

**Does childbearing change the meaning of cohabitation?
Examining nonmarital childbearing across Europe**

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April 2009

**Paper prepared for the Population Association of America meetings, Detroit, MI
April 30-May 2, 2009**

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Acknowledgments: We would like to thank Marcus Braun for his help in collating the data.

Over the past several decades, nonmarital childbearing has increased dramatically in Europe (Kiernan 2004). In the early 1960s, less than 10% of births were born out-of-wedlock in the majority of countries. By 2004, nonmarital childbearing had increased, with most of Western, Central, and Eastern Europe experiencing 20-30% outside of marriage, and all of Northern Europe, the U.K., France, and Bulgaria experiencing over 40% of births outside of marriage, with a high of 64% in Iceland. Parts of southern Europe have experienced only a slight increase - for example, in 2003 less than 5% of births were born out-of-wedlock in Greece and Cyprus, but these countries are the exception to the phenomenon (Council of Europe 2005).

These statistics, however, do not reflect the complexity of the nonmarital childbearing process. Although much of the increase in non-marital childbearing is due to the “decoupling” of marriage and fertility (Bumpass 1990), it is not necessarily due to the “decoupling” of a stable relationship and fertility. As in the United States (Bumpass and Lu 2000), the vast majority of the increase in non-marital childbearing in Europe over the past several decades has occurred within cohabitation, not to single mothers (Kiernan 2004). In Europe these changes have not been problematized, in part because births outside of any union are, relative to the United States, less common and cohabitation is usually assumed to be stable and similar to marriage. This might explain why few European studies have analyzed how cohabitation is intertwined with childbearing (but see Kiernan 2004, Steele et al 2006, Le Goff 2002, Heuveline and Timberlake 2004, Konietzka and Kreyenfeld 2002, Kennedy 2005). Relatively little is known about the development of non-marital childbearing over time, or how the childbearing process differentially impacts entrance into and exit from cohabitation. This comparative study shows how the intersection between

childbearing and union status differs between countries, leading to different meanings of cohabitation.

Using standardized union and fertility histories from 9 countries in Europe, this study focuses on different regions broadly representing different family formation patterns: Italy represents Southern Europe; the Netherlands and France represent Western Europe; Norway represents Northern Europe; Bulgaria, Hungary, Romania, and Russia represent Eastern Europe; and the U.K. represents the Anglo-Saxon pattern. Up until now, most comparative analyses of the family in Europe have relied on cross-sectional surveys or censuses to conduct macro-level analyses (Kalmijn 2007, Fokkema and Liefbroer 2008, Kiernan 2004). Others have used the Fertility and Family Surveys to compare changes in family formation (Andersson and Philipov 2002, Heuveline and Timberlake 2004, Heuveline, Timberlake, and Furstenberg 2003, Kennedy 2005, Le Goff 2005). In a social context marked by rapid social and family change, these analyses are now out-dated. Our study capitalizes on the rich reproductive and union histories of the Study of Family History in France, the British Household Panel Survey in the U.K. and the Generations and Gender Surveys (GGS) in the other six countries. These data provide recent information on family formation patterns and allow us to study the interplay between childbearing and union formation as it has evolved over time.

The goal of this paper is to present summary measures and descriptive statistics that allow for the classification of general trends and patterns in the development of family formation in Europe. We first provide general background information on the rise of nonmarital childbearing and discuss previous schemes for classifying cohabitation – an increasingly important family context in most European countries. Although the role of fertility has been considered in the literature on

cohabitation, empirical classifications have focused predominantly on measures of incidence and duration of cohabitation. In this paper we seek to explore the ways in which fertility and cohabitation are interlinked and how these relationships differ cross-nationally. We show where childbearing within cohabitation is emerging as a normative phenomenon, and where conceptions and births are still more likely to prompt marriage. With data dating back to the 1970s, we also investigate how the relationship between fertility and cohabitation changed over time and developed along different trajectories. In this way, we can suggest how the meaning of childbearing within cohabitation not only differs across Europe, but developed along different paths.

THEORETICAL BACKGROUND

Scholars often use the term “nonmarital childbearing” loosely, without specifying whether births occur within stable cohabiting unions to single-mothers (Heuveline et al 2003). Many U.S. researchers combine both into a single “nonmarital” category (e.g. Gray et al 2006; Lichter et al 2003; Upchurch et al 2002). This loose terminology conceals the distinction between births to single mothers and births within cohabiting unions, a distinction with important implications for the social and economic consequences of non-marital childbearing. On the other hand, researchers in Europe tend to combine cohabitation with marriage, emphasizing the existence of the union, whether legalized or not (e.g. Henz and Thomson 2005). Many studies show that cohabiting and marital unions differ substantially, especially in terms of risk of union dissolution (Heom and Hoem 1992; Teachman, Thomas, and Paasch 1991, Liefbroer and Dourleijn 2006), but these risks also differ across countries (Liefbroer and

Dourleijn 2006). Thus, the distinction between these categories is important for the changing meaning of marriage and the increasing significance of cohabiting unions.

Cohabitation has increased dramatically throughout Europe and the United States, but the pattern (and meaning) of cohabitation has not been uniform in all populations. Researchers have sought to understand and classify cohabitation using a variety of comparison groups and criteria (Smock 2000, Prinz 1995). Some research has investigated whether cohabitation was an alternative to being single or married by analyzing individual characteristics and resources (Rindfuss and VandenHeuvel 1990) or pregnancy (Manning 1993, Raley 2001). Subsequent expansions to this dichotomy left room for more types of behavior, for example “precursor/prelude to marriage” and “trial marriage” (Casper and Bianchi 2002, Villeneuve-Gokalp 1991), “free union” or “temporary union” (Villeneuve-Gokalp 1991), and “indistinguishable from marriage” (Kiernan 2001) or “type of marriage” (Prinz 1995). Using empirical indicators such as incidence of cohabitation, median duration of cohabitation, and proportion ending in marriage, Heuveline and Timberlake (2004) classify 14 countries into six ideal types of cohabitation (marginal, prelude to marriage, stage in marriage process, alternative to single, alternative to marriage, and indistinguishable from marriage). Their typology, however, does not explicitly take into account changing union status throughout the childbearing process¹. Doing so has important theoretical and empirical implications.

Paying more attention to the timing and sequence of partnership and fertility enriches our understanding of the role and meaning of cohabitation in different countries. For example, the “marginal” type of cohabitation is characterized by low prevalence (Heuveline and Timberlake 2004), but it may be that the meaning of

¹ Heuveline and Timberlake (2004) did examine exposure to parental cohabitation from the child’s perspective, but they did not take into account the relative timing of conception, childbearing and marriage.

cohabitation in the context of family building differs across countries. In some marginal countries, we may have “innovators” who eschew marriage yet form stable marriage-like relationships that include children. In others, “marginal” cohabitation might be less stable and indicate a casual relationship, with little childbearing. These differences could impact whether and how cohabitation diffuses over time.

In addition, understanding whether cohabitation is a “prelude to marriage” or a “stage in the marriage process” requires some information on fertility. The incidence, duration and stability of these two forms of cohabitation are similar, but the former is described as “nonreproductive” while the latter is characterized by a greater likelihood of non-marital childbearing but with a relatively quick transition to marriage (Heuveline and Timberlake 2004, Table 1). This distinction requires an examination of the different stages of the childbearing process – conception, birth, and one year following a birth – a distinction that has not been included in previous analyses. Such distinctions would show whether non-marital conceptions are common and prompt marriage – thus implying that marriage is still normative for childbearing and rearing - or whether couples wait until they are married to conceive, suggesting that marriage in and of itself is still important.

Similarly, if cohabitation is “indistinguishable from marriage” or an “alternative to marriage²” we need to show that cohabiting partnerships are stable relationships with a low likelihood of transition to marriage at each stage of the family building process (Kiernan 2001, Heuveline and Timberlake 2004). Classifications that focus on incidence and duration may miss how conception or birth motivates marriage, regardless of union duration. To fully understand whether childbearing and

² We do not find Heuveline and Timberlake (2004)’s distinction between these two categories (based on whether there is a relatively greater likelihood of transition to marriage among cohabitants with children in the former but not the latter) particularly convincing or intuitive and so we treat the two as interchangeable.

fertility are completely decoupled – in other words, whether marriage is irrelevant to childbearing and early childrearing for cohabiting couples - it is important to examine changes in union status throughout the childbearing process. Thus, we prefer the term “marriage is irrelevant” to specify cohabitation that persists throughout the childbearing process.

Finally, cohabiters could share more characteristics with dating couples, such as lower commitment, less shared resources, and more dissolution (Rindfuss and VandenHeuvel 1990, Heuveline and Timberlake 2004). This category has commonly been called an “alternative to single,” with cohabiting couples experiencing similar rates of legitimation as single women (Manning 1993) or short-duration primarily ending in dissolution (Heuveline and Timberlake 2004). In our analysis we combine these two concepts to analyze the relative prevalence of births to single women, how union changes after a single conception, and the dissolution of cohabitation throughout the childbearing process. In this way we capture the possible instability of cohabitation, as well as the contribution of single motherhood to nonmarital childbearing in a country.

