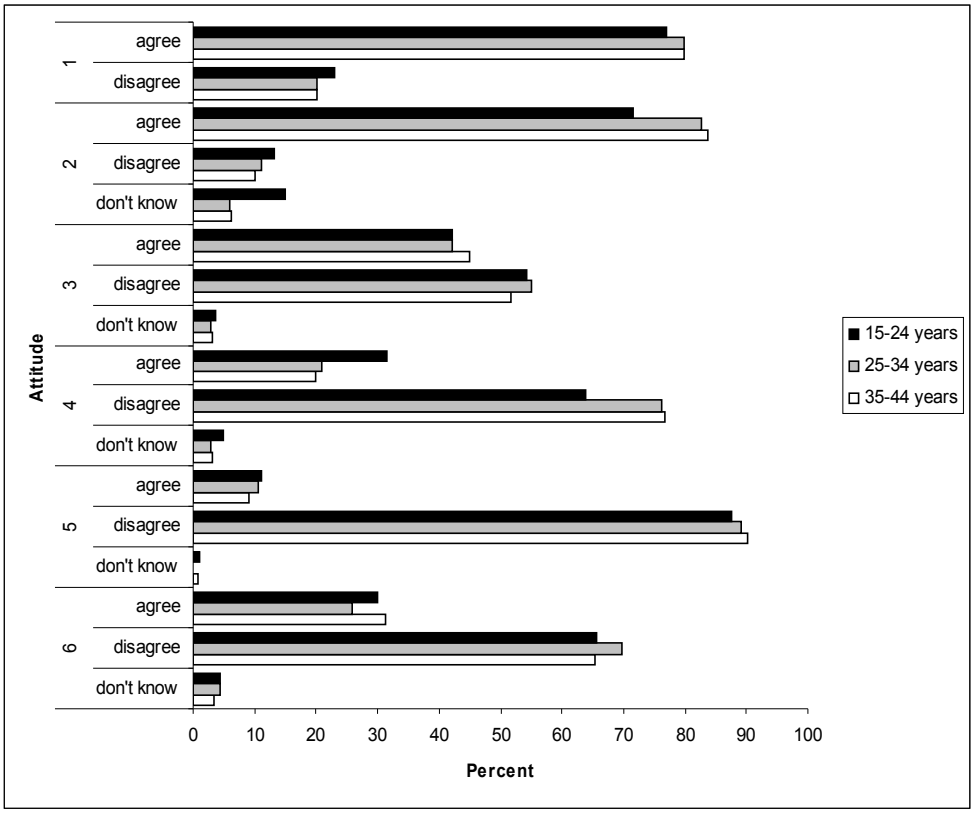
Attitudinal portrait of Romanian women

In Romania, the cultural context is favourable to abortion, many women and men view the practice as an acceptable method of birth control. The 1999 RHS data show that 77.3% of all female respondents stated that women have the right to decide on their pregnancy outcomes, including whether to have or not an abortion, and 53.5% think that in the case of an unwanted pregnancy, a woman should have an abortion. The majority of women accept abortion in cases of fetal malformation or when the life of the mother is endangered by that pregnancy. At the same time, 23.6% and 29% believe a woman has the right to have an abortion if she is unmarried or for economic reasons, respectively. Although options for effective contraception and use of modern methods are increasing in Romania, abortion may remain a method of fertility regulation with normative support in the near term. Post-abortion contraception may be an important reproductive health service strategy for health system planners and those managing public sector maternity and family planning services to consider (Creangă et al., 2006:18-19).

If we look at women's attitudes related to some aspects of sexual, reproductive and family behaviour starting from the 2004 RHS data, we can see significant differences among the age-groups (Figure 5). A first observation is that the youngest women (15-24 years) seem to have, for each statement, more traditional attitudes as compared to older women, and they also seem to be more undecided and confused in their opinions. Thus, adolescents and young women think to a great extent that a woman must have as many children as God gives them and that the responsibility for the childcare is exclusively the woman's obligation. On the other hand, women from this age-group believe in the least extent that a woman has always the right to decide on its own pregnancy, including abortion.

As compared to women aged 25-34, youngest women value the virginity at marriage more, but they disapprove the universality of marriage less. The more traditional attitudes of the adolescent and young women are combined with an informational deficit about the sexual and reproductive behaviour. Thus, youngest women know in the least extent the fact that a woman can remain pregnant at the first sexual intercourse, and they also declare most often they do not know what to say.

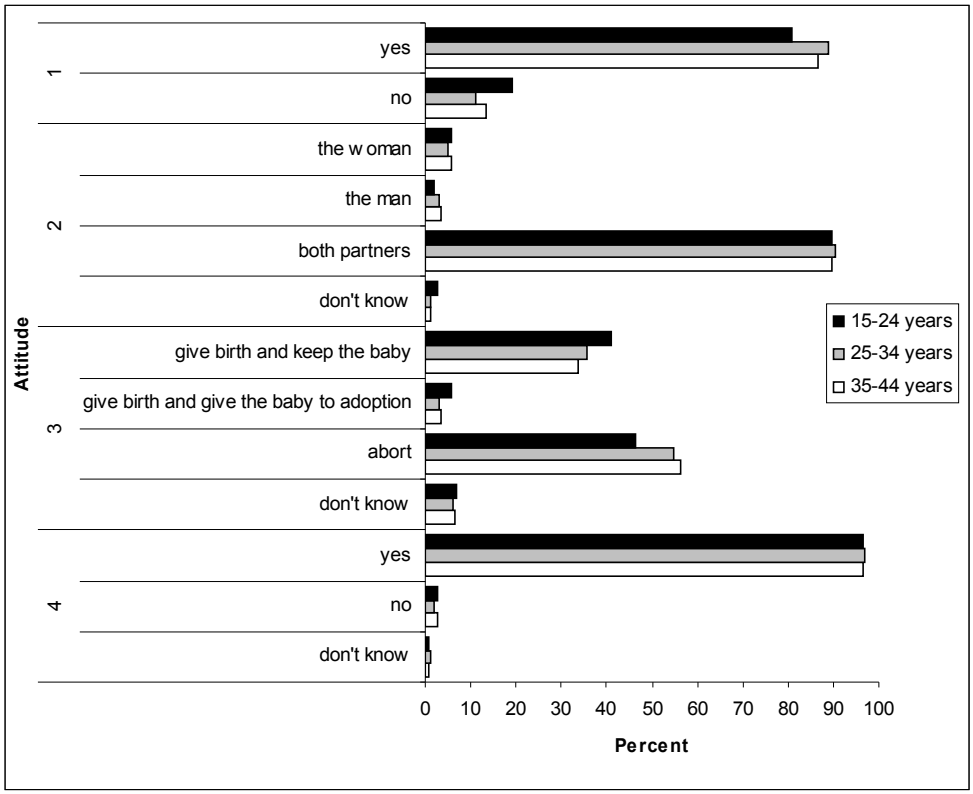
Figure 5. Attitudes of Romanian women toward aspects of sexuality, reproductive and family behaviour (RHS 2004)



Legend: 1 – A woman has always the right to decide on her pregnancy, including on abortion. 2 – A woman can remain pregnant at the first sexual intercourse. 3 – Everybody has to get married. 4 – Women must have as many children as God gives them. 5 – Growing children is only the responsibility of women. 6 – Women have to be virgin when they get married.

The lack of information related to the sexual and reproductive behaviour among young women can be also seen in Figure 6. Women in the age-group 15-24 declare in the least extent they know what contraception means and affirm to a greater extent, compared with the next age-group, that woman should rather assume the responsibility of pregnancy avoidance. On the other hand, the same young women, who have the smallest probability to be in a marital union, declare to the greatest extent that they would give birth to a child to take care of him or to give him away for adoption, if confronted with an unplanned pregnancy.

Figure 6. Opinions about some aspects of the sexuality of Romanian women in 2004 RRHS



Legend: 1 – Do you know what does contraception mean? 2 – Who should be responsible to avoid the unwanted pregnancies? 3 – If a woman has an unwanted pregnancy, what she should do? 4 – Should one learn at school about how pregnancies occur, about contraception and about sexually transmitted diseases?

Discussion and conclusions

After 1989, family connected demographic behaviours in Romania have followed similar trends with Western and Northern European countries, but at the same time, they have kept some specific characteristics. Cohabitation is spreading, but as results from our analysis show, it is a life style preferred rather by less educated, inactive persons, with a lower socio-economic status, being thus a behaviour different from that in the western or northern part of the continent. To a much greater extent than cohabitation, the extra-marital births have massively increased after 1989, fact that raises the question on whether we witness a change of fertility pattern in our country, whether these

births are the result of a deliberate choice, or they are rather unplanned pregnancies/births, resulting from the insufficient or inefficient use of contraception. The results of our analysis induce us to give credit to the second explanation.

The combination between the traditional attitudes and the lack of sexual education for the adolescent and young women represents the premise of the occurrence of an unwanted pregnancy, which can end in a birth outside marriage. We have already seen that in the 1990s the majority of non-marital births have been typical of women aged less than 20. What could be the explanation for the attitudes of the young generations of women, which seems contrary to the model promoted by mass-media? Women aged 15-24 at 2004 RHS were born in the 1980s, passing their childhood and adolescence in the post-communist Romanian society. The absence of sexual education in family and in schools, combined, on one hand, with the study of religion in schools, introduced as compulsory discipline in the mass educational system until the eighth grade, and on the other hand, the pro-occidental information in mass-media, created disparate, contradictory and non-structured messages that have contributed to the formation of a rather confused identity among the Romanian adolescents and young women. The openness to religion after 1990 has guided the attitudes of young, especially of adolescent women to a rather traditionalist direction in the family and reproductive matters, but the emptiness in as far as education for the reproductive health is concerned, not assumed either by the family nor school, or by the church, have lead to the increase and the maintenance at a high level of the non-marital fertility among young women in Romania.

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References

Ali, M.M., Cleland, J. (1995). "Contraceptive discontinuation in six developing countries: A cause-specific analysis", *International Family Planning Perspectives*, 21(3): 92-97.

Arno, Sprangers; Garssen, Joop. (2003). "Non-marital fertility in the European Economic Area." http://www.cbs.nl/NR/rdonlyres/441AC4F4-0ED5-4E32-B12D-A100BC83552E/0/nonmarital.pdf.

Bhatt, P.N.M., Halli, S.S. (1998). "Factors influencing continuation of IUD use in South India: Evidence from a multivariate analysis", *Journal of Biosocial Sciences*, 30: 297-319.

Billari, F. (2004). *Choices, opportunities and constraints of partnership, childbearing and parenting: the patterns in the 1990s*, UNECE European Population Forum 2004: Population Challenges and Policy Responses.

Billari, F.; Caltabiano, M.; Dalla Zuanna, G. (2007). „The heirs of sexual revolution", in Billari, C., Caltabiano, M., Dalla Zuanna, G. (Eds.), *Sexual and Affective Behaviour of Students. An International Research*. Cleup. Padova: 1-47.

Creangă, Andreea A.; Acharya, Rajib; Ahmed, Saifuddin; Tsui, Amy O. (2006). "Contraceptive Discontinuation, Failure and Subsequent Abortions in Romania: 1994-1999", paper presented at the annual meeting of the Population Association of America (PAA). Los Angeles, California, 30 March 2006, http://paa2006.princeton.edu/download.aspx?submissionId=61326.

Curtis, S.L., Blanc, A. (1997). "Determinants of contraceptive failure, switching and discontinuation: An analysis of DHS contraceptive histories", *DHS Analytical Report No. 6*, Calverton, Maryland: Macro International Inc.

Hoem, J.M., Jasilioniene, A., Kostova, D., Mureşan, C. (2007). "The Second Demographic Transition in selected countriesin Central and Eastern Europe: Union formation as a demographic manifestation." *MPIDR working paper*, WP-2007-026.

Lesthaeghe, Ron. (2000). "Europe's demographic issues: fertility, household formation and replacement migration." IPD-WP 2000-6.

Ministry of Health, World Bank, UNFPA, USAID, UNICEF. (2005). *Reproductive health survey: Romania, 2004. Summary Report*. Buzău: Alpha MDN.

Moreno, L. (1993). "Differences by residence and education in contraceptive failure rates in developing countries", *International Family Planning Perspectives*, 19(2): 54-60.

Mureşan, Cornelia. (2007). "How advanced Romania is in the Second Demographic Transition?". *Romanian Journal of Population Studies*, I, 1-2: 46-60.

Oaneş, Cristina. (2007). "The debut of sexual and contraceptive life of Romanian women", *Romanian Journal of Population Studies*, I, 1-2: 61-91.

Philipov, Dimiter. (2001). "Low fertility in Central and Eastern Europe: Culture or economy?", paper presented at the IUSSP Seminar on International Perspectives on Low Fertility: Trends, Theories and Policies, Tokyo, Japan.

Riley, A.P., Steward, M.K., Chakraborty, J. (1994). "Program- and method-related determinants of first DMPA use duration in rural Bangaldesh", Studies in Family Planning, Sep-Oct, 25(5): 255-67.

Steele, F., Diamond, I., Wang, D. (1996). "The determinants of the duration of contraceptive use in China: A multilevel multinomial discrete-hazards modeling approach", Demography, 33(1): 12-23.

UNICEF, INS, Autoritatea Naţională pentru Protecţia Copilului şi Adopţie. (2001). *Familia şi copilul în România*. Bucureşti.

The Rise of Cohabitation and Childbearing Outside of Marriage in Bulgaria

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Abstract: Together with the political and economic changes in the 1990s in all Eastern European countries are observed also drastic demographic changes. The most prominent ones, regarding the fertility in Bulgaria is the rise of postponement of births, the emergence of new family forms and a high rise in the out-of-wedlock births. In our study, we analyse the increase of cohabitation, the delay of first birth and the interrelation between these events. We pay a special attention to the influence of education level of women on the preferences of family formation and childbearing. The data we use comes from the Social Capital Survey conducted in 2002 in Bulgaria. Our results show that when a conception occurs, women tend more to marry directly than form a consensual union. Yet, the increase in the share of non-marital births is due to the spread of cohabitation. We also found out that first birth in Bulgaria is a universal process and is not influenced by the education level of the women. But, higher educated women prefer to marry directly, than start their union formation with cohabitation. Also, enrolment in education delays woman's transition to adulthood.

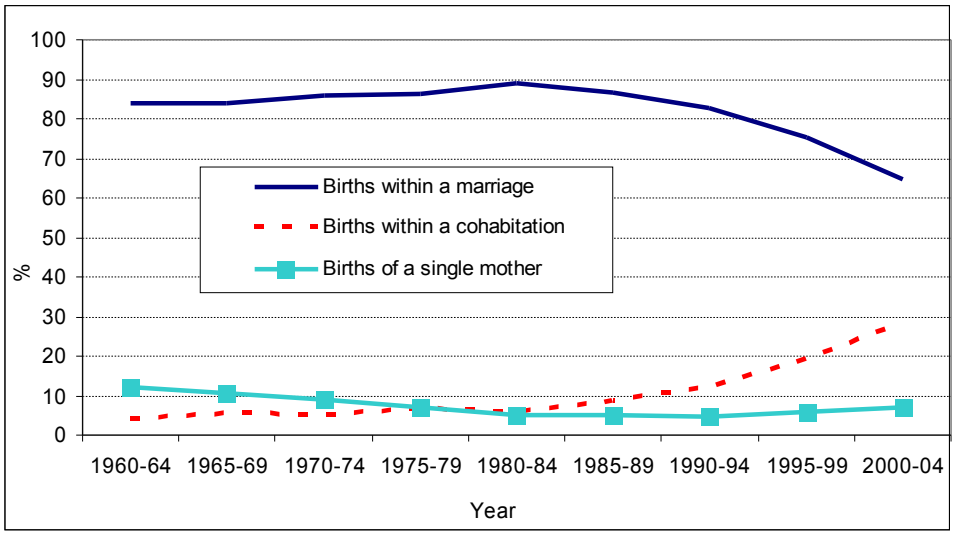
Keywords: cohabitation, childbearing, Bulgaria

1. Introduction

All the political and economic changes in Eastern Europe after 1989 influenced changes in all other spheres of life, including culture, values and traditions. Of course, changes on demographic level also appeared, and since then they are a topic of profound research and vivid discussion in the scientific literature. Similarly as in the other ex-socialist countries, the demographic transformations in Bulgaria, follow a certain pattern that becomes more comparable with those in the Western countries. For instance, the main characteristics in fertility before the transition period were two-child family model; early age at childbearing, clustered into a narrow age interval and almost universal births (Philipov, 2000). What we observe for the transition period is

break of the two-child family model, rise in the mean age of first birth. And, the country already belongs to a group of countries with "lowest low fertility" (Kohler et al., 2002). Changes appeared in the family trends as well. The main characteristics, such as early age at marriage, low percent of out-of-wedlock births and relatively low divorce rates are fading away. What we observe is a rise in the mean age at first marriage, high percent of births outside marriage (every 3rd), the number of divorces decreases but the risk for divorce among first marriages is increasing (Sougareva, 1995).

Figure 1. First births according to the union status of the women



Source: Kostova (forthcoming) estimated on the basis of the GGS[1] data

In Figure 1 are plotted the proportion of births according to the marital status of the mother. We see that since the end of the 1980s there is a substantial rise in the percentage of births coming from unmarried, but cohabiting parents. At the end of the 1980s about 10 % of the births were from cohabiting mothers, while in the beginning of the new century they are about 30 % of all births. Of course, at the same time, the percentage of births coming from married couples is diminishing – from almost 90 % in the mid-1980s to 63 % in the 2000-2004.

[1] More information fort his data set is available at http://www.unece.org/pau/ggp/Welcome.html

Marriage was often pointed out as the only accepted form of family living under socialism. Similarly, non-marital births were not approved by public opinion; therefore, marriage was a precondition for having children in Bulgaria (Zhekova, 2001). However, there is a clear break of this trend and people tend to give births outside of an institutionalized marriage.

There is also a tendency that more marriages begin with a consensual union formation first, this would mean that there is drop in the direct marriages. In Table 1 we give the percentage of marriages that have started with a consensual union.

Table 1. Proportion of first unions beginning in cohabitation over calendar time

Year of union formation	Percentage
1970-79	23.2
1980-84	24.1
1985-89	26.0
1990-94	33.8
1995-99	47.3
2000-04	63.8

Source: Kostova (2007) estimated on the basis of the GGS data

We see that traditionally, about every 4th marriage was starting with a union formation in the 1970s and 1980s, that is still in the socialist times (more discussion on the topic is available in Hoem and Kostova, 2008).

Still, this percentage started significantly to rise in the 1990s and in the beginning of the 2000s, about two thirds of all marriages start with a consensual union.

In table 2 we present the union status of the women at the time of their first birth. The union status is classified as births in a cohabitation, direct marriage, and marriage preceded by cohabitation. In the classification is also taken into account the timing of conception, i.e., whether it was before or after the marriage.

Table 2. First birth by union status of woman (women with children only) (in %)

Cohorts	1955-59	1960-64	1965-69	1970-74	1975-79
(age at the survey)	(45-49)	(40-44)	(35-39)	(30-34)	(25-29)
Union status at 1st birth					
Lone motherhood	7.5	4.2	5.5	4.9	5.2
Cohabitation at first birth	4.4	4.7	5.8	7.4	14.9
Cohabitation/conception/marriage/birth	3.7	6.2	7.0	7.6	15.8
Conception/direct marriage/birth	12.2	13.9	16.4	17.3	17.8
Direct marriage/conception/birth	72.2	71.0	65.3	62.8	46.3
N	295	662	602	648	404

Source: Kostova (2007) estimated on the basis of the GGS data

It is apparent that there are generational differences in the interaction between union status and first birth. Nearly 90% of women born in the late 1950s and in the 1960s had their children within a marriage. Traditionally, for the majority of women in this group (more than 65%), both conception and birth were preceded by marriage. Nonetheless, the proportion of pre-marital conceptions showed an increase over generations. About 33% of all first births in the cohort of 1975-79, were conceived before marriage, while this percentage was 15% for women born in the 1955-59 period. Apart from becoming more frequent, cohabitation has become a more acceptable family environment for bringing up children. Almost 15% of first births to women born in the late 1970s were in non-marital cohabitation.

2. Theoretical background

The demographic changes developed in similar directions in all Eastern European countries. Demographers look for possible explanations that would be valid for all the countries in the region. The explaining theories have developed in two main directions. The one side of the theories is defending the economic reasons that affect the fertility and family behavior of people. The contemporary economic theory of fertility (the New Home Economics) is mainly connected with the name of Gary Becker (1991), whose basic idea is that parents demand for higher quality of children rather than higher quantity

of children. According to Becker (1991) the rise in income has contributed most crucially to the observed changes in family formation in the last decades, including the rise in the divorce rates and the drop in the fertility rates.

Of course, the rise in female income is considered not to be the only reason for the fertility drop. It is regarded that the level of education is also a factor behind the drop in the marriage rates and the rise of the mean age of marriage. Stigler and Becker (1977) claim that higher educated women have less utility from a marriage. Education can also affect marriages due to a rise in the mean age of entering a marriage (Carlson, 1979; Keely, 1977). One of the reasons for this is that the utility of entering a marriage while the person is still in the educational system is very low, which can affect divorce rates through the connection between education and age of entering a marriage: studies show that the effect of age at marriage on divorce has a concave curve (Stigler and Becker, 1977). Obviously, a high level of education reduces divorces through the reduction of relatively early marriages (Bumpass and Sweet, 1972).

Oppenheimer (1988) considers that socio-economic factors have a very important influence on the trends and differences in the timing of entering a marriage and these factors have a high degree of non-prediction.

All the theoretical considerations are developing different aspects of the changing demographic behavior of the populations. There is a lot of discussion of the validity of those theories and a lot of criticism. However, most of the researchers agree that the drop in fertility and change in the family behavior of people is connected with the rise in the economic uncertainty in the ex-socialist countries (higher unemployment, low social benefits, inflation and so on), relative deprivation (low income,) rising costs for children (the pronatalistic policies are not efficient any more), etc (Kantorova, 2004; Speder, 2003, Kostova, forthcoming).

The other side of the theories deals with the notion that the values and ideas of people are changing with time. These theories look for an answer as to how these values change and affect fertility by affecting the choice of the people when to have a child or if to have a child at all, when to marry or to marry at all.

The idea of changes in the value system of the societies and their impact on the fertility behavior of the people is most often associated with the notion of a Second Demographic Transition which was introduced for the first time by Lesthaeghe and van de Kaa (1986). Their theory is based on the observed tendencies in western countries.

According to van de Kaa (1987), the logical consequences of the demographic changes are characterized by the transitions from the golden ages

of marriage to the dawn of cohabitation; from the era of the child-king to the era of parent-kings with a child; from the contraceptive means of pregnancy to getting pregnant according to one's own will; and the transition to pluralistic families and households. These changes in fertility and family formation became possible because of wide range of cultural and value changes that occurred in the 1960s in Western Europe.

According to Preston (1986) the value system and its institutional, legal and personal manifestations are among the factors that affect people's behavior. The individuals are constantly pressured to choose and the chosen behavior is more or less compatible with the prevailing value systems.

