



Júlia MIKOLAI*

Partnership Histories and the Transition to Motherhood in Later Reproductive Ages in Europe

As family life courses become more diverse and less standardized, first births are increasingly delayed, and many women in Europe are still childless when they reach their thirties. These women have very diverse partnership histories; some have never lived with a partner, while others have experienced cohabitation, marriage or union dissolution. What is the partnership trajectory of women who are childless at age 30? Is the same pattern observed for childless women at age 35? Does it differ from one country to another? Júlia MIKOLAI addresses these questions using a harmonized database of retrospective monthly union and fertility histories based on data from the Generations and Gender survey conducted in numerous European countries. For a cohort of women born between 1953 and 1962 in 12 countries, she then analyses the probabilities of having a first child conditional on their different partnership experiences. This article sheds light on the diversity of partnership trajectories and on country-specific patterns of family formation.

This article explores how changes in partnership experiences are linked to the postponement of motherhood in Europe. Previous studies showed that there is a parallel tendency to delay union formation and parenthood (Corijn and Klijzing, 2001). Additionally, the increased prevalence of non-marital cohabitation means that entry to marriage is postponed (if not completely forgone), and this may be associated with delayed marital first births (Balbo et al., 2013; Manning, 1995). At the same time, due to increased partnership instability, more women than in the past experience multiple partnerships before settling down with a partner (Wu and Schimmele, 2005). Such complex partnership pathways are associated with a later entry to motherhood (Matsuo, 2003). Thus, changing partnership behaviours might accentuate the

* University of St Andrews, United Kingdom.

Correspondence: Júlia Mikolai, Population and Health Research Group, School of Geography and Sustainable Development, University of St Andrews, Irvine Building, KY16 9AL, Great Britain, email: Julia.Mikolai@st-andrews.ac.uk

postponement of motherhood and lead to increased risk of remaining involuntarily childless (Berrington, 2004; Billari et al., 2007; Te Velde et al., 2012).

While many previous studies have addressed the relationship between partnership status (e.g. cohabitation or marriage) and the transition to motherhood (Baizán et al., 2003, 2004; Berrington, 2001; Brien et al., 1999; Perelli-Harris et al., 2010b; Steele et al., 2005; Upchurch et al., 2002), using information only on current partnership status can mask the influence of important past family life transitions such as pre-marital cohabitation. This is because current partnership status is the result of a set of successive previous family life transitions (Elder, 1992; Keizer et al., 2008). Thus, to understand the link between partnership experiences and women's chances of remaining childless from a life course perspective, partnership histories need to be examined.

What are the partnership histories of women who remain childless? What is their relationship with the transition to motherhood in later reproductive ages? How do patterns differ across European countries? To answer these questions, we examine childless women's partnership histories as well as their first birth probabilities conditional on their partnership experiences (both current partnership status and partnership histories). We focus on women who were childless at ages 30 and 35 because these ages represent significant milestones in the life cycle and are critical for female fecundity (Rindfuss and Bumpass, 1976; Settersten, 2003). This paper studies women born between 1953 and 1962, who are among the earliest cohorts of women to ever experience non-marital cohabitation, more diverse partnership forms and less standardized pathways to parenthood.

We study European countries because the interrelationship between partnership histories and the transition to first birth is expected to vary as a result of country-specific factors. Such factors include social policies and welfare systems, varying levels of gender equity, cultural and historical background, the legal status of children born outside marriage, and differences in divorce legislation (Esping-Andersen, 1990; Goldstein et al., 2009). Yet, most previous research has examined the relationship between partnership status and first birth in a single country and few studies have compared this association across Europe (Perelli-Harris et al., 2010b, 2012). Moreover, the available comparative studies focused only on one segment of the family life course. By using comparable data from 12 European countries, this article sheds new light on whether the interrelationship between partnership experiences and the transition to motherhood is country-specific or similar across countries. The analyses presented here are strictly descriptive; based on these results it is not possible to establish whether partnership histories have a causal impact on fertility. Nonetheless, this is a useful first step towards understanding how the dynamics of changing family life courses are linked to women's chances of becoming a mother or, alternatively, of remaining childless.

I. Cross-national differences in partnerships and fertility

The prevalence of different partnership experiences and their relationship with the transition to first birth differs across countries. In post-socialist countries, the prevalence of non-marital cohabitation was low but the level of non-marital fertility was high (Mureşan et al., 2008), especially among single mothers. Before the societal and political transition in 1990, these countries were characterized by early and universal marriage and early childbearing, with the proportion of childless women remaining below 10% in most countries. Marriage, pregnancy, and first birth were strongly related events, and the divorce rate was low. Since the transition, fertility and marriage rates have decreased dramatically, marriage and family formation have been delayed and the proportion of extra-marital births has increased, although the prevalence of cohabiting relationships remains relatively low (Katus and Kingkade, 2004; Koytcheva and Philipov, 2008; Mureşan et al., 2008; Sobotka, 2004; Stankuniene and Jasilioniene, 2008; Zakharov, 2008). There is more heterogeneity in the prevalence of divorce. For example, in Romania and Bulgaria, the divorce rate has remained relatively low, while in Lithuania, Estonia and Russia it has increased to western European levels (Sobotka and Toulemon, 2008).

In southern Europe, fertility decline and the delay of marriage and childbearing started earlier than in post-socialist countries (De Rose et al., 2008; Delgado et al., 2008). However, changes in partnership behaviour have not followed the changes in fertility behaviour; fertility decline has not been accompanied by radical changes in family formation (De Rose et al., 2008). Consequently, non-marital cohabitation and non-marital childbearing are rare (Kiernan, 2004) and the transition to parenthood remains very closely linked to union formation and marriage (Heuveline and Timberlake, 2004; Kohler et al., 2002). Additionally, the proportion of marriages ending in divorce is relatively low (Sobotka and Toulemon, 2008); this is likely to be related to the legislation in force and the legal context of these family events (Vignoli and Ferro, 2009).

In western and northern Europe, marriage and fertility have been delayed since the 1960s (Frejka and Sobotka, 2008) and these two events are not so closely related (Sigle-Rushton, 2008) as in southern Europe and in post-socialist countries. The prevalence of cohabitation is high but its role in the family formation process differs greatly across countries (Sobotka and Toulemon, 2008). For example, in Norway and France, where cohabitation is more stable than in the other countries (Kravdal and Rindfuss, 2008; Toulemon et al., 2008), around 50% of all conceptions took place within a cohabiting union between 1995 and 2004. In Austria and the Netherlands, this proportion was around 25% (Heuveline and Timberlake, 2004; Perelli-Harris et al., 2012). The United Kingdom is characterized not only by high proportions of cohabiting conceptions but also by high levels of conceptions to single mothers (Perelli-

Harris et al., 2012; Seltzer, 2004). The divorce rate in these countries is higher than in southern Europe and in some post-socialist countries such as Romania and Bulgaria (Sobotka and Toulemon, 2008).

Following from these arguments, it is expected that women's propensity to remain childless (i.e. their selection into remaining childless), until age 30 or 35, varies across Europe. The relatively young pattern of childbearing in post-socialist countries suggests that most women in these countries have already achieved motherhood by age 30, while this is less the case in the other countries. Additionally, due to the closer link between partnership formation and childbearing in post-socialist and southern European countries (Heuveline and Timberlake, 2004; Kohler et al., 2002), we would expect most women who are still childless at age 30 or 35 to be unpartnered (either never-partnered or separated). On the other hand, in western and northern Europe, where the link between partnership formation and childbearing is weaker and the prevalence of cohabitation is higher (Heuveline and Timberlake, 2004; Sigle-Rushton, 2008), we would expect to see more variation in the partnership histories of childless women at these ages.

II. Partnership histories and transition to motherhood across Europe

We study the link between the transition to first birth at later reproductive ages and six possible partnership histories prior to age 30 or 35 across Europe: 1) never-partnered; 2) in an intact cohabiting union with one partner; 3) direct marriage with the first partner; 4) marriage preceded by cohabitation with the same first partner; 5) union dissolution without repartnering; and 6) repartnering following union dissolution. How are these partnership histories related to the transition to motherhood at later ages?

Women who remain childless and never-partnered until age 30 or 35 might have had difficulties finding a partner (Bongaarts, 2001; Keizer et al., 2008; Mills et al., 2011; Schmidt et al., 2012). Older women adjust less easily to unexpected shocks such as delays in finding an appropriate partner (Billari et al., 2007). Therefore, those who do not find a partner by age 30 or 35 are expected to be more likely to remain childless than those who have formed a co-residential union⁽¹⁾ by this age (Billari, 2005; Keizer et al., 2008). This relationship is likely to vary across different European countries. It is possible that never-partnered women are more likely to achieve motherhood in post-socialist countries than in the other countries due to the higher level of non-marital fertility among single mothers during the period under study

(1) The term "co-residential union" refers to relationships where the couple lives in the same household. Cohabiting relationships, on the other hand, are co-residential unions where the couple lives together without being married.

(Kiernan, 2004; Mureşan et al., 2008). Additionally, previous research has shown that in Spain almost half of the women aged 20-34 who have never been in a co-residential union have a stable non-resident partner (Castro-Martín et al., 2008). Thus, many single women are not truly single; this might lead to higher first birth probabilities among single women compared to other countries.