One of the assumptions that often emerges in these typologies is that cohabitation follows a standard path as it increases within a society. Cohabitation starts as a deviant behavior, becomes more common as a prelude to marriage, and then finally becomes indistinguishable from marriage (Prinz 1995, Raley 2001).⁴ The “Second Demographic Transition” argument usually implies a progression through

⁴ Another element which could impact the diffusion of cohabitation throughout a society is its relationship to divorce and widowhood. For example, cohabitation in Hungary appears to have started among divorcees, then spread to never-married people, and finally become more common as a prelude to marriage (Spéder 2005). Here we focus on unions surrounding a first birth, which tend to occur before divorce. Thus, we do not explicitly account for previous unions, whether they be marriage or divorce.

these stages, ultimately resulting in the decoupling of marriage and fertility (van de Kaa 2001). Supposedly, Northern Europe is the furthest along on this trajectory, since this region had the highest levels of cohabitation before marriage and highest percent of births within cohabitation (Kiernan 2004). Yet it is unclear to what extent cohabitation is displacing marriage, even in Scandinavia (Bernhardt et al 2007). It is also unclear whether all societies progress along a similar path as cohabitation increases, or whether some experience an increase in the “prelude to marriage” stage, without achieving the “indistinguishable from marriage” phase.

The “progression” in the meaning of cohabitation may differ substantially in terms of union decision-making in response to pregnancy, birth, and early childrearing. Some societies may be more accepting of premarital cohabitation, while less accepting of childbearing and rearing within cohabitation. Or, even though societies may be accepting of childbearing within cohabitation, social and political institutions may lag behind public opinion and discourage raising children out-of-wedlock. In interpreting the findings, we aim to provide social and policy explanations for why countries differ in their development of childbearing within cohabitation.

DATA

The analyses employ several datasets that include retrospective union and fertility histories (see Appendix 1). The data for Bulgaria, Romania, Russia, Hungary, Norway and Italy come from the Generations and Gender Surveys, which interviewed nationally representative samples of the resident population in each country.

Developed by an international team of experts, the GGS questionnaire in each country

was intended to follow a standard format, but several countries had to incorporate it into existing surveys and included context-specific questions.

The other data sources are similar in that they also included retrospective birth and union histories. The Dutch data come from the 2003 FFS and surveyed women aged 18-62. The French data comes from the Study of Family History (*Etude de l'histoire familiale*) conducted in 1999. This nationally representative survey interviewed men and women aged 18-105. The data for the U.K. is from the British Household Panel Survey and required a slightly different dataset construction (see Appendix 1 for details).

Although each survey has slightly different survey designs, the events studied here are relatively comparable – births and union formation. Questions about cohabitation could be interpreted differently in different settings, but the questions generally relate to co-resident relationships with an intimate partner. In some of the GGS surveys (and the BHPS), the question specifically refers to cohabiting relationships that last more than three months (although in Italy there is no minimum length of cohabitation specified, and in France it referred to six months minimum). Most surveys included retrospective histories of women in their 60s and 70s, therefore the analysis of childbearing in the 1970s captures nearly complete childbearing histories. Retrospective histories, however, are subject to recall error and cohabitation in particular must be interpreted with caution. In addition, sampling designs differed across countries; we weighted the data where appropriate in order to provide representative samples of the population.

ANALYTIC STRATEGY

Figure one shows a stylized representation of how union status can change throughout the process of childbearing and early childrearing. The figure represents union status before conception, at the time of conception and birth, and one year after the birth of a child. The final column is included to capture changes in union status during the child's first year of life. In some countries, union status at birth is not as important as ensuring that the child is raised within marriage; couples may marry in order to gain parental rights or other legal benefits. Thus, the birth itself - and not the need to "legitimize" a pregnancy prior to birth - prompts marriage. However, the focus on one year after birth is an arbitrary decision, and we acknowledge that one year is of relatively short duration; some couples may not marry until much later even though they marry in order to ensure social protection for the child. The decision to focus on only one year after birth is driven by our interest in incorporating births that occurred in the latest period available, when the increase in cohabitation had only just begun in some countries (e.g. Italy, Eastern Europe).

The stylized model in Figure 1 focuses on first births, since they are more likely than higher parity births to occur within cohabitation and (usually) more likely to prompt changes in union status. We limit the analyses to women, since men are less accurate in reporting births to unmarried partners (Rendall et al 1999). Our data includes month of birth, union formation and union dissolution (entrance into cohabitation and marriage); thus union status at birth is measured in the month of birth. For simplicity and due to data limitations, we focus only on conceptions leading to live births, although we acknowledge that conceptions resulting in miscarriage or abortion could have very different effects on union status. Conceptions are defined by backdating births 9 months. Union status one year after birth is measured 12 months after the birth. Union status before conception is more difficult to measure, since it is

unclear conceptually what duration of union status matters. Therefore, union status before conception is measured by percent of women who ever cohabited before conceiving a child.

Note that the paths between states 1, 2, and 3 can go in either direction, signifying union dissolution and divorce. However, because our focus is on conceptions, births, and union status one year after birth, multiple changes in union status are only relevant as they apply to these events. Therefore, we classify divorced and widowed women as single when they are not in a partnership.

In order to compare nonmarital childbearing across countries, we focus on several basic types of analyses. The first simply compares changes in percent of births by union status over time. This provides us with information about cross-national differences in the rise of childbearing within cohabiting unions in recent decades. The second type of analysis compares union status for “stocks of women” at four different points in the childbearing process: before conception, conception, birth, and one year after birth. This analysis is restricted to events that occurred between 1995 and the latest date of interview (see Appendix). The “stocks” include all transitions into and out of a union state and represent the product of all union decision-making at one point in time. This analysis provides us with information on the prevalence of cohabitation at different stages of the childbearing process which can be used to identify whether cohabitation tends to be non-reproductive and if so, prior to or after conception.

The third analysis shows to what extent pregnancy leads to changes in union status, or what percent of nonmarital conceptions are “legitimized.” This corresponds to box 4 and 5 and their subsequent states in boxes 7, 8, and 9 (Figure 1) and provides information on whether and when cohabitants make a transition to marriage. Some

researchers use this step in the childbearing process to show whether cohabitation is becoming an “alternative to marriage” (Manning 1993), especially pertinent to the Second Demographic Transition (Raley 2001). According to these arguments, conceptions within cohabitating unions should no longer prompt marriage, and pregnancy to single mothers should lead to cohabitation rather than marriage. Therefore, we examine the percent of births by union status for conceptions that occurred both within cohabitation and to single mothers.

The fourth analysis focuses specifically on remaining within cohabitation throughout all stages of the childbearing process. The middle row of figure 1 and its corresponding arrows represent cohabitation that is “indistinguishable from marriage” with respect to childbearing. Individuals enter into cohabitation without being pregnant, conceive a child within cohabitation, and remain within cohabitation throughout pregnancy and the first year of the baby’s life; no step in the process of childbearing prompts entrance into marriage. Also, cohabitation can be considered as stable as marriage, since cohabiting unions do not dissolve (Raley 2001). (Of course, the time period observed – only about two years – is relatively short to make conclusions about the long-term stability of cohabiting unions.)

RESULTS

Trends in childbearing within cohabiting unions

Previous research has suggested that the prevalence of cohabitation is correlated with the prevalence of childbearing within cohabitation, and that both reflect the role and meaning of cohabitation in different societies (Heuveline and Timberlake 2004, Kiernan 2004). We thus begin our analysis by looking at general trends in childbearing within cohabitation to discern how patterns differ across countries. This

provides us with information on the increasing importance of cohabitation as a setting for childbearing. We then compare first births with higher parity births. We are particularly interested in whether cohabitation could be an “alternative to marriage” with respect to first and higher order childbearing.

Figure 2 shows the increase in total childbearing within cohabitation from 1970 to the latest date in the survey. As discussed above, childbearing within cohabitation has increased as a share of all births in all of our sample countries. The starting points and rate of change, however, differ by country. Norway was a forerunner in childbearing within cohabitation, but the behavior did not start to increase substantially until the late 1970s. After 1980, the slope of increase was much steeper than in other countries; only in the mid-1990s, did it start to level off. France also experienced a steep increase in nonmarital childbearing, starting in the 1980s. By 1999 - the latest date included in the EHF - 33% of births were born within cohabiting unions. The UK started at a lower level of childbearing within cohabitation - only 2% of women gave birth within cohabitation in 1975-79 - but the percent of births within cohabitation rapidly increased thereafter so that by 2004 26% of all births were born within cohabitation. The Netherlands also started at a lower level, but had a much more gradual increase in births within cohabitation; the major increase only started in the late 1980s. This trend steadily continued and by 2003 about 20% of births were born to cohabiting women.