Lesthaeghe and Surkyn (1988) deal with the role of social stratification and education in the process of cultural transmission This coincides to some extent with the classical theories of Tarde (1890) and Sorokin (1947) who claim that the cultural changes start from the higher strata in the society as a result of the privileges, education and concentration of means and opportunities; the lower social strata perceive the new preferences through imitation. It is well accepted that education may also affect the "traditional" forms of behavior. In this connection demographic diffusion theories also have an important point to make. The diffusion of ideas, behavior and techniques is often considered to follow the routines established by socio-cultural forces such as language, ethnicity, living quarter, working place, or channels of communication and exchange (de Bruijn, 1999; Kohler et al., 2001). According to Kirk (1996), diffusion is not only a residual effect, it is an active factor in the increase or decrease of birth control. The fact that an individual or a family accepts or refuses family planning can be explained by the readiness of accepting new changes, and not by socio-economic conditions. In other words, birth control is a group decision rather than the sole decision of an individual or a family (Kirk, 1996).

3. Data and Methods

In our study we want to analyse the relationship between childbirth and union formation in Bulgaria and compare the development of the trends through calendar time. Additionally, we want to analyse the effect of the educational level and education participation of women on the transitions to first birth and first union.

The data that we use stems from the first wave of the sample panel study, the so-called Social Capital Survey, conducted in 2002. The sample size is 4 775 women aged 18 – 34 at the time of the interview. The survey has gathered individual level data on birth, marital and education histories of

women. This allows us to use the more modern instruments of analysis as for instance, the even history analysis method.

Out time varying covariates are 1. Calendar time; 2. Marital status (in the transition for first birth); 3. Motherhood status (in the transition for union formation); 4. Level of education (three categories); and 5. Participation in education (dichotomous variable). Our time constant variables are: 1. Ethnic group; 2. Place of residence (till age 15); 3. Number of siblings; and 4. Level of religiosity.

In the current paper we will report exclusively the results referring to education level and education participation. The results according to ethnic groups are behind the scope of the following paper. Still, it is important to know what our models control for.

Event history analysis is the most suitable method for studying the individual's life course transitions. We will use such a method in the present project when studying the fertility and family behavior of women in Bulgaria.

According to Blossfeld and Rohwer (1995), the essence of the event history analysis is that it deals with events that occur in the life course of the individuals: these events mark the transitions from one state to another. The event history analysis studies the transitions between the different states as well as the length of the time interval between entering and exiting the specific state. The time spent in a given state is also sometimes called the episode, spell, waiting time or duration.

Espenshade and Braun (1982) state that the proper study of the transitions in life includes a reference to age, historical time, and duration of stay in a particular status. Age has a normative influence on the timing of transitions, the historical settings are unique for each cohort or state and they can affect transitions in certain ways, and the duration of a stay in a given status is an important factor in analyzing the individual's life course.

The statistical tool used in the analyses of event histories is hazard models (known also as intensity models, hazard rates or transition rates). Hazard regressions deal with the structure and correlations of the occurrence of the events (Yamaguchi, 1991). By definition, the occurrence of an event assumes a preceding time interval, which is the non-occurrence of the event. In other words, there should be a certain time period of non-occurrence of the event so that the occurrence could be considered as an "event".

In our case, the three events that we study are the transition to first cohabitation, the transition to direct marriage, and the transition to first birth. We start the observation at age 13 of the women. The reason for choosing such an early age is that we have enough case in our sample of early

childbearing and union formation and we decided no to exclude this peculiar group of people. In the study of direct marriage, we right-censor the women (stop to observe them) when they start cohabiting or on the date of the interview. When we study the entry into first cohabitation, we stop the observation either at the time of the interview (when no event has occurred) or if a direct marriage is formed. In the study of first birth, we observe the women till the date of the interview.

Our models can be presented with the formula:

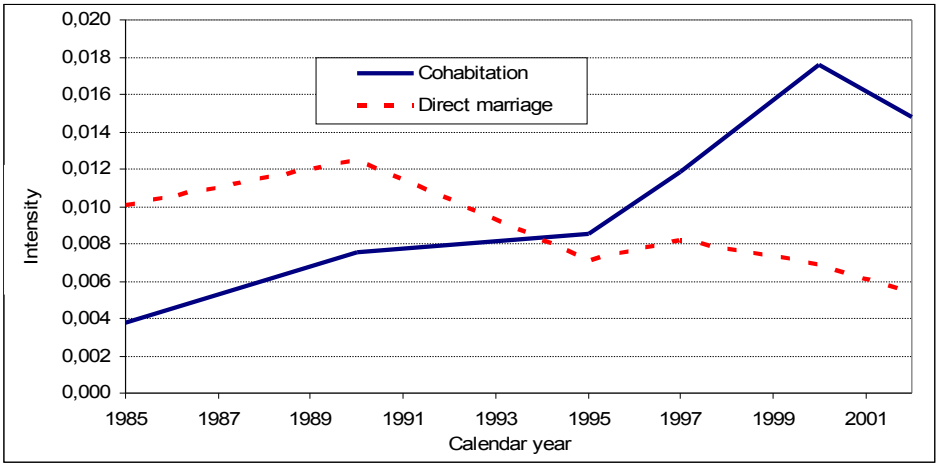
$$\ln h(t) = y(t) + \sum_j \alpha_j \chi_j + \sum_i \alpha_i \omega_i(t) + \sum_k z_k(u_k + t)$$

where $\ln h(t)$ is the log hazard rate of a process for each individual at time (t). The notation $y(t)$ represents a piece-wise linear spline, which captures the influence of current age on the intensity of this process. The time-constant covariates χ_j with parameters α_j are ethnic group, number of siblings, place of residence till age 15 and level of religiosity. The time-varying covariates $\omega_i(t)$ include education attainment, education enrolment and union status of each woman. We have also included duration splines in our model $z_k(u_k + t)$ that capture the effects of covariates that are continuous functions of t starting from an origin u_k relevant for each individual and each covariate. In the separate models, these splines are effects of current calendar year (starting in year 1985), duration since first marriage, starting at marriage formation, and duration since first cohabitation, starting at the formation of such a union.

4. Results

The results show that there is strong decline of direct marriages right with the start of the 1990s (Figure 2). At the same time a rise in cohabitations is observed, but this becomes more pronounced only after mid-1990s. This shows that the change of the union formation patterns occurs with a span of some years and is not an immediate reaction after the start of the transition period.

Figure 2. Intensities of direct marriage and cohabitation by calendar year



Women who are pregnant with their first child have a high risk of entering a direct marriage (Table 3) – about 21 times higher than women who do not have a child. Women who have not formed a union by the time or during the time of their pregnancy are the most likely to get married. Many people want to bring up their child within a family and so as soon as they realize they are pregnant they commit to a marriage. Women who have not married during the pregnancy may do so after the birth of the child. Mothers of one child still have an almost 70 % higher risk of getting married than women with no children. A second pregnancy also leads to a high likelihood of getting married: about three times higher than the reference group. Women who have not married by the time of the birth of their second child will most probably stay unmarried – they have the lowest risk of entering a direct marriage.

Table 3. Relative risks of transition to direct marriage and cohabitation according to motherhood status

	Direct marriage		Cohabitation	
	Relative risk	Sig.	Relative risk	Sig.
Motherhood status				
No child, no pregnancy (ref)	1		1	
No child, 1st pregnancy	21.55	***	5.42	***
Parity 1	1.68	***	0.68	*
Parity one, pregnant	3.01	***	0.80	
Parity 2	0.50	*	0.18	***

Pregnancy has a strong (but not that strong as for direct marriage) impact in transition to cohabitation. Women who conceive out of a union have about five times higher risk of entering a cohabitation than women who do not have children. If a woman has not formed a union during the pregnancy, the risk of doing so after the birth of a child is very low. Women with a child have 30 % lower risk of making a transition to cohabitation than women without children.

A second pregnancy also does not elevate the risk of entering a cohabitation. In general, the highest risk of entering a cohabitation can be found during the first pregnancy of the woman. Having a child, being pregnant with a second child or having two children decreases significantly the risk of forming a cohabitation.

In table 4 we present the results on the transition to direct marriage and cohabitation according to education attainment and education enrolment.

Table 4. Relative risk of transitions to direct marriage and cohabitation according to education attainment and education enrolment

	Direct marriage		Cohabitation	
	Relative risk	Sig.	Relative risk	Sig.
Education level				
Primary	0.68	***	1.04	
Secondary (ref)	1		1	
Higher	1.10		0.66	***
Education enrolment				
Out of education (ref)	1		1	
In education	0.56	***	0.41	***

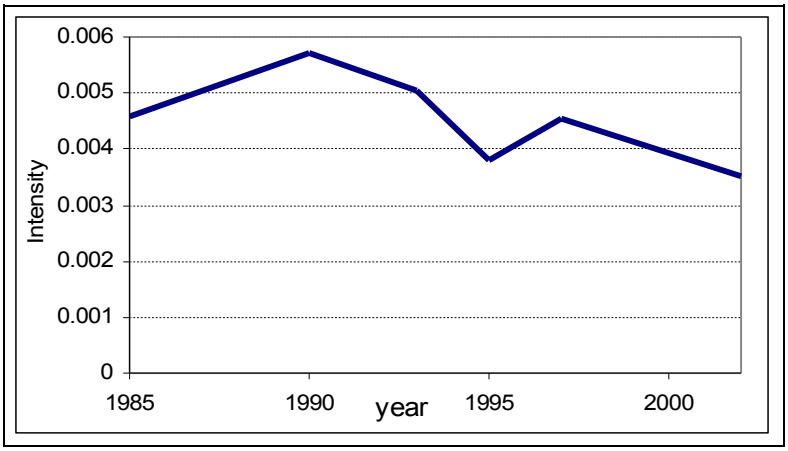
Our results show that women with the lowest education have the lowest transition to direct marriage. We found out that women with higher education are the least susceptible to forming consensual union, while between the secondary and primary educated women we did not find any differences. This finding is in contrast with our expectations and assumptions.

Contrary to the expectations that women with higher education are the heralds of new ideas and the ones who first accept the non-marital cohabitation (Lesthaeghe, 1995), here we see that this is not the case in Bulgaria. It turns out that women with primary education also have a low risk of entering a marriage. Similar results have been obtained in other countries (Kantorova, 2004; Bumpass et al., 1991). We suppose that women with primary education belong to the group of people having no good position in the labor market and thus the delay of marriages is caused by financial

difficulties. Cohabitation requires less investment and does not involve long-term commitment. Therefore it might be a preferred replacement of marriage for the poorly educated women (Thornton et al. 1995). Another reason for the higher proneness of the higher educated women to enter a marriage could be the longer time that they invest in education. Usually they postpone the union formation activities until they finish education and after that, within a short time, they form a family.

Being in education leads to a significantly lower level of willingness to form a family – no matter if we are talking about marriage or cohabitation. A widespread view of this trend is that enrolment in education delays women's transition to adulthood, in line with the normative expectations that if women are studying, they are still not 'ready' for marriage and motherhood (Blossfeld and Huinink, 1991). Also, it is regarded that a woman in studies is economically dependent on her parents which affects her ability to marry or form a union.

Figure 3. First birth intensity by calendar year



In Figure 3 is presented the intensity of first births according to calendar year. We observe an elevation of the risk until 1990 and a strong drop afterwards. After 1995 there was a small recovery and the risk of first birth increased until 1997, after which it steadily went down again. In general, with some fluctuations, we observe a steady decrease in the likelihood to have a first birth since the start of the transitions in Bulgaria.

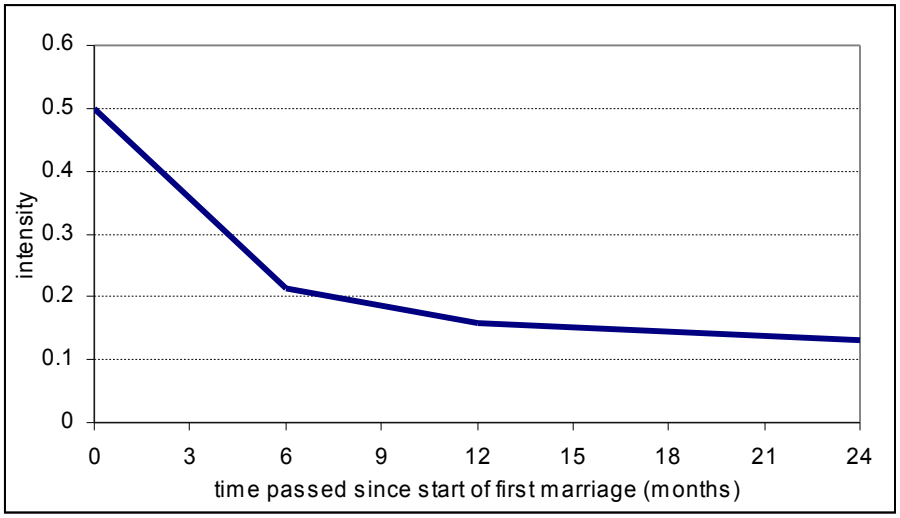
Table 5. Relative risk of first birth by union status

	Relative risk	Sig.
Civil status		
Single	0.09	***
Cohabiting	0.66	***
Married directly (ref.)	1	
Married after cohabitation	1.21	**

The results on the relative risk of first birth according to the union status of the women show that a woman who is in marriage (direct or after cohabitation) has a significantly higher risk of becoming a mother than a woman who is cohabiting (Table 5). If we compare the two groups of married women, we see that women who married after being in cohabitation have 21 % higher risk to enter motherhood than women who married directly. Transforming a cohabitational union into a marriage is connected to the higher risk of giving birth to a child.

The high risk of first conception when entering a marriage shows that there is a tight connection between marriage and childbearing. In order to see the influence of the marriage duration on childbearing, we introduced to our model an additional spline indicating the time passed since start of marriage. It operates only for women who get married (Figure 4).

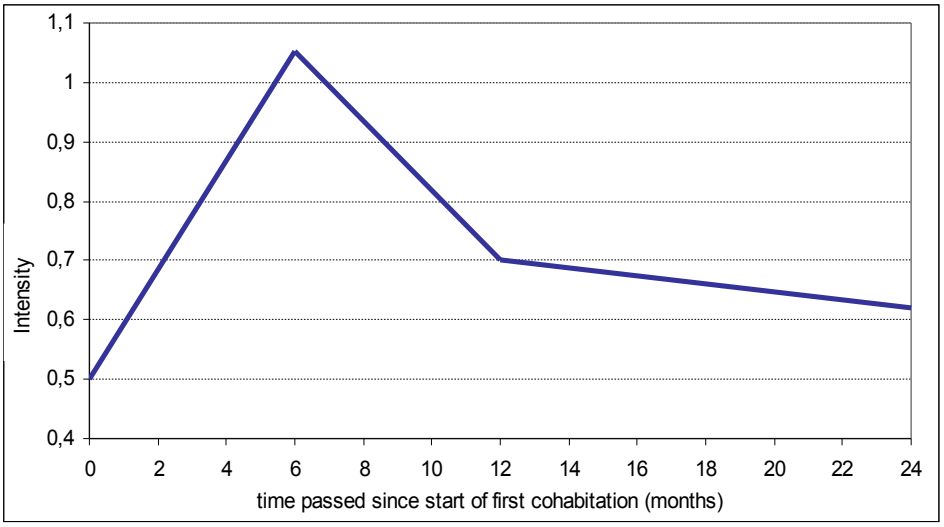
Figure 4. First conception intensity according to the time passed since start of first marriage



We have the highest risk of conceiving in the first half a year of the marriage. The risk stays relatively high during the first year and after that is very low. When a woman decides to get married, she is most likely to get pregnant within the first year of marriage. Or: if a woman starts to think of children, she also starts to think of a "legal" family formation.

In order to see if this also holds true for cohabitation, we added to this model an additional spline indicating the time passed since start of cohabitation. It again operates only for women who live in cohabitation and starts with the beginning of the cohabitation. The result is plotted in Figure 5.

Figure 5. First conception intensity according to the time passed since start of cohabitation



The risk of first conception in cohabitation has a different pattern of duration-dependency than that in marriage. At the start of the cohabitation, the women are not highly prone to conceiving a child. The risk elevates after several months of living together to peak at six months after the start of the cohabitation. After one year in this simple consensual union, the risk of conceiving decreases substantially. So, cohabitation is not as highly associated with childbearing as marriage, especially at the beginning of the union. The proneness to childbearing comes a bit later – within half a year from the start of the union.

Union formation in general leads to a higher likelihood of childbirth, but when the union is marriage, then this is even higher. This demonstrates that many people tend to live in cohabitation, but when it comes to

childbearing, they prefer to have it in a "legal" family. To conclude, the results show that the relationship between marriage and birth is much stronger than between cohabitation and birth.

It is interesting to see if the education attainment and education enrolment have any influence on the decision to make a transition towards first birth. Our results are presented in Table 6.

Table 6. Relative risk of first birth according to education attainment and education enrolment

	Relative risk	Sig.
Education level		
Primary	0.90	*
Secondary (ref)	1	
Higher	0.96	
Education enrolment		
Out of education (ref)	1	
In education	0.46	***

The risk of first birth for the primary educated women is 10 % lower than the one for the secondary educated women. There is almost no difference in the risk between secondary and higher educated women.

The lack of any substantial difference between the women with differing education levels could be due to the fact that the transition to first birth in Bulgaria is still a very universal process – more than 90 % of women have at least one child. The women who nevertheless stay childless do not have obviously different education levels to the mothers; in other words, education does not influence the transition to motherhood. We would assume that staying childless is either unwanted or is a decision that is not influenced by the education attainment.

Being in education significantly reduces the risk of first birth. The finding supports the argument which states that society has normative expectations that young women in education are not at risk of entering into parenthood. The negative effect of education enrolment on first birth is found to be valid by other researchers for many other countries (Blossfeld and Jaenichen, 1992; Lappegard and Rønsen, 2004; Kantorova, 2004; to name a few).

5. Summary and conclusions

Our results showed that there is certainly a significant drop in the intensities for direct marriage after year 1990. At the same time we observe a rise in the cohabitation intensities, but only after the mid-1990s. There is a small gap in the time between these events. Obviously, the first reaction to the economic and societal changes was to postpone marriages and after some years the cohabitation gained popularity as a replacement of marriage.

Opposite to the theoretical expectations, our results showed that the lower educated women tend to form cohabitation rather that direct marriage. As we mentioned already, this contradicts the idea that the new trend setters are coming from the higher strata of the society (Blossfeld and Huinink, 1991). In the case of Bulgaria, it may mean that the cohabitation as an alternative to marriage is seen as a cheaper option to the expensive marriage rituals.

Obviously, cohabitation here is not having the meaning of a new lifestyle, coming from ideational changes. It seems that in a society like Bulgaria it is just a practical substitute to the traditional family formation. Still, marriage and birth seem to be very highly correlated. Our results showed that when a conception occurs, women have higher tendency to form an union and the preference is higher for marriage than for a cohabitation. Similar results are found by Hoem and Kostova (2008). The other direction is also valid – women who get married tend to conceive within six months of the start of the marriage. So, the step to marry is highly correlated with the childbearing plans of the women. However, there are still births outside of marriage and they are a result of the higher spread of cohabitation. It is important to see, that the high percentage of out of wedlock births does not necessarily mean that these births are out of union.

Additionally, our analysis showed that the first birth is still a universal process in Bulgaria. Almost all women get at least one child in their reproductive years, only the timing is different. And, when it comes to childbearing, there is no difference between the education level of women. Other studies have showed that there is an effect on the timing – higher educated women get their first child later that the primary educated Kantorova 2004). Hence, in Bulgaria we found only a weak support for the hypothesis that the higher opportunity costs of childbearing inhibits transition to motherhood among women with higher education.

Education enrolment showed to have a negative effect on union formation and birth. While in studies, women tend to postpone family and childbearing transitions in their lives. We can assume that more women continue their education at universities with the hope to find better

opportunities on the labor market afterwards. Todorova (2000) also states that nowadays many couples postpone forming a family till they acquire economic independence, a behavior which has firm traditions in western societies. Such a behavior leads directly to strong postponement of marriages and births. In general, we can claim that enrolment in education delays women's transition to adulthood.

As a whole, we can conclude that the two sides of the theories that are popular for explaining the demographic changes are not fully applicable for a country like Bulgaria. We refer to Philipov (2002) and Genov (1998) who claim that a very important influence for those changes in the demographic trends played the appearance of anomie in the society. Disorientation and uncertainty may affect people in a way that they decide to postpone or even reject crucial and irreversible life events, such as marriage or a birth of a child (Philipov 2002). In this respect, we assume that except economic problems and transition and westernization of the society, Bulgaria experienced some deeper changes in the society, which still need to be more profoundly studied.

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References

Becker, G. (1991). "The Demand for Children". In: Anonymous *A Treatise on the Family*, Enlarged Edition edn. Cambridge: Harvard University:

Blossfeld, H. and Huinink, J. (1991). "Human Capital Investments or Norms of Role Transition? How Women's Schooling and Career Affect the process of Family Formation". *American Journal of Sociology* 97, 143-168.

Blossfeld, H.-P. and Jaenichen, U. (1992). "Educational Expansion and Changes in Women's Entry into Marriage and Motherhood in the Federal Republic of Germany". *Journal of Marriage and the Family* 54, 302-315.

Blossfeld, H.-P. and Rohwer, G. (1995). *Techniques of Event History Modeling: New Approaches to Causal Analysis*, edn. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

de Bruijn, B. (1999). *Foundations of Demographic Theory. Choice, Process, Context*, edn. the Netherlands: Thela Thesis.

Bumpass, L.L. and Sweet, J.A. (1972). "Differentials in Marital Instability: 1970". *American Sociological Review* 37, 754-766.

Bumpass, L.L., Sweet, J.A. and Cherlin, A. (1991). "The Role of Cohabitation in Declining Rates of Marriage". *Journal of Marriage and the Family* 53, 913-927.

Carlson, E. (1979). "Family Background, School and Early Marriage". *Journal of Marriage and the Family* 41, 341-353.

Espenshade, T.J. and Braun, R.E. (1982). "Life Course Analysis and Multistate Demography: An Application to Marriage, Divorce and Remarriage". *Journal of Marriage and the Family* 44, 1025-1036.

Genov, N. (1998). "Transformation and Anomie: Problems of Quality of Life in Bulgaria". *Social Indicators Research* 43, 197-209.

Hoem, J. M. and Kostova, D. (2008). "Early traces of the Second Demographic Transition in Bulgaria, a joint analysis of marital and non-marital union formation, 1960-2004". *Population Studies*, 62.

van de Kaa, D.J. (1987). "Europe's Second Demographic Transition". *Population Bulletin* 42, 1-57.

Kantorova, V. (2004). *Family Life Transitions of Young Women in a Changing Society: First Union Formation and Birth of First Child in the Czech Republik, 1970-1997*. Charles University in Prague.

Keely, M. (1977). "The Economics of Family Formation". *Economic Inquiry* 15, 238-250.

Kirk, D. (1996). "Demographic Transition Theory". *Population Studies* 50, 361-387.

Kohler, H.-P., Behrman, J.R. and Watkins, S.C. (2001). "The Density of Soical Networks and Fertility Decisions: Evidence from Sounth Nyanza District, Kenya". *Demography* 38, 43-58.

Kohler, H.-P., Billari, F.C. and Ortega, J.A. (2002). "The Emergence of Lowest-Low Fertility in Europe During the 1990s'. *Population and Development Review* 28, 641-680.

Kostova, D. (forthcoming). *Union formation in times of social and economic change: evidence from Bulgarian and Russian GGS* Doctoral Dissertation, University of Rostock.

Kostova, D. (2007). "The emergence of cohabitation in a transitional socio-economic contest: evidence from Bulgaria and Russia". *Demográfia (English edition)*, 50:5, 135-162.

Lappegard, T. and Rønsen, M. (2004). "The Multifaceted Impact of Education on Entry into Motherhood". paper, presented at the conference of *Population Association of America, Boston,* April, 2004.