Most first births happen within a co-residential union (Kiernan, 2001). Childless women who live with a partner at age 30 or 35 may or may not be married. As the risk of a first birth is highest in the first few years of marriage (Baizán et al., 2003; Billari and Kohler, 2002), it is possible that women who are married and childless at age 30 or 35 have not yet had a child because their marriage is very recent. Additionally, they might consider themselves too young to become mothers or might not want to have children at all. Cohabiting women who are childless at age 30 or 35 might not consider having a child within this union; they might think their partner is unsuitable for a more serious relationship, in which case the union is most likely to end, or they might marry their partner. Alternatively, these women might not intend to have children at all (Sobotka and Testa, 2008). Moreover, children are more likely to be born within marriage than within cohabitation (Baizán et al., 2003, 2004; Brien et al., 1999; Kiernan, 2004; Manning, 1995) because cohabiting unions are generally less stable and involve a lower level of commitment than marriages (Baizán et al., 2004; Heuveline and Timberlake, 2004; Kravdal, 1997). This might especially be the case in southern European and post-socialist countries where partnership and family formation events are more closely linked than in the other countries (Katus and Kingkade, 2004; Koytcheva and Philipov, 2008; Mureşan et al., 2008; Stankuniene and Jasilioniene, 2008; Zakharov, 2008). Thus, in these countries, we expect childless women who are married at age 30 or 35 to be more likely to have a first child than those who are cohabiting. On the other hand, in western and northern Europe, cohabiting women may be more likely to have a child than in the other countries as cohabitation is more widespread and more often a context for childbearing (Berrington, 2001; Kravdal and Rindfuss, 2008; Toulemon et al., 2008).

It is important to differentiate women who were directly married by age 30 or 35 from those who cohabited with their partner before marriage. Pre-marital cohabitation is often a learning experience before stronger commitments or investments are made (Ermisch and Francesconi, 2000; Oppenheimer, 1994, 1997), and provides a means to deal with uncertainties arising in the relationship. If this is the case, marriage preceded by cohabitation with the same partner might become an even more stable union than direct marriage. Alternatively, women might marry their cohabiting partner when they want to have a child (Oppenheimer, 1994, 1997) or if they are already pregnant. These arguments suggest that the probability of a first birth may be higher for childless women

who married their cohabiting partner by age 30 or 35 than for those who directly married their partner by these ages. This might especially be the case in northern and western Europe due to the higher prevalence of cohabitation (Kravdal and Rindfuss, 2008; Perelli-Harris et al., 2010b; Toulemon et al., 2008) compared to southern European and some post-socialist countries (e.g. Lithuania, Romania and Russia) where non-marital cohabitation was less common among the cohort of women under study. On the other hand, cohabitation before marriage is likely to contribute to a postponement of marriage and first birth (Oppenheimer, 1994, 1997). An important determinant of the timing of marriage and parenthood is whether and when couples convert their cohabiting relationships into marriage (Ermisch and Francesconi, 2000). This means that women who cohabited with their spouse before marriage might be more likely to delay having a first child to later ages, by which time some of them might experience fertility problems. Thus, it is also possible that childless women who married their cohabiting partner by age 30 or 35 are less likely to become mothers than those who are childless and directly married at these ages.

Childless women whose cohabiting or marital union is dissolved at prime childbearing ages adjust less easily to this unanticipated event (Billari et al., 2007; Keizer et al., 2008) than younger women. As the process of finding a new appropriate partner may be lengthy, women who experience union dissolution by age 30 or 35 might be less likely to become mothers than those who are married or cohabiting at this age. It is possible that in southern European and some post-socialist countries (e.g. Bulgaria, Romania), where divorce rates were lower compared to the other parts of Europe among the examined cohort of women (Sobotka and Toulemon, 2008), women whose union dissolved before the birth of a first child less easily found a new partner than in the other countries because fewer men of their age were available on the remarriage market (de Graaf and Kalmijn, 2003). Therefore, we expect that in some post-socialist and southern European countries, women who experienced union dissolution will be less likely to have a first child than in the other countries. However, women who did find a partner by age 30 or 35 following union dissolution might be as likely to have a child by age 40 as women who were in a first co-residential union.

III. Data and methods

We compare southern European (Italy and Spain), western European (Belgium, France, the Netherlands, and the United Kingdom), northern European (Norway), and post-socialist countries (Bulgaria, Estonia, Lithuania, Romania, and Russia) using data from Harmonized Histories (Perelli-Harris et al., 2010a), a comparative harmonized database of retrospective monthly union and fertility histories. For most countries, data are from the first wave of the Generations and Gender Surveys (from various years between 2004

and 2010). The British data come from the British Household Panel Survey (2005-2006), the Spanish data were collected as part of the Spanish Fertility Survey (2006), and the Dutch data are from the 2003 Fertility and Family Survey (for more information, see www.nonmarital.org). Cohabiting unions are defined as co-residential relationships which lasted for at least three months. Due to the retrospective nature of the data, there are no issues of attrition. However, retrospective data might be subject to recall error. It is expected that recall error is more likely to influence the quality of retrospective information on the start and end dates of cohabitation and separation (Teitler et al., 2006) than on the date of marriage and childbirth (Perelli-Harris et al., 2010b, 2012). Because not all surveys include retrospective information for men, the present analyses are restricted to women. Moreover, men tend to under-report their fertility, especially for non-marital births and births from previous marriages (Rendall et al., 1999).

To study childless women's first birth probabilities, completed fertility information is needed. The sample thus consists of women born between 1953 and 1962 (who were childless and never-partnered at age 15). This approach allows us to follow events as they evolve over time among a group of women who experienced the same period effects. Age 40 is chosen to indicate the end of the reproductive ages because in modern societies childbearing is usually completed by age 40 (Billari et al., 2007; Frejka and Sobotka, 2008). Indeed, among the examined cohort of women, only a few first births (0.6% or less) occurred after this age in all the countries under study.

To study the relation between partnership experiences and the transition to motherhood in later reproductive ages in a cross-national context, we calculate the proportion of women who had a first child by age 40 given their partnership experiences at ages 30 and 35. In other words, we do not consider partnership transitions between ages 30 or 35 and 40. This is because in the examined cohort, less than 10% (4%) of women experienced additional partnership transitions between age 30 (35) and the birth of the first child. We calculate two types of partnership variables: *current* partnership status and partnership *history* at ages 30 and 35. This is done using information on the start and end date (year and month) of up to two unions (cohabitation or marriage). A woman's current partnership status can be single, cohabiting, or married. The single status includes never-partnered women as well as those who are single following union dissolution. The cohabitation and marriage status includes women who are in these union types, be it a first or second union. Partnership history, on the other hand, is defined as the sequence of previous partnership events. This approach enables us to distinguish between direct marriage and marriage preceded by cohabitation, between never-partnered single women and those who became single following union dissolution, as well as between women who are in their first and second unions.

Figure 1. Partnership transitions and transition to first birth

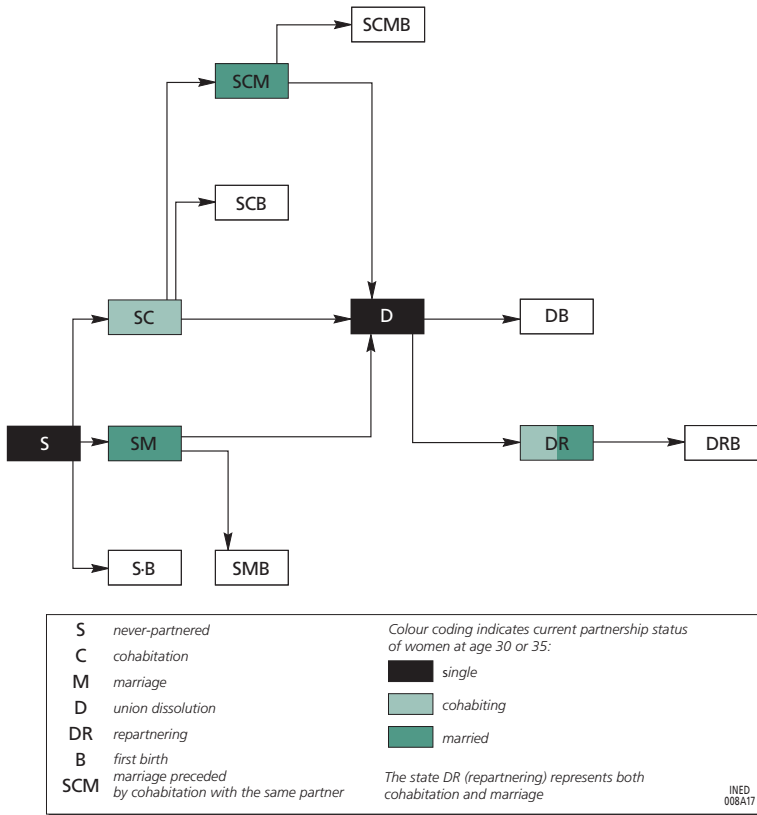


Figure 1 represents the early family life course and shows women's current partnership status and their partnership histories leading to a first birth. The coloured boxes represent states that women can occupy when we study their current partnership status at age 30 or 35. In this case, women could be single (states S and D), married (states SM, SCM, DR), or cohabiting (states SC, DR) at ages 30 and 35. When studying the link between partnership histories and the transition to first birth, we keep track of women's partnership histories by using sequences of capital letters. For example, the state SCMB refers to the following partnership history: never-partnered and childless (S), cohabitation (C), marriage with the cohabiting partner (M), and first birth (B). Additionally, a first birth might happen following the dissolution of a first union (DB) or after repartnering (DRB). Note that due to the small number of union dissolutions that occur before the birth of a first child, we do not differentiate between the dissolution of cohabitation, direct marriage, or marriage preceded by cohabitation with the same partner. Similarly, due to small numbers, we do not distinguish between cohabiting and marital repartnering. The results related to the latter two partnership histories need to be interpreted with caution due to small sample sizes.

ages 15 and 30/35, women may have different partnership experiences, as explained above. By age 30/35 women might be childless (panel A) or might already have become mothers (panel B). Women who are still childless at age 30 or 35 might be in either of the following partnership states: never-partnered (S), cohabitation (SC), direct marriage (SM), marriage preceded by cohabitation with the same partner (SCM), union dissolution (D), or repartnering (DR). Women who became mothers by age 30/35 might have had a child while single (SB), in a cohabiting union (CB), direct marriage (MB), marriage preceded by cohabitation (SCMB), following union dissolution (DB), or in a new partnership (DRB).