In Eastern Europe, the increase in childbearing within cohabitation appears to have started earlier than would have been predicted by the Second Demographic Transition, which generally postulates that changes in values and behavior coincided with the disintegration of communism (Zakharov 2008, Hoem et al 2007).

Interestingly, childbearing within cohabitation in Russia was slightly higher in the

1970s than in other countries and the gradual increase began in the early 1980s. The rate of increase leveled off in the late 1990s and resulted in about 16% of births born within cohabitation in 2000-04. Hungary and Bulgaria had sharp increases starting in the late 1980s, again slightly before the collapse of communism. The increase in Bulgaria is particularly striking; by 2004 the percent of births within cohabitation had increased to 28%, nearly the same percent as in the U.K. Romania had slightly higher levels of childbearing within cohabitation throughout the 1970s and 80s, but only experienced a slight increase throughout the 1990s.

Finally, Italy represents the Southern European family pattern and is still characterized by relatively low levels of childbearing within cohabitation. Like Romania, Italian data show no clear inflection point where rates began to increase steeply. Instead we see a relatively slow and steady increase in births within cohabitation, with 7% of births born within cohabitation by 2000-2004.

Although the rise in the percentage of all births taking place within cohabitation is indicative of the role that cohabitation plays in the family building process, it is important to keep in mind that the pattern of fertility differs between countries. Throughout the 1990s, the Eastern European countries had nearly universal childbearing for first births and a sharp reduction in second and higher parity births - resulting in very low fertility - while Norway and France had fertility near replacement level. For countries with a high proportion of cohabiting mothers, the trends described in Figure 2 may be driven by changes in the composition of first births, and cohabitation may be functioning as a prelude to marriage. On the other hand, if the distinction between first and higher order births is small, we may have stronger evidence that cohabitation is irrelevant to marriage. A comparison of Figure

3 with Figure 4, depicting the distribution of union status for first and higher order births, shows how parity matters.

In the late 1990s and early 2000s the majority of first births took place within cohabiting unions in Norway, while about 40% of first births were to cohabiting mothers in France. Although not shown in Figure 3, the majority of first births occurred outside of marriage in both these countries with a slightly higher percentage of single mothers in France than in Norway. However, the majority of higher order births in both countries took place within marriage, with about one-third of births in Norway and one quarter of births in France occurring to cohabiting mothers.

In the Netherlands, the pattern is similar to that of France and Norway but at lower levels. In 1995-2003, around 30 percent of first births took place within cohabiting unions, but that figure drops by about 1/3 when we consider higher order births. The U.K. and Bulgaria exhibit a different pattern: in 2000-04 nearly 30% of births were to cohabiting mothers for both first and higher order births, suggesting a different role for cohabitation in the family formation process in these countries. In Bulgaria, the percent of higher parity nonmarital births is highly influenced by the Roma population, which has much higher fertility than the Bulgarian population and often does not register marriages with officials (Kostova 2008, Koytcheva and Philipov 2008). The patterns in Hungary, Romania and Russia are similar to those observed in the U.K. and Bulgaria but at lower levels. Finally, in the most recent period in Italy, the proportion of first births to cohabiting mothers is 10 percent, and the percentage of higher order births within cohabitation is ever lower.

These patterns suggest some form of clustering that may reflect distinct patterns of family formation but also raise questions. Based on these figures and similar to what was found in Heuveline and Timberlake (2004), it appears that

cohabitation has remained relatively marginal in Italy and perhaps Romania. In France and Norway, a high percentage of births to cohabiting mothers suggests that marriage and fertility are decoupled, at least for first births. The substantial change in the proportion of higher order births to cohabiting mothers, however, suggests that women who are cohabiting at the time of their first birth either do not go on to have higher order births or that they are marrying before having an additional birth. The pattern suggests that these countries fall somewhere between the “marriage irrelevant” classification or the “stage in the marriage process”. We look below at the behaviour of individual women to help us make this distinction.

The other countries fall somewhere in between, although high rates of non-union childbearing in the UK would lead us to conclude that marriage and childbearing are not tightly linked there either. For the Netherlands, the particularly high percent of first births relative to all births suggest that cohabitation may be more of a stage in the family building process, with marriage occurring between first and subsequent births. Again, an analysis of individuals rather than aggregate rates will provide further evidence that these differences are not driven by differential fertility patterns of married and cohabiting women. Similarly, examining whether women who are cohabiting at the time of birth were also cohabiting at the time of conception will help us to determine whether cohabitation is a setting for conception or an alternative to the shot-gun marriages of the past. Subsequent analyses seek to answer these questions.

Union status at conception, birth, and one year after birth

In order to better understand how union status changes throughout the childbearing process, we present Figure 5 which shows how the percentage of women by union status changes from first conception to first birth to one year after first birth in the last

period studied (1995-latest date available in each survey). Note that in the countries with the highest percent of births within cohabitation – Norway and France – there is little change in union status between conception and birth, although the slight decline in single births (which is in fact a rather large relative decline of around 40%) suggests that some single women are entering cohabitation (in which case some cohabiting women would be marrying) or marriage. Nonetheless, it is clear that in these countries, there are few shot-gun marriages and women feel little pressure to marry before a birth. One year after their first birth, these countries experience a slight decline in percentage of women who are cohabiting, but 46% of women in Norway and 39% of women in France are still within cohabiting relationships.

The UK stands out as the only country with a greater percent of births within cohabitation than conceptions within cohabitation. This trend reflects the greater number of conceptions to single women and the change in union status between conception and birth. Given the relatively small increase in the percentage of women who are married at birth, some of these women must be transitioning to cohabitation rather than marriage, suggesting that the traditional pattern of shot-gun marriages for single women has been modified, with cohabitation displacing marriage. Thus, the profile of nonmarital childbearing in the UK is more similar to the U.S. than it is to the rest of Europe, due to the relatively high proportion of births conceived nonmaritally and to teenagers (Sigle-Rushton 2008).

The Netherlands has the highest percent of women within union throughout all three stages of childbearing and early childrearing. Very few conceptions and births occurred to women out of union, and women continued to transition from cohabitation to marriage in all three stages. A very small percent of unions dissolved after a baby's birth, leading to a slight increase in single women, but overall marriage remained very

popular. Thus, even though Dutch women experience premarital cohabitation, and some childbearing and early childrearing occur within cohabitation, marriage still appears to be the preferred family structure for raising children.

In Eastern Europe, shotgun marriages are still common. In Bulgaria, Russia, and Hungary, over 45% of conceptions occurred to single and cohabitating women, and many of these led to marriage or entrance into cohabitation (in which case conceptions to cohabiting women converted to marriages). In Russia, women who became mothers between 1994 and 2005 were about as likely to be cohabiting as single at the time of conception. They were also about as likely to be cohabiting as single at the time of birth. This pattern suggests that cohabitation in Russia is an “alternative to single,” with shotgun marriages following all nonmarital conceptions. In Eastern Europe in general, some of the high percent of conceptions out of union is due to unplanned pregnancies resulting from low or ineffective contraceptive use. Up until the 1990s, the most common form of family planning in this region was abortion, but women were often reluctant to abort first pregnancies due to fears of infertility and other medical concerns (Philipov et al 2004; Perelli-Harris 2005). Although abortion has been declining and contraceptive use has increased, unplanned pregnancies often lead to marriage. Romania has the same pattern as in other countries in Eastern Europe, but with much lower percent of conceptions taking place outside of a union. Similar to Italy, 88% of Romanian women were married one year after birth, and only 9% were in cohabiting unions.

As characteristic of a country with a traditional family pattern and “strong family ties” (Reher 1998, Dalla Zuanna 2001), the majority of childbearing and early childrearing in Italy occurs within union. Although 18% of conceptions occur to single women, only 7% of births occur out of union and 5% of women are single one

year after birth. What is surprising, however, is that although cohabitation is relatively rare, only a small percent of cohabiting women marry in response to pregnancy and childbirth. Some of the conceptions which occur to single women may result in cohabitation and some cohabiting women may then marry, but by and large, this is not the case (see below for further evidence). Therefore, these data suggest that for the few Italian women who cohabit, cohabitation is a semi-permanent state, not highly influenced by the childbearing process.

This analysis already shows how the meaning of cohabitation is refined as childbearing and early childrearing are taken into account. In countries where cohabitation is so common that it is closest to the “marriage irrelevant” classification (Norway and France), union status rarely changes between conception and birth, but is more likely to change one year after birth. Even though children in these countries have equal access to child benefits and parental rights, cohabiters are still deciding to formalize their commitment to raising a child together. With its steady increase in marriage throughout the childbearing and rearing process, the Dutch pattern suggests that cohabitation is not a “prelude to marriage” or a “stage in the marriage process” but instead an early step in the family-building process. Cohabitation is a temporary state, and unions of some form generally precede childbearing. Overall, however, marriage is the preferred union for raising a family. In Eastern Europe, conceptions still prompt marriage, indicating that cohabitation is not a precursor to marriage, but a precursor to birth. In Bulgaria, Russia, and Hungary more than or nearly half of women do not marry until a baby is on the way. In Italy, on the other hand, where cohabitation is still marginal, pregnancy and birth appear to have little effect on exit from cohabitation.