Lesthaeghe, R. (1995). 'The Second Demographic Transition: An Interpretation'. In: Mason, K.O. and Jensen, A.-M., (Eds.) *Gender and Family Change in Industrialized Countries*, Oxford: 17-62.

Lesthaeghe, R. and van de Kaa, D.J. (1986). Lesthaeghe, R. and van de Kaa, D.J., (Eds.) Mens en Maatschappij.

Lesthaege, R. and Surkyn, J. (1988). "Cultural Dynamics and Economic Theories of Fertility Change". *Population and Development Review* 14, 1-45.

Oppenheimer, V.K. (1988). A Theory of Marriage Timing. *American Journal of Sociology* 94, 563-591.

Philipov, D. (2002). "Fertility in Times of Discontinuous Societal Change: The Case of Central and Eastern Europe". *MPIDR Working Paper WP 2002-024*

Philipov, D. (2000). "Population Development in Bulgaria". *Chapter 3 in: New Demographic Faces in Europe*

Preston, S.H. (1986). "Changing Values and Falling Birth Rates". *Population and Development Review* 12, 176-195.

Sorokin, P. (1947). *Society, Culture and Personality*, edn. New York: Harper and Brothers.

Speder, Z. (2003). "Fertility Behaviour in a Period of Economic Pressures and Growing Opportunities: Hungary in the 1990s". In: Kotowska, I.E. and Jozwiak, J., (Eds.) *Population of Central and Eastern Europe. Challenges and Opportunities*, Warsaw: Statistical Publishing Establishment: 457-484.

Stigler, G.J. and Becker, G.S. (1977). "De Gustibus Non Est Disputandum". *The American Economic Review* 67, 76-90.

Sougareva, M. (1995). "Marriages and Divorces of the Ethnic Groups in Bulgaria (with the data of the last population census)". *Naselenie* 1-2, 113-123 (in Bulgarian).

Tarde, G. (1890). *The Laws of Immitation*, edn. New York: Holt.

Thornton, A., Axinn, W.G. and Teachman, J.D. (1995). "The Influence of School enrolment and Accumulation on Cohabitation and Marriage in Early Adulthood". *American Sociological Review* 60, 762-774.

Todorova, V. (2000). "Family Law in Bulgaria: Legal Norms and Social Norms". *International Journal of Law, Policy and the Family* 14, 148-181.

Yamaguchi, K. (1991). "Event History Analysis". *Applied Social Research Methods Series* 28

Zhekova, V. (2001). "Reproductive Adjustments and Motives for Giving Birth". *Naselenie* 1-2, 36-55 (in Bulgarian).

The Link between Women's Education and Non-Marital Childbearing in the Czech Republic[1]

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Abstract: Since the 1990s the fertility and nuptiality behaviour of Czech women has changed substantially. Both the sharp decline in fertility and nuptiality levels and the postponement of family formation until higher ages have been extensively analysed. One of the most noticeable trends was the increase in the proportion of non-marital childbirths. It is however still not clear what proportion of unmarried mothers is cohabiting and how many of them are living alone. Until recently, there has not been conducted any systematic research on family situation of new mothers in the Czech Republic. In an attempt to estimate the extent of cohabitation and lone motherhood, their increase during last two decades, and the relationship to woman's education, we use statistic records of births and marriages of the Czech Statistical Office, linked according to the unique ID# of woman, to analyse the behaviour of mothers before and after first childbirth and to estimate the prevalence of mother's family status during childbirth (childbirth in marriage – with/without premarital conception, birth in cohabitation – premarital or permanent, and lone motherhood) and its change over two periods (1991-96 vs. 2001-06).

The increase of proportion of non-marital births in last two decades was counterbalanced especially by the decrease of premarital conceptions: Contrary to the past, when pregnancy was a strong impetus to marry promptly before birth delivery, pregnant single women now tend to stay single. About half of these mothers then experience neither marriage nor second childbirth until next six years, and they are considered as lone mothers. Other quarter marry after childbirth, while last quarter bear also second child without entering marriage. The main finding of this paper is that wide differences exist between educational categories of women. While primary educated mothers tend to be lone or to cohabit even after second childbirth, higher educated women mostly conceive and even concept their first child traditionally after marriage.

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Keywords: Cohabitation, lone motherhood, family formation, first childbirth, first marriage, educational attainment, Czech Republic.

1. Introduction

Since the 1990s the fertility and nuptiality behaviour of Czech women has changed substantially. Both the sharp decline in fertility and nuptiality levels and the postponement of family formation until higher ages have been extensively analysed by many authors. Czech society has been facing a rapid transformation of fertility and nuptiality behaviour accompanied by the weakening of the coupling of the two processes, a spread of cohabitation, an increase in non-marital childbearing, and the decrease in the proportion of "shotgun" marriages (where bride is pregnant). Proposed explanations for these changes range from economic constraints (Stloukal 1997, Rychtaříková 2000, 2008) to the change in values and attitudes of individuals and the notion of second demographic transition (Kučera 1997, Rabušic 2001, Sobotka et al. 2003, Philipov and Dorbritz 2003). A deeper examination of individual behaviours reveals that women of different socio-economic status reacted differently with respect to their fertility and nuptiality behaviours. In this article we focus on the phenomena of non-marital childbearing and its spread among different socio-economic strata of Czech women. The educational attainment is an important determinant of socio-economic status and data about this determinant are readily available (Rychtaříková 2004, Hamplová and Řeháková 2006). According to Spéder (2005: 87),"The level of education was always a very good proxy for social status under state-socialism, and what is more, its central role not only remained, but also gained strength during and after the socio-political transition". Following these arguments we pose the question: What is the link between women's education and the spread of non-marital childbearing and childbearing in cohabitation since the 1990s?

Our analysis use statistic records of births and marriages of the Czech Statistical Office, linked according to the unique ID# of woman, to analyse the behaviour of mothers before and after first childbirth. Each woman is followed for six years after her first childbirth, and the occurrences of second childbirth and (for singles) of the marriage are being recorded. On the basis of the sequence of marriage, first conception and childbirth, and second childbirth, we identify five distinct types of family-formation behaviours – traditional marital childbirth; marital birth after premarital conception ("shotgun marriage"); birth in premarital cohabitation; permanent (or long-standing) cohabitation; and lone motherhood. We observe the change in the proportion of distinct groups during the period change (1991–96 vs. 2001–06),

basic characteristics of the groups, and their incidence by age at childbirth and by the highest attained education of mother.

Our findings are further confronted with results of two other studies on marital and non-marital childbearing and cohabitation in the Czech Republic after 1989 that look on the problem from a different prospective. One uses again data on births of the Czech Statistical Office, but analyses the information about the father of child, second one is a recent survey of family situation of new mothers (SEPM, 2006).

The paper is structured as follows: Chapter 2 shortly sketches the background of recent demographic developments in the Czech Republic related to our topic. In chapter 3 we bring existing evidence on cohabitation and lone motherhood. Data and research strategy of our study is presented in chapter 4 and the results are introduced in the chapter 5. In chapter 6 we confront our findings with the results of other two studies. Chapter 7 concludes and discusses the phenomenon of non-marital childbearing in the Czech Republic, and puts it into the broader framework of the Central Eastern European countries.

2. Czech Republic – Recent developments in family formation in the Czech Republic

The first marriage in the Czech Republic traditionally interplayed with childbearing; in the late 1980s and early 1990s, the proportion of first children who were conceived before marriage but delivered inside marriage exceeded 50% and so about six out of ten first-marrying brides got married while pregnant. A total of more than 80% of children were delivered within 2 years of marriage. The proportion of non-marital births was small, not exceeding 10%, but among some specific groups the proportion was relatively high even at that time (e.g. among primary educated the proportion of first births out of marriage was 28% in 1986 and 39% in 1990). During the later 1990s the strong link between marriage and childbearing weakened: the proportion of non-marital births increased significantly, the pressure to marry in case of pregnancy has relaxed, and the utilisation of premarital and non-marital cohabitation and other types of informal ties was spreading (Sobotka et al. 2003, Zeman 2003).

One of the most noticeable trends was the increase in proportion of non-marital childbirths, and hence, of single mothers. It is however not clear what proportion of such mothers is cohabiting and how many of them are living alone. Until recently, there has not been conducted any representative study about the proportion and characteristics of cohabiting and lone mothers.

Cohabitation is seen as being equal to marriage in many aspects in the Czech society; however there is still high level of esteem for the institution of marriage, especially as an arrangement for rising children (Sobotka et al. 2003). Cohabitation in the Czech Republic was already present as a living arrangement for divorced or widowed partners in the first half of the twentieth century, and since the 1980s it has also been spreading as a premarital phase of partnership, initially among lower-educated young people (Možný 1987, Rychtaříková 1994).

Since the early 1990s, the spread of modern contraception and the improvement of sexual education contributed to a drop in teenage pregnancies and abortions, which were used during socialism as a "contraception *ex post*". However, the phenomenon of unwanted pregnancy resulting in teenage motherhood still persists especially among girls from families of lower socio-economic status, who then often enter the group of lone mothers (Vašková 2006).

The table 1 brings brief overview of the changes in reproductive behaviour in the Czech Republic in the past two decades regarding the number of first births and their distribution according to marital status of mother. The fast drop in fertility levels during the 1990s, the increase of proportion of non-marital childbearing, and the aging of mothers and fertility postponement, were already well analysed in the literature (e.g. Rychtaříková 2000, Rabušic 2001, Sobotka et al. 2003, Zeman 2007, Sobotka et al. 2008).

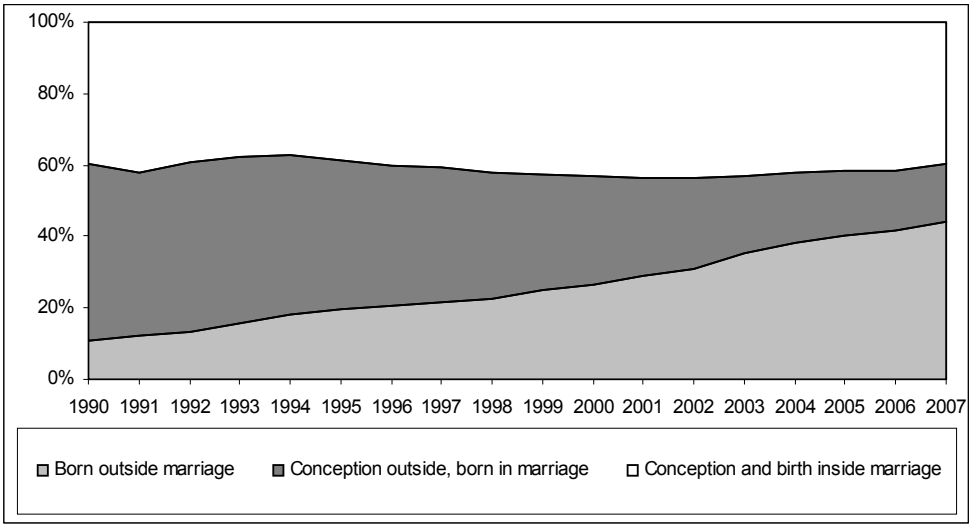
Table 1. First childbirths according to marital status of mother

	1991	**1996**	**2001**	**2006**
TOTAL number of first live births	**64,762**	**42,103**	**43,333**	**51,822**
Births inside marriage	56,859	33,450	30,873	30,287
- incl. premarital conceptions	29,577	16,537	12,008	8,786
Births outside marriage	7,903	8,653	12,460	21,53
Proportion of nonmarital births	12.2%	20.6%	28.8%	41.6%
Mean age of mothers - 1st births	22.4	23.7	25.3	26.9
Mean age of women at first marriage	22.2	24.9	26.9	28.4

As we can see already from the simple graph (figure 1), the proportion of traditional childbirths remains approximately constant during last two decades, on the level around 40%. What is changing is the proportion of non-marital births (increase) and the "shotgun marriages" (decrease). The aim of our study is to figure out what is not visible from the graph: What proportion

of women who are staying single are lone mothers and what proportion has a stable partnership in unwed cohabitation.

Figure 1. Proportion of 1st births by type of conception and confinement



3. Existing evidence on cohabitation and lone motherhood

Until 2006, there has not been conducted any systematic research on cohabitations in the Czech Republic and also the figures from the population census cannot be used without caution. In the Population Census 1991 and 2001 the union was considered as a 'factual marriage' only if the spouses explicitly declared that they lived in cohabitation and at the same time they were registered at the identical place of permanent residence. Because a substantial part of young people officially live in their parental home or another place, the data are underestimated to an unknown extent (Rychtaříková 1994). The proportion of cohabiting women at age 15-44 among those living in a partnership was 3.6% according to the 1991 census and 7.2% according to the 2001 census (Zeman 2003).

Proportion of cohabiting women derived from surveys is substantially varying, but always higher that that determined from Population Census: Family 1994 (ISSP 1994) places the proportion of women aged 18-54 cohabiting on 9.7%, according to the Family and Fertility Survey conducted in 1997, the share of cohabiting women among all women living in unions at age 15-44 was 10.2% (FFS 1997), and the Generation and Gender Survey (GGS 2005) places the figure in 2005 at 15.9%. However, cited surveys mostly

studied the living arrangement of women irrespective of their situation regarding children, while in this paper we are interested rather in the situation of mothers, i.e. women who enter the motherhood. The difference between the cohabitation as an initial phase of a relationship of two young people and the situation when the couple has child/ren in cohabitation is crucial. While the former has spread tremendously among strata of all young people in the Czech Republic during last two decades (Hamplová 2004, Sobotka et al. 2008), the latter, as we show in this paper, is still rather the phenomenon of lower educated women.

4. Data and research strategy

We use individual records of births and marriages in 1991-2006 provided by the database of the Czech Statistical Office. The data contain several variables for each recorded birth or marriage, including the information on the woman's current age and highest attained education level and her unique ID number. The information about father was however until 2006 included only among marital births, which forces us to hold several assumptions, as followed.

For the identification of family formation pathways we start from the first live births in 1991 (and 2001, respectively), and follow the mothers of first children for next six years, until 1996 (2006), recording subsequent birth and/or marriage (for single mothers). Marital births in 1991 (2001) are confronted with the day of marriage, distinguishing between premarital conceptions (where the time elapsed between the date of marriage and the date of birth is lower than 243 days[3]) and traditional marital births. Divorced and widowed mothers are taken separately. According to the sequence of marriage, conception and birth, and second birth, we identify five types of family formation:

1. Traditional – both conception and birth of first child takes place inside marriage.
2. Premarital conception – first child is conceived before marriage but born after marriage; woman is marrying as pregnant.
3. Childbirth in premarital cohabitation – children is born to single mother who is entering marriage during next 6 years; marriage is assumed to be concluded between parents of a child.
4. Childbirth in permanent cohabitation (cohabitation as an alternative to marriage) – first childbirth is followed by a second one but not by (or

[3] In the Czech statistics, premarital conception is traditionally regarded as birth of child until 8th month since marriage (i.e. 0-7 months since marriage). The border of 243 days is computed as 365*8/12.

sooner than) a marriage[4]; parents of both children are assumed to be identical and to have a stable partnership.

5. Lone motherhood – first childbirth to a single mother is not followed by either marriage or second childbirth during next 6 years; mother is assumed to live alone, without father of a child, even if she could cohabit at the time of childbirth.

The rest are children born to divorced or widowed mothers and women with invalid ID#.

For each category we compute the prevalence, the mean age at first childbirth and the relative level of the highest educational attainment of mother. We use four levels of finished education measured at the time of first childbirth: primary education; lower secondary education including vocational training; higher secondary education with the *maturita* qualification; and university education. Mean education means the average level of education on the scale 1-4.

We compare the situation in the beginning of the 1990s (1991-1996) with recent situation (2001-2006), concentrating on identification and interpretation of trends in family formation in the light of the recent demographic and societal changes.

Some of the assumptions that we were forced to hold are rather strong, but without them we would be unable to estimate the otherwise unknown proportions of women of different types of family formation. However some of the percentage shares could be under- or over-represented, the error should not vary across other dimensions under our analysis (age, education, period). Therefore, we will concentrate on comparing distinct periods and distinct educational groups of women, rather than to cling to accurate proportions of prevalence of distinct groups.

5. Results

We took data for 64,762 first live births from 1991 and 43,337 first live births from 2001 and analysed them according to subsequent events (second childbirths or marriages) of mothers linked on the basis of their unique ID#. Only 478 records from first file (0.7%) and 431 from second file (1.0%) were invalid and could not be linked to subsequent events. Other 0.8% of first children in 1991 and 1.8% in 2001 were born to divorced or widowed women, who are out of scope of our interest.

[4] From those who got married after first childbirth, about half gave second childbirth later after marriage. From those who gave also second childbirth as single, only about 15% married in later observed time span, while the majority remained unmarried (presumably cohabiting).

Table 2 identifies five types of family formation behaviour according to the sequencing of conception and birth of first child, first marriage and second childbirth, and describes the changes in this behaviour during past two decades. While the proportion of those who conceive the first child after marriage has not changed dramatically, bold changes were observed in the behaviour of single pregnant women. Contrary to the past, when pregnancy was a strong impetus to marry promptly before birth delivery, women now tend more to stay single, either in cohabitation or as lone mothers. Traditional mothers are about 2 years older than those who marry pregnant and they have also higher level of education in average. In both categories of women giving childbirth inside marriage, the women are older and higher educated than among categories of non-married mothers.

Table 2. First childbirths in 1991 and 2001 according to marital status of mother and following family-formation events

	Type of family formation	**Sequence**			**1991**				**2001**				*Relative increase*
		1st	**2nd**	**3rd**	number	mean age	mean edu.	prop.	number	mean age	mean edu.	prop.	
1	Traditional	Marr	Conc	1st ch	**27,067**	23.5	2.7	42%	**18,659**	26.6	2.9	43%	*+1%*
2	Premarital conception	Conc	Marr	1st ch	**29,443**	21.2	2.4	45%	**11,940**	24.6	2.6	28%	*-18%*
3	Premarital cohabitation	1st ch	Marr	…	**2,622**	20.3	1.9	4%	**2,755**	23.7	2.2	6%	*+2%*
4	Permanent cohabitation	1st ch	2nd ch	…	**1,438**	20.0	1.6	2%	**3,032**	22.7	1.9	7%	*+5%*
5	Lone motherhood	1st ch	X	X	**3,179**	22.6	2.0	5%	**5,753**	24.3	2.1	13%	*+8%*
	Other	*Divorced/Widowed*			*535*	*27.1*	*2.4*	*1%*	*767*	*29.2*	*2.5*	*2%*	*+1%*
	invalid ID				*478*			*1%*	*431*			*1%*	
Σ	**TOTAL**				**64,762**	22.2	2.5	100 %	**43,337**	25.3	2.6	100%	

Among single mothers, both the proportion and the distribution according to the types of family formation have changed significantly. Overall there was an increase in the proportion of single motherhood from 11% in 1991 to 27% in 2001. We identified sharp increase of proportion of single mothers who do not marry during six years following the childbirth. From 2001 cohort of single mothers, about half have experienced neither marriage nor second childbirth until next six years, and they are considered as lone mothers. Other quarter married after childbirth, while last quarter gave also

second childbirth without entering marriage. Interestingly, lone mothers are relatively older than cohabiting mothers. In the early 1990s they had also slightly higher mean education level than cohabiting ones, which however levelled until the recent period.

Family formation pathways according to the age of mother at first birth are described in table 3. In 1991, two thirds of teenage mothers were experiencing "shotgun marriage", marrying promptly before confinement. After age 20 the situation changed and more than a half of first children were born traditionally, after conception inside marriage. In the early 1990s, premarital cohabitation had higher prevalence only among teenage mothers, while the cohabitation not followed by marriage was almost unknown. On the other hand, lone motherhood was rather matter of older women over age 30. However, at that age our categorisation according to subsequent events might be misguiding, because older women have lower probability to have subsequent childbirth and hence some of them should be rather included into category of cohabiting mothers.

Table 3. Family-formation sequence of events according to the age of mother at first childbirth

	Type of family formation	**1991**						**2001**					
	Age*	***-19***	***20-24***	***25-29***	***30-34***	***35-39***	***40-44***	***-19***	***20-24***	***25-29***	***30-34***	***35-39***	***40-44***
1	Traditional	15%	49%	63%	56%	51%	50%	4%	34%	57%	54%	46%	34%
2	Premarital conception	65%	42%	25%	22%	22%	17%	25%	35%	23%	18%	15%	18 %
3	Premarital cohabitation	8%	2%	2%	2%	3%	1%	15%	8%	4%	4%	5%	3%
4	Permanent cohabitation	5%	1%	1%	1%	1%	0%	28%	7%	4%	4%	3%	2%
5	Lone motherhood	6%	4%	6%	11%	14%	16%	27%	15%	9%	13%	19%	27%
	Other	*0%*	*1%*	*2%*	*5%*	*6%*	*10%*	*0%*	*1%*	*2%*	*6%*	*9%*	*12%*
	invalid ID	*1%*	*1%*	*1%*	*3%*	*3%*	*6%*	*0%*	*1%*	*1%*	*2%*	*3%*	*4%*
Σ	**TOTAL (100%)**	18,600	34,353	9,278	1,835	605	88	3,402	17,266	17,981	3,829	753	105
	proportion of births by age of mother	*29%*	*53%*	*14%*	*3%*	*1%*	*0%*	*8%*	*40%*	*41%*	*9%*	*2%*	*0%*
	mean educational level	*2.0*	*2.5*	*3.0*	*3.0*	*2.8*	*2.9*	*1.4*	*2.4*	*2.8*	*3.1*	*3.0*	*2.9*

The situation dramatically changed during one decade. In 2001, majority of teenage mothers were cohabiting or lone mothers and the traditional pattern prevailed only after age of 25. Among single mothers, lone motherhood is detected over whole reproductive life span, while cohabitation is rather the matter of young mothers, being rare over age 25. Again, the distribution of single women into subcategories might not be precise at older ages. Moreover, substantial part of mothers of fist child at age 35+ was divorced. At the same time the age distribution changed substantially.

Now we turn to the core analysis of the paper. According to the results displayed in table 4, mother's level of education at first childbirth was a strong covariate of the type of family status already in the 1990s and it remains such, or even stronger, also nowadays. While primary-educated women tend to be lone mothers or to cohabit even after second childbirth, university educated mostly conceive and even concept their first child traditionally after marriage. Women with *maturita* graduation follow the trends and patterns of behaviour of their university educated counterparts, while the behaviour of the secondary educated without graduation is rather closer to an average than to that of the primary educated.

Here we must also keep in mind that the education of woman is not the variable exogenous to the process of family formation. Higher educated women tend to postpone family formation until later ages (Hoem 1986, Liefbroer and Corijn 1999) and, *vice versa*, an early childbirth or marriage can induce a woman to drop out of education (Marini 1984, Billari and Philipov 2003). The relationship between age at first childbirth and the finished level of education is mutual, which can be seen also from the bottom lines of tables 3 and 4: On the one hand, the younger mothers have in average lower level of education; on the other hand, the women of lower education have lower mean age at first childbirth. We assume that education is finished at first childbirth (see also Marini 1984, Rindfuss et al. 1980), arguing that in the Czech Republic, education enrolment and childcare are generally incompatible (Kantorová 2004, Sobotka et al. 2003)[5]. Anyway, the main message is clear: Cohabitation and the lone motherhood in the Czech Republic are spreading especially among low-educated women. Higher educated women tend to bear children inside marriage.