For some countries and partnership histories, we end up with rather small sample sizes (see Appendix Table). This implies that care needs to be taken when interpreting and comparing the results within and across countries. Nevertheless, focusing on trends and patterns enables us to describe the relationship between partnership histories and late transition to motherhood across Europe.

V. Results

To describe women's family life transitions between age 15 (when they are childless and never-partnered) and age 40, Table 1 shows the number of women at risk for each transition and the proportion who actually experience them. Sample sizes vary between 595 (Belgium) and 3,631 (Italy). The total sample size for each country equals the number of women who are at risk of the competing transitions SC, SM, and SB. Where the summed proportion of women who experience transitions out of a state does not add up to a 100%, it is because the remaining proportion of women stays in the origin state.

In most countries, the majority (47-82%) of never-partnered women marry directly (SM) except in Bulgaria, France, and Norway, where most women (49-57%) enter cohabitation (SC). Additionally, between 2% and 11% of never-partnered women have a first child without forming a cohabiting union (SB). About 1% to 7% of women do not experience any transitions (i.e. remain never-partnered) between ages 15 and 40. Moreover, in most countries, cohabiting women often marry their partner; this proportion varies between 50% in Italy and 89% in Bulgaria. The proportion of cohabiting women who have a first child in a cohabiting union is between 9% in Belgium and 36% in Romania. Between 86% (United Kingdom) and 97% (Bulgaria) of directly married women have a first child within direct marriage, versus between 77% and 96% among those who married their cohabiting partner. In most countries, only a few women (1-6%) separate from their partner before the birth of a first child; although the proportion is somewhat higher in France (9%), Norway (11%), the United Kingdom (15%), and the Netherlands (19%). Of these women, 8-29% have a first birth while unpartnered after separation, and 33-76% enter a new partnership (except in the United Kingdom, where this proportion is 11%).

Table 1. Number of women at risk of all transitions and the proportion of those who experience these transitions by country, birth cohort 1953-1962, observed from ages 15 to 40

| | Never-partnered | | | Cohabiting or married | | | | Separated or repartnered | | | |
|-----------------------|-----------------|-------|-------|-----------------------|-----|-------|------|--------------------------|-----|-----|-----|
| | SC | SM | SB | SCM | SCB | SMB | SCMB | D | DB | DR | DRB |
| Estonia | | | | | | | | | | | |
| Number at risk | 938 | 938 | 938 | 391 | 391 | 440 | 275 | 1,106 | 45 | 45 | 30 |
| Event (%) | 42 | 47 | 9 | 70 | 25 | 96 | 93 | 4 | 13 | 67 | 63 |
| Bulgaria | | | | | | | | | | | |
| Number at risk | 1,045 | 1,045 | 1,045 | 543 | 543 | 388 | 483 | 1,414 | 16 | 16 | 12 |
| Event (%) | 52 | 37 | 6 | 89 | 10 | 97 | 96 | 1 | 13 | 75 | 75 |
| Romania | | | | | | | | | | | |
| Number at risk | 1,033 | 1,033 | 1,033 | 183 | 183 | 772 | 108 | 1,063 | 26 | 26 | 11 |
| Event (%) | 18 | 75 | 6 | 59 | 36 | 92 | 83 | 2 | 27 | 42 | 73 |
| Russia | | | | | | | | | | | |
| Number at risk | 1,443 | 1,443 | 1,443 | 317 | 317 | 960 | 183 | 1,460 | 85 | 85 | 55 |
| Event (%) | 22 | 67 | 9 | 58 | 32 | 94 | 91 | 6 | 22 | 65 | 71 |
| Lithuania | | | | | | | | | | | |
| Number at risk | 848 | 848 | 848 | 120 | 120 | 591 | 87 | 798 | 31 | 31 | 11 |
| Event (%) | 14 | 70 | 9 | 73 | 20 | 93 | 91 | 4 | 29 | 35 | 73 |
| Belgium | | | | | | | | | | | |
| Number at risk | 595 | 595 | 595 | 252 | 252 | 276 | 206 | 734 | 45 | 45 | 31 |
| Event (%) | 42 | 46 | 8 | 82 | 9 | 88 | 81 | 6 | 8 | 69 | 65 |
| France | | | | | | | | | | | |
| Number at risk | 982 | 982 | 982 | 485 | 485 | 365 | 272 | 1,122 | 106 | 106 | 67 |
| Event (%) | 49 | 37 | 7 | 56 | 27 | 91 | 89 | 9 | 11 | 63 | 63 |
| Netherlands | | | | | | | | | | | |
| Number at risk | 1,076 | 1,076 | 1,076 | 409 | 409 | 619 | 290 | 1,318 | 119 | 119 | 83 |
| Event (%) | 38 | 58 | 2 | 71 | 10 | 89 | 87 | 19 | 9 | 70 | 64 |
| United Kingdom | | | | | | | | | | | |
| Number at risk | 845 | 845 | 845 | 253 | 253 | 463 | 147 | 863 | 131 | 126 | 126 |
| Event (%) | 30 | 55 | 8 | 58 | 11 | 86 | 77 | 15 | 2 | 11 | 52 |
| Norway | | | | | | | | | | | |
| Number at risk | 1,351 | 1,351 | 1,351 | 773 | 773 | 384 | 427 | 1,584 | 174 | 174 | 132 |
| Event (%) | 57% | 28 | 11 | 55 | 27 | 92 | 88 | 11 | 9 | 76 | 70 |
| Spain | | | | | | | | | | | |
| Number at risk | 1,403 | 1,403 | 1,403 | 148 | 148 | 1,092 | 95 | 1,335 | 30 | 30 | 15 |
| Event (%) | 11 | 78 | 6 | 61 | 23 | 94 | 87 | 2 | 20 | 50 | 60 |
| Italy | | | | | | | | | | | |
| Number at risk | 3,631 | 3,631 | 3,631 | 296 | 283 | 2,972 | 142 | 3,397 | 129 | 129 | 43 |
| Event (%) | 8 | 82 | 3 | 50 | 20 | 91 | 82 | 4 | 13 | 33 | 53 |

Note: S = never-partnered, C = cohabitation, M = marriage, D = union dissolution, DR = repartnering, B = first birth. SCM indicates marriage preceded by cohabitation with the same partner.
Source: Harmonized Histories, author's own calculations.

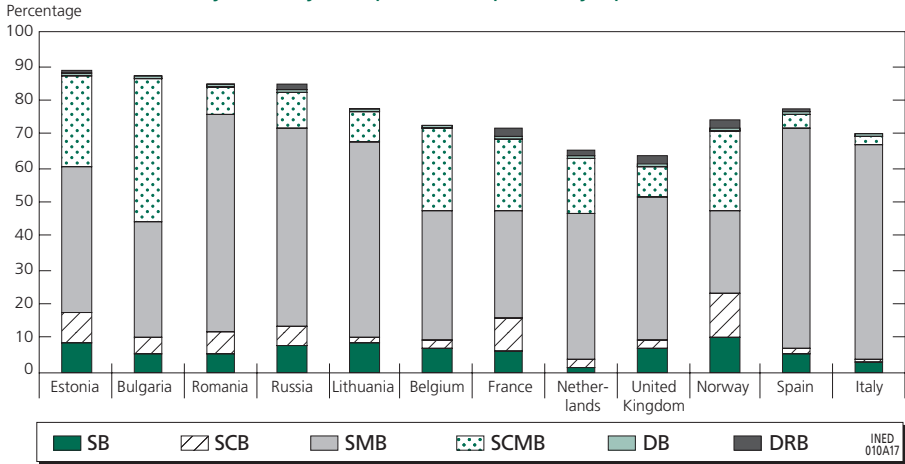
Among women who enter a new partnership after union dissolution, between 53% and 75% achieve motherhood by age 40.

1. Probability of a first birth by age 30 or 35

To better understand how partnership histories shape women's probabilities of having a child by age 30 or 35, we present first birth probabilities by age 30 (Figure 3) and age 35 (Figure 4) by partnership histories. The height of each bar represents the proportion of women who already had a child by age 30 (or 35). Each bar is divided into several sections; the share of each section corresponds to the proportion of women who had a child by age 30 (or 35) by partnership history. These probabilities are calculated by dividing the number of first births within a given partnership history by the total number of first births by age 30 (or 35).