Changes in union status after conception

We now focus on how union status changes after conception for cohabiting and single women. This individual-level analysis is particularly important to show whether pregnant single women are more likely to start cohabiting, enter marriage, or remain single at the time of birth. Table 1 shows the percent of first conceptions within cohabitation and to single mothers from 1995-latest date available in each survey.

According to Raley (2001), increases in cohabitation during pregnancy indicate that cohabitation is becoming an “alternative to marriage” with respect to fertility behavior. We suggested in the previous section that this might be the case for women in the U.K. The data in Table 1 support that interpretation. Among women who were single at the time of conception, most who moved into a union opted for cohabitation. Only 5 percent were married at the time of birth. Although conceptions to single women are relatively rare in France, the pattern is similar. In both countries, most women who were single at conception were also single at birth, but a change in union status almost always involved cohabitation.

In contrast to the U.K. and France, single women in Norway are just as likely to enter marriage as cohabitation. On the other hand, in Russia, Italy, and to a slightly lesser extent Bulgaria, shot-gun marriages after single conceptions are most common, and relatively few single women begin to cohabit after conception. In all of these countries, fairly high percentages of women remain single from conception to birth. Nonetheless, differences in the propensity to enter cohabitation versus marriage suggest that the meaning of marriage and cohabitation differ as a setting for childbearing and rearing.

Remaining within cohabitation throughout the childbearing process

As we have seen so far, union status can change throughout every stage of the childbearing and early childrearing process. We now look at the propensity to stay

within cohabitation throughout this process. We can then determine to what extent marriage is irrelevant to fertility decision-making in all countries observed. We analyze the cohort of women who gave birth to their first child in a given decade. Rather than focus on all cohabitators, we condition our analysis on having had a birth. This analysis can be considered the “flow” of mothers who started out ever cohabiting and ended up cohabiting one year after a birth.

Table 2 shows the path through the childbearing process for a particular cohort of mothers. We include three decades for Norway and France, two for the Netherlands and the UK, and the latest decade available in the other countries, which have only recently experienced strong increases in cohabitation. Column one shows the proportion of all women who ever cohabited before first conception. These women can be considered the “baseline” of mothers who ever experienced cohabitation, women who entered into cohabitation without explicitly responding to pregnancy or birth. Column two shows the conditional probability of these ever-cohabiting women to experience a conception within cohabitation. The difference between column one and column two can be considered the percent of women who cohabited pre-maritally, or more precisely, married before conception. (Some of these cohabitations could have dissolved before conception, thus resulting in conceptions to single mothers; see Appendix 2 for country-specific information on how this differs by country). Column three shows the percent of women who gave birth within cohabitation, among women who had a cohabiting conception. Notice that this percent can be very different from the overall percent of births within cohabitation (shown in figure 2). Column four follows the original women who ever cohabited and then conceived and gave birth within cohabitation one year after the birth of their children. The result shows the percent of women still in a cohabiting relationship one year after a birth for these

continuously cohabiting women. Note that some women in the numerator are not followed due to censoring - they gave birth within one year of the interview. Column four shows to what extent childbirth prompts marriage: the “legitimacy” at the time of the birth is now no longer of importance, but marriage could still be a desired state for childrearing. (Again, some of the cohabiting unions could dissolve within one year, but this number is generally small – see Appendix 2).

Finally, we show the percent of all mothers who remained within cohabitation throughout conception and birth and one-year after the birth. This final column indicates what percent of women find marriage irrelevant to the childbearing and early childrearing process. Of course, we are making an assumption that it is pregnancy or birth which prompts marriage, and we have no data on the reasons for marriage; couples could be marrying for reasons that have nothing to do with childbearing. However, our assumption seems reasonable, given that one of the primary functions for marriage in the past has been childbearing and rearing.

By and large, cohabitation in Europe is still not an alternative to marriage with respect to childbearing and early childrearing (table 2). Only in the latest period in Norway does marriage seem to be irrelevant for the majority of first-time mothers; nearly 50% stay within cohabitation throughout the entire childbearing process. In France, this share is about one-third of mothers. In the other countries, the childbearing process leads to marriage (with some union dissolution), and less than 20% of mothers remain within cohabitation throughout all steps of childbearing and early childrearing. Although some women enter into cohabitation at different points of the childbearing process (as shown in previous sections), cohabitation is not a permanent lifestyle choice for the majority of women.

Column three, however, shows that in all sample countries, the vast majority of women who are cohabiting at first birth are still cohabiting one year later. In all countries in the latest period available, more than 74% of couples who were cohabiting before conception, during pregnancy and childbirth are still cohabiting one year after birth. In countries with a high percent of childbearing within cohabitation, this percent is higher than 85%. The percent of women marrying within one year after birth is not as high as would be expected if couples were trying to gain parental rights or child benefits. This could be due to time constraints since couples are focused on the baby, rather than planning a wedding, and they could marry two or three years later. But in general, the timing of “legitimizing” a birth seems to matter – if it is done at all, it is done before the child is born.

Given the gap in the percent of first births within cohabitation versus higher parity births (shown in Figures 2 and 3), especially pertinent in France, Norway and the Netherlands, it is surprising that there is not more of a tendency to legitimate first births. We noted that this difference could be due to more married women progressing to higher order births or to cohabiting mothers marrying after their first birth. Table two suggests that the former explanation is more likely, although couples may still marry sometime during the first year of their child’s life. Further research is needed to show exactly what prompts marriage between the first and second birth or whether married women have higher fertility than cohabiting women.

In general, there does not appear to be one “trajectory” for the increase in cohabitation throughout the childbearing process. If we take Norway as the model trajectory in which childbearing within cohabitation is increasing, then when pre-conception cohabitation was lower (in 1975-84), we would expect about half of the women who ever cohabited to conceive within cohabitation and half of these women

to legitimate their pregnancies. This is somewhat similar to what happened in France: when premarital cohabitation was lower, about half of the women were conceiving within cohabitation and slightly more remained within cohabitation. But the pattern in the Netherlands and the UK is different: these countries have high levels of premarital cohabitation, but far fewer conceptions within cohabitation than would be expected, indicating that although premarital cohabitation is more or less acceptable, it is not chosen as an ideal family type in which to start childbearing. In fact, the percent of conceptions within cohabitation for women who ever cohabited decreased slightly in the U.K. This findings is the opposite of the percent of all first conceptions conceived within cohabitation (table 1), suggesting that the ratio of women cohabiting before conception to women cohabiting at the time of conception has increased, implying that pre-conception cohabitation is increasing faster. The trend in shot-gun marriages, however, has declined, indicating that once pregnant, cohabiters do not feel a strong need to marry.

The trajectory also differs in Russia and Hungary where shot-gun marriages still play a role. As discussed above, the high percent of conceptions within cohabitation is most likely due to ineffective contraception, while the lower percent of births within cohabitation is remnant of the long history of legitimating nonmarital pregnancies. Romania, on the other hand, seems to be most similar to France in the mid-70s/early 80s; preconception cohabitation is just starting to increase, and about half of cohabitations result in a pregnancy. Shot-gun marriages are not as prevalent in other post-socialist countries, indicating more acceptance of cohabitation as a family-building institution. Italy has a very unusual pattern of cohabitation, since it is relatively rare before conception, but almost a permanent state afterwards. However, this analysis also shows that nearly half of cohabiting women marry before

conception, indicating that cohabitation is most similar to a “trial marriage,” as in the Netherlands.

Finally, examining exit from cohabitation at each stage of the childbearing process reveals whether the pattern of cohabitation is more similar to an “alternative to single” (Appendix B). Russia and the UK stand out for the higher percent of dissolution of cohabitation at each step in the process. In the UK, dissolution was much more common in 1985-1994 than in the later period examined. In both 1985-1994 UK and 1995-2004 Russia, dissolution is most common one-year after birth and between conception and birth. Because the break-down of cohabitation occurs during the childbearing process, when couples would be more likely to bond over a pregnancy, this finding supports previous findings that cohabitation in these countries is relatively unstable (Muszynska 2008; Ermish and Francesconi 2000). Finally, in 1985-1994 U.K. and 1995-2004 Russia, about 12% of all births were to single women (data not shown). Thus, on the whole, nonmarital childbearing in these countries is indicative of a pattern of instability and cohabitation can be considered more similar to an “alternative to single.”