Moreover we analysed the length of intervals between distinct transitions. Table 5 shows the events subsequent to the marriage or to the first

[5] Observing the data set we found that from women who have delivered both their 1st and 2nd children in 1991-2006, only 17% of primary educated and 5-7% of the others progressed in education between 1st and 2nd childbirth.

childbirth by duration, and the proportion of those who have not experienced subsequent event, censored at the end of 1996 (2006). There are two main findings emerging from the confrontation of 1991-96 and 2001-06 periods. First the proportion of early transitions diminished, second the mean duration increased. As for marriages of single mothers, the proportion of marrying in the first year after childbirth fell from 16% to 7% and the mean duration rose by more than half a year, from 1.8 to 2.4 years (see also Polášek 2005).

Table 4. Family-formation sequence of events according to the highest attained education of mother

Type of family formation		**1991**				**2001**			
	Education	*Primary*	*Sec-*	*Sec+*	*Uni*	*Primary*	*Sec-*	*Sec+*	*Uni*
1	Traditional	19%	37%	48%	70%	11%	36%	51%	68%
2	Premarital conception	39%	52%	46%	24%	18%	32%	29%	20%
3	Premarital cohabitation	13%	4%	2%	1%	13%	7%	5%	3%
4	Permanent cohabitation	12%	2%	1%	0%	25%	7%	3%	3%
5	Lone motherhood	15%	5%	3%	3%	30%	16%	9%	5%
	Other	*1%*	*1%*	*1%*	*1%*	*1%*	*2%*	*2%*	*1%*
	invalid ID	*1%*	*0%*	*0%*	*0%*	*1%*	*0%*	*0%*	*0%*
Σ	**TOTAL (100%)**	6,859	26,768	26,045	5,090	4,679	14,730	18,875	5,053
proportion of births by education of mother		*11%*	*41%*	*40%*	*8%*	*11.00 %*	*34%*	*44%*	*12%*
mean age at childbirth		*20.3*	*21.2*	*22.8*	*26.9*	*21.3*	*24.6*	*25.7*	*28.9*

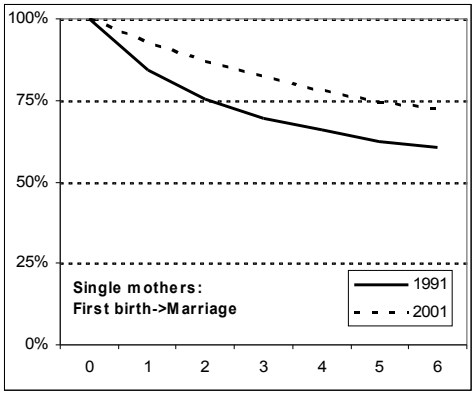
At the same time the share of not marrying during next six years increased from 61% to 73%. Concerning second child, the proportion of those who gave second childbirth until two years since the first childbirth decreased for both single and married women, from 14% to 9%. The mean birth interval thus increased from 2.7-2.8 to 3.1 years. The proportion of women who stay in parity one did not change substantially and this figure is naturally higher for single women – about 60% compared to less than half among married mothers.

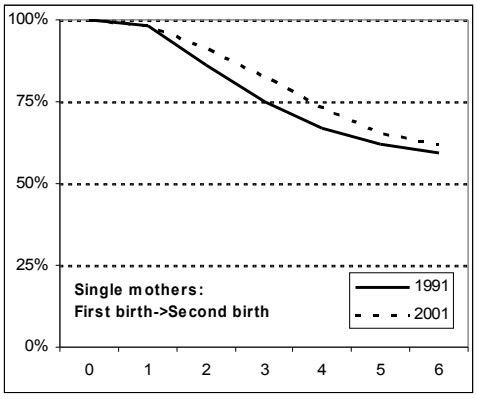
Table 5. Number of subsequent events by duration since first childbirth (years)

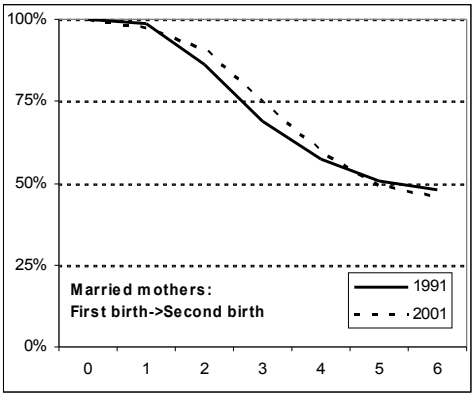
Year	Single mothers->marriage				Single mothers->second birth				Married mothers->second birth			
	1991		*2001*		*1991*		*2001*		*1991*		*2001*	
1st	1,124	16%	817	7%	122	2%	189	2%	823	1%	756	2%
2nd	658	9%	684	6%	890	12%	824	7%	6,843	12%	2,123	7%
3rd	417	6%	541	5%	809	11%	994	9%	10,001	18%	4,873	16%
4th	255	4%	488	4%	555	8%	1,091	9%	6,341	11%	4,601	15%
5th	271	4%	395	3%	385	5%	908	8%	3,852	7%	3,136	10%
6th	118	2%	231	2%	187	3%	382	3%	1,641	3%	1,062	3%
censored	4,396	61%	8,384	73%	4,291	59%	7,152	62%	27,009	48%	14,048	46%
TOTAL	7,239		11,540		7,239		11,540		56,510		30,599	
mean dur.	1.8		2.4		2.7		3.1		2.8		3.1	

Figure 2 shows the survivors in the previous stage by the type of transition. While the relative transition of mothers of first child towards second childbirth did not change substantially during last two decades (figure 2b and 2c), the transition of single mothers towards marriage changed its path. The figure 2a shows that the proportion of survivors in family status single is much higher in 2001-2006 period than it was in the 1990s.

Figure 2a-c: Transition to subsequent event according to years since first childbirth (survivors)







6. Comparison with other studies

Recently published results from the SEPM study (SEPM 2006, see also results and analysis in Hamplová et al. 2007) contain first reliable figures on family situation of single and married mothers in the Czech Republic after 1989. The survey called *Sociální a ekonomické podmínky v mateřství* (*Social and economic conditions in motherhood*) was conducted in 2006 and it covers the behaviour in 1995-2006, which roughly corresponds with the time scope of our analysis. In this survey 1,160 women of age 14-44 who had at least one child during past ten years were surveyed about their social, economic and family situation during and after first childbirth. From total number of responses, 8 were invalid, so we use 1,152 of them.

From 1,152 women giving first childbirth in last ten years, 73% were married, 14% were cohabiting and 13% were lone mothers. These numbers surprisingly well correspond with our results, where after omitting widowed and divorced mothers and cases with invalid ID, 73% of women having first child in 2001 were married, 14% were identified as cohabiting and 14% as lone mothers.

Table 6 show results of SEPM study according to the highest attained education of mothers. Also these results are very similar to those of our study: The higher is the finished educational level of mother, the lower is the prevalence of cohabitation and especially of lone motherhood and the higher is the proportion of childbearing in marriage. The only wider difference between CZSO 2001-2006 and SEPM 2006 data sets are the proportions of family types among primary educated, but this can be imposed by underrepresentation of single mothers among primary educated ones in SEPM study (Hamplová 2007: 14).

Table 6. Family situation of women at first childbirth according to the highest attained education of mother, SEPM study, 1995-2006

Family status of mother	Education of mother				Total
	Primary	Sec. I.	Sec. II.	University	
Married	45%	70%	78%	86%	73%
Cohabiting	17%	15%	14%	7%	14%
Lone	38%	15%	9%	8%	13%
N=100%	87	459	488	118	1,152

Second data set used for confrontation is information on fathers taken from 2007 vital statistics birth certificates of CZSO (denoted CZSO Fathers 2007). Since 2007, Czech Statistical Office collects information also on fathers of non-marital children (previously only on husbands of married mothers). From 54,050 live births in 2007, 56% were born in marriage and 44% outside marriage; from which 31% records included the data on father, while in 12% of records the data on fathers were not stated. Therefore we may estimate that about 31% of mothers live in some part of stable partnership while 12% may be considered as lone mothers. However, it is likely that for some proportion of non-marital children that live alone with their mother the information of father was still included on the birth certificate, for legal or any other reason, while it is unlikely to be *vice versa*.

Compared to the results of our Sequences study, we naturally found higher proportion of non-marital births, for which there is a reason of the sharp increase in non-marital childbearing in the last decade (from 29% of first children in 2001 to 44% in 2007). Nevertheless, the gap in proportion of marital births is counterbalanced almost wholly by the increase in proportion of cohabiting mothers, while the proportion of lone mothers according to CZSO Fathers 2007 data remains similar to that of 2001 Sequences study.

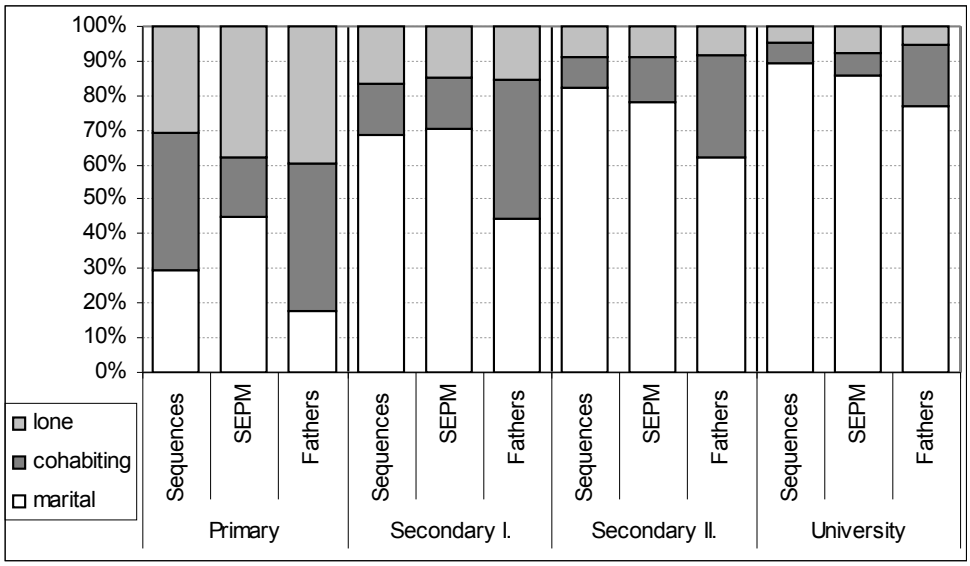
According to 2007 records on father, the type of family formation is strongly related to the educational level of mother. While primary educated women already bear first child into marriage quite rarely (table 7), and moreover they are very often lone mothers, higher secondary and university educated mothers are mostly married, and if not, they state the information on father in majority of cases. Again, the trend is clear: proportion of extra-marital children as well as the proportion of missing information about father goes down with increasing level of education of mother.

Table 7. Marital status of mothers at first childbirth and availability of information about father according to the finished education of mother (CZSO Fathers 2007)

Marital status		Education of mother				Total
Mother	Father	Primary	Sec. I.	Sec. II.	University	
Married		18%	44%	62%	77%	56%
Non-married	stated	43%	40%	30%	18%	31%
Non-married	not stated	39%	15%	8%	5%	12%
N=100%		5,048	13,713	25,304	9,902	53,967

As shown in figure 3, the results of SEPM study and CZSO Fathers data are very close to those of our analysis. This gives up conviction that determining family form by the analysis of subsequent events is the correct method. Data derived from 2007 birth records on fathers show lower proportion of married partnerships, which corresponds to the overall trend of increasing non-marital fertility, but the proportions of lone mothers are comparable to our study. Increasing proportion of marital births and disappearing prevalence of cohabitation and lone motherhood with educational level is evident from all three studies.

Figure 3. Comparison of family status of mothers by finished education, CZSO Sequences 2001-2006, SEPM 1995-2006 and CZSO Fathers 2007



7. Conclusions and discussion

In this paper we have shown that the tremendous increase of proportion of non-marital births in the last two decades was counterbalanced especially by the decrease of premarital conceptions. While until the early 1990s the couples living in cohabitation or in other non-marital type of partnership married before the childbirth, nowadays the couples do not hasten the marriage, but either marry after the childbirth or even stay in unwed partnership also after the second childbirth. On the other hand, also the proportion of lone mothers increased substantially. About half of non-married mothers experience neither marriage nor second childbirth during six years following the childbirth, and they are considered as lone mothers. Other quarter marry after childbirth, while last quarter have also second child outside marriage.

More importantly, we have found wide differences between educational categories of women: Family formation related to first childbirth depends strongly on the educational level of women. The higher is the educational attainment of woman, the more conservative is her pathway of family formation. While low-educated women tend to be lone mothers or to cohabit even after second childbirth, higher educated women mostly conceive and even concept their first child traditionally after marriage.

The fact that the childbearing in cohabitation is spreading from groups at the lower end of the social scale was found also in other postcommunist countries of the Central Eastern Europe. For Hungary, Spéder (2005) found that the ratio of cohabitation is highest among those with the lowest educational level, supporting the "working class hypothesis". Women giving birth in cohabitation tend to be much younger, to have low educational levels, and tend to belong to the Roma population. Also other studies show the higher prevalence of cohabiting or lone mothers among low social strata in Poland (Fihel 2005), Romania (Hoem et al. 2009), Bulgaria (Kostova 2007) or Slovakia (Potančoková et al. 2008)[6].

There is thus a space for comparative research that would analyse different meaning of cohabitation in transitional countries of the Central Eastern Europe as compared to Western European countries: It seems that while cohabitation as an initial phase of partnership is spreading quickly among all strata of young people, the childbearing outside marriage, whether in cohabitation or to lone mothers, is concentrated mainly among lower socio-economic strata.

[6] The high prevalence of cohabiting mothers among Roma population was found also in Bulgaria (Koytcheva and Philipov 2008), Romania (Mureşan et al. 2008) and Slovakia (Potančoková et al. 2008).

References

Billari, F. C. and D. Philipov. (2003). "Mutual relationships between education and women's entry into a first union: the case of Central and Eastern Europe". In: I. E. Kotowska and J. Jóźwiak. *Population of Central and Eastern Europe. Challenges and Opportunities*. European Population Conference, 26-30 August 2003. Warsaw: 201-218.

FFS. (1997). *Fertility and Family Survey 1997*. Czech Republic.

Fihel, A.. (2005). "Consensual unions in Poland: an analysis of the 2002 population census". *Studia Demograficzne* 1/147 : 104-121.

GGS. (2005). *Generations and Gender Survey 2005*. Czech Republic.

Hamplová, D. (2004). *Vzdělání, pracovní dráha a sňatkové chování v České republice.* Diploma Thesis, Charles University in Prague.

Hamplová, D. (ed.) (2007). *Děti na psí knížku? Mimomanželská plodnost v ČR.* SOÚ AV ČR, Praha.

Hamplová, D. and B. Řeháková. (2006). "Mimomanželská plodnost: individuální charakteristiky žen a vliv regionu". In.: Hamplová, D. (ed.) *Mimomanželská plodnost v České republice po roce 1989: sociální a ekonomické souvislosti.* Institute of Sociology of the Academy of Sciences of the Czech Republic, Prague: 26-39.

Hoem, J. M. (1986). "The impact of education on modern family-union initiation". *European Journal of Population* 2: 113-133.

Hoem, J. M., D. Kostova, A. Jasilioniene, C. Mureşan. (2009). „The structure of recent first-union formation in Romania". *MPIDR Working Paper* WP 2009-002.

ISSP. (1994). Survey "Family and Changing Gender Roles II (ISSP 1994) - Czech Republic." International Social Survey Programme.

Kantorová, V. (2004). "Education and entry into motherhood: The Czech Republic during state socialism and the transition period (1970-1997)". *Demographic Research*: Special Collection 3(10): 245-274.

Katrňák, T. (2006). „Kdo jsou svobodné matky v české společnosti?" In: J. Kocourková, L. Rabušic (Eds.). *Sňatek a rodina: zájem soukromý nebo veřejný?* Přírodovědecká fakulta, Univerzita Karlova, Praha: 45–55.

Kostova, D. (2007). "The emergence of cohabitation in a transitional socio-economic context: Evidence from Bulgaria and Russia". *Demográfia*, English Edition 50 (5): 135-162.

Koytcheva, E. and D. Philipov. (2008). "Bulgaria: Ethnic differentials in rapidly declining fertility". In: Frejka et al. (Eds.) *Childbearing trends and policies in Europe*. Demographic Research, Volume 19, Special Collection 7: 361-402.

Kučera, M. (1997). "K interpretaci charakteristiky demografických procesů v České republice". Demografie, 4(39): 269-270.

Lesthaeghe, R. and D. J. Van de Kaa. (1986). "Twee demografische transities?" In: D. J. Van de Kaa and R. Lesthaeghe (eds), *Bevolking: groei en krimp*. Van Loghum Slaterus, Deventer: 9–24.

Liefbroer, A. C. and M. Corijn. (1999). "Who, what, where and when? Specifying the impact of educational attainment and labour force participation on family formation". *European Journal of Population* 15: 45-75.

Marini, M. M. (1984). "Women's educational attainment and the timing of entry into parenthood". *American Sociological Review* 49(4): 491-511.

Možný, I. (1987). "K některým novým jevům v kulturně legitimních vzorcích rodinných startů". *Demografie* 29(2): 114–123.

Mureşan, C., P.T. Hărăguş, M. Hărăguş, M. and C. Schroeder. (2008). "Romania: Childbearing metamorphosis within a changing context". In: Frejka et al. (Eds.) *Childbearing trends and policies in Europe*. Demographic Research, Volume 19, Special Collection 7: 855-906.

Philipov, D. and J. Dorbritz. (2003). "Demographic Consequences of Economic Transition in Countries of Central and Eastern Europe". *Population Studies* 39, Council of Europe Publishing, Strasbourg.

Polášek, V. (2005). "Svobodná matka – a co je potom?" *Demografie* 47(4): 287-292.

Potančoková, M., B. Vaňo, V. Pilinská and D. Jurčová. (2008). "Slovakia: Fertility between tradition and modernity". In: Frejka et al. (Eds.) *Childbearing trends and policies in Europe*. Demographic Research, Volume 19, Special Collection 7: 973-1018.

Rabušic, L. (2001). "Value change and demographic behaviour in the Czech Republic". *Czech Sociological Review* 9(1): 99-122.

Rindfuss, R. R., L. Bumpass and C. St. John. (1980). "Education and fertility: Implications for the roles women occupy". *American Sociological Review* 45(3): 431-447

Rychtaříková, J. (1994). *Les unions informelles en République Tchèque*. Acta Universitatis Carolinae Geographica Supplementum: 71-85.

Rychtaříková, J. (2000). *Demographic transition or demographic shock in recent population development in the Czech Republic?* Acta Universitatis Carolinae Geographica 1: 89-102.

Rychtaříková, J. (2004). "Změny generační plodnosti v České republice se zaměřením na vzdělání žen". *Demografie* 46(2): 77-90.

Rychtaříková, J. (2008). "Twenty Years of Single Motherhood in the Czech Republic (1986-2005)". *Czech Demography* 2: 34-45.

SEPM. (2006). *Sociální a ekonomické podmínky v mateřství* (Social and economic conditions in motherhood. Public Opinion Research Centre, Institute of Sociology of the Academy of Sciences of the Czech Republic, Prague.

Sobotka, T., K. Zeman and V. Kantorová. (2003). "Demographic shifts in the Czech Republic after 1989: A second demographic transition view". *European Journal of Population* 19(3): 249-277.

Sobotka, T., A. Šťastná, K. Zeman, D. Hamplová and V. Kantorová. (2008). "Czech Republic: A rapid transformation of fertility and family behaviour after the collapse of state socialism". In: Frejka et al. (Eds.) *Childbearing trends and policies in Europe*. Demographic Research, Volume 19, Special Collection 7: 403-454.

Sobotka, T., L. Toulemon. (2008). "Overview Chapter 4: Changing family and partnership behaviour: Common trends and persistent diversity across Europe". In: Frejka et al. (Eds.) *Childbearing trends and policies in Europe*. Demographic Research, Volume 19, Special Collection 7: 85-136.

Spéder, Z. (2005). "The rise of cohabitation as first union and some neglected factors of recent demographic developments in Hungary". *Demográfia*, English Edition 48: 77-103.

Srb, V. (2006). "Vzdělanostní homogamie a heterogamie v manželství v České republice v roce 2001". *Demografie* 48(4): 289-290.

Stloukal, L. (1997). "Changing patterns of extramarital conceptions in the Czech Republic, 1960-1993". *Journal of Biosociological Science* 29: 471-489.

Vašková, R. (2006). "Rozhodovací procesy -náctiletých těhotných dívek vedoucí k volbě časného rodičovství". In: Hamplová,D., P. Šalamounová and G. Šamanová (Eds.). *Životní cyklus – sociologické a demografické perspektivy*. SOÚ AV ČR, Praha.

Zeman, K. (2003). *Divorce and marital dissolution in the Czech Republic and in Austria – The role of premarital cohabitation.* Diploma Thesis, Charles University in Prague.

Zeman, K. (2007). "Population development in the Czech Republic in 2005". *Czech Demography* 1: 3-15.

Second Births in the Czech Republic[1]

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Abstract: The social, political and economic transformations experienced by the former Communist countries of Central and Eastern Europe since the beginning of the 1990s have resulted in rapid changes in demographic trends the consequences of which, with regard to marriage and fertility, are highly significant. The period since 1990 has witnessed far-reaching changes in the occurrence and timing of family life transitions among young adults in the Czech Republic.

This study investigates the determinants of having a second child in Czech society during two distinctive political periods characterised by differing demographic behaviour. The study is set against the background of a society in which the most characteristic trend in reproductive patterns during the socialist era was a strong orientation towards the two-child family and where the ideal of a two-child family still persists.

Keywords: Czech Republic, fertility, transformation, two-child family model, second child

1. Introduction

The social, political and economic transformations experienced by the former Communist countries of Central and Eastern Europe since the beginning of the 1990s have resulted in rapid changes in demographic trends the consequences of which, with regard to marriage and fertility, are highly significant. The period since 1990 has witnessed far-reaching changes in the occurrence and timing of family life transitions among young adults in the Czech Republic. Family formation was postponed in the period 1990 to 1996 and fertility rates declined sharply from 1.89 to 1.18 during this period, remaining below the 'lowest-low' threshold (at 1.1-1.2) until 2004. Only the most recent data suggests a slight recovery in total fertility rate (TFR) with an increase to 1.44 in 2007.