Overall, in most countries, the majority of women who achieved motherhood by age 30 or 35 had a child within direct marriage. This indicates that among the examined cohort of women, direct marriage is the most common context for childbearing. The very high first birth probabilities within direct marriage in Spain and Italy might be partially explained by the large proportion of women with non co-resident partners (Castro-Martín et al., 2008). In southern Europe, young adults tend to remain in the parental home until marriage, which considerably decreases the proportion of those who experience cohabitation as a first union type. This, in turn, leads to a relatively small share of first births within cohabitation or marriage preceded by cohabitation. In Bulgaria, most first births were to mothers who cohabited with their partner before marriage. Premarital cohabitation is more common in Bulgaria, a country which presents the highest first birth probabilities within marriage preceded by cohabitation among post-socialist countries. In Bulgaria, cohabiting women may be more likely to marry their partner when they are pregnant or when they plan to have a child than in the other countries; this would result in higher first birth probabilities within marriage preceded by cohabitation. Additionally, while in southern European countries, in most post-socialist countries (except Estonia and Bulgaria), and in the United Kingdom the proportion of women who had a first child by age 30 within marriage preceded by cohabitation with the same partner is below 10%, in other countries this share is above 20%. Only between 1% and 10% of first births are to cohabiting mothers, except in Norway and France where this proportion is somewhat larger. This shows that in northern and western European countries, cohabitation is more common than in the other countries. However, in the examined cohort of women, cohabitation was not yet the preferred partnership form for childbearing. Last, in the United Kingdom and Norway, only about 3% of women had a first child in a new partnership following union dissolution; this proportion is even smaller in the other countries. A likely explanation for this is that in the United Kingdom and Norway, partnership histories were more heterogeneous among

Figure 3. Probability of a first birth by age 30 by country and partnership history up to birth

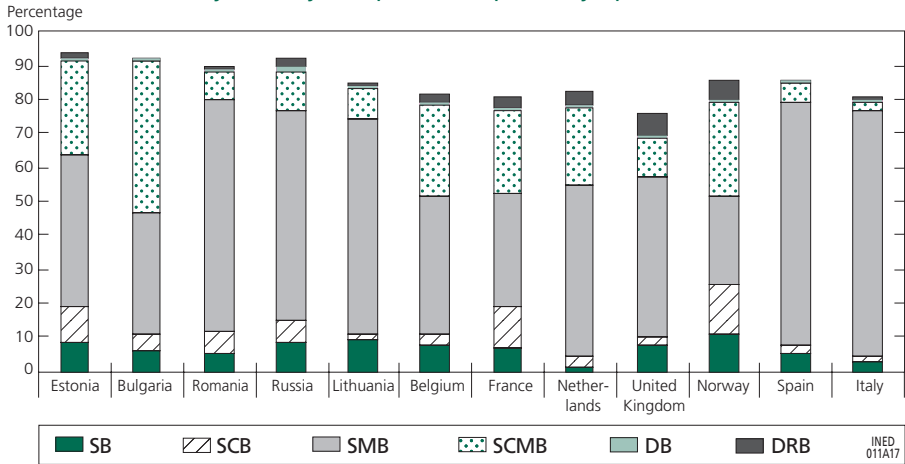


Note: S = never-partnered, C = cohabitation, M = marriage, D = union dissolution, DR = repartnering, B = first birth; SCM indicates marriage preceded by cohabitation with the same partner.

Interpretation: The height of the bars represents the proportion of women who had a first child by age 30; the share of each section corresponds to the proportion of women who had a child by age 30 by partnership history.

Source: Harmonized Histories, author's own calculations.

Figure 4. Probability of a first birth by age 35 by country and partnership history up to birth



Note: S = never-partnered, C = cohabitation, M = marriage, D = union dissolution, DR = repartnering, B = first birth; SCM indicates marriage preceded by cohabitation with the same partner.

Source: Harmonized Histories, author's own calculations.

the examined cohort of women, i.e. more women experienced several unions and union dissolutions at younger ages than in the other countries. The patterns are very similar for the transition to first birth by age 35.

Additionally, these figures reveal large cross-national differences in the proportion of childless women at age 30; it ranges between 11% and 15% in most

post-socialist countries except for Lithuania, where it is 23%. This proportion is considerably larger in the other countries. In western European countries, 27% to 36% of women are childless at age 30, versus 23% in Spain, 26% in Norway, and 30% in Italy. At age 35, the proportion of childless women is much lower in all countries; this is especially the case in post-socialist countries (6-11%, but 15% in Lithuania). It varies between 17% and 24% in western European countries, it is around 14% in Norway, and 15-20% in southern Europe. These figures mirror cross-national differences in the age pattern of childbearing. Most women in post-socialist countries seem to have achieved a first birth by age 30 while in western, northern, and southern European countries there are larger differences between the probability of remaining childless by age 30 and by age 35. Thus, women who are still childless at ages 30 and 35 may constitute a more selective group in post-socialist countries where it is more common to have a first child by age 30 than in the other countries.

2. Partnership histories of women who are childless at ages 30 and 35

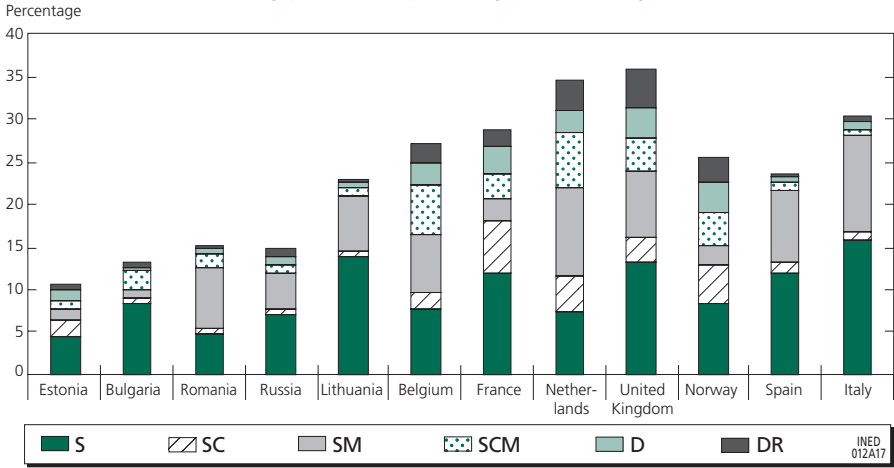
To examine the role of partnership histories in remaining childless until age 30 or 35, Figures 5 and 6 show the probability for childless women of being in each of the possible partnership states by ages 30 and 35, respectively. The height of the stacked bars represents the proportion of childless women at the examined ages.⁽³⁾ The bars are divided into several sections; the share of each section indicates the proportion of women who were childless at age 30 or 35 by partnership history (calculated by dividing the number of childless women at age 30 or 35 in each partnership history by the total number of women).

The probability of being both never-partnered and childless at age 30 is between 5% and 16% in the countries under study. This probability is higher in northern and western European countries, indicating that in these countries women postpone both couple formation and childbearing to later ages. Among women who are childless at age 30, the share of never-partnered women (*S* = single state) is the largest in all countries except Romania and the Netherlands, where the proportion of directly married women is the highest (7% and 10%, respectively). In the other countries, the probability of being directly married and childless is between 1% and 11%. In post-socialist countries and southern Europe, the probability of being in one of the other four partnership states (cohabitation, marriage preceded by cohabitation, single following union dissolution, or repartnered) and being childless is very small (1-2%). However, in the other countries, these proportions are somewhat larger (2-8%), reflecting more variation in women's partnership experiences.

Although the patterns are similar among childless women at age 35, the probability of being childless by partnership history is smaller than at age 30,

(3) The sums of the proportions shown in Figures 3, 4, 5 and 6 add up to 100%.

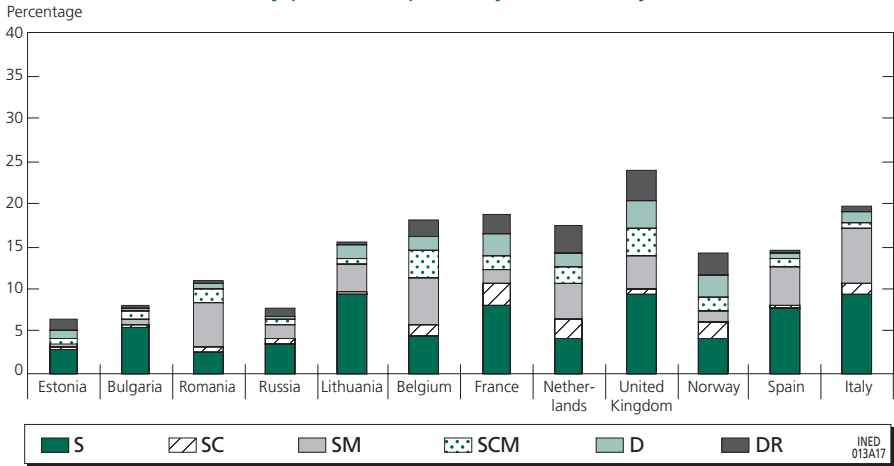
Figure 5. Women’s probability of remaining childless until age 30, by partnership history and country



Note: S = never-partnered, C = cohabitation, M = marriage, D = union dissolution, DR = repartnering, SCM indicates marriage preceded by cohabitation with the same partner.

Source: Harmonized Histories, author’s own calculations.

Figure 6. Women’s probability of remaining childless until age 35, by partnership history and country



Note: S = never-partnered, C = cohabitation, M = marriage, D = union dissolution, DR = repartnering, SCM indicates marriage preceded by cohabitation with the same partner.