DISCUSSION

These results suggest that taking the childbearing process into account changes the meaning of cohabitation in a cross-national comparison. The previous classification schemes were insufficient to show how cohabitation responds to the childbearing process, a response that turns out to be very important for change in union status. In particular, the analyses show that countries with similar levels of prevalence of childbearing within cohabitation may have very different behaviors before and after pregnancy.

Of course, these results are limited in that they focus on percents and do not account for changes in marital fertility or the age structure of the population. Because our data come from surveys and in some cases we are analyzing relatively rare behaviors, some of the percents are based on small numbers and may be unstable. In addition, we focus on only 9 countries in Europe, thus missing a good proportion of the population. Finally, the interpretations are very general and do not capture the heterogeneity of each society, heterogeneity which may be indicative of intra-country trends occurring simultaneously. However, since our goal is to focus on broad comparisons and representative patterns, we think this analysis is a good starting point for examining nonmarital childbearing and cohabitation and raising important questions.

We find that by not directly examining responses to childbearing, Heuveline and Timberlake's (2004) typology misses some of the nuances in meaning. Their focus on duration, incidence and percent ending in marriage does not indicate why or when people marry (on the other hand, our analyses do not fully account for cohabitation that is not directly related to childbearing). For example, their indicators show that France had a very high incidence and long median duration of cohabitation, but our analyses indicate that only one-third of French women stay within cohabitation throughout childbearing and early childrearing. Thus, overall, marriage is still relevant to having children and starting a family (although this could be rapidly changing in the 2000s - our French data only refer to the 1990s). The Netherlands, Russia, and Hungary experience moderate to high levels of premarital cohabitation, but in the Netherlands, a higher proportion of marriages occur before conception, while in Russia and Hungary conceptions prompt marriage, resulting in the legitimation of a birth. Thus, although cohabitation is common as a prelude to

marriage in all three countries, in the Netherlands, marriage is a stand-alone institution where childbearing is more likely to be planned, while in Russia, Hungary, and Bulgaria marriage is more likely to occur as a response to pregnancy.

Surprisingly, Italy, which has a very low incidence of cohabitation, has a very high proportion of women who do not marry throughout the childbearing process, indicating that marriage is irrelevant, or perhaps not possible.

Also, by focusing on duration, Heuveline and Timberlake (2004) preference calendar time, which may not be as important to converting cohabiting relationships into marriage as life events, often used in a life course perspective. Therefore, we suggest a new typology that focuses on the family-building process and captures impending events, rather than just time:

A. MARRIAGE IRRELEVANT: The childbearing and early childrearing process does not prompt marriage. No country fits this classification completely, although Norway comes close.

B. SOME IRRELEVANCE FOR FIRST BIRTHS: France and Norway - Marriage is largely irrelevant with respect to first childbearing only. Higher order births take place within marriage but the transition to marriage after a first birth does not occur within the first year.

C. PRECONCEPTION COHABITATION: Netherlands and the UK 1995-2004 - Marriage still remains important in and of itself; cohabitation is a state for “trial marriages” but not for conception.

D. DATING RELATIONSHIPS: UK 1985-1994, Russia, Bulgaria, and to a lesser extent Hungary – Cohabitation is more similar to dating – either lacking in long-term commitment or transitioning to marriage after conception. If the relationship is serious, cohabiting couples respond to unplanned conceptions with shot-gun

marriages, since marriage is still the most important setting for raising children. But cohabiting couples could also be more unstable and separate throughout the childbearing process. These societies are also characterized by higher levels of conceptions and births to single mothers. While the term “alternative to single” is usually used to characterize this type of cohabitation, the term does not fit well with the childbearing process, since the term is often associated with cohabitation that occurs before children (according to Heuveline and Timberlake 2004). This pattern is most likely due to low contraceptive use and unplanned pregnancies.

E. MARGINAL BUT PERSISTENT: Italy and Romania – Although cohabiting couples are still relatively rare, once they have entered cohabitation, they eschew marriage surrounding childbearing. The pattern in Romania may also be due to the high percent of Roma, an ethnic minority group that rejects official marriage practices. Further in-depth investigation is needed to know whether this trend is because cohabiters are more likely to reject marriage, or whether these couples face obstacles to marriage such as divorce.

These patterns did not develop along the same trajectories in all countries. For example, preconception cohabitation increased more quickly in Norway than in France, but at the beginning of the development of the trend, shot-gun marriages were still more prevalent in Norway than in France. The Netherlands is clearly not following the Norwegian pattern: even though the percent ever cohabited has increased substantially, the percent of conceptions within cohabitation has remained at about one-third of all couples who ever cohabited, reinforcing the classification described above. Because of its long history with single-motherhood, the U.K. does not fit into the typical Scandinavian trajectory, either. In fact, the percent of ever-cohabiting women who conceived within cohabitation declined, even though the

percent of shot-gun marriages also declined. As discussed above, the pattern of the late 1980s in the U.K. was similar to the “dating relationship” pattern, with cohabitation characterized by unstable relationships and related to single motherhood. More recently, however, cohabitation has changed into preconception behavior, and although the percent of conceptions within cohabitation has increased slightly, the percent of women cohabiting before conception increased faster. Thus, the U.K. in the late 1990s is more similar to the pattern in the Netherlands, where marriage is still the preferred institution for raising children.

The specific explanations for why countries develop different trajectories are complex and multi-faceted. Differences between societies are the result of a variety of cultural norms, expectations, attitudes, and institutional support (Heuveline and Timberlake 2004). Our findings show that even if the social meaning of cohabitation continues to shift over time, norms about marriage as the conventional setting for raising children may be stronger in some countries than others (Kiernan 2004). Cultural differences, for example whether family ties are relatively “strong” or “weak,” influence the relationship between the family group and the way society itself functions (Reher 1998). In countries with “strong” family ties (e.g. Italy), childbearing within cohabitation can be seen as a way to express a distance towards traditional attitudes about the conventional setting for having children. Similarly, the Catholic church may provide a focal point for opposition in the rejection of conventional norms (Goldstein and Kenney 2007, Laplante 2006). In addition, regional differences within countries can also emerge due to different underlying patterns. In Italy, family attitudes differ between the more modern Center and North, where nonmarital childbearing is more likely to be an innovative behaviour, and the more traditional South, where the increase in nonmarital childbearing could be due to economic

barriers to marriage (Rosina and Fraboni 2004, Di Giulio and Rosina 2007, Gruppo di coordinamento per la demografia 2007). Thus, ideological change against the backdrop of cultural structure plays a strong role in the diffusion of cohabitation and childbearing within cohabitation.

Ideological change also influences expectations for the economic support of partners and the acquisition of a certain standard of living before marriage (Edin and Kefalis 2005, Gibson-Davis, Edin, and McLanahan 2005). Some couples postpone marriage to accord with life milestones, for example, finishing education, securing steady employment, or buying a house. Others wait until they can afford a wedding, which is increasingly becoming a substantial expense. Thus, economic factors may delay marriage irrespective of social norms or expectations, although as our findings suggest on a population level, an impending child still appears to motivate marriage above and beyond immediate financial considerations.

Finally, the political structure and welfare-state model of a country also leads to changes in family formation (Neyer and Andersson 2008; Esping-Anderson 1990). New laws and policies that formally recognize cohabiting relationship reinforce the legitimacy of cohabiting unions and make it easier for couples to live together regardless of whether they plan to marry (Seltzer 2004). Examples of such laws include: 1) parental rights, which may or may not provide cohabiting fathers with the same rights and responsibilities as married fathers; 2) the legal recognition of cohabiting couples; in some countries (e.g. Norway), cohabiting couples with common children are equal to married couples with respect to social benefits and pensions, while in others, there is a separate legal category for cohabiting couples (The Pacte Civil de Solidarité (PACS) in France, and registered partnership in the Netherlands). 3) The right to receive support as a single mother; in many nations

single mother benefits were related to the formal civil status, not *de facto* partnership status. For instance, in Norway until the late 1990s, single mothers cohabiting with a new partner (not the father of their child) retained their privileges as single parents (tax reduction, extra children's allowance and maintenance) (Noack 2001). Further research is needed to specify how different policies and laws may influence changes in union status at each point in the childbearing process. This will help to determine whether the benefits to marrying before conception relates to policies beneficial for marriage (e.g. in the Netherlands), as opposed to benefits to marrying before birth, where the policies would be beneficial for the child (e.g. Russia).

Taken together, our findings help to illuminate how childbearing and union status intersects across Europe. Overall, these trends indicate that there is no single path leading to the type of cohabitation where marriage is irrelevant. Instead, our research shows that despite widespread claims that marriage is disappearing in Europe, it still remains the preferred institution for raising a family. Stages in the childbearing process – predominantly the period before conception and birth – differentially influence entrance into marriage and hence change the meaning of cohabitation. Future contextual research is needed to explain why these stages matter.