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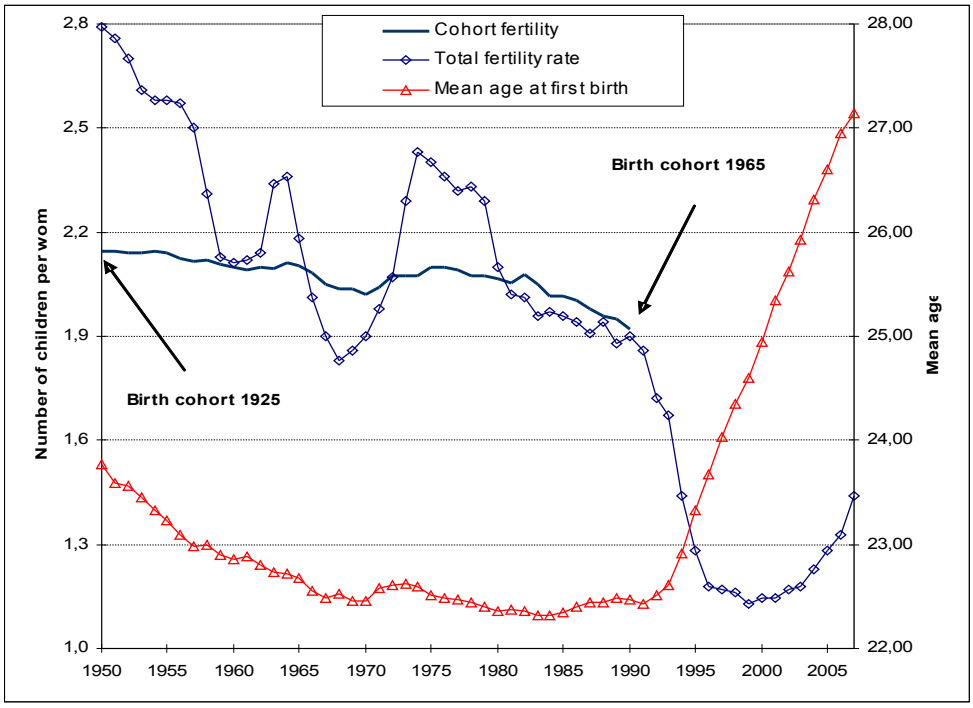
Whereas cohorts born during the 1940s, 50s and 60s are characterised by early (and almost universal) marriage and family formation, the large cohorts of the mid-1970s exhibit more diverse patterns, characterised by a marked postponement of union formation and parenthood[2] as well as higher rates of childlessness, maintaining single status and out-of-wedlock births. The growing diversity in the timing and sequencing of family-related transitions is reflected in an increasing social differentiation in demographic behaviour (Sobotka et al. 2008).

Figure 1. Total fertility rate (1950-2007) and cohort fertility (1925-1965), mean age at first birth, Czech Republic



Sources: Rychtaříková 2004, CZSO - http://www.czso.cz/csu/redakce.nsf/i/obyvatelstvo_hu

Ongoing transition to a late childbearing pattern can be illustrated by a sharp rise in the mean age of mothers at first childbirth. The Czech population in the

[2] About shifts in family roles and identities of individual family members in Czech society in connection with position of parents on the labour market e.g. Nešporová 2007.

1980s exhibited a relatively high fertility rate concentrated overwhelmingly on females aged 20-24 years. The mean age of mothers at first birth remained below 22.5 years for the decade to 1992 rising steadily thereafter (Figure 1). By 1995 the mean age of mothers at first birth had reached 23.3 years climbing to 27.1 in 2007 (an increase of over four and a half years over a fifteen year period). A similar increase was recorded for mean age at childbearing which increased by 4.3 years, from 24.8 to 29.1, between 1990 and 2007.

2. Two-child family model in the Czech Republic

The Communist era was characterised by the universality of the two-child family model and relatively low socio-economic differentiation with regard to completed family size (Rychtaříková 2004). Around 72 to 74 per cent of women born in the 1930s had a second child increasing to around 80 per cent for the generations of the late 1940s and 1950s. A decline in second order births commenced with the cohorts of the late 1950s and it may be reasonably predicted that only around 70 per cent of women from the cohorts of the late 1960s will have a second child. A further feature related to having a second child is cohort change in parity distribution; the proportion of two child families increased from under 40 per cent for the cohorts of the late 1920s to around 55 per cent for those of the 1950s and early 1960s (Frejka, Sardon 2004: 159).

The demographic changes of the 1990s were not only the result of delaying entry into marriage and first childbirth; they were also characterised by a prolongation of the interval between first and second births (from 3.7 years in 1990 to 5.1 years in 2005; Zeman 2006) and the delaying of childbirth once married. As a result of postponing second childbirth within marriage, the decrease in the second parity marital fertility rate during the period 1990-1997 was more significant (from 531 second children per 1 000 marriages in 1990 to 386 in 1997, i.e. a fall of 27 per cent). Since 1998 the second parity total marital fertility rate has been on the increase (in 2000 the second parity total marital fertility rate reached 426 children per 1 000 marriages rising to 486 children by 2005). The average interval between the wedding ceremony and second childbirth grew from 4.3 years to 5.5 years during the 1990s and had reached 5.9 years in 2005 (Kantorová 2002; own calculation based on vital statistics data).

The recuperation in delayed childbearing among cohorts experiencing a high degree of fertility postponement can primarily be perceived in the transition to first birth and subsequently becomes apparent in progression to second birth (and higher order births). Therefore, catching up effects have, to

date, been less pronounced in terms of second births in the Czech Republic. The reduction in the cohort parity progression ratio was higher in the case of parity two than in the case of transition to having a first child (Rychtaříková 2004). Interestingly, even though a proportion of second children will most likely be born later (Rychtaříková 2004) it is highly probable that the proportion of women with only one child will increase more rapidly than the proportion of those remaining childless (Sobotka et al. 2008).

Ideal and expected number of children

The universality of the two-child family model in the Communist era was apparent from fertility behaviour and, according to recent sociological surveys, the ideal of a two-child family still persists (e.g. Fialová et al. 2000, Hamplová 2000, Šťastná 2007). Since 1990, two thirds of all respondents in a range of surveys have persistently advocated having 2 children, whilst only one in five consider three children to be the ideal (Šalamounová, Šamanová 2003: 29, 2004: 8). Moreover, young, single people consider having children a natural part of their future lives and, again, the two-child family model remains the ideal ("Young generation 1997" survey[3]). Although the two-child model prevails in all groups, in general the more traditional a person's behaviour is in terms of partnership relationship, the greater the number of children that person considers to be the ideal. On average, those who express a preference for a small number of children are those who choose life-long unmarried cohabitation as their partnership relationship; respondents who plan to marry immediately, without prior cohabitation, tend to want a larger number of children (Hamplová 2000: 96–97).

More than half of young married couples (respondents aged 35 or younger in the "Housing of the Young Generation 2003" survey[4]) said they had planned the number of children they wanted before the wedding ceremony. As far as pre-marital planning is concerned, partners often opt for the two-child model; the potential two-child model can be detected in the plans of 80 per cent of those about to marry. Every tenth couple plans to have only one child and only a small proportion plan to have no children or, conversely, plan three or more (Ettlerová, Matějková 2004).

[3] The survey focused on examining the value orientations of young single people in the Czech Republic (age at last birthday of 18-29). The Institute of Sociology of the Academy of Sciences of the Czech Republic and the Research Institute for Labour and Social Affairs (RILSA) participated in the survey.

[4] The RILSA survey focused on the family behaviour and housing situation of the younger generation. A total of 1516 persons aged 20-35 were surveyed.

The ideal number of children is an abstract notion; the expected (ultimate) number of children (Philipov, Dorbritz 2003) more accurately reflects reality and is measured as the sum of the number of children already born, plus the desired additional number of children[5]. Nevertheless, according to the latest data, the expected number of children is not markedly different to the ideal.

Both the ideal and the expected number of children are considerably higher than the number of children actually born where the latter is measured by observed TFR. According to Czech GGS 2005 data, the mean expected family size in 2005 declined slightly in younger age groups where women generally envisage a two-child family and only a small number intend to have three or more children (Table 1). Childbearing intentions below replacement level are characteristic for cohorts born after 1980 (and who therefore reached age 18-24 in the year of the interview); typically they express a preference to remain childless or to have just one child.

As far as the oldest generations studied are concerned, the average number of children envisaged is lower than that for women in the highest fertility level age group at the time of the interview. This emerges primarily as a consequence of the structure of the indicator: the vast majority of women over the age of 40 have completed the reproduction process and do not intend to have additional children (only 1 per cent of women in that age group plan to have additional children), thus, in the question[6], they refer to children that have already been born. In contrast, with regard to younger women, the number provided combines the number of children already born with the number of children they intend to have in the future, of which not all will be born. Thus completed fertility will, in all likelihood, be lower (see Table 1).

[5] Data on numbers of expected children includes both data from childless women and women who already have one or more children (question: "How many more children do you intend to have?"). Thus the parameter represents something of a synthesis between the plans of childless women and realised fertility of women with children, including their intentions with respect to additional children. Data is taken from the Czech Generations and Gender Survey 2005 (GGS 2005).

[6] Although fertility is shifting to a later age, women over 40 in the survey sample who consciously planned another child were very much the exception. In that respect, the average number of children corresponds, to a certain degree, to completed fertility; in the 45-49 age group completed fertility is a little lower than calculations for the total population (Rychtaříková 2004), in the 40-44 age group there is only a very slight difference.

Table 1. Expected (ultimate) number of children, women of reproductive age, Czech Republic 2005

Age	Expected number of children				N	Mean***
	0	1	2	3 and more		
18-19	7.5	17.0	66.0	9.4	159	1.79
20-24	6.2	17.3	60.1	16.4	323	1.88
25-29	3.3	13.4	63.0	20.3	454	2.05
30-34	3.0	13.7	56.1	27.2	497	2.13
35-39	4.4	17.2	54.8	23.6	454	2.07
40-44	8.5	16.2	56.9	18.4	425	1.91
45-49	7.7	22.6	52.4	17.3	452	1.84
18-49	5.5	16.7	57.6	20.2	2764	1.98

Note: *** mean expected number of children differs significantly across the various age groups, $p<0.001$, (ANOVA)
Source: GGS 2005

Preferences concerning the number of children in the family among women aged 25-34[7] differ according to the highest level of education achieved. Women with lower education levels express a preference for a higher number of children. These results would appear to confirm that women in different educational categories have different preferences. As the level of education increases, the average number of children envisaged falls, accompanied by a decrease in the proportion of women who plan to have three or more children (Table 2). Among those women who have attained the highest level of education, more than one in five envisage having only one child.

Table 2. Expected (ultimate) number of children by education, women aged 25-34, Czech Republic 2005

Education	Expected number of children				N	Mean***
	0	1	2	3 and more		
Basic	5.2	13.0	45.5	36.4	77	2.3
Lower-secondary	1.6	9.9	62.0	26.4	382	2.2
Upper-secondary (with School Leaving Certificate at age 18/19)	4.1	15.3	60.8	19.8	339	2.0
Tertiary	4.8	20.0	57.6	17.6	125	1.9

[7] There is no marked difference between younger and older women with respect to education.

Note: (1)*** mean expected number of children differs significantly across the various educational groups $p<0.001$, (ANOVA) (2) Educational level is characterised as follows: "basic" (uncompleted or basic education only, compulsory education (8/9 years)), "lower-secondary" (apprenticeship or secondary education without the School Leaving Certificate), "upper-secondary" (completed upper-secondary education with the School Leaving Certificate including follow-up courses) and "tertiary" (higher technical colleges including conservatoires and universities). Women still in education are excluded because of the small number of them in this age group.
Source: GGS 2005

Given the currently very low fertility rate, changing fertility and family behaviour and the continued postponement of childbearing to a later age amongst younger cohorts of women and, more particularly, the increase in the interval between the first and second birth, the important question is whether the proclaimed aspirations for a two-child family will be fulfilled and whether the tendency will be for women to actually have a second child. The study focuses on an analysis of the conditions and context surrounding the birth of a second child and on discovering the relationship between the risk of a second birth and different micro-level covariates. The author intends to explore the following questions:

- How important a role do personal characteristics such as education and partnership history play in the planning and timing of a second birth?
- How do the characteristics of the parental home such as the number of siblings or the family situation of the parents influence the risk of a second birth?

3. Data, analytical methodology and covariates

The data used in this study is taken from the Generations and Gender Survey (GGS) conducted in the Czech Republic in 2005 as part of the Generation and Gender Programme international project coordinated by the United Nations Economic Commission for Europe. The GGS consisted of a panel survey of a nationally representative sample of 18-79 year-olds in each participating country with at least three panel waves and an interval of three years between each wave. The Czech first wave survey sample resulted in data on a total of 10,006 subjects consisting of 4798 men (48%) and 5208 women (52%) from cohorts born during the period 1926-1987. Participation was restricted to subjects of Czech nationality only and was collected in face-to-face interviews.

Analysis is restricted to respondent women no older than 54 years at the time of the interview. Selected cohorts consist of women who had already

had a first child and who could, therefore, potentially have had a second conception in the 1970s, 1980s and from the beginning of the 1990s.

Analysis is interested in the event of a second birth (in a data set expressed in the month and year of birth). The date of second childbirth is backdated by nine months to obtain an approximate date of conception. The important distinction between a second pregnancy event and that studied herein is that only those pregnancies that resulted in the birth of a second child are included; the author has no information on second pregnancies which ended in abortions or miscarriages. Backdating by nine months is employed since events that occurred after conception might have been influenced by the conception itself (e.g. changes in partnership status or the abandonment of education due to the pregnancy; admittedly, changes in education enrolment would be more likely following first conception).

Second conception is studied from the date of birth of the first child (i.e. the baseline is the age of the first child measured in months). The author censored cases involving second births 15 years after the first child was born or at the age of 50 or at the date of sterilisation (if reported) or when interviewed, whichever occurred first.

Only the records of female respondents who had at least one surviving child were selected for the analysis of the second birth. The author excluded all cases where the first conception occurred before the age of 15 or where the respondent was over 40 years of age at first birth since the childbearing behaviour of these women (both very young and older) is likely to be significantly different from the rest of the sample. Furthermore, cases with incomplete information on the years of birth of first and/or second children, on the educational attainment of the subject as well as those cases where it was not possible to reconstruct the partnership history were excluded as were those cases where the respondent had an adopted first child or had foster or step children. Finally, women for whom a first birth was twins were also omitted from the multivariate analysis since it was not possible to calculate a positive duration for the process time in such cases.

The remaining second birth sample therefore comprised 2066 women who gave birth to 1366 second children. The first woman in the sample was at risk of an event in 1969 (April) i.e. the date on which the first child (parity one) was born.

Event-history techniques are employed to estimate the transition to second birth. In mathematical terms, the specification is as follows:

$$\ln h_i^{(2)}(t) = y^{(2)}(t) + \sum_j \beta_{1j}^{(2)} x_{ij} + \sum_k \beta_{2k}^{(2)} w_{ik}(t) + z_a^{(2)}(a_i(0) - a_{\min} + t) + z_c^{(2)}(c_i(0) - c_{\min} + t)$$

where $h^{(2)}(t)$ is the hazard of a second conception at time t, $y^{(2)}(t)$ is the baseline hazard, x_{ij} are the time constant covariates and w_{ik} are time varying covariates; β_1 and β_2 represent the respective coefficients for the effect of the time constant and time varying covariates on the log risk of a second conception. $z_i(\ )$ is the linear spline representing the effect of calendar time, $c_i(0)$ is calendar time at the beginning of the episode for the individual i (i.e. at the birth of a first child) and c_{min} is the minimum value of calendar time at the beginning of the episode in the data, i.e. year 1969 when the first child was born. $z_a(\ )$ is the linear spline representing the effect of the current age of the woman, $a_i(0)$ is her age at first birth and a_{min} is the minimum age value at the beginning of the episode in the data.

The baseline log-hazard is a piecewise-linear spline (also known as a generalised Gompertz function). Parameters are estimated using aML software (Version 2.09). This software allows the insertion of continuous covariates (in this case a woman's age at first birth and period) as a piecewise linear function[8]. A linear spline is a flexible way of representing the effect of a continuous independent variable. Apart from using a log baseline and one or more covariates represented as a linear spline, aML also allows for interaction between exploratory variables (for more details, see Lillard and Panis 2003). Data preparation involved the use of Stata statistical software.

Using a set of covariates, several analytical models were developed focusing on the determinants of having a second child in Czech society. The controlled variables expected to influence fertility behaviour with regard to a second child were drawn from both theory and empirical research. Several time constants and time varying covariates were introduced. The following outlines the covariates included in the analytical models and provides a hypothesis concerning their respective influence:

Time constant covariates

- *Number of siblings* – It is assumed that the number of siblings a woman has may influence her subsequent family trajectory and fertility behaviour and that women with a high number of siblings have a higher tendency to

[8] AML offers the capability of allowing the hazard to be a function of other durations. Thus age effects could be captured through a continuously changing function of age (piecewise-linear). This is clearly a better solution than using time varying covariates. By definition, time varying covariates change discretely from one sub-interval to the next, and their effect on a hazard thus consists of discrete jumps (Lillard, Panis 2003: 180).

establish larger families and therefore exhibit a higher second birth risk than women with no siblings.

- *Parental break-up* - In order not to mismatch two events in cases where parental divorce occurred at a time when a child had already reached adulthood and could have her own family, a covariate was created dealing specifically with the age of the child at parental break-up. Therefore the study distinguishes between parental break-up happening before or after the age of 16/never. It is assumed that having divorced parents in childhood reduces the probability of transition to second birth.
- *Religion* – This covariate describes whether the respondent is religious, i.e. whether she regularly attends a religious service (at least once a month). It is assumed that being religious is a stable personal quality and therefore the fact that evidence is available only from the time of the interview should not distort the overall results. It is assumed that being religious has a positive impact on the risk of a second birth.

Time varying covariates

- *Education* - The highest educational level achieved is treated as a time varying covariate - respondents who were studying at the time of the interview were coded as being in education. In other cases respondents were coded as being in education up to the time they attained the reported educational level. After the date of completion of their education, respondents were coded as having left education and were divided into four groups according to the educational level they reached. A distinction is made between respondents with "basic" (uncompleted or basic education only - compulsory education lasting 9 years) education, "lower-secondary" (apprenticeship or secondary) education without the School Leaving Certificate, "upper-secondary" education with the School Leaving Certificate at age 18/19 including follow-up courses and "tertiary" (higher technical colleges including conservatories and universities) education.
- *Partnership status* - A covariate was included to distinguish whether the respondent lived alone (single or divorced/separated) or in a marital or non-marital union during each month of observation. It is assumed that the second birth risk for married women is higher than for those in a non-marital relationship and that women in a union will exhibit a higher second birth risk than those living alone. In addition, union order and the influence of a change in partner were investigated.
- A further important covariate to be considered when studying fertility is the *age* of the subject. Age at first birth is particularly important with regard to the potential room or lack thereof that remains for higher order births

(Frejka, Sardon 2006). A subject's current age is included in the model as a regressor spline. The effect of current *calendar time* is controlled by the introduction of an additional duration spline.

4. Results

Education

Educational level plays an important role in determining preferences, values and social behaviour and reflects the socio-economic and cultural capital of an individual. The influence that education exerts on the probability of higher order births has been widely discussed. In several countries in recent years, analysis has suggested that education has a positive influence on the occurrence of higher order births – for example, such a correlation has been demonstrated for Western Germany (Kreyenfeld 2002; Alich 2006), Austria (Hoem et al. 2001) and the Scandinavian countries (Kravdal 1992; Oláh 2003).

In Czech society, being still in education after the first birth lowers the risk of having another child (table 3); lower birth risk whilst studying has been documented in a number of empirical studies (for Czech society see e.g. Kantorová 2004). The incompatibility of following an education and parenthood can be explained by several factors – economic (no income or very limited income to pay for child-related expenses, lack of appropriate housing etc.), normative (finishing one's education is seen as one of the most important preconditions for entering parenthood – Blossfeld, Huinink 1991), and time pressure (the dual burden of being a student and mother is likely to result in conflicting demands on time).

After controlling for a subject's age at first birth (linear spline) level of education appears to be a differentiating factor since having a university degree increases the relative risk of having a second child by 20 per cent compared to women with "upper-secondary" level education. However, no significant differences were detected according to highest educational level achieved with regard to women who were out of education when age at entry into motherhood according to different educational levels was determined. In Model B the author applied the approach of B. Hoem (1996) who pointed out the relevance of using age at birth relative[9] to the level of education at childbirth. She suggested it would be more appropriate to group the age variable differently for women at different educational levels in order to reflect the usual age at first childbirth in each educational group taken separately. The

[9] In Model B the covariate "relative age at first birth" was introduced with the classifications *rather young*, *medium*, *rather old*. It was assumed that women who had their first child later than other women with the same level of education would have a lower risk of a second birth.

effect of age depends on its social meaning vís a vís a person's peers and not on its average meaning in the population as a whole (Hoem 1996: 334). After controlling for relative age at first birth the positive effect of a university education disappeared.

Table 3. Transition to second child, effect of education

Education	Model A (age spline)		Model B (relative age)	
	β	**exp(β)**	**β**	**exp(β)**
In education	-0.3786	0.68***	-0.4514	0.64 ***
Out of education:				
Basic	-0.0213	0.98	0.0746	1.08
Lower-secondary	0.0020	1.00	0.0579	1.06
Upper-secondary (with School Leaving Certificate at age 18/19)		1		1
Tertiary	0.1827	1.20*	-0.0116	0.99

Notes: (1) Method: event-history model (generalised Gompertz)
(2) Dependent time variable: time from the birth of the first child as a piecewise-linear spline
(3) The model is controlled for calendar period (linear spline), age at first birth (linear spline or relative age), number of siblings, parental divorce, religiosity, partnership status and the interaction between the number of partnerships and new partners.
(4) Significance: *** $p<0.01$; ** $p<0.05$; * $p<0.1$
Source: GGS 2005

Parental home in childhood matters

Early life course experiences often have a significant impact on partnership and fertility behaviour. In Communist Czechoslovakia social networks had a very strong impact on individual lives and events in early adulthood. Kučera (1994) argues that in conditions of limited opportunities for emancipation via education or professional career, early marriage was in many cases the first independent step for young adults. However the formation of a family and the inherent self-realisation did not necessarily imply financial independence.

Weak state housing policy which resulted in a severe lack of housing for young couples and families meant that many young families had to wait several years for their first apartment and were forced by circumstances to live in three-generation extended family households. Such families often obtained their first independent housing after they had completed the reproduction cycle and had the desired number of children (Kučera 1994: 66). Moreover, due to the traditionally low level of migration of the Czech population, a young

family usually lived in close proximity to one or both sets of parents who often assumed a major childcare role.

Musil (1971:205-206) argues, based on an analysis of the Czech family system and the organisation of the family, that in Communist countries the social and economic conditions influencing the running of a household and the organisation of childcare, combined with a high rate of female employment, strengthened the social function of kinship. Therefore, in the Czech context the sociological forecast of a rapid change in terms of the family into small, nuclear and conjugal households following political change did not materialise.

Therefore, when measuring the impact of family background it was decided to include covariates describing the size of the family of origin and the relationship of the parents of the subject – whether they were divorced/separated or whether the respondent spent her childhood in an intact family.

Empirical studies in the Czech Republic documented that, indeed, the *size of the family of origin* influences the fertility behaviour of women and their transition to motherhood. Women who were brought up in larger families entered motherhood more rapidly than women from smaller families who tend to delay the transition to first birth (Kanotorová 2004b). Accentuating the aspect of socialisation, it was also thought that the number of siblings a subject had might influence the subsequent family trajectory and reproduction behaviour. Women from larger families might reasonably be expected to benefit more from kinship support, more frequent family contact and a wider social network than their counterparts from smaller families.

In the sample 12 per cent of women were found to have grown up as an only child, 44 per cent had one sibling and 26 per cent had two siblings. The remaining 18 per cent grew up in large families with more than two siblings. Table 4 clearly illustrates that having siblings positively influences the transition to second birth whereas conversely, being an only child reduces the risk of having a second child; the greater the number of siblings, the greater the risk of having a second child.