Source: Harmonized Histories, author’s own calculations.

especially in northern and western European countries. In most countries, most 35-year-old childless women are never-partnered. Interestingly, in the Netherlands, Norway, France and the United Kingdom, women who are still childless at age 35 are most probably those whose first union has dissolved. This is in line with the argument that union dissolution during prime childbearing ages might result in childlessness. These results corroborate our

expectations. Most childless women in post-socialist and southern European countries are never-partnered (except for Romania). This is also generally the case in the examined western and northern European countries at both ages, although there is also more variation in the partnership histories of childless women at both ages in these countries.

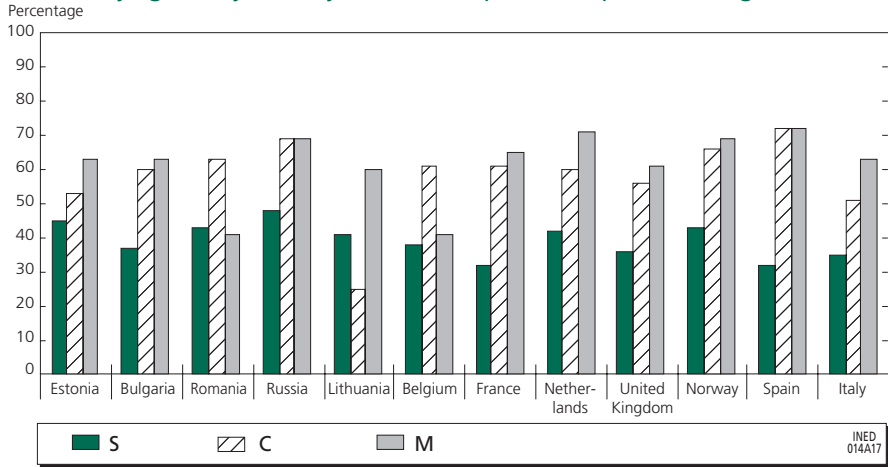
3. First birth probabilities of childless women at age 30 and 35 by current partnership status and partnership history

Figures 7 and 8 show the probability of a first birth by age 40 among women who are still childless at ages 30 and 35, respectively, conditional on their partnership experiences at these ages. These probabilities are calculated by dividing the number of women who had a first birth in a given partnership state between age 30 (or 35) and 40 by the total number of women in the given partnership state. Part A of each figure depicts the link between current partnership status at age 30 and 35 and the probability of a first birth, while part B shows the association between partnership histories and the probability of a first birth. Comparing the findings across the two parts sheds light on the role of partnership histories as compared to current partnership status in late transition to motherhood.

First, we examine women's probabilities of becoming a mother by age 40 conditional on their current partnership status at age 30 (Figure 7A). As expected, in most countries women who are married at age 30 have the highest probability (60-72%) of achieving a first birth by age 40. This is followed by those who cohabit and those who are single.⁽⁴⁾ When examining women's probabilities of becoming a mother by age 40 by their partnership histories at age 30, a different pattern emerges for post-socialist countries and for western and northern European countries (Figure 7B). In post-socialist countries, women who experienced pre-marital cohabitation are less likely to have a first child by age 40 than directly married women. In western and northern European countries (and in Italy) the reverse is observed; women who cohabited with their partner before marriage have somewhat higher first birth probabilities than those who married directly. This corroborates the expectation that in post-socialist countries (and also Spain), due to the lower prevalence of cohabitation, women who cohabited before marriage will be less likely to have a child than in the other countries. Additionally, these results indicate that in post-socialist countries (and Spain) pre-marital cohabitation contributes to a delay in childbearing. Due to the low prevalence of cohabitation in these countries, women who cohabit with their partner before marriage are likely to be a more selective group than in northern and western Europe where the prevalence of cohabitation is considerably higher.

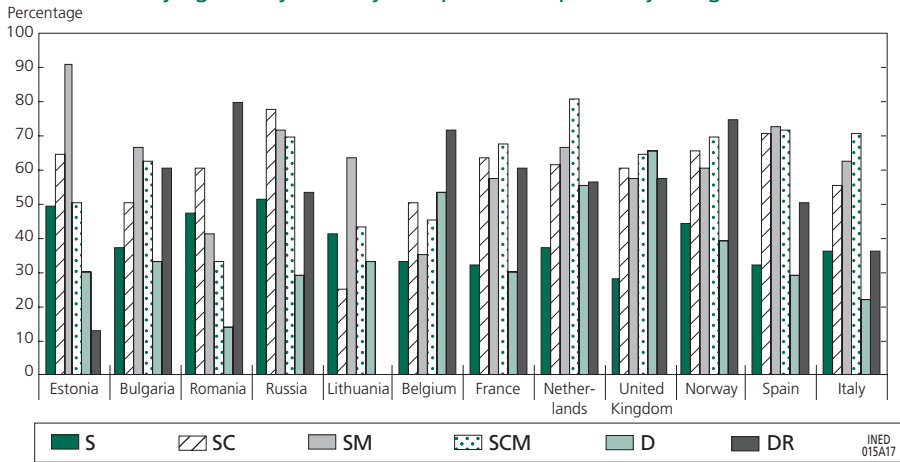
(4) This pattern is somewhat different in Romania, Belgium and Lithuania. Moreover, in Russia and Spain, the probabilities of a first birth within cohabitation and direct marriage are very similar.

Figure 7A. Childless women’s probability of achieving a first birth by age 40 by country and current partnership status at age 30



Note: S = never-partnered, C = cohabitation, M = marriage.
 Source: Harmonized Histories, author’s own calculations.

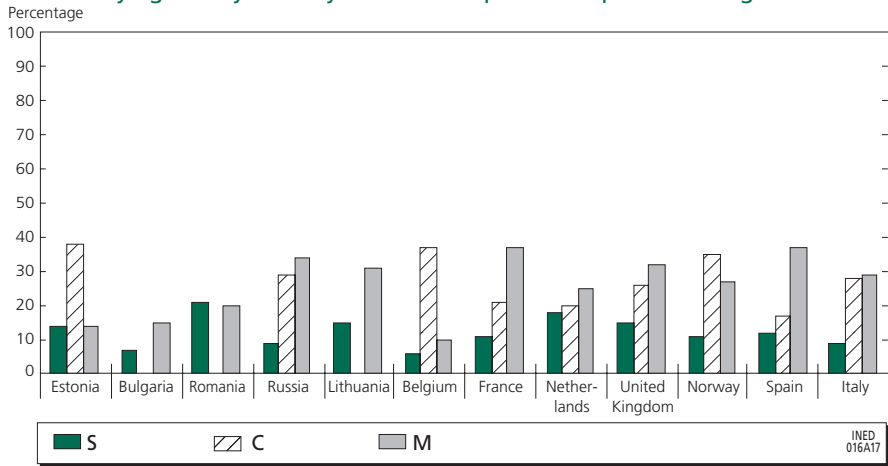
Figure 7B. Childless women’s probability of achieving a first birth by age 40 by country and partnership history at age 30



Note: S = never-partnered, C = cohabitation, M = marriage, D = union dissolution, DR = repartnering, SCM indicates marriage preceded by cohabitation with the same partner.
 Source: Harmonized Histories, author’s own calculations.

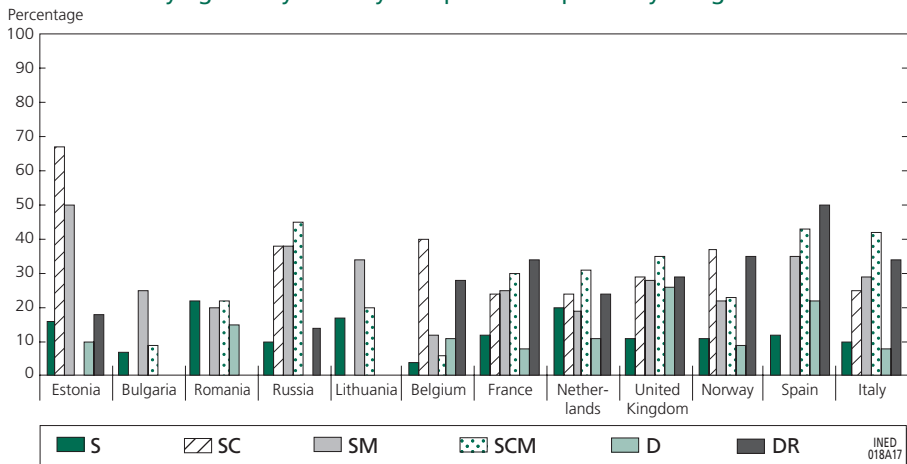
Women whose union history consists of cohabitation up to age 30 are between 2% and 39% less likely to achieve motherhood than their married counterparts, except in Romania, Russia, and Belgium where cohabiting women have higher first birth probabilities than those with a union history of direct marriage or marriage preceded by cohabitation. Moreover, for women who are single following union dissolution by age 30, the chances of having a child by age 40 are between 15% and 66%. As expected, they have smaller first birth

Figure 8A. Childless women’s probability of achieving a first birth by age 40 by country and current partnership status at age 35



Note: S = never-partnered, C = cohabitation, M = marriage.
 Source: Harmonized Histories, author’s own calculations.