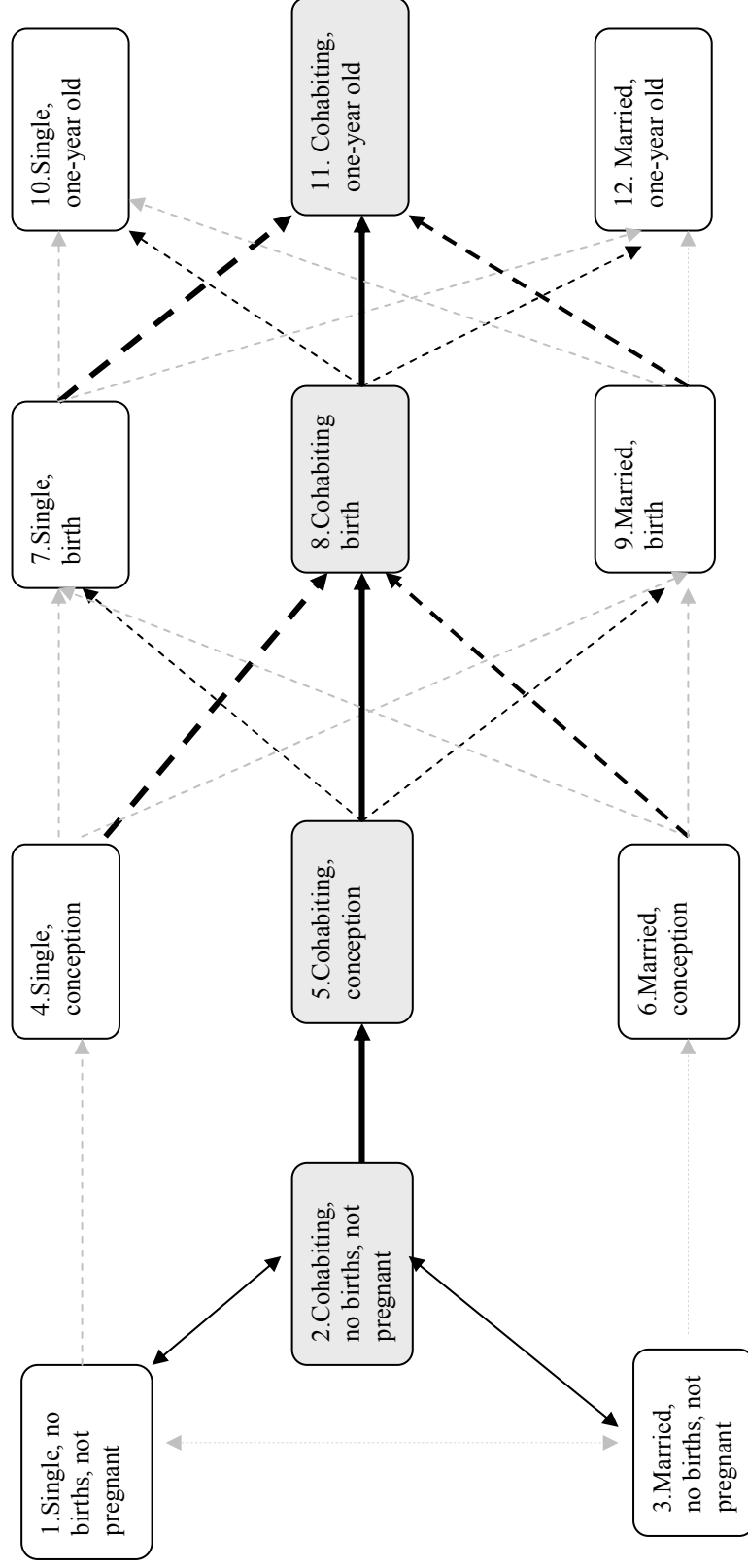
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Figure 1. Stylized model of union change throughout the childbearing process



Note: For simplicity, we assume all conceptions lead to births (no abortions or miscarriages). See text for further explanations.

Source: adapted from Perelli-Harris, Brienna and Theodore P. Gerber. 2009. "Nonmarital childbearing in Russia: Second Demographic Transition or Pattern of Disadvantage."

Figure 2. Percent of all births born in cohabitation, by country 1970-latest date available.