Table 4. Transition to second child, the effect of number of siblings, parental divorce and religion

	β	exp(β)
Number of siblings		
None	-0.2950	0.74***
1 sibling		1
2 siblings	0.1651	1.18**
3 or more siblings	0.2688	1.31***
Divorce of parents before age 16		
No		1
Yes	-0.1524	0.86*
Other/Missing	0.0329	1.03
Religion		
Attendance at a religious service at least once per month	0.2104	1.23**
Attendance less often/ no attendance		1

Notes: (1) Method: event-history model (generalised Gompertz)
(2) Dependent time variable: time from the birth of the first child as a piecewise-linear spline
(3) The model is controlled for calendar period (linear spline), age at first birth (linear spline), education, partnership status and the interaction between the number of partnerships and new partners.
(4) Significance: *** $p<0.01$; ** $p<0.05$; * $p<0.1$
Source: GGS 2005

Many empirical studies have documented the impact of experiencing *parental divorce* on various demographic processes. Children of divorced partners have a greater knowledge of the alternatives to marriage; they display a higher propensity to cohabit before marriage than do children from intact families (Bumpass, Sweet, Cherlin 1989; Thornton 1991, Manting 1994). Parental family discord raises the relative risk of leaving the parental home (Pfeiffer, Nowak, 2001); children from disrupted families where at least one of the parents has a new partner leave the parental home sooner than do their counterparts with a stable parental relationship (Courgeau 2000). Such children also tend to marry earlier (Glenn, Kramer 1987; Keith, Finlay 1988; McLanahan, Bumpass 1988; Thornton 1991). In the Czech context Zeman (2003) argues that women who experience parental family discord tend to live independently after leaving the family home and to cohabit before marriage; moreover, their own marital unions display a higher risk of dissolution.

However, the role of parental divorce in the second conception decision-making process is not clear. One assumption might be that women

who have experienced parental discord ending in separation would try harder to establish harmonious relationships within their own families and therefore will have a higher propensity to have more than one child. The counter-argument, based on empirical results, accentuates the role of alternative forms of partnership[10] and the fact that such women are more prone to marriage breakdown and divorce (Šťastná 2005). Alternatives to marriage, cohabitation or living without a partner are thought to have a negative effect on childbearing in general and on the risk of a second birth in particular. Empirical evidence supports the assumption that having divorced parents in childhood reduces the risk of transition to a second birth (table 4).

As far as the *religion* covariate is concerned, Czech society became highly secularised during the twentieth century. Nevertheless, membership of a religious community tends to result in both different values and lifestyle and positively influences the number of children in the family (Fialová et al. 2000). Pikálková (2003) argues that after a woman's educational level the greatest influence on the risk of having a third child is connected with religious belief[11]. Results show that a woman's religiosity, i.e. whether she regularly attends religious services (at least once per month), has a positive impact on the risk of a second birth (table 4). The different value structure associated with religious belief play an important role in second order births and the subsequent transition to a larger family (third and higher order children).

Partnership status and union order

Having a partner is one of the determinants influencing the second conception decision-making process. Moreover, marriage remains an important indicator of values and family-oriented life style. In the former Czechoslovakia the fertility of remarried women was studied as early as in the 1980s by Kučera (1984) who argued that the total fertility of repeatedly married women was higher than that of first married women (sets of women in comparable age groups) as a result of the relatively frequent additional delivery with a new partner; women who entered a new relationship childless or with only one child exhibited the highest fertility in the second union.

[10] For Czech women parental divorce increases the likelihood of cohabitation prior to marriage (Šťastná 2005; Zeman 2003).

[11] Pikálková analysed a sample of Czech women born between 1952 and 1982 using respondents from the Family and Fertility Survey carried out in the Czech Republic in 1997. According to her results women who attend religious services at least once a week have a 2.37 times higher risk of a third birth than those who attend services less often or not at all (results controlled for educational level, cohort, covariates describing family background, age pattern of previous births and partnership status).

In order to take into account that fertility in higher-order unions may differ from fertility in a first union the author controlled for the order of the current union. It was expected that living in a higher order union with a new partner (other than the father of the first child) increases the risk of a second birth.

Results confirmed the hypothesis and show that the relative risk of a second conception is highest for married Czech mothers; those who cohabit have a lower risk than those in a legal union and the risk is even smaller for women without a partner (not in a union) (Table 5). The interaction between the covariates "union order" and "new union" indicates that there is an elevated risk of a second conception with a new partner. Empirical findings suggest that a first shared child has a number of knock-on effects for the parents and new family, according to literature, the parenthood effect for the new partner, a union-commitment effect for both partners and the sibling effect (Griffith et al. 1985, Vikat, Thomson, Hoem 1999; Buber, Prskawetz 2000).

Table 5. Transition to second child, the effect of partnership status and union order

	β	exp(β)
Partnership		
Cohabitation	-0.4360	0.65***
Marriage		1
Out of union	-0.9631	0.38***
	New partner	
Number of unions	no	yes
1	1	1.15
2+	1.03	**1.82****

Notes: (1) Method: event-history model (generalised Gompertz)
(2) Dependent time variable: time from the birth of the first child as a piecewise-linear spline
(3) The model is controlled for calendar period (linear spline), age at first birth (linear spline), education, number of siblings, parental divorce and religious belief.
(4) Significance: *** $p<0.01$; ** $p<0.05$; * $p<0.1$
Source: GGS 2005

5. Summary and conclusions

In this paper the author has presented an analysis of second-birth intensity for Czech women in the 1951 to 1987 birth cohorts. An investigation has been conducted into the determinants of having a second child in Czech society in

which the most characteristic trend with regard to reproductive patterns during the Communist era was a strong orientation towards the two-child family and where the ideal of a two-child family still persists.

In line with findings for second birth intensity in other countries it was found that family background and early life course experiences as well as membership of a religious community constitute important second birth determinants in Czech society. Women with siblings also have a greater tendency to establish larger families and have a higher second birth risk than those with no siblings. Religious belief i.e. whether a woman regularly attends religions services (at least once a month) was found to have a positive impact on the risk of a second birth whereas, conversely, experience of a disrupted parental family home in childhood reduces the risk of transition to a second birth.

The study included a discussion of two key fertility study variables - education and partnership history. Education is a key sociological and demographic characteristic which plays an important role in determining preferences, values and social behaviour and reflects the socio-economic and cultural capital of the individual. Nevertheless, from a life course perspective, no significant differences were detected in the risk of a second conception according to highest educational level attained by women who have completed their education (controlled for other personal characteristics).

Having a partner is one of the most important determinants influencing second conception; the second conception risk for married women is higher than that for mothers in a non-legalised relationship or no union at all. In line with previous findings, there is an elevated risk of a second conception upon a new partner entering the family.

References

Alich, D. (2006). "The third Child. A comparison between West Germany and Norway." *Max Planck Institute for Demographic Research Working Paper 2006-001*. Rostock: Max Planck Institute for Demographic Research.

Blossfeld, H.-P., J. Huinink. (1991). "Human capital investments or norms of role transition? How women's schooling and career affect the process of family formation." *American Journal of Sociology* 97: 143-168.

Buber, I., A. Prskawetz. (2000). "Fertility in second unions in Austria: Findings from the Austrian FFS." *Demographic Research* 3(Article 2).

Bumpass, L. L., J. A. Sweet, A. Cherlin. (1989). "The role of cohabitation in declining rates of marriage." *Journal of Marriage and the Family* 53: 913-927.

Courgeau, D. (2000). "Le depart de chez les parents: une analyse démographique sur le long terme". *Economie et Statistique* 7/8(337-338): 37-60.

Ettlerová, S. Matějková, B. (2004). *Rodinné chování a bytová situace mladé generace - souvislosti s partnerským, sňatkovým a natalitním chováním.* [Family Behaviour and the Housing Situation of the Young Generation – relation to the partnership, marriage and natality behaviour.] Praha: VÚPSV.

Fialová, L., D. Hamplová, M. Kučera, S. Vymětalová. (2000). *Představy mladých lidí o manželství a rodičovství.* Praha: SLON.

Frejka, T., J-P. Sardon. (2004). *Childbearing Trends and Prospects in Low-Fertility Countries. A Cohort Analysis.* Dordrecht, Boston, London: Kluwer Academic Publisher.

Glenn, N. D., K. B. Kamer. (1987). "The marriages and divorces of the children of divorce." *Journal of Marriage and the Family* 49(4): 811-825.

Griffith, J. D., H. P. Koo, C. M. Suchindran. (1985). "Childbearing and Family in Remarriage." *Demography* 22(1): 73-88.

Hamplová, D. (2000b). "Názory na manželství a rodinu mladých svobodných lidí v roce 1997" [Opinions of Young Single people on Marriage and Fertility in 1997]. *Demografie* 42(2): 92-98.

Hoem, B. (1996). "The Social Meaning of the Age at Second Birth for Third-Birth Fertility: A Methodological Note o the Need to Sometimes Respicify an Intermediate Variable." *Yearbook of Population Research in Finland* 33: 333-339.

Hoem, J. M., A. Prskawetz, G. Neyer. (2001). "Autonomy or conservative adjustment? The effect of public policies and educational attainment on third births in Austria." *Population Studies* 55: 249-261.

Kantorová, V. (2002). "Fertility". In: Pavlík, Z., Kučera, M. (eds.): *Population Development in the Czech Republic 1990-2002.* Praha: Department of Demography and Geodemography, Faculty of Science, Charles University in Prague.

Kantorová, V. (2004). *Family life transitions of young women in a changing society: First union formation and birth of first child in the Czech Republic, 1970-1997.* Doctoral thesis, Charles University in Prague and Universite de Paris I – Pantheon – Sorbonne. Available at: http://www.demogr.mpg.de/ publications/files/ 1785_1000000000_1_Full%20Text.pdf.

Keith, V. M., B. Finlay. (1988). "The impact of parental divorce on children's educational attainment, marital timing, and likelihood of divorce." *Journal of Marriage and the Family* 50: 797-809.Kučera, M. 1984. "Plodnost žen v opakovaných manželstvích" [Fertility of women in repeated marriages]. *Demografie* 16: 289-96.

Kravdal, Ø. (1992). "The Emergence of a Positive Relation between Education and Third Birth Rates in Norway with Supportive Evidence from the United States." *Population Studies* 46(3): 459-475.

Kreyenfeld, M. (2002). "Time-squeeze, partner effect or self-selection? An investigation into the positive effect of women's education on second birth risks in West Germany". *Demographic Research,* 7(2): 15-48. www.demographic-research.org.

Kučera, M. (1984). "Plodnost žen v opakovaných manželstvích" [Fertility of women in repeated marriages]. *Demografie* 16: 289-96.

Kučera, M. (1994). *Populace České republiky 1918 – 1991*. [Population of the Czech Republic 1918-1991]. Praha: Česká demografická společnost, Sociologický ústav AV ČR.

Lillard, L. A., C. W. A. Panis. (2003). *aML Multilevel Multiprocess Statistical Software, Version 2.0*. EconWare, Los Angeles, California.

Manting, D. (1994). *Dynamics in marriage and cohabitation. An inter-temporal, life course analysis of first union formation and dissolution*. Amsterdam: Thesis publishers.

McLanahan, S.S., Bumpass, L. (1988). "Intergenerational consequences of family Disruption." *American Journal of Sociology* 94(1): 130-152.

Musil, J. (1971). "Some Aspects of Social Organization of the Contemporary Czechoslovak Family." *Journal of Marriage and the Family*, 33(1): 196-206.

Nešporová, O. (2007). "Měnící se rodičovství v kontextu podmínek na trhu práce." [Changing parenthood in the context of labour market conditions] *Fórum sociální politiky*, 1(2): 13-17.

Oláh, L. S. (2003). „Gendering Fertility: Second Births in Sweden and Hungary." *Population Research and Policy Review* 22: 171-200.

Pfeiffer, Ch., V. Nowak. (2001). "Transition to adulthood in Austria." In: M. Corijn, E. Klijzing (eds.). *Transitions to Adulthood in Europe*. Dordrecht, Boston, London: Kluwer Academic Publishers.

Philipov, D., J. Dorbritz. (2003). *Demographic consequences of economic transition in countries of central and eastern Europe*. Council of Europe Publishing.

Pikálková, S. (2003). "A Third Child in the Family: Plans and Reality among Women with Various Levels of Education." *Sociologický časopis/Czech Sociological Review* 39(6): 865-884.

Rychtaříková, J. (2004). "Změny generační plodnosti v České republice se zaměřením na vzdělání žen" [Changes in cohort fertility in the Czech Republic, with a focus on educational attainment of women] *Demografie* 46(2): 77-90. Available at: http://www.czso.cz/csu/edicniplan.nsf/t/000029F152/$File/Rychta.pdf.

Sobotka, T., Šťastná, A., Zeman, K., Hamplová, D., Kantorová, V. (2008). Czech Republic: A rapid transformation of fertility and family behaviour after the collapse of state socialism. *Demographic Research* 19(14): 403-454 (Special Collection 7: Childbearing Trends and Policies in Europe). Available at: http://www.demographic-research.org/volumes/ vol19/ 14/

Šalamounová, P., G. Šamanová. (20030. "Představy respondentů o partnerských vztazích a rodině." *Naše společnost* (3–4): 25–31.

Šťastná, A. (2005). "Mezigenerační přenos rozvodového chování na příkladu České republiky a v mezinárodním srovnání." [The Intergenerational Transmission of Divorce Behaviour – the Example of the Czech Republic and an International Comparison]. *Demografie*, 47 (1): 21-31.

Šťastná, A. (2007). "Druhé dítě v rodině - preference a hodnotové orientace českých žen." [A Second Child in th Family – The Preferences and Values of Czech Women]. *Sociologický časopis/Czech Sociological Review* 43(4): 721-745.

Thornton, A. (1991). "Influence of the marital history of parents on the marital and cohabitational experiences of children." *American Journal of Sociology* 96: 868-894.

Vikat, A., E. Thomson, J.M. Hoem. (1999). "Stepfamily fertility in contemporary Sweden: The impact on childbearing before the current union." *Population Studies* 53: 211-225.

Zeman, K. (2003). *Divorce and marital dissolution in the Czech Republic and Austria. The role of premarital cohabitation.* Doctoral thesis, Charles University in Prague.

Zeman, K. (2006). "Vývoj obyvatelstva České republiky v roce 2005" [Population Development in the Czech Republic in 2005]. *Demografie* 49(3): 153-165. Available at: http://www.czso.cz/csu/2006edicniplan.nsf/t/D400232A61/$File/K-Zeman.pdf.

Appendix

Table I. Event-history model of transition to second child

	β	exp(β)	
Age of first child			
intercept	-2.0564		***
slopes:			
0-1.5 years	0.8157		***
1.5-4 years	-0.0995		**
4-6 years	-0.1826		***
6+ years	-0.0523		
Age (spline)			
18-25	-0.0486		**
25-30	-0.0373		
30-35	-0.1607		***
35-40	-0.2527		*
40+	-0.2567		
Period			
1969-1975	0.0299		
1976-1979	-0.0422		
1980-1989	-0.0341		***
1990-1995	-0.0211		
1996-2005	0.0329		*
Education			
In education	-0.3786	0.68***	
Out of education:			
Basic	-0.0213	0.98	
Lower-secondary	0.0020	1.00	
Upper-secondary (with School Leaving Certificate at age 18/19)		1	
Tertiary	0.1827	1.20*	
Number of siblings			
None	-0.2950	0.74***	
1 sibling		1	
2 siblings	0.1650	1.18**	
3 or more siblings	0.2688	1.31 ***	
Divorce of parents before age 16			
No		1	
Yes	-0.1524	0.86*	
Other/Missing	0.0329	1.03	

Religion		
Attendance at a religious service at least once per month	0.2104	1.23**
Attendance less often/ no attendance		1
Partnership		
Cohabitation	-0.4360	0.65***
Marriage		1
Out of union	-0.9631	0.38***
	New partner	
Number of union	no	yes
1	1	1.15
2+	1.03	**1.82****

Notes: (1) Method: event-history model (generalised Gompertz); (2) Dependent time variable: time from the birth of the first child as a piecewise-linear spline; (3) Significance: *** p<0.01; ** p<0.05; * p<0.1
Source: GGS 2005

Postponement of Childbearing in Slovakia: the Role of Age Norms on Entry into Motherhood

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Abstract: Besides other factors, age norms enter the process of decision making on transition to motherhood. Chronological age proved relevant to urban women in Slovakia with respect to the postponement of childbearing. The paper discusses the concept of early, optimal and late childbearing and the relevant age deadlines, and reveals the social meanings attributed to the chronological age in the urban context in Slovakia in the early 21st century. The concept of the biological clock identifies the age after which to stop postponing motherhood. The study is based on in-depth and semi-structured interviews with women who lived in the Slovak capital Bratislava.

Keywords: postponement of motherhood, age norms, life course, fertility

1. Introduction

Similarly to other post-socialist countries, Slovakia has witnessed a rapid decline in total fertility rate coupled with pronounced changes in fertility timing. Total fertility rate fell from 2.09 children per woman in 1990 to the historical low of 1.19 children per woman in 2002 and subsequently it has slightly increased to 1.25 children per woman during the period 2004–2007. The postponement of childbearing is one of the main traits in transformation of the reproductive behaviour after 1990. The mean age of mothers at first birth has increased by 3.5 years during the period 1990–2007, even though it is still relatively low compared to the Western and Northern European countries (26.19 years in 2007). The proportion of fertility by women aged 30+ has increased from 15.5% to 46% during the same period. Tempo-adjusted fertility rates also show a high tempo effect on fertility quantum due to postponement of childbearing towards higher age (Lutz et al. 2008, Potančoková 2008a).

The debate on the fertility decline and postponement of childbearing in the Central and Eastern European countries has focused on a number of

factors: economic constraints during the transformation period, and particularly during the 1990s; problems of young adults at the labour market, increasing importance of investments into person's own human capital, including higher education; increasing uncertainty and social anomie in the 1990s; and ideational and value changes (Frejka 2008, Kotowska et al. 2008, Potančoková et al. 2008, Philipov, Speder and Billari 2006, Sobotka 2004, Philipov and Dorbritz 2003, Rychtaříková and Akkerman 2003, Sobotka, Zeman and Kantorová 2003, Kantorová 2004, Philipov 2002, Lestaeghe and Surkyn 2002). The interplay of the ideational and structural factors has lead to the postponement of childbearing. The impact of some factors varies over the phases of the transformation of economies from the planned towards market-oriented. High unemployment rates, loss of social security and underdeveloped housing market impacted on fertility decision more heavily in the mid-1990 than at the turn of century. Poland and Slovakia faced exceptionally high unemployment rates among young adults at the turn of the century (OECD 2006, Kotowska et al. 2008, Potančoková et al. 2008). Besides the loss of certainties, the transformation has broadened possibilities to increase one's qualification and to build a professional career. In Slovakia, the proportion of women aged 20–24 years who were enrolled at university tripled during the period 1990–2004 (Potančoková et al. 2008) and this has influenced the postponement of childbearing. Being enrolled in education is perceived competitive to childbearing in most European societies (Rindfuss and Brauner-Otto 2008, Skirbekk et al. 2004), and Slovakia is not an exception.

The context of reproduction has changed substantially during the transformation period and institutional change was part of the societal changes. It is reflected also in changing social norms on timing of childbearing. A few recent studies show that changing social norms, and in particular age norms on transition to motherhood play an important role in fertility timing (Perelli-Harris 2005, Bernardi, Klaerner and von der Lippe 2006, Mynarska 2007). This paper aims to contribute to this discussion.

The focus of the qualitative study was on the mechanisms underlying the process of the postponement of transition to motherhood in urban Slovakia at the turn of the 21st century. This paper discusses the age norms related to the transition to motherhood and childbearing. Several findings are in line with the results of previous qualitative studies on timing of childbearing in the countries of the CEE region (Mynarska 2007, Perelli-Harris 2005), which show the importance of social norms on the entry into motherhood.

The paper addresses methodological issues of the qualitative case-study and discusses the sampling procedure and the sample characteristics. The

theoretical section deals with the dimensions of age and the age norms with respect to timing of childbearing. In the results section, meanings of chronological age and age limits of entry into motherhood are presented and discussed.

2. Qualitative methodology and sample description

The analysis is based on 18 biographical interviews and 9 semi-structured interviews conducted during the fieldwork, which was carried out from October 2005 to January 2006 in the Slovak capital Bratislava. The interviews differ in the interviewing setting they were conducted in, in the interviewing technique as well as in the level of insight they provide on reproductive decisions and other life careers of the respondents (partnership, educational histories and histories of economic activity). In spite of the differences, all interviews share a common focus and they all provide rich data on the decision-making on childbearing, family formation and timing of entry into motherhood.

Bratislava represents a specific setting for the research of the postponement of childbearing. In the capital the drop in fertility rates and the postponement process manifested earliest than in the rest of Slovakia. Also, the postponement of first births is most rapid and in Bratislava the mean age of mothers at first birth has increased to 30.1 years in 2007 (increase by 4,1 years since 1990). In all other Slovak cities or regions the mean age of mother at first birth has not reached 28 years (Šprocha 2008). The urban context of Bratislava is not the only reason for these differences. The structure of the population of women in reproductive age plays also an important role. Bratislava is by far the economically strongest region of Slovakia with the GDP per capita at 148% of the EU-27 average in 2007 compared to 43–57% in the other regions of Slovakia (EUROSTAT online database). Therefore, Bratislava attracts university graduates: 33% of women aged 25 to 49 are university graduates according to the 2001 census. In contrast to the overrepresentation of women with higher educational attainment and of the Slovak ethnicity, the proportion of women with the lowest educational attainment and the proportion of women of the Roma minority are well below the national average.

Sample description and sampling procedure

For the purpose of this study I analysed interviews with women, who lived in the capital Bratislava, had at least one child or were in the decision-making

process to have their first child[1]. All interviewees were born within the years 1968–1980 and had their first child at age 19 to 35 (see Table 1 in the Appendix). Two childless women were aged 26 and 31 years at the time of the interview. Thirteen women were married at the time of the interview: 6 of them experienced premarital conception and in two cases marriage occurred after the child was born to a cohabiting couple. Three single mothers were interviewed. Both childless and an additional two women with children were cohabiting. The women vary also in their religious identity characteristics and in fertility intentions ranging from a single child to 5 children. The sample consists of middle class women with higher education (secondary with a high school diploma or university[2]). The interviewees worked in administration, had professional jobs, in education, health care, IT and in arts. They differ in their orientation towards family and professional career, in terms of Hakim's preference theory. The preference theory (Hakim 2003) attempts to explain and predict the choices women make in their work and family lives. In Hakim's classification women fall into three main groups: work-centred, adaptive and home-centred. The interviewees in the sample occupy different positions on the continuum from work-oriented towards family-centred women.

The sampling procedure was purposive. The aim was to create an information-rich sample of women who vary in transition to motherhood in terms of age, marriage and partnership status. Women were sampled gradually, starting from a homogeneous group of married women who had their first child at the age of 25 – 30 years and adding women with differing experiences: those who postponed childbearing above age 30, who had their first child earlier, single mothers etc. In the final stage of the sampling procedure two childless women were included. The purpose was to verify the findings retrieved from the interviews with women who already had their first child.

Most women were contacted in three daily centres for mothers (or parents) at parental leave and via announcement at a website aimed at mothers. Specific cases, such as single mothers or women who returned to employment early after giving birth, were snowballed through social networks of the

[1] The complete sample of interviews includes an additional 11 interviews with women who were either mothers of the younger interviewees of representatives of the 'mothers' generation. This material is not used in this paper since it focuses on the perception of the younger cohorts. The interviews with the older generation bring insights into the perceptions of the older cohorts on reproductive behaviour of their daughters and on the reproductive strategies of women during the state socialism.

[2] According to the 2001 census, 78% of women aged 25 to 49 who had a permanent residence in Bratislava had attained at least secondary education with a high school diploma.

previous interviewees. In this manner it was possible to create a sample of women with varying reproductive experiences.