Figure 8B. Childless women’s probability of achieving a first birth by age 40 by country and partnership history at age 35



Note: S = never-partnered, C = cohabitation, M = marriage, D = union dissolution, DR = repartnering, SCM indicates marriage preceded by cohabitation with the same partner.
 Source: Harmonized Histories, author’s own calculations.

probabilities than those who were in a co-residential partnership at age 30. While in western and northern European countries they are more likely to have a first child by age 40 than never-partnered women, they are less likely to do so in the other countries. First birth probabilities of women who formed a new union following union dissolution ranges between 0% and 80% across countries; however, these figures should be interpreted with caution due to small sample sizes. Finally, as expected, women who are still never-partnered at age 30 are

less likely to experience the transition to first birth by age 40 than those who are in a co-residential relationship; their probabilities vary between 28% in the United Kingdom and 51% in Russia. In line with our expectation, the probability of a first birth among women who are still never-partnered at age 30 is generally higher in post-socialist countries than in the others.

In general, the probability of a first birth is much lower at age 35 than at age 30 in all countries. Examining the link between current partnership status at age 35 and the probability of a first birth by age 40 reveals very similar general patterns to what we have seen at age 30, although the differences in first birth probabilities by partnership status are less distinct at this age (Figure 8A). There is more cross-country variation in the patterns of the transition probabilities to first birth conditional on women's partnership histories at age 35 than at age 30. While for women with a partner the probability of a first birth ranges between 25% and 91%, depending on their partnership histories at age 30 (Figure 8B), the probabilities are between 2% and 67% at age 35. In most countries (except Estonia, Bulgaria, Romania, and Belgium) the pattern is largely similar to the general pattern found for first birth probabilities conditional on partnership histories at age 30. Notably, in Estonia, Belgium, and Norway, the probability of a first birth among women who were cohabiting at age 35 is even higher than that of a first birth among those who were married. This is in line with the argument that cohabitation is more widespread and more often a context for childbearing in Belgium and Norway. In these countries, cohabitation may be a more stable form of union. In Estonia, however, it is more likely that these women represent a selective group.

Additionally, in Russia and the Netherlands, women who are cohabiting at age 35 have the second largest probability of achieving a first birth by age 40. Again, women who are never-partnered at age 35 have the smallest chance of becoming a mother by age 40. Whereas the probability of this transition is between 28% and 49% at age 30, by age 35 it is below 10% for all countries except France, Estonia, and Lithuania, where it is 12%, 15%, and 17%, respectively. The first birth probabilities of women who are single following union dissolution are as low as those of women who are never-partnered. For women who are in a new relationship at age 35 following union dissolution, first birth probabilities are relatively high in western and southern European countries but lower in post-socialist countries. To sum up, most findings are in line with the general and cross-national expectations.

VI. Discussion and conclusion

The aim of this study was to describe the link between partnership histories and the transition to motherhood among women born between 1953 and 1962 Europe. More specifically, we first examined the partnership histories of women

who became mothers by ages 30 and 35 and of those who were still childless at these ages. We then investigated childless women's transition probabilities to first birth at later ages conditional on their current partnership status at age 30 and 35 as well as on their partnership histories at ages 30 and 35.

As expected, in post-socialist and southern European countries, most childless women were never-partnered at both ages while in the other countries there is more variation in the partnership histories of childless women. This indicates that the timing of union and family formation varies across countries. In post-socialist countries where fertility is relatively early, childless women are mainly never-partnered or directly married. The same is true for Italy and Spain, where partnership formation and childbearing are closely linked. In the other countries, however, there is more variation in the partnership experiences of 30 and 35-year-old childless women. The findings suggest a general pattern in the link between partnership histories and the transition to motherhood across the European countries under study but also indicate that selection into childlessness differs across countries.

The general pattern is as follows. First, in western and northern European countries, childless women who marry their cohabiting partner have larger first birth probabilities than the those who married directly. This finding supports the argument that marriage preceded by cohabitation with the same partner is a more stable union than direct marriage. Premarital cohabitation is a learning experience (Ermisch and Francesconi, 2000) which is less costly to dissolve if the partners are dissatisfied. Or it could be that cohabiting women who want to have children (or are perhaps already pregnant) are more likely to turn their relationship into marriage, which in turn makes them more likely to have a child than those who married directly. Alternatively, a selection effect might be at play. As first births usually occur soon after marriage, the childless, directly married women in our sample might be a selective group who have not yet had a child possibly for reasons of personal preference or sterility.

By contrast, in post-socialist countries directly married women have higher first birth probabilities than those who cohabited before marriage. This supports the argument that pre-marital cohabitation contributes to a delay in childbearing. These findings highlight the varying meanings of pre-marital cohabitation across different European countries. Additionally, by distinguishing between direct marriage and marriage preceded by cohabitation, this study has shown that it is important to take into account previous family life events when studying the occurrence of later events. Only accounting for current union status masks the role of partnership histories in the transition to motherhood.

Second, cohabiting women at age 30 or 35 are generally less likely to achieve motherhood by age 40 than married women. Although in western and northern Europe, cohabiting women were expected to have higher first birth probabilities than in the other countries due to the higher prevalence of non-marital cohabitation, this was only confirmed for Norway and Belgium where it is

childless women who were cohabiting at age 35 who have the highest first birth probabilities. A possible explanation for this finding is that in these countries, 35-year-old childless women might not feel the need to legalize their relationship before the birth of a child. Perhaps these women have been waiting for a long time to find an appropriate partner for establishing a family and they prefer to have a child as soon as possible.

Third, we found that never-partnered childless women are the least likely to become mothers in western and northern European countries. In the remaining countries, never-partnered women at age 30 have higher first birth probabilities than those who are single following union dissolution. As expected, in post-socialist countries, women who have never had a co-residential partner by age 30 are more likely to become mothers than in the other countries but this is not the case for those who were never-partnered at age 35. This finding indicates that even in post-socialist countries, where the level of non-marital fertility among single women is higher, women who are never-partnered by age 35 are less likely to become mothers.

Finally, as expected, women who have experienced union dissolution have smaller first birth probabilities than those who were in a co-residential partnership at both ages. Interestingly, in western and northern European countries, women who were single or in a new relationship following union dissolution at ages 30 or 35 are more likely to have a child than the never-partnered. This might mean that women who were once attractive in the marriage market have more favourable characteristics and are therefore more likely to find a new partner than those who have never had a co-residential relationship by these ages (Upchurch et al., 2002). Moreover, this finding indicates that currently single separated women are different from the never-partnered; they have different experiences and might have developed different skills and expectations than those who have never had a partner (Dykstra and Wagner, 2007). Again, this result points up the importance of accounting for partnership histories as opposed to current union status when studying the transition to motherhood at later ages. Women who experienced union dissolution were also expected to be less likely to have a child in some post-socialist countries (e.g. Bulgaria and Romania) and in southern Europe; due to lower divorce rates in these countries, there may be fewer available men in the remarriage market (de Graaf and Kalmijn, 2003). The findings showed that this is especially the case for women who are still childless at age 35, but not so much for those who are childless at age 30.

This study has some limitations

First, the presented descriptive results do not allow for establishing whether partnership histories have a causal impact on fertility for several reasons. As shown by previous research, many observed characteristics (e.g. education, employment, socioeconomic status, values) which influence fertility are also

correlated with partnership experiences. Although information on educational attainment is available in the Harmonized Histories, small sample sizes in many countries meant it was not possible to produce reliable estimates by education. Additionally, unobserved characteristics, such as the preference for having no partner and/or no children, determine women's partnership experiences and/or fertility. For these women, it is not partnership histories but their underlying preferences that influence fertility. Furthermore, the relationship between partnership experiences and fertility could also be reversed: fertility might influence partnerships. For example, a pre-marital conception may lead to marriage, or disagreement about having children might lead to union dissolution. Second, the surveys did not record non-residential partnerships or cohabiting partnerships lasting less than three months. This might lead to the underreporting of pre-marital unions. Third, the datasets used in the Harmonized Histories differ in terms of response rates, survey design, data collection methods and representativeness. This might influence their comparability. Additionally, the examined countries are not representative of the different European regions; the countries were selected primarily on the basis of data availability and quality. Last, it is acknowledged throughout the paper that the results need to be interpreted with caution due to the sometimes small sample sizes. It is likely that when data on completed fertility of younger cohorts become available, the role of partnership histories in remaining childless and in the transition to motherhood at later ages will become clearer.

Nevertheless, this study provides a useful first step to better understand how women's opportunities to become a mother at later ages are linked to changing partnership experiences across Europe. We showed that childless women's probabilities of achieving a first birth at later ages differ by partnership histories across Europe. By studying partnership histories (as opposed to current partnership status) we demonstrated the importance of differentiating between directly married women and those who marry after cohabitation as well as between currently single and never-partnered women. While the countries share some similarities in the link between partnership histories and the transition to motherhood, cross-country differences open up further avenues for research to study the influence of structural factors such as welfare state regimes, gender equality and cultural differences on the transition to motherhood and differences in the meaning of ages 30 and 35 for fertility.

Acknowledgements: Júlia Mikolai was a PhD student at the Department of Social Statistics and Demography at the University of Southampton and was funded by a scholarship provided by the Economic and Social Research Council (ES/J500161/1) while completing most of this work. Many thanks to Ann Berrington, Brienna Perelli-Harris, Sabine Zinn, Agnese Vitali, Maria Fleischmann, Matthew Wallace, Tina Hannemann, and to the members of the "family lunch" group for their valuable feedback

on previous drafts. I would like to thank the editors and anonymous reviewers for useful comments and suggestions. The GGS data were obtained from the GGP Data Archive and refer to the publication that contains the model survey instruments: United Nations 2005, *Generations & Gender Programme: Survey Instruments*, New York and Geneva, UN, 2005. The Harmonized Histories data file was created by the Non-Marital Childbearing Network. See www.nonmarital.org for further acknowledgements.