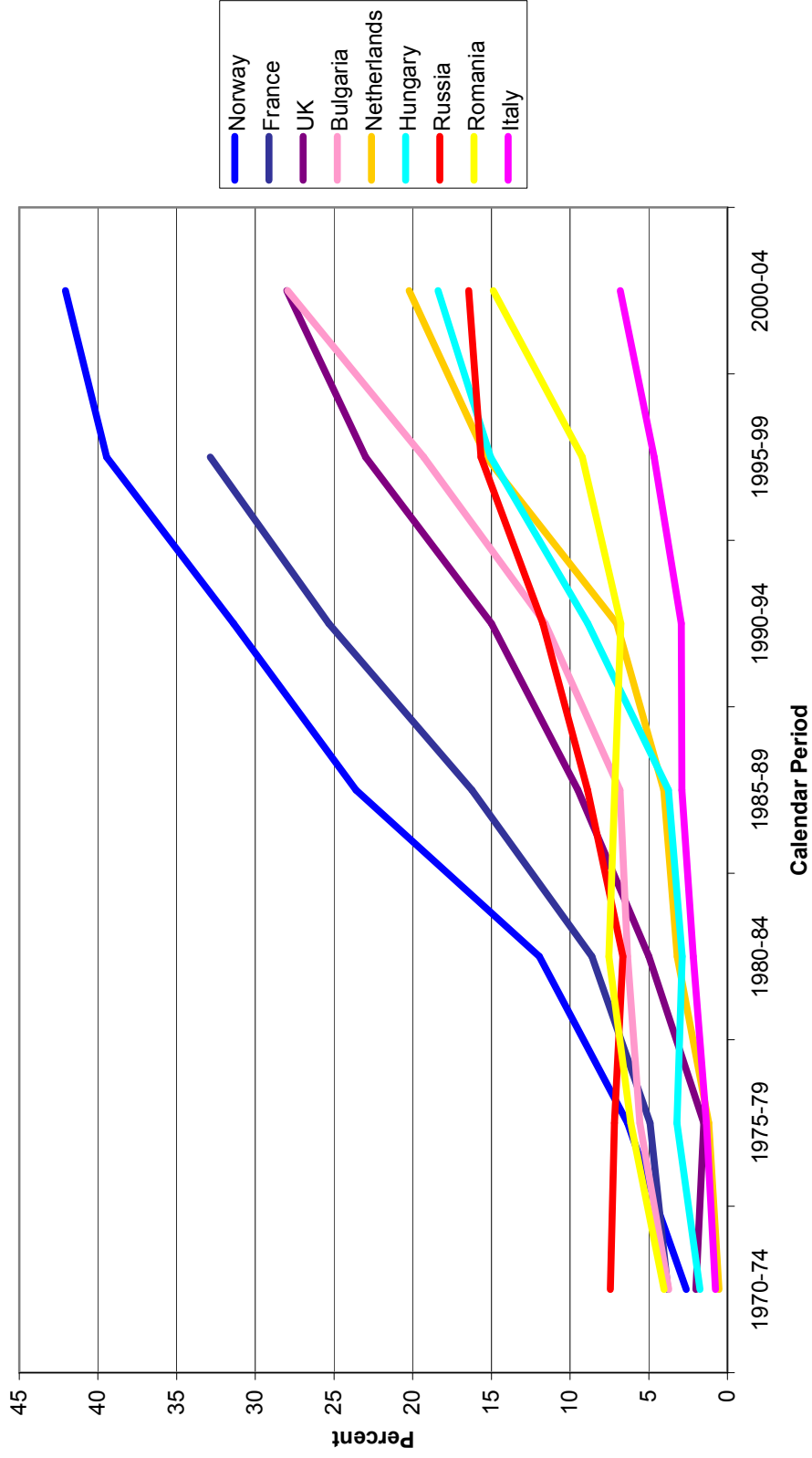


Figure 3. First births in cohabitation, by country, 1970-latest date available

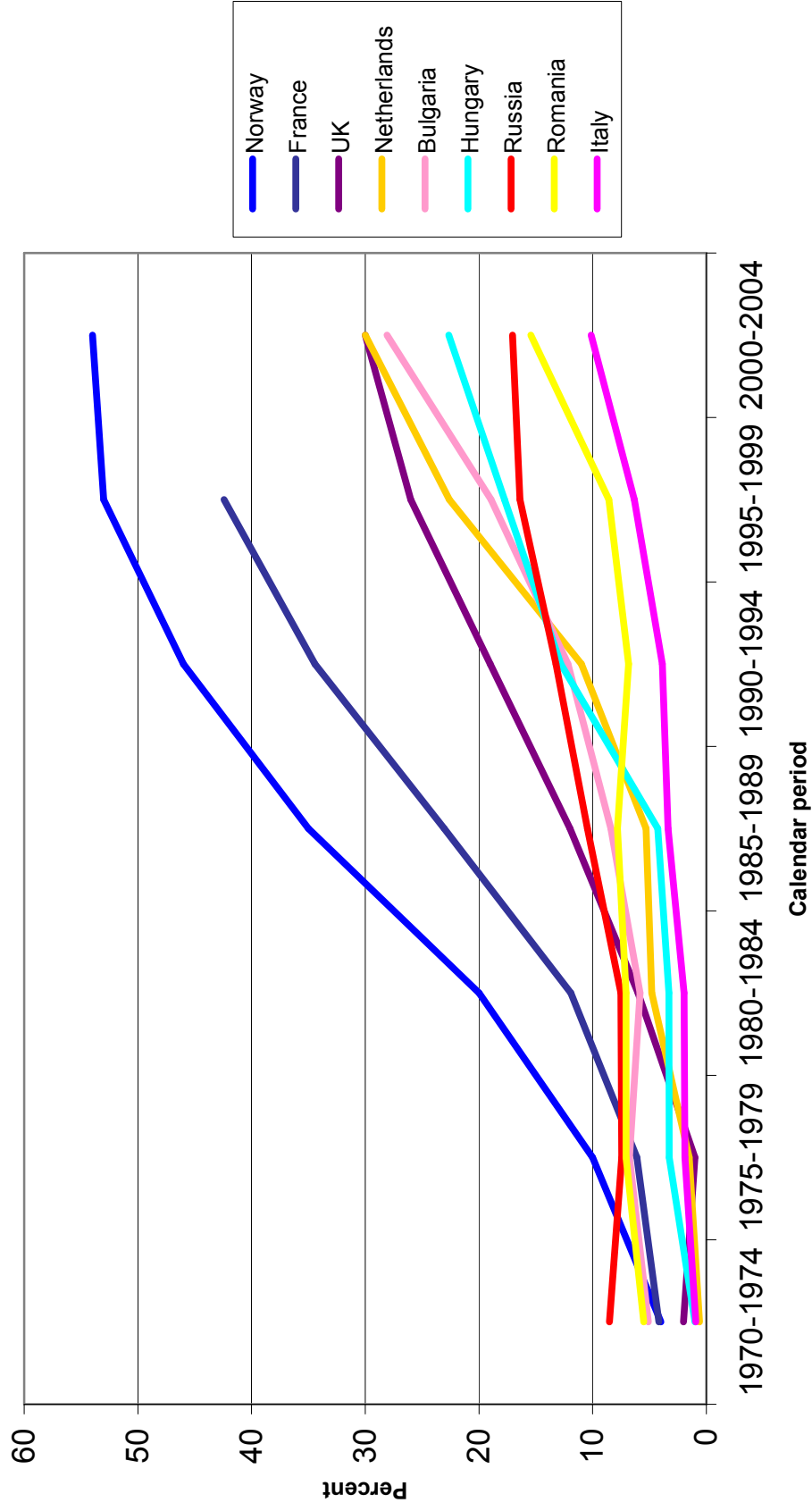


Figure 4. Percent of second and higher parity births born in cohabitation, by country, 1970-latest date available

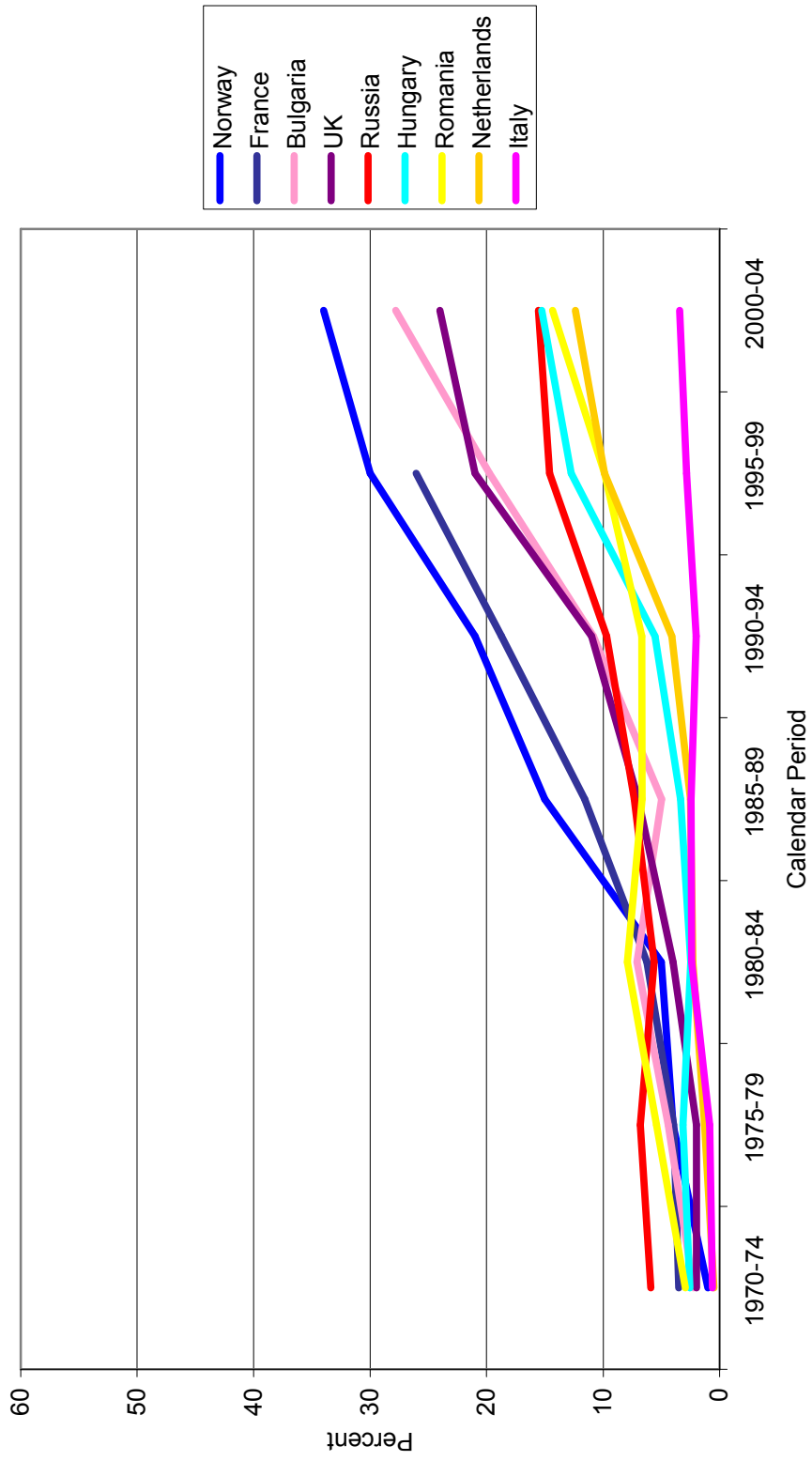


Figure 5. Union status at various points in the childbearing process, 1995–latest date available