Interviewing techniques

Biographical in-depth interviews were conducted in the intimacy of the interviewee's homes (with the exception of two interviews conducted in cafés/ restaurants). All interviewees were told that the researcher is interested in family formation and childbearing. An interview started with a *generative narrative question*[3], which was aimed at unfolding a retrospective narrative on the interviewee's experiences with family formation and childbearing and also the horizon of the reproductive plans. After the narration ended, the interview continued with *additional questions* which aimed at a more detailed explanation of the interviewee's experiences and motivations. *External questions* were asked at the very end of the interview. These questions covered topics which were not discussed in the previous phases of the interview, but were important to the researcher. For example, if a woman did not speak about the contraceptive praxis, she was asked to elaborate on this topic. When all thematic fields relevant to reproductive decisions were covered, the interviewee was asked to draw a *biogram* (a life trajectory sketch) and to indicate all important events in a chronological order, including timing in terms of age and calendar time. This tool has proved very useful, since information on timing of life events was often missing, or difficult to reconstruct from the interviews, or the ordering of life events was unclear.

The biographical interviews lasted usually 1.5 to 3 hours and almost all were conducted in one interviewing sitting. In contrast, semi-structured interviews were conducted in daily centres for mothers or parents on parental leave. Interviews were carried out in a biographical manner by asking questions on circumstances of family formation, fertility timing, fertility intentions and family planning issues. These interviews provide less detailed accounts and information on other life careers and the individual's background characteristics are often limited. At the expense of that, these interviews were more focused on topics related to childbearing. They allowed exploring women's experiences and opinions on motherhood, timing of childbearing and family formation. A semi-structured interview lasted on average about 30 minutes.

[3] The exact phrasing of the generative narrative question was: "Tell me about your life and how you started a family and had children. You can start narrating from any event in your life, which was imported to you."

Though the biographical interviews provide very detailed information, it was important to broaden the sample and to see how grounded the findings are. This was done by the analysis of semi-structured interviews and informal, short conversations with women in the daily centres which I noted down during the fieldwork. Those categories of argumentations explaining transitions to motherhood or postponement that appeared also in this material can be regarded as well-grounded. However, the findings should not be generalised beyond the urban context of Bratislava and to unskilled women with low levels of education, women from the working class of from the higher-income classes. The sample does not cover these social groups and individuals from other social classes or backgrounds may have a different understanding of family formation and timing of entry into motherhood[4].

Method of analysis

All interviews were transcribed verbatim and the transcripts were analysed using the coding procedure of the grounded theory (Strauss and Corbin 1998). A resume of each interviewee's life provided a starting point of orientation. The interview transcripts were split into thematic fields in the first steps of the analysis. Open coding followed in the next step. At this stage, the analysis remained at the level of a single interview (within case analysis). It was aimed at creating categories which were related to reproductive decisions and relations between these categories within the logic of the individual experience. Webs of meaning were a useful tool to visualise relations between the categories within an interview. In the final step, a thematic analysis across all interviews took place. The focus was on codes related to the timing of first births. The thematic analysis resulted in the formulation of more abstract categories from the open codes and these categories were linked to the theoretical background.

Linguistic aspects of the interviewee's statements played an important role when identifying general rules for behaviour. Switching from first person singular (when speaking of own experience) or third person singular (when presenting experiences of (important) others) to third person plural or general de-personalised formulations (one shout (not) do/behave/act etc.) points towards shared rules or general consensus over expectations, proscriptions for behaviour. Such statements were typical for evaluative segments of the statements, which often followed narratives describing performed behaviour.

[4] Duncan (2005) studied mothering and childcare patterns across different social classes in England and found differences between black/white women, suburban/urban women etc.

3. Theoretical background: Age, dimensions of time and age norms

Chronological age by itself is not a determinant of individual behaviour and cannot explain shifting age-patterns of childbearing. Moreover, biological time is only one of the dimensions of time distinguished in the social sciences. Besides biological time, measured as chronological age of a person, developmental, social, institutional and historical time can be distinguished (de Bruijn 1999). Developmental time refers to developmental processes, including cognitive development, at personal and intra-personal level. Institutional time is linked to the changes of social institutions and historical time refers to the occurrence of historical events. Social time covers meanings and normative timetables related to the chronological age of an individual. Social time can be regarded as an underlying dimension of the biological time. Social time interlinks the individual and macro level aspects of time since it links social institutions to the chronological time at the individual level.

Although at the individual level persons may have achieved very different stages in their personal or psychological development, chronological age carries social meanings which define temporal stages in life course. According to Elder (1975), individual life course consists of temporal stages which are socio-culturally defined and their timetables and age patterns are shaped by the age norms. Age norms are age deadlines that define life stages and the timing of the life transitions in terms of chronological age. They are constructed upon social meanings attributed to the chronological age. Interviewees' reasoning and argumentations on age at childbearing do not reveal only the age deadlines (or age thresholds), but also meanings of the age. These meanings contain understandings of the appropriate and deviant behaviour at a certain age, general prescriptions on behaviour and social expectations on behaviour and life transitions at a certain age. Social meanings of age change over time in line with a broader contextual change and with the development of social institutions.

The concept of norm is frequently used to explain human (and also reproductive) behaviour (Ajzen and Fishbein 1990, Coleman 1990, Marini 1984, Thomson and Goldman 1987, Skinner 1997, White 1998, Bledsoe and Hill 1998 etc). Social norms involve dimension of social approval – disapproval towards behaviour and an evaluative "ought to" dimension. According to de Bruijn (1999), norms have two dimensions. First, they serve as meaning-giving rules according to which individuals interpret the social world. Second, they function as behaviour-guiding rules according to which people should behave in socially defined situations. According to the norms people evaluate behaviour of the others and they are aware of various sets of rules on how to

behave. To prove the existence of an age norm, one should be able to identify that behaviour is statistically regular, it is perceived as generally accepted and possibly one should be able to identify sanctions or indirect means of social pressure if the normative rule is not followed. Despite the fact that sanctions are a necessary part of the norms according to some scholars (Marini 1984), according to others they are not inevitable (White 1998). On an individual level, respondents may not speak of direct social pressure to behave in a normative fashion, but they may speak of the feelings of guilt or shame if they are aware they have broken a norm (White 1998).

Statistical regularities in the observed behaviour may point towards normative aspects of the observed behaviour. Normal behaviour is statistically common as it is generally accepted and approved. For instance if most women experience transition to first birth in a narrow age interval, it is likely that a social rule on the expected age at transition to motherhood exists in a given society. However, a broad spread in age at transition to motherhood does not necessarily mean the age norms are irrelevant. It may picture a greater heterogeneity within the population or the ongoing change of the norms. A situation when different cohorts of women vary in their perceptions on timing of childbearing is an example. Normative views on age at transition to motherhood are mirrored in age patterns of the period and cohort fertility rates. Cohort fertility rates for birth order 1 show recuperation after age 25: the more pronounced the deficit of fertility below age 25, the more intense the recuperation after age 25 for the cohorts born during the 1970s (Potančoková 2008b).

Moreover, it is often argued that the preferred age for an event transition and a modal age of the transition coincide (Modell 1990, Rindfuss and Bumpass 1978). Yet the statistical average is not a norm since the norm does not refer to "the average behaviour of persons in a specific social situation, but instead to the expected behaviour, the behaviour that is considered appropriate to that situation. It is statistical only in the sense that a significant number of people regard it as a standard procedure" (Bierstedt 1970, quoted according to White 1998). Individuals tend to order life events in a normative fashion typical for birth cohorts they are members of (Elder, 1975). Birth cohorts experience life transitions in a similar context and they have undergone a social learning process at about the same time and under similar conditions, which means that their understandings of the world would be similar[5].

[5] Cohort members do not behave in a uniform way and within cohort variability is, besides other reasons, an outcome of social stratification. Members of different social groups and sub-

Some life stages or age deadlines are defined in legislation, for example the minimum legal age for sexual intercourse and the age of reaching adulthood. These legally defined age limits may influence social norms, but they reflect them at the same time and change overtime in line with institutional changes. Biological age deadlines of menarche and menopause also determine the childbearing and reproductive careers of women. However, menopause is not anymore a limitation to fertility due to progress in assisted reproduction and its broadening availability to couples in some countries.

4. Meanings of the chronological age (at transition to motherhood)

Rich textual data in the interviews proved relevant for the study of meanings of age and normative aspects related to the transition to motherhood. The age, more precisely social meanings attributed to the chronological age, is only one of the factors entering the process of decision-making on entry to motherhood. This text will not discuss other prerequisites to childbearing such as completed education, job stability, housing and financial security, although these factors were perceived as necessary for the family formation by the respondents. All factors listed above contribute to the postponement of childbearing, because entry to parenthood is positioned at the end of the sequence of other life transitions. The sequential view of the life course leads to the postponement of parenthood. However, in this paper I will focus solely on the social meanings attributed to age and on the age limits of entry into motherhood.

The topic of age at childbearing has been frequently brought up spontaneously by the interviewees, in some cases even in the very first sentences. Particularly women who had their first child at about age 30 emphasised their age as a factor that entered their decision-making on entry into motherhood. Petra[6] started the interview as follows:

> *I have passed the age 30 so * for me * We are the only couple among our friends who have a child and we have decided for the child because I already had the age and so we thought that * there is nothing else to wait for." Petra, 32, first child at 31, university educated, married.*

Although many women were reluctant to specify the optimal age for childbearing in terms of chronological age, they would discuss what means

cultures hold different understanding and constructs of the meanings.

[6] Original names of the respondents have been replaced by nick-names. * this transcription symbol means a short pause in the speech.

(too) early or (too) late in great detail. In case the interviewees did not bring the topic of the timing of childbearing themselves, they were explicitly asked to elaborate on when they think is early or late to have a child.

Three age intervals of early, optimal and late age at childbearing were identified from the statements in the interviews. Age 18 to 24 is considered early age, while ages 28 or 30 were most frequently mentioned as age deadlines for having a first child. Age 25 to about 28–30 is considered optimal. Most women or couples would have experienced other necessary life transitions (completed education) by the age 30 and also other preconditions to childbearing should be mostly met at this age (job stability, financial security, own housing). Childbearing becomes highly relevant for a childless woman as she is approaching age 30. At this point it is important to emphasise that age deadlines related to family formation and childbearing may be defined differently by women from other social classes than the middle class, by women with lower educational attainment (vocational and lower than vocational) and shorter duration of educational enrolment, or by rural women.

5. Early childbearing: women aged 18 to 24

Motherhood prior to age 18, which is the legal age of reaching adulthood, is perceived as highly undesirable or even a pathological behaviour typical for the lower social strata or socially excluded Roma. Childbearing after age 18 is acceptable, but not generally supported and welcome. Among the women in the qualitative sample, all pregnancies prior to age 25 were unintended and they were often an outcome of a contraceptive mishap or of no contraceptive use. Naturally, that does not mean that all pregnancies below age 25 are unintended and that no women aim at becoming mothers at that age.

Becoming a mother at an early age is perceived risky and undesirable mainly due to *psychological and social immaturity*. This explanation points to the importance of age in terms of developmental time. Several respondents emphasised that what early age means may differ across individuals depending on their psychological development and maturity. However, only in exceptional cases young women are perceived as "*being ready for motherhood"* at an early age.

> *It depends on the psychology of the woman; whether she is ready for that (the motherhood). I think that 18 year old people, they're children still. Though I know many people, I have two friends who were 20 (when having their 1st child), who were like very serious when 16 years old, * they did not do any crazy things and took life*

very seriously, but I think they could have waited a little longer." Maria, 28, first child at 26, secondary education, single mother

In early age young women are considered *"not ready"* for bearing the responsibility of mothering and childrearing, which is conflicting with the personal development of a woman. In other words, they are not expected to being able to perform the role of the mother in accordance with the imperative of a good mother (Potančoková 2009, Hašková and Zamykalová 2006). Categories of dependency and (ir)responsibility are central to the meaning of the readiness to motherhood.

Dependency on others is part of the concept of social immaturity. At an age when a person is still dependent on parents, family formation ought to be postponed. Persons enrolled in education, living in the parental home and not having a stable employment should not aim at having a child at that stage in their life. Dependency on others is only part of the reasoning why students should not have children yet. Students are expected to enjoy their life and not to bear responsibility for their own family during the studies. What is considered responsible behaviour is not expected from them yet. This understanding of the life course phases is another reason why social norms do not support childbearing at an age when a person is enrolled in education. However, not only those enrolled in education are expected not to start a family at a young age. A woman should not have a child at an early age because the energy should be invested into her personal development and human capital, not into childcare and childrearing. Early motherhood has an inhibiting impact on women's progress in other life careers.

*I always knew I do not want to have a child as a young girl, because * a woman perceives the child being an obstacle to her. It is PREVENTING her from what she could have achieved. But when you are 30, you already have achieved something, you have some experiences and a completed education, a job." Paula, 28, first child at 26, secondary education, married[7], original emphasis*

Tendencies to *irresponsible behaviour* are another risk factor of early childbearing. Young adults in their early 20s are perceived as not having enough abilities to responsible behaviour, which is crucial for being a good mother. Mothering abilities of women who have a child at an age below 25 years are doubted by others. These women are expected to perform their role of mother improperly

[7] In fact, Paula thought her motherhood came early and that it was provoked by the direct pressure from her gynaecologist, see quote at page 149.

because they would want to compensate "the lost time" they could have spend living an easy life without the responsibilities of mothering. Also, they would want to conform to the behaviour of other young adults at their age, for example enjoying a night life instead of taking care of the child (which is considered highly irresponsible).

> *My sister-in-law and her husband, he was 18 and she was 21 when they had their first child, and they were young and I could see it. Their interests were different at that age, he wanted to spend time with his friends and he's stared a job. ... And she also had her own interests, like she would go shopping to the city or so and it was like ok because the grandma would take care (of the child). I would not want to do it this way." Sonja, 30, first child at 30, university educated, re-married*

My respondents believed that irresponsible women cannot become good mothers and this disqualifies young women in general, since their young age is associated with a life style which is in contrast to the role of mother. Expectations on behaviour of young mothers are contrasted with the ideal of "intense mothering", which requires mothers to invest their time into childrearing during the first years of the child and the mother's almost exclusive care for the child. Young women may find childrearing too stressful, which will prevent them from enjoying their motherhood. Most interviewees believed that woman who becomes a mother at an optimal age can fully enjoy motherhood, while younger or older mothers face difficulties because of their age.

Early motherhood is perceived risky also because of a *higher risk of divorce or union disruption at an early age:* "*I have many friends who got married at 20 and they are divorced when 30. Too many." Zuzana, 32, childless, university educated, cohabiting.* In the logic of the previous arguments, union disruption is an outcome of a lack of responsibility and social immaturity of the young couples.

6. Optimal age for entry into motherhood: 25 to 30

The optimal timing for the entry into motherhood is when preconditions to childbearing are met, meaning that a woman has completed her education, has a stable job, the couple is "financially secure", owns housing and the woman is *"mature and ready for the child"*. The concept of readiness is understood in terms of psychological maturity and responsibility. Behaving in a responsible manner means that a woman can practice the role of mother according to the social expectations. According to the stereotype, a good mother is responsible,

caring, puts her child first and provides daily childcare until the child is three years old (Potančoková 2009).

Vitality and health were also important to the definition of the optimal age for childbearing. According to the interviewees, a woman should not be too old otherwise she would not have enough energy for childrearing and due to tiredness she will not be able to *"enjoy the motherhood / her children"*. A healthy mother can fully devote herself to mothering and childrearing. The interviewees emphasised the issues of health and reproductive health being closely linked to the chronological age. Good reproductive health is associated with unproblematic conception and pregnancy. Generally good health makes recovery after the delivery easier.

Several interviewees were reluctant to define the optimal age as an age interval because they thought it is very individual at what age women or partners reach psychological and social maturity and residential or financial autonomy.

> *It is definitely better, well not at 18 or so, but at 25 is better than at 30 (to become a mother). I think that after the university studies the person is a bit more mature. … And during the university studies he/she has had enough time to go to the movies, to the disco, to holidays and so on. So I think that 25, 27 is kind of a golden age, when one should have completed this, and one can start a family or have a child and devote herself/himself to that." Laura, 38, first child at 32, university educated, single mother*

The following passage shows the individualisation of age. In fact, most interviewees stated that there is no universally ideal age for entry into motherhood, which may point towards loosening of the social norms. *"I think that each person is individual and everyone feels the right time differently, someone when being 20, someone at 30." Zuzana, 32, childless, university educated, cohabiting.* However, normative statements often followed in their argumentation. Although the respondents approved of individual differences in fertility timing, when evaluating behaviour of other women they knew they expressed opinions in line with the normative views on transition to motherhood. The effect of the increasing individualisation of age can lay in a limited sanctioning of later childbearing in particular (see the section discussing the mechanisms of social control).

Other interviewees defined the optimal age as a rather broad age interval of about 25 to 30 years. However, the reasoning was very similar to the one of Laura and the optimal age has been derived from the approximate

timing of completing other life transitions relevant to childbearing. Darina emphasised that a definition based on chronological age cannot be universal for all social groups. In her view, duration of the educational enrolment is influencing the fertility timing a lot.

> *I think that it very much depends on the university studies, because if one completes the secondary school and starts a job immediately afterwards, then those secondary school graduates are 5 years ahead, because they can work and make money." Darina, 31, first child at 29, university educated, married*

7. Age 30 – the "biological clock"

Most frequently stated age deadline for the transition to motherhood was age 28 or 30. This age deadline defines when a woman is supposed to stop postponing the decision to have a child. After age 30 childbearing becomes highly relevant for a childless women and she should hurry up (see also Mynarska 2007 for the Polish case). While at lower age the priorities focus on human capital investments, consumer aspirations and financial and residential autonomy, a shift towards childbearing and family formation is expected at or after age 30. Social factors play an important role when deciding on having a child by the age of 30 and biological factors become highly relevant towards age 35.Compared to age 30, age 35 is a more strict age deadline due to health risks and infertility constraints. All interviewees, who spoke of this age as a deadline to childbearing, based their argumentations on the discourse of the experts (medical doctors) and referred to physiological factors a woman should concern after age 35.

Interviewees who had their children at age 30 or later spoke of the "biological clock" and that they were "running out of time". The phenomenon of the "biological clock" is frequently discussed in magazines for women[8]. Despite the explicit link to "biology", the term biological clock does not relate solely to the physiology, biology or to health in general. Among the risks associated with later childbearing, social aspects play an important role. The concept of the biological clock is a social construct and in different populations or social groups it can imply various age deadlines.

Besides the risks related to later childbearing, the interviewees sometimes mentioned also positives of having a child after age 30. Most frequently mentioned are economic independence and readiness for

[8] This material requires a content analysis of the media. However, media discourse interplays with the public discourse and it has to be taken into consideration when interpreting data from the interviews.

motherhood. Overall, interviewees did not see any benefit of postponing substantially after age 30. They focused their reasoning on the risks related to childbearing after age 30 and in particular after age 35. These risks split into *biological risks*, which include health and in/fertility, and *social risks*, which relate to the expected social roles over the life course. The interviewees were well aware that the postponed motherhood may lead to the following health risks: problems to conceive, long waiting time to conception and increasing risk of infertility. Women referred to the discourse of the experts (medical doctors, gynaecologists, psychologists) at this point and spoke about increasing health risks related to the pregnancy, delivery and health of the child and the mother. Older women also have less vitality and less patience for childcare and childrearing. However, fertility rates show the transition to motherhood above age 35 becomes more widespread. Interviewees who had experience with late childbearing or who knew such women were more likely to push the age limit for childbearing to a later age than the interviewees who became mothers at a younger age.

All other risk factors relate to the social aspects of childbearing and childrearing. *A generational gap* between the parents and the children has been discussed extensively. Younger mothers are believed to develop closer ties and a more harmonic relationship with their offspring. The interviewees expressed that younger parents understand their children better because they can share similar interest and tastes. *Role confusion* is a good reason for not having a child at too advanced age. Being addressed as a grandparent and not as a parent of a child is shameful. Not to get into such situation is a good reason for not postponing too long. Interestingly, this was the only risk which women considered relevant to the fathers also.

Similar to early childbearing, the respondents regard late childbearing (above age 40) as irresponsible behaviour towards the child. Women should anticipate how old they will be when their child would become independent and consider the optimal age for childbearing with respect to the needs of the child. Advanced age and parenting can get into conflict if a parent is too old to fulfil the expectations of the social role.

> *(After a certain age) one considers pros and cons, and if one doesn't make it until some horizon, then one starts to think that probably not anymore. Because, for example, when I turn 50 my daughter will be 18. Well, that still is an age horizon, mine and hers, when we would understand each other and I will be economically active and able to pay for her education, perhaps university studies." Laura, 38, first child at 32, university educated, single mother*

In particular, it is perceived inappropriate if a woman reaches retirement age before the child is independent because a parent should be able to support the child financially. Women anticipated the duration of educational enrolment of their children. An extensive postponement may result in a situation when the mother would be in age when she would need help from her offspring before they gain independence. *A risk of death* before the child reaches adulthood or before having grandchildren were also mentioned.

Postponement can negatively *impact on fertility intentions* for a larger family size and the interviewees were well aware of this. Several respondents, who considered having more than two children, have explicitly stated that a woman should start early enough if she aims for a large family. Starting childbearing latest shortly after age 30 is perceived crucial also for the optimal spacing of births.

At an age over 30 some of the necessary preconditions for childbearing can be relaxed. At a later age couples may be willing to lower their standards on housing, "financial security" or consumer aspirations.

> *My husband wanted us to be financially secured first and only then to have children. And I was telling him that we will never be financially secure enough to have children, I mean regarding the housing, furniture or I don't know. So we have given up on that and everything does not have to be totally perfect in order to start a family." Renata, 32, first child at 31, secondary education, married*

Also, the requirements related to the optimal timing of childbearing may seem too demanding and very difficult to achieve for young adults. Partners or women decide not to delay transition to parenthood any longer when they do not see the horizon of the postponement or the horizon seems unrealistic with regard to the family formation.

> *Me and my husband decided to have a baby before he got the better job, because we thought that if we wanted to aim for being secure first, we would have had the child when turning 40 or so." Margita, 26, first child at 25, university educated, married*

Paradoxically, a long horizon of postponement in combination with social pressure may lead to early childbearing (the case of Margita).

8. Flexibility of age norms and mechanisms of social control

Approved exceptions

How strict are the age norms? In case of problems to conceive, in absence of a suitable partner and if the financial situation of the family is unfavourable the postponement can be accepted up to the age going well beyond 30. These results are identical to those of Mynarska (2007) depicting the situation in Poland. In case of infertility is the age norm becomes irrelevant. However, infertile women face pressure towards social parenthood or towards assisted reproduction (Hašková and Zamykalová 2006).

Age norms and the biological clock are less relevant in case of the *absence of a (suitable) partner*. In accordance to Mynarska (2007), both justified situations are interpreted "independent of an individuals will".

A difficult financial situation is another exceptional case. However, some interviewees emphasised that it is very individual in which cases the financial situation is perceived difficult enough to be an accepted as a reason for the postponement. In the view of the respondents, the line between the lack of finance and the consumer aspirations is very subjective. Also, the social actors are aware of the norms and they can produce socially acceptable excuses in order to limit the social pressure. Thus, financial situation as an excuse for not having a child yet can be doubted by the others or perceived as an insufficient reason. This was emphasised by the religious women who were practicing Roman Catholics.

Mechanisms of social control

The analysis revealed two main mechanisms of social control on timing of entry into motherhood: a sanctioning power of the public opinion and a direct social pressure. Indirect influence of the peer groups, discussed by Bernardi (2003) for the Italian context, was difficult to detect. Social actors believed the decisions they made were their own and that they were not indirectly influenced by the others[9].