APPENDIX

Appendix table. Descriptive statistics, ages 30 and 35

Number of first births by partnership status at age 30

| | Estonia | Bulgaria | Romania | Russia | Lithuania | Belgium | France | Netherlands | United Kingdom | Norway | Spain | Italy |
|---|---------|----------|---------|--------|-----------|---------|--------|-------------|----------------|--------|-------|-------|
| S | 24 | 34 | 25 | 57 | 51 | 23 | 47 | 45 | 52 | 69 | 56 | 213 |
| C | 11 | 3 | 5 | 9 | 1 | 14 | 46 | 45 | 27 | 56 | 13 | 24 |
| M | 17 | 25 | 37 | 56 | 38 | 32 | 38 | 136 | 68 | 70 | 97 | 278 |

Number of first births by partnership history up to age 30

| | Estonia | Bulgaria | Romania | Russia | Lithuania | Belgium | France | Netherlands | United Kingdom | Norway | Spain | Italy |
|-----|---------|----------|---------|--------|-----------|---------|--------|-------------|----------------|--------|-------|-------|
| S | 21 | 33 | 24 | 53 | 49 | 15 | 38 | 29 | 31 | 50 | 54 | 205 |
| SC | 11 | 2 | 3 | 7 | 1 | 6 | 37 | 29 | 15 | 40 | 12 | 20 |
| SM | 10 | 8 | 31 | 42 | 35 | 14 | 16 | 75 | 38 | 20 | 87 | 258 |
| SCM | 6 | 15 | 5 | 9 | 3 | 16 | 19 | 55 | 20 | 37 | 10 | 19 |
| D | 3 | 1 | 1 | 4 | 2 | 8 | 9 | 16 | 21 | 19 | 2 | 8 |
| DR | 1 | 3 | 4 | 7 | 0 | 10 | 12 | 22 | 22 | 29 | 1 | 5 |

Note: S = never-partnered, C = cohabitation, M = marriage, D = union dissolution, DR = repartnering; SCM indicates marriage preceded by cohabitation with the same partner.
 Source: Harmonized Histories; author's own calculations.

Appendix table (cont'd). Descriptive statistics, ages 30 and 35

Number of first births by partnership status at age 35

| | Estonia | Bulgaria | Romania | Russia | Lithuania | Belgium | France | Netherlands | United Kingdom | Norway | Spain | Italy |
|---|---------|----------|---------|--------|-----------|---------|--------|-------------|----------------|--------|-------|-------|
| S | 5 | 4 | 7 | 5 | 13 | 2 | 11 | 11 | 15 | 9 | 14 | 35 |
| C | 3 | 0 | 0 | 4 | 0 | 7 | 9 | 9 | 6 | 18 | 2 | 16 |
| M | 2 | 3 | 14 | 14 | 11 | 5 | 14 | 20 | 23 | 14 | 28 | 79 |

Number of first births by partnership history up to age 35

| | Estonia | Bulgaria | Romania | Russia | Lithuania | Belgium | France | Netherlands | United Kingdom | Norway | Spain | Italy |
|-----|---------|----------|---------|--------|-----------|---------|--------|-------------|----------------|--------|-------|-------|
| S | 4 | 4 | 6 | 5 | 13 | 1 | 9 | 9 | 8 | 6 | 12 | 31 |
| SC | 2 | 0 | 0 | 3 | 0 | 4 | 6 | 6 | 2 | 10 | 0 | 11 |
| SM | 1 | 2 | 11 | 9 | 10 | 4 | 4 | 8 | 9 | 4 | 21 | 70 |
| SCM | 0 | 1 | 3 | 4 | 1 | 1 | 5 | 7 | 10 | 5 | 6 | 8 |
| D | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 2 | 7 | 3 | 2 | 4 |
| DR | 2 | 0 | 0 | 2 | 0 | 3 | 8 | 8 | 8 | 13 | 3 | 6 |

Note: S = never-partnered, C = cohabitation, M = marriage, D = union dissolution, DR = repartnering, SCM indicates marriage preceded by cohabitation with the same partner.
Source: Harmonized Histories, author's own calculations.

REFERENCES

- BAIZÁN Pau, AASSVE Arnstein, BILLARI Francesco C., 2003, "Cohabitation, marriage, and first birth: The interrelationship of family formation events in Spain", *European Journal of Population*, 19(2), pp. 147-169.
- BAIZÁN Pau, AASSVE Arnstein, BILLARI Francesco C., 2004, "The interrelations between cohabitation, marriage and first birth in Germany and Sweden", *Population and Environment*, 25(6), pp. 531-560.
- BALBO Nicoletta, BILLARI Francesco C., MILLS Melinda, 2013, "Fertility in advanced societies: A review of research", *European Journal of Population*, 29(1), pp. 1-38.
- BERRINGTON Ann, 2001, "Entry into parenthood and the outcome of cohabiting partnerships in Britain", *Journal of Marriage and Family*, 63(1), pp. 80-96.
- BERRINGTON Ann, 2004, "Perpetual postponers? Women's, men's and couple's fertility intentions and subsequent fertility behaviour", *Population Trends*, 117, pp. 9-19.
- BILLARI Francesco C., 2005, "Partnership, childbearing and parenting: Trends of the 1990s", in Macura Miroslav, MacDonald Alphonse L., Haug Werner (eds.), *The New Demographic Regime. Population Challenges and Policy Responses*, New York and Geneva, United Nations, pp. 63-94.
- BILLARI Francesco C., KOHLER Hans-Peter, 2002, "The impact of union formation dynamics on first births in West Germany and Italy: Are there signs of convergence?", in Klijzing Erik, Corijn Martine (eds.), *Comparative Research on Fertility and the Family in Contemporary Europe: Findings and Lessons*, New York, United Nations, pp. 43-58.
- BILLARI Francesco C., KOHLER Hans-Peter, ANDERSSON Gunnar, LUNDSTRÖM Hans, 2007, "Approaching the limit: Long-term trends in late and very late fertility", *Population and Development Review*, 33(1), pp. 149-170.
- BONGAARTS John, 2001, "Fertility and reproductive preferences in post-transitional societies", *Population and Development Review*, 27(S1), pp. 260-281.
- BRIEN Michael J., LILLARD Lee A., WAITE Linda J., 1999, "Interrelated family-building behaviors: Cohabitation, marriage, and nonmarital conception", *Demography*, 36(4), pp. 535-551.
- CASTRO-MARTIN Teresa, DOMINGUEZ-FOLGUERAS Marta, MARTIN-GARCIA Teresa, 2008, "Not truly partnerless: Non-residential partnerships and retreat from marriage in Spain", *Demographic Research*, 18(16), pp. 443-468.
- CORIJN Martine, KLIJZING Erik, 2001, *Transitions to Adulthood in Europe*, Dordrecht, Kluwer, 340 p.
- DE GRAAF Paul M., KALMIJN Matthijs, 2003, "Alternative routes in the remarriage market: Competing-risk analyses of union formation after divorce", *Social Forces*, 81(4), pp. 1459-1498.
- DE ROSE Alessandra, RACIOPPI Filomena, ZANATTA Anna L., 2008, "Italy: Delayed adaptation of social institutions to changes in family behaviour", *Demographic Research*, 19(19), pp. 665-704.
- DELGADO Margarita, MEIL Gerardo, LÓPEZ Francisco Z., 2008, "Spain: Short on children and short on family policies", *Demographic Research*, 19(27), pp. 1059-1104.

- DYKSTRA Pearl A., WAGNER Michael, 2007, "Pathways to childlessness and late-life outcomes", *Journal of Family Issues*, 28(11), pp. 1487-1517.
- ELDER Glen H. Jr, 1992, "Models of the life course", *Contemporary Sociology*, 21(5), pp. 632-635.
- ERMISCH John, FRANCESCONI Marco, 2000, "Cohabitation in Great Britain: Not for long but here to stay", *Journal of the Royal Statistical Society Series A*, 163, pp. 153-171.
- ESPING-ANDERSEN Gosta, 1990, *The Three Worlds of Welfare Capitalism*, Cambridge, Polity Press, 264 p.
- FREJKA Tomas, SOBOTKA Tomáš, 2008, "Overview chapter 1: Fertility in Europe: Diverse, delayed and below replacement", *Demographic Research*, 19(3), pp. 15-46.
- GOLDSTEIN Joshua R., SOBOTKA Tomáš, JASILIONIENE Aiva, 2009, "The end of 'lowest-low' fertility?", *Population and Development Review*, 35(4), pp. 663-699.
- HEUVELINE Patrick, TIMBERLAKE Jeffrey M., 2004, "The role of cohabitation in family formation: The United States in comparative perspective", *Journal of Marriage and Family*, 66, pp. 1214-1230.
- KATUS Kalev, KINGKADE Ward W., 2004, "Baltic region", in Frejka Tomas, Sardon Jean-Paul (eds.), *Childbearing Trends and Prospects in Low-Fertility Countries*, Dordrecht, Kluwer, pp. 253-270.
- KEIZER Renske, DYKSTRA Pearl A., JANSEN Miranda D., 2008, "Pathways into childlessness: Evidence of gendered life course dynamics", *Journal of Biosocial Sciences*, 40(6), pp. 863-878.
- KIERNAN Kathleen, 2001, "The rise of cohabitation and childbearing outside marriage in Western Europe", *International Journal of Law, Policy and the Family*, 15(1), pp. 1-21.
- KIERNAN Kathleen, 2004, "Unmarried cohabitation and parenthood: Here to stay? European perspectives", in Moynihan Daniel Patrick, Smeeding Timothy M., Rainwater Lee (eds.), *The Future of the Family*, New York, Russell Sage, pp. 66-95.
- KOHLER Hans-Peter, BILLARI Francesco C., ORTEGA José A., 2002, "The emergence of lowest-low fertility in Europe during the 1990s", *Population and Development Review*, 28(4), pp. 641-680.
- KOYTCHIEVA Elena, PHILIPPOV Dimiter, 2008, "Bulgaria: Ethnic differentials in rapidly declining fertility", *Demographic Research*, 19(13), pp. 361-402.
- KRAVDAL Øystein, 1997, "Wanting a child without a firm commitment to the partner: Interpretations and implications of a common behaviour pattern among Norwegian cohabitants", *European Journal of Population*, 13(3), pp. 269-298.
- KRAVDAL Øystein, RINDFUSS Ronald R., 2008, "Changing relationships between education and fertility: A study of women and men born in 1940 to 1964", *American Sociological Review*, 73(5), pp. 854-873.
- MANNING Wendy D., 1995, "Cohabitation, marriage and entry into motherhood", *Journal of Marriage and the Family*, 57(1), pp. 191-200.
- MATSUO Hideko, 2003, *The Transition to Motherhood in Japan. A Comparison with the Netherlands*, Amsterdam, Rijkuniversiteit Groningen, 291 p.
- MILLS Melinda, RINDFUSS Ronald R., MCDONALD Peter, TE VELDE Egbert, 2011, "Why do people postpone parenthood? Reasons and social policy incentives", *Human Reproduction Update*, 17(6), pp. 848-860.
- MUREŞAN Cornelia, HARAGUS Paul-Teodor, HARAGUS Michaela, SCHRÖDER Christin, 2008, "Romania: Childbearing metamorphosis within a changing context", *Demographic Research*, 19(23), pp. 855-906.
- OPPENHEIMER Valerie K., 1994, "Women's rising employment and the future of the family in industrial societies", *Population and Development Review*, 20(2), pp. 293-342.

- OPPENHEIMER Valerie K., 1997, "Women's employment and the gain to marriage: The specialization and trading model", *Annual Review of Sociology*, 23, pp. 431-453.
- PERELLI-HARRIS Brienna, KREYENFELD Michaela, KUBISCH Karolin, 2010a, "Harmonized histories: Manual for the preparation of comparative fertility and union histories", Rostock, MPIDR Working Paper WP-2010-011.
- PERELLI-HARRIS Brienna, SIGLE-RUSHTON Wendy, KREYENFELD Michaela, LAPPEGÅRD Trude, KEIZER Renske, BERGHAMMER Caroline, 2010b, "The educational gradient of childbearing within cohabitation in Europe", *Population and Development Review*, 36(4), pp. 775-801.
- PERELLI-HARRIS Brienna, KREYENFELD Michaela, SIGLE-RUSHTON Wendy, KEIZER Renske, LAPPEGÅRD Trude et al., 2012, "Changes in union status during the transition to parenthood in eleven European countries, 1970s to early 2000s", *Population Studies*, 66(2), pp. 167-182.
- RENDALL Michael S., CLARKE Lynda, PETERS Elizabeth H., RANJIT Nalini, VERROPOULOU Georgia, 1999, "Incomplete reporting of men's fertility in the United States and Britain: A research note", *Demography*, 36(1), pp. 135-144.
- RINDFUSS Ronald R., BUMPASS Larry L., 1976, "How old is too old? Age and the sociology of fertility", *Family Planning Perspectives*, 8(5), pp. 226-230.
- SCHMIDT Lone, SOBOTKA Tomáš, BENTZEN Janne G., ANDERSEN A. NYBOE, 2012, "Demographic and medical consequences of the postponement of parenthood", *Human Reproduction Update*, 18(1), pp. 29-43.
- SELTZER Judith A., 2004, "Cohabitation in the United States and Britain: Demography, kinship, and the future", *Journal of Marriage and Family*, 66(4), pp. 921-928.
- SETTERSTEN Richard A., 2003, "Age structuring and the rhythm of the life course", in Mortimer Jeylan T., Shanahan Michael J. (eds.), *Handbook of the Life Course*, Hingham, USA, Kluwer Academic Publishers, pp. 81-98.
- SIGLE-RUSHTON Wendy, 2008, "England and Wales: Stable fertility and pronounced social status differences", *Demographic Research*, 19(15), pp. 455-502.
- SOBOTKA Tomáš, 2004, *Postponement of Childbearing and Low Fertility in Europe*, Rijksuniversiteit Groningen, Amsterdam, 314 p.
- SOBOTKA Tomáš, TESTA Maria Rita, 2008, "Attitudes and intentions towards childlessness in Europe", in Höhn Charlotte, Avramov Doron, Kotowska Irena E. (eds.), *People, Population Change and Policies*, Springer, pp. 177-211.
- SOBOTKA Tomáš, TOULEMON Laurent, 2008, "Overview chapter 4: Changing family and partnership behaviour: Common trends and persistent diversity across Europe", *Demographic Research*, 19(6), pp. 85-138.
- STANKUNIENE Vladislava, JASILIONIENE Aiva, 2008, "Lithuania: Fertility decline and its determinants", *Demographic Research*, 19(20), pp. 705-742.
- STEELE Fiona, KALLIS Constantinos, GOLDSTEIN Harvey, JOSHI Heather, 2005, "The relationship between childbearing and transitions from marriage and cohabitation in Britain", *Demography*, 42(4), pp. 647-673.
- TEITLER Julien O., REICHMAN Nancy E., KOBALL Heather, 2006, "Contemporaneous versus retrospective reports of cohabitation in the Fragile Families survey", *Journal of Marriage and Family*, 68(2), pp. 469-477.
- TE VELDE Egbert, HABBEMA Dik, LERIDON Henri, EJKEMANS Marinus, 2012, "The effect of postponement of first motherhood on permanent involuntary childlessness and total fertility rate in six European countries since the 1970s", *Human Reproduction*, 27(4), pp. 1179-1183.
- TOULEMON Laurent, PAILHÉ Ariane, ROSSIER Clémentine, 2008, "France: High and stable fertility", *Demographic Research*, 19(16), pp. 503-556.

- UPCHURCH Dawn M., LILLARD Lee A., PANIS Constantijn W. A., 2002, "Nonmarital childbearing: Influences of education, marriage, and fertility", *Demography*, 39(2), pp. 311-329.
- VIGNOLI Daniele, FERRO Irene, 2009, "Rising marital disruption in Italy and its correlates", *Demographic Research*, 20(4), pp. 11-36.
- WU Zheng, SCHIMMELE Christoph M., 2005, "Repartnering after first union disruption", *Journal of Marriage and Family*, 67(1), pp. 27-36.
- ZAKHAROV Sergei, 2008, "Russian Federation: From the first to the second demographic transition", *Demographic Research*, 19(24), pp. 907-972.

Júlia MIKOLAI • PARTNERSHIP HISTORIES AND THE TRANSITION TO MOTHERHOOD IN LATER REPRODUCTIVE AGES IN EUROPE

Changing partnership experiences might accentuate women's fertility postponement and increase the risk of remaining involuntarily childless. Previous research typically focused on current partnership status and a single country when studying the link between partnerships and first birth. We examine how current partnership status and partnership histories of women who were still childless at ages 30 or 35 are linked to later transition to motherhood in 12 European countries. Women born between 1953 and 1962 are analysed using data from the Harmonized Histories database. In western and northern European countries, women who married their cohabiting partner by age 30 have the highest probability of achieving a first birth between age 30 and 40, followed by directly married women. We find the opposite in southern European and post-socialist countries. Additionally, cohabiting women generally have smaller first birth probabilities than directly married women. In western and northern Europe, never-partnered women are the least likely to have a child by age 40, whereas in the remaining countries, it is women who are single following union dissolution who have the lowest first birth probabilities.

Júlia MIKOLAI • PARCOURS CONJUGAUX ET TRANSITION TARDIVE VERS LA PREMIÈRE MATERNITÉ EN EUROPE

La multiplication des expériences conjugales est susceptible d'accentuer l'ajournement des naissances et d'augmenter le risque pour les femmes de rester sans enfant contre leur volonté. Jusqu'à maintenant, les recherches sur les liens entre mise en couple et première naissance se sont généralement concentrées sur la situation conjugale et sur un seul pays. Cet article examine comment la situation et le parcours conjugal des femmes sans enfant à 30 ou 35 ans sont liés à une transition tardive vers la maternité dans douze pays européens. La situation des femmes nées entre 1953 et 1962 est analysée en utilisant les données des Harmonized Histories. Dans les pays d'Europe de l'Ouest et du Nord, les femmes qui épousent leur conjoint avant 30 ans après cohabitation ont la plus forte probabilité d'avoir un premier enfant entre 30 et 40 ans, et secondairement les femmes directement mariées. C'est l'inverse en Europe du Sud et de l'Est. Les