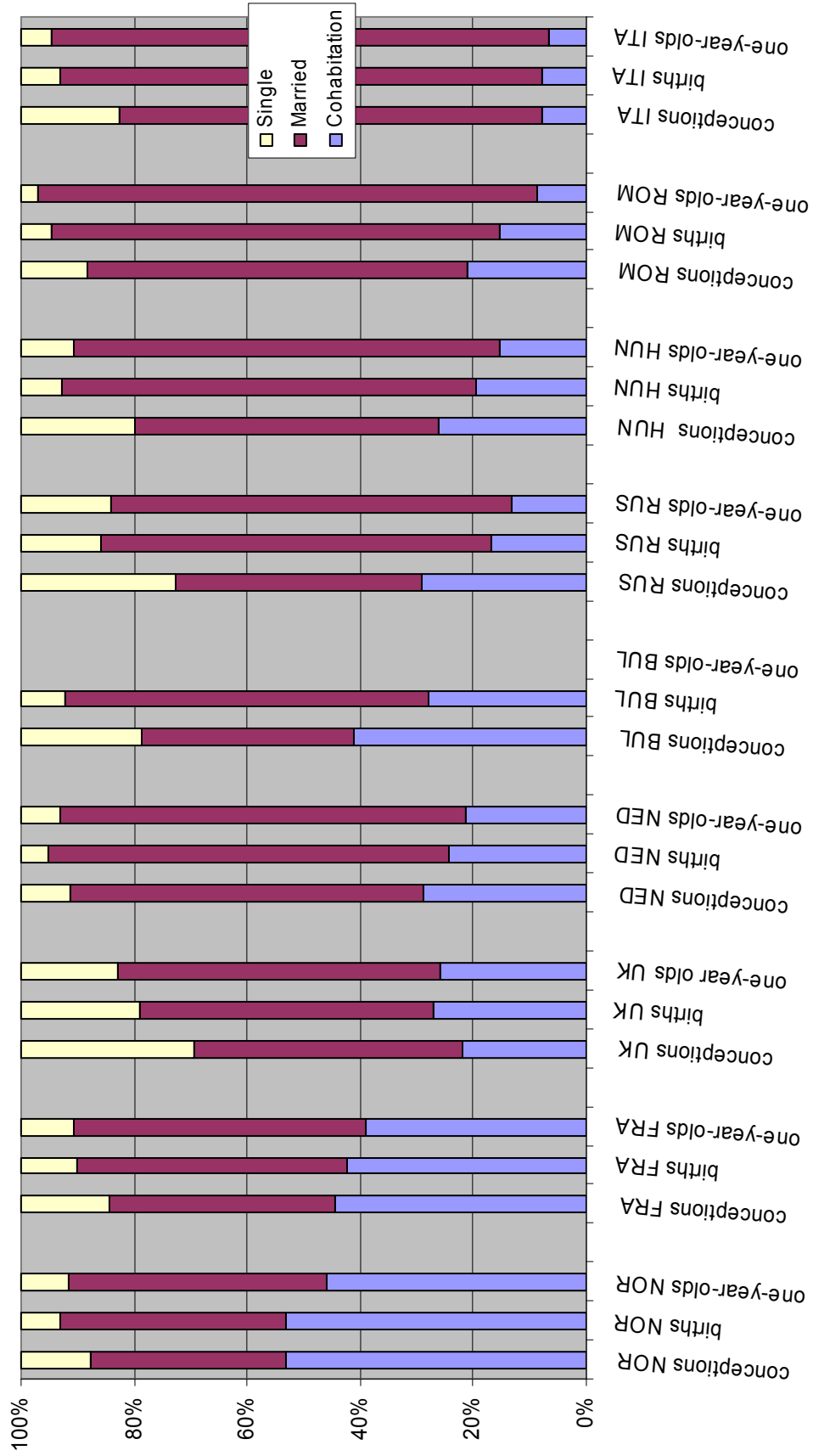


Table 1. Union status at birth for single and cohabiting conceptions, latest date available

	<u>Single at conception</u>				<u>Cohabiting at conception</u>					
	<u>Total conceptions</u>	<u>% of all Conceptions</u>	<u>% Single at birth</u>	<u>% Cohabit at birth</u>	<u>% Married at birth</u>	<u>Total conceptions</u>	<u>% of all Conceptions</u>	<u>% Single at birth</u>	<u>% Cohabit at birth</u>	<u>% Married at birth</u>
Norway 2000-04	51	11	43	27	29	259	55	1	95	5
France 1995-99	2120	16	60	32	8	6044	44	1	85	13
UK 2000-04	121	28	59	36	5	99	23	0	84	16
Netherlands 2000-03	19	10	42	42	16	92	25	3	84	13
Bulgaria 2000-04 ¹	99	14	39	22	39	247	34	2	74	24
Russia 2000-04	107	26	54	10	36	135	33	7	43	50
Hungary 2000-01	21	21	31	24	46	30	30	8	60	31
Romania 2000-04	28	12	42	13	45	51	21	0	78	22
Italy 2000-03	150	16	42	16	42	88	9	1	77	21

1: Bulgaria refers to all births

Table 2. Women who remained within cohabitation throughout different stages of childbearing and early childrearing

	Ever cohabited	Conception	Birth	One-year after birth	"Marriage irrelevant"
Norway 1975-1984	45	49	48	66	12
Norway 1985-1994	70	62	78	77	34
Norway 1995-2004	79	65	92	85	46
France 1975-1984	26	42	59	82	5
France 1985-1994	58	52	78	85	20
France 1995-1999	74	57	85	86	31
Netherlands 1985-1994	48	30	49	82	6
Netherlands 1995-2003	75	37	78	94	19
U.K. 1985-1994	43	40	57	81	8
U.K. 1995-2004	57	39	77	88	16
Hungary 1995-2001	43	60	58	78	11
Russia 1995-2004	43	65	45	74	9
Romania 1995-2004	25	55	72	74	7
Italy 1995-2003	16	48	72	79	4

Ever cohabited: % of mothers who ever cohabited before first conception

Conception: of mothers who ever cohabited, the % who cohabited at time of conception

Birth: of mothers who ever cohabited and cohabited at time of conception, the % who cohabited at time of birth

One year after birth: of mother who ever cohabited, and cohabited at the time of conception and birth, the % cohabiting one year after birth

Marriage irrelevant: % of all mothers who stayed within cohabitation throughout all steps of the childbearing and early rearing process

Appendix A. Description of datasets

	Dataset title	Year	Age range interviewed	Total N of women	N of All Births included	N of first births	Latest date included
Bulgaria	Generations and Gender Survey	2004	18 - 82	6907	9596	5369	2004
France	Study of Family History	1999	18 - 79	217256	407810	357044	1999
Hungary	Generations and Gender Survey	2001-02	18 - 75	8861	10984	5342	2001
Italy	Istat, Famiglia, soggetti sociali e condizione dell'infanzia (GGS)	2003	0 - 104	21454	23182	15093	2003
Netherlands	Fertility and Family Survey	2003	18-62	4736	6756	2987	2003
Norway	Generations and Gender Survey	2007-08	18-79	N/A	N/A	N/A	2004
Romania	Generations and Gender Survey	2005	18 - 79	5980	8586	3990	2004
Russia	Generations and Gender Survey	2004	18 - 81	7019	10458	5902	2004
U.K.	British Household Panel Survey				See below		2004

The British Household Panel Survey (BHPS) is an annual survey. It originally consisted of a nationally representative sample of about 5,500 households recruited in 1991. Individuals are added to the panel when they join BHPS households, and individuals who leave BHPS households and form their own households are followed (and all adult members of these new households are interviewed). Although information on fertility and partnership status are collected prospectively, in the second wave of data collection, retrospective birth histories and partnership histories were collected from all sample members aged 16 and older in 1992. Extension samples of 1,500 households in each of Scotland and Wales were added to the main BHPS sample in 1999 to enable independent analysis of each country. In 2001 a sample of 2,000 households was added in Northern Ireland. Retrospective fertility and partnership histories were collected for these extension samples when they were first interviewed. For this reason, information on birth and partnership histories comes from the retrospective information provided in 1992, from information in the panel, or a combination of the two. Information extending back to the 1970s depends on the quality of retrospective information and may differ between the original and the extension samples if we assume that the quality of retrospective recall declines over time. Children are interviewed as they

reach the age of 16 so information on the fertility and partnerships of those sample members who turned 16 after the retrospective information was collected comes exclusively from the panel. Chiara Daniela Pronzato (2007) cleaned the fertility and partnership histories and her data set (available from the UK data archive) was used in this analysis.

Appendix B. Detailed description of the "flow" of women throughout the childbearing process for women who had a first birth

	Ever cohabited		Conception		Birth		One year after birth		"Marriage Irrelevant"			
	Cohabit	Cohabit	Married	Single	Cohabit	Married	Single	Cohabit	Married	Single	Cohabit	
France 1975-1984												
numerator	8973.00	3754.00	5052.00	167.00	2199.00	1582.00	26.00	1809.00	343.00	47.00	1809.00	
denominator	34285.00	8973.00	8973.00	8973.00	3754.00	3754.00	3754.00	2199.00	2199.00	2199.00	34285.00	
percent	26.17	41.80	56.30	1.86	58.58	40.72	0.70	82.27	15.59	2.14	5.28	
France 1985-1994												
numerator	18743.00	9835.00	8484.00	424.00	7649.00	2094.00	92.00	6531.00	938.00	180.00	6531.00	
denominator	32118.00	18743.00	18743.00	18743.00	9835.00	9835.00	9835.00	7649.00	7649.00	7649.00	32118.00	
percent	58.36	52.47	45.27	2.26	77.77	21.29	0.94	85.38	12.26	2.35	20.33	
France 1995-1999												
numerator	11742.49	6702.13	4701.90	338.47	5718.00	895.50	89.00	4008.00	505.00	124.00	4008.00	
denominator	15826.26	11742.00	11742.00	11742.00	6702.00	6702.00	6702.00	4637.00	4637.00	4637.00	12851.00	
(censored) percent	74.20	57.08	40.04	2.88	85.31	13.36	1.33	(1081)	(1081)	(1081)	(2975)	
								86.43	10.90	2.67	31.10	
Hungary 1995-2001												
numerator	293.00	172.00	105.00	8.00	100.00	65.00	7.00	67.00	10.00	9.00	67.00	
denominator	677.00	285.00	285.00	285.00	172.00	172.00	172.00	86.00	86.00	86.00	592.00	
(censored) percent	43.28	60.35	36.84	2.81	58.14	37.79	4.07	(14)	(14)	(14)	(85)	
								77.91	11.63	10.47	11.32	