The sanctioning power of the public opinion was found relevant for early as well as for late childbearing. Mothers who had their children at an age of about 20 were confronted with the age norms. In general, early childbearing was not a reproductive strategy women would aim for. Younger mothers were confronted with the judgements of the others – if not in reality than at least they were confronting themselves with what they though the anonymous other may think of their early motherhood. Even if they did not have experience

[9] Different research designs or interviewing of more members of the interviewee's social network may reveal more evidence on the influence on reproductive decisions.

with direct stigmatisation, they would spontaneously confront themselves with the social norms they were aware of.

> *Well, people want (to have children) as late as possible, after they are financially secured, after they complete the education. I would not have had a child myself, but well, it's not that I would be kind of irresponsible, but it has been a mishap." Lara, 23, first child at 22, secondary education, single mother*[10]

Younger mothers themselves admitted they were rather exceptional and did not follow the reproductive careers typical for their cohort members and peers (friends, schoolmates, sisters or other family members of a similar age).

Sanctioning of late childbearing was difficult to detect. However, the above mentioned risks related to childbearing after age 30 may be perceived serious enough in order to avoid them. Although late childbearing may not be sanctioned, since parenting is highly valued and desired, perception of the risks may prevent (too) late transition to motherhood (see Mynarska for the case of Poland). Also, there is not a consensus among the social scientist over the necessity of sanctions. According to White (1998), some norms may have sanctions while some may not be sanctioned at all. Also, the strength of the sanctions may vary over time.

Several interviewees mentioned *streams of direct pressure* to become mothers in younger age. Social pressure to make a decision to have a child considered both married and cohabiting women. Most frequently this pressure came from *close family members* who were women – either a mother or a mother-in-law and gynaecologists[11]. The pressure can get strong if the parents of one of the partners consider themselves in an appropriate age to becoming grandparents and they do not have any grandchild yet. The case of Margita is an example of the situation when two age norms coincide:

> *My mother-in-law was pushing me, 'you'll be 25 soon and I am very much looking forward to having a grandchild; I want a grandchild, my colleagues already have some!'. And I don't like this kind of manipulation, but it has worked a bit." Margita, 26, first child at 25, university educated, married*

[10] When Lara detected the pregnancy and decided for an induced abortion she'd found out it was too late.

[11] Mynarska (2007) has also found the same means of direct pressure towards earlier motherhood for urban Polish women.

And (my mother) sometimes kind of reminds me that her colleagues already have grandchildren." Petra, 26, childless, university educated, cohabiting

The second means of direct pressure on fertility timing considers *gynaecologists*. The pressure increases in case of detected health problems, particularly if these may end in childlessness. In this case women and their partners reconsider their childbearing plans or even change their childbearing decisions.

Most of all, I was frightened by the gynaecologist. I was there three times for a check up and he was pushing me three times to have a child AS SOON AS POSSIBLE and a second one soon after, if I want to have two children. … My partner agreed to that. Although, at that time we did not want a child and we wanted to enjoy life a little longer, maybe accumulate some savings and, well, this is how it ended up." Paula, 28, first child at 26, secondary education, married, original emphasis

In general, gynaecologists consider all women above 25 being old first time mothers, because they have passed the physiologically optimal age for the first childbirth[12]. The discourse of the experts[13] points towards a disharmony between the physiological and socially constructed optimal age for the transition to motherhood. In spite of the discourse of the medical authorities, who call for an earlier age at childbearing or at least emphasise the risks of later childbearing, the strategy of the postponement of childbearing is spreading across younger cohorts of women and particularly in the urban context. None of the interviewees identified with the notion of childbearing at age below 25 being a desirable strategy. The discourse of medical authorities seems to have more impact on the perception of the age deadline to childbearing than on the timing of its onset.

9. Discussion of the results

During state socialism, nearly 90% of women gave first birth before age 25. A large proportion of the pregnancies before this age were unintended as young childless women faced problems in access to effective contraceptives (Potančoková 2007). The women interviewed for this paper think that having a child before age 25 is rather irresponsible. Higher ages are now considered "the more proper age" for first motherhood.

[12] Perelli-Harris (2005) found the same opinion among the doctors in Ukraine relevant to the timing of first childbearing in Ukraine.

[13] Experts demonstrate their opinion in women's magazines. Hence, women are well aware of the opinion of most gynaecologists and medical authorities on the proper timing of motherhood.

The postponement of childbearing became a widespread reproductive strategy mostly in urban Slovakia (Šprocha 2008). The strategy of postponement of motherhood was gradually spreading across the successive birth cohorts of women in Slovakia born since the early 1970s (Potančoková 2008a). The interviewees in the qualitative sample, who were members of these cohorts, regarded the postponement of entry into motherhood after age 30 rather risky due to both health and social constraints and saw only a few positives of such a long postponement. Two age deadlines for the first motherhood were extensively discussed by the respondents: age 30 and age 35. While the concept of the "biological clock" at age 30 is linked to both, the biological and social risks, age 35 was closely associated with the biological constraints. The "biological clock" identifies the age after which a woman should stop postponing motherhood.

Both, the university graduates and women with secondary education with a high school diploma[14] preferred childbearing after age 25 years. It is possible that women with at least secondary education hold negative attitudes towards early childbearing also because they may want to distinguish themselves from the women with less education. The shift to higher age norms among the higher educated women is linked to the changes to market economies. In the market economies it is more difficult to establish oneself in the labour market (Rindfuss and Brauner-Otto 2008), and women with higher education can make better use of the opportunities that opened up after the political turnover (Kantorová 2004). The preference for residential and financial autonomy and all the other essentials for childbearing have changed significantly as the society passed from state socialism to market economy.

The discourse of experts (medical doctors, gynaecologists) influences the perception of the age limits for childbearing, and hence the construction of the age norms. Statistics also influence the perception on what is perceived normal and what is not. In fact, the statistics on mean age of women at childbirth, which get cited in the media, contribute to the articulation of the age norms. Some of the interviewees explicitly referred to the statistics of age at childbearing at the national level or to the age they thought as of the statistical average.

Social meanings attributed to early age at childbearing point towards the prolongation of the phase of post-adolescence (Bartošová 2007, Health and Cleaver 2003). In this life phase, young adults take up some traits attributed to adulthood, while other traits typical for the adult life course, such

[14] Secondary education with a high school diploma is the typical level of educational attainment according to the census 2001.

as the family formation and parenthood, are still missing. Moreover, childbearing and family formation are not expected to occur during this stage in the life course. The increasing mean ages at life transitions such as mean age at first marriage and mean age of the mothers at first birth also support the notion of the prolonged post-adolescence phase among the younger birth cohorts.

In addition, the societal transformation was accompanied by the increasing individualism (Sobotka 2002), which was manifested in the interviews as well. The individualisation of age was apparent from the statements of some interviewees. Another example is the lack of direct means of social control, which is likely to be linked to the individualisation of age. However, the consensus of the women in the sample about the age deadlines of childbearing shows that we cannot speak yet of de-institutionalisation in the timing of childbearing.

References

Ajzen, I., Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Upper Saddle River NJ: Prentice-Hall, Inc.

Bartošová, M. (2007). "Životní dráhy prvorodiček po třicítce: Proč mít dítě později?" [Life careers of the first-time mothers after age 30: What for have a child later?] *Gender, rovné příležitosti, výzkum*8(2): 75-81.

Bernardi, L. (2003). "Channels of social influence on reproduction." *Population Research and Policy Review* 22(5-6): 527-555.

Bernardi, L., Klearner, A., von der Lippe, H. (2006). "Perceptions of job stability and the prospects of parenthood: A comparison betwwn Eastern and Western Germany." *MPIDR Working Papers,* WP2006-017.

Bledsoe, Caroline; Hill, Allan G. (1998). „Social norms, natural fertility, and the resumption of postpartum "contact" in the Gambia." In: Basu, A.M., Aaby, P. (eds.) *The methods and uses of anthropological demography*. Clarendon Press: Oxford, England: 268-97.

Coleman, J.S. (1990). *Foundations of social theory.* Cambridge, Mass., London: The Belknap Press of Harvard University Press.

de Bruijn, B. (1999). *Foundations of Demographic Theory. Choice, Process, Context.* Thela Thesis, PDOD publication, Amsterdam

Duncan, S. (2005). "Mothering, class and rationality." *The Sociological Review* (1): 50-76.

Frejka, T. (2008). "Overview chapter 5: Determinants of family formation and childbearing during the societal transition in Central and Eastern Europe." In: Frejka, T., Hoem, I, Sobotka, T, Toulemon, L. (eds.) *Childbearing trends and policies in Europe. Demographic research 19*, Special collection 7: 139-170.

Hakim, K. (2003). "A new approach to explaining fertility patterns: Preference theory." *Population and Development Review* 29 (3): 349-374.

Hašková, H., Zamykalová, L. (2006). "Mít děti – co je to za normu? Čí je to norma?" [To have children – what kind of norm is that? Whose norm is it?] *Biograf* (40-41): 130 ods.

Heath, S., Cleaver, E. (2003). *Young, free and single? Twentysomethings and household change*. New York: Palgrave.

Kantorová, V. (2004). "Education and entry into motherhood: the Czech Republic during state socialism and the transition period (1970-1997)". *Demographic Research,* Special collection 3, Article 10: 245-274.

Kotowska, I., Józwiak, J., Matysiak, A., Baranowska, A. (2008). "Poland: Fertility decline as a response to profound societal and labour market changes?" In: Frejka, T., Hoem, I, Sobotka, T, Toulemon, L. (eds.) Childbearinmg *trends and policies in Europe. Demographic research 19*, Special collection 7: 795-854.

Lestaeghe, R., Surkyn, J. (2002). "New forms of household formation in central and Easternm Europe: Are they related to newly emerging value orientations?" In: *Economic Survey of Europe 2002/1*.Economic Commission for Europe, United Nations, New York and Geneva: 197-216.

Lutz, W. Mamolo, M., Potančoková, M., Scherbov, S., Sobotka, S. (2008). *European Datasheet 2008*. Wien: Vienna institute of demography. http://www.oeaw.ac.at/vid/datasheet/index.html [31.10.2008]

Marini, M. M. (1984). "Age and sequencing norms in the transition to adulthood." *Social Forces*, 63(1): 229-244.

Modell, J. (1980). "Normative aspects of marriage timing since World War II." *Journal of Family History,* 5: 210-234.

Mynarska, M. (2007). "Fertility postponement and age norms in Poland: Is there a deadline for parenthood?" M*PIDR Working paper* WP 2007-029. Rostock: MPIDR. http://www.demogr.mpg.de/papers/working/wp-2007-029.pdf [12.9.2008]

OECD. (2006). *Labor-force statistics 1985-2005*. Paris: Organization for Economic Co-operation and Development.

Perelli-Harris, B. (2005). "The path to lowest-low fertility in Ukraine." *Population Studies* 59(1):55-70.

Philipov, D., Speder, Z., Billari, F. (2006). "Soon, later, or ever? The impact of anomie and social capital on fertility intentions in Bulgaria (2002) and Hungary (2001)." *Population Studies,* 60(3):289-308.

Philipov, D., Dorbritz, J. (2003). *Demographic consequences of economic transition in countries of Central and Eastern Europe.* Population studies, No. 39, Council of Europe Publishing: Strasbough.

Philipov, D. (2002). "Fertility in times of discontinuous societal change: The case of Central and Eastern Europe." *MPIDR Working paper* WP 2002-024. Rostock: MPIDR.

Potančoková, M. (2009). "Neplnohodnotné matky? Dekonštrukcia vzťahov medzi feminitou, materstvom a starostlivosťou o maloleté deti a ich vplyv na participáciu matiek maloletých detí na trhu práce." [Insufficient mothers? Deconstructing the relationship between feminity, motherhood and care for young children and its impact on labour-force participation of the mothers]. *Czech Sociological Review* 45(1)

Potančoková, M., Vaňo, B., Pilinská, V. Jurčová, D. (2008). "Slovakia: Fertility between tradition and modernity." In: Frejka, T., Hoem, I, Sobotka, T, Toulemon, L. (eds.) *Childbearing trends and policies in Europe. Demographic research 19*, Special collection 7: 973–1018. http://www.demographic-research.org/Volumes/Vol19/25/default.htm [31.10.2008]

Potančoková, M. (2008a). "Intenzita a časovanie plodnosti na Slovensku: štandardné a očistené ukazovatele plodnosti." [Quantum and tempo of fertility in Slovakia: Standard and adjusted fertility indicators.] *Slovenská štatistika a demografia* 18(4):

Potančoková, M. (2008b). *Plodnosť žien na Slovensku v rokoch 1950-2007 v generačnom pohľade. [Fertility of women in Slovakia during the period 1950-2007 in a cohort perspective]*. Bratislava: INFOSTAT.

Potančoková, M. (2007). "Konštrukcia plánovaného rodičovstva v období štátneho socializmu v bývalom Československu." [Construction of the family planning during state socialism in the former Czechoslovakia]. *Gender, rovné příležitosti, výzkum* 8(2): 27–33.

Rindfuss, R., Brauner-Otto, S. (2008). "Institutions and the transitions to adulthood: Implications for fertility tempo in low-fertility settings." *Vienna Yearbook of Population Research 2008*: 57-88.

Rindfuss, R., Bumpass, L. (1978). "Age and the sociology of fertility: how old is too old?" In: Taeubner, K, Bumpass, L., Sweet, J. (eds.) *Social demography*. New York, San Francisco, London: Academic Press: 43-56.

Rychtaříková, J., Akkerman, A. (2003). "Trajectories of fertility and household composition in the Czech Reoublic." *Population and Environment* 24(3): 225-254.

Skirbekk, V., Kohler, H.-P., Prskawetz, A. (2004). "Birth month, school graduation and the timing of births and marriages." *Demography* 41 (3): 547–568.

Sobotka, T., Zeman, K., Kantorová, V. (2003). Demographic Shifts in the Czech Republic after 1989: A second demographic transition view. *European Journal of Population,* 19(3): 249-277.

Sobotka, T. (2004). *Postponement of childbearing and low fertility in Europe*. Doctoral thesis, University of Groningen. Amsterdam: Dutch University Press.

Sobotka, T. (2002). "Ten years of rapid fertility changes in the European post-communist countries: evidence and interpretation". Working Paper Series, 02-1, Gronigen: Population Research Centre, University of Groningen.

Skinner, G. William. (1997). "Family systems and demographic processes". In: Kertzer, D. I., Fricke T. (eds) *Anthropological demography: toward a new synthesis.* University of Chicago Press: Chicago, Illinois: 53-95.

Strauss, A.L., Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage Publications.

Šprocha, B. (2008). *Reprodukčné správanie mestského a vidieckeho obyvateľstva na Slovensku.* [Reproductive behaviour of urban and rural population in Slovakia] Bratislava: INFOSTAT.

Thomson, Elizabeth; Goldman, Paula. (1987). *Measuring fertility norms.* Population and Environment, Vol. 9, No. 3, Fall 1987. New York, New York.: 173-85.

White, J. (1998). "The normative interpretation of life course event histories." *Marriage and Family Review*, 27(3): 211-235.

Appendix

Table 1. Characteristics of the interviewees by age and status at first birth (biographical and semi-structured interviews summed up)

Note: R-C means Roman Catholic. Extra-marital births include all first births that occurred out or wedlock, irrespective of the later marriage. Premarital conceptions include all first births within the wedlock, which were conceived out of marriage.

Age at 1st birth	N	Number of children		Partnership and marital status				Religious identity		
		1	2+	single	married	re- married	cohabiting	none	not practicing R-C	practicing R-C
-24	4	3	1	1	1	1	1	2	1	1
25-29	12	7	5	1	10	0	1	6	3	3
30-33	7	7	0	1	4	2	0	2	4	1
35	2	0	2	0	2	0	0	0	1	1
childless	2	0	0	0	0	0	2	0	2	0
TOTAL	**27**	**17**	**8**	**3**	**17**	**3**	**4**	**10**	**11**	**6**

Age at 1st birth	N	Education		Desired number of children					Out-of-wedlock births	
		Secondary	University	1	1-2	2	2-3	3+	Extra marital	Pre-marital conception
-24	4	3	1	0	1	2	0	1	1	1
25-29	12	4	8	3	2	3	2	1	3	4
30-33	7	2	5	1	1	1	1	4	1	2
35	2	0	2	0	0	0	1	1	0	0
childless	2	0	2	0	0	2	0	0	0	0
TOTAL	**27**	**9**	**18**	**4**	**4**	**8**	**4**	**7**	**5**	**7**

BOOK REVIEWS

Traian Rotariu, Maria Semeniuc, Mezei Elemer (Eds.), (2008), *Recensământul din 1869. Transilvania.* [*The Census of 1869. Transylvania*], Cluj-Napoca, Cluj University Press, 424 p. ISBN 978-973-610-715-3

The current volume is a sequel of previous censuses published in the *Studia Cesnualia Transsilvanica* collection, and it refers to the 1869 census from Transylvania. The work contains information referring to the whole Transylvanian territory (that which we normally refer to as Ardeal, Banat, Crisana and Maramures), information gathered while the first census was made after the Dualist Pact was concluded in 1867. Just as Traian Rotariu shows, the census had different names, sometimes being called as *The 1869 Census* or *The 1870 Census*, but the name which the coordinators agree on is the first one, meaning *The 1869 Census*, because all the data collected at the beginning of 1870 by the personal recording, refers to the population's condition at the end of 1869.

The data from 1869 was immediately published by the administrative structure of the time (county, seat, district), but it never runs down to the localities level. The material, discovered in the Hungarian Statistics Institute's archive, by the Hungarian specialists who published years ago the volume which is the base of this work, allows the deciphering of the demographic potential of each locality.

In order to be understood not only by the Romanian readers or researchers, the census has introductions in English, French and German.

The first part of the volume presents the structure of population both by sex and religious confession, while the second and the third part presents the territorial-administrative organization in *plăşi* and counties according to the 1776 reorganization, and also the names in Romanian and Hungarian.

The chart, that also represents the first part of the volume, is translated in four languages: Hungarian, English, French and German, thus, there are no problems in reading and using the census by every specialist and reader interested in the events, facts, and different aspects of the Transylvanian territory's history through time. Language is no longer an obstacle in the use

of such an instrument. In the chart there are the current names of the communes, districts and their sum total (at the end of the first part there is another total for the districts and the entire area.), homes, families, the population by sex, the total population and the population by religion. There is a total calculated at the end of every heading.

Similar to the other volumes, there are data sum-ups made on communes and districts and on the entire Transylvanian territory. Thus, 4.177 settlements, of which 19 localities with a population of 13.821, are today in districts from outside of Transylvania, were reviewed.

The population of Transylvania at 1869, comprised in 16 districts and grouped in 4.158 localities, totalized 4.216.289 inhabitants. Acording to the confessional structure, 61% of the entire population were orthodox an greek-catholics, in their majority Romanians, but also Slav minorities and some tens of thousands of gipsies belonging to theese confessions; then 30,4% of the population was roman-catholic, reformed and unitarians, in their majority Hungarians but also Germans. It is of interest to mention the existence in theese statistics of the Armenian-Catholic and Armenian-Orthodox religion because this fact reflects the distribution of the Armenian population in the two religious components. Jews are identified with Israelites, their share beeing 2,15% in 1869.

The census of 1869 comes to complete the *Studia Censualia Transsilvanica* series, bringing precious demographical information that refers to the Transylvanian territory in the second half of the XIX-th century. It uses primary sources and it is translated in various international languages, thus beeing an instrument easy to access by any resercher or reader interested in the information gathered in it and who wants to go thoroughly into the study of Transilvania from various points of view: historical, social and demographical.

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Brie, Mircea (2008), *Familie şi societate în nord-vestul Transilvaniei (a doua jumătate a secolului al XIX-lea – inceputul secolului XX)* [Famille et société dans le nord-ouest de la Transylvanie (seconde moitié du XIX^{e} siècle – début du XX^{e} siècle)], Oradea, Presses universitaires d'Oradea, 496 p. ISBN 978 -973-759-560-7

Les représentants de l'historiographie roumaine du début du troisième millénaire se montrent de plus en plus intéressés à découvrir et se raccorder aux grands thèmes de l'historiographie européenne et universelle. La rénovation du discours historiographique en Roumanie pendant les deux dernières décennies a signifié, entre autres, le développement d'un domaine – l'histoire de la famille – qui, avant 1989, est en quelque sorte resté à la périphérie de la recherche scientifique. Le livre de Mircea Brie s'inscrit dans un ample programme de recherche déroulé dans plusieurs centres scientifiques et académiques du pays, qui s'est proposé de reconstituer l'évolution d'une institution sociale des plus importantes à l'époque moderne. L'approche interdisciplinaire augmente la valeur de cet ouvrage, l'auteur ayant constamment recours, au-delà d'une perspective historique inhérente, aux méthodes propres à la démographies historique, l'anthropologie religieuse, l'histoire du droit (laïque et ecclésiastique) etc.

Si l'Introduction constitue une sorte de motivation judicieuse du sujet choisi et une présentation succincte des principaux éléments constitutifs, le II^{e} chapitre est une véritable radiographie de la démographie historique, des sources et méthodes de la recherche. Les contributions roumaines et celles de l'historiographie universelle y sont passées en revue avec une attention toute particulière portée à la région et à la période analysée, aux résultats obtenus, aux sources primaires et secondaires d'information et à la méthodologie de recherche. Dignes à remarquer nous semblent la rigueur de la démarche et la volonté de l'auteur d'éclairer certains éléments conceptuels et d'analyse issus de la complexité du thème et surtout de la composition ethno-confessionnelle de la population cible.

Les autres chapitres constituent une véritable monographie de l'institution familiale du nord-ouest de la Transylvanie dans la seconde moitié du XIX^{e} siècle: la famille à la lumière de la législation laïque et ecclésiastique (chapitre III); les conditionnements extérieurs et les stratégies maritales développées à l'époque (chapitre IV); les déplacements naturels de la population locale (chapitre V) l'érosion de la famille suite aux divorces, aux concubinages et à l'illégitimité (chapitre VI); le rapport famille – village – communauté à travers les mentalités, les rôles et les statuts sociaux (chapitre

VII). Les Annexes finales (notamment les 54 fiches normatives de reconstitution des familles), condensant environ 18000 fiches normatives individuelles, reflètent l'ampleur de la recherche démographique, l'auteur puisant ses informations dans des archives laïques et ecclésiastiques d'Oradea et Satu Mare, ainsi que dans des collections internes et externes (dont surtout les séries *Magyar Statisztikai Közlemények. Új sorozat* et *Magyar Statisztikai Evkönyv*).

Le souci d'exactitude de l'auteur se fait remarquer dans les chapitres IV et V, où il refait des aspects, généralement ennuyeux, concernant la confession et le lieu natal des partenaires maritaux, le caractère saisonnier des mariages, l'âge moyen au premier et au second mariage, la répartition annuelle et mensuelle des naissances, le caractère saisonnier des décès et des causes de décès etc. Sans contester l'effort de Mircea Brie de réaliser une analyse comparative du régime et du comportement démographique en milieu rural et urbain, illustrée par plusieurs échantillons ruraux et deux échantillons urbains (Oradea et Satu Mare), on doit toutefois préciser que l'examen d'une composante urbaine plus modeste (représentée par les villes-bourgs de Baia Mare, Baia Sprie, Carei et Salonta) aurait pu révéler des nuances intéressantes pour le sujet abordé.

Le livre de Mircea Brie est sans doute une réussite de l'historiographie roumaine de démographie historique, qui retrace clairement l'évolution de la famille dans le nord-ouest de la Transylvanie à l'époque moderne.

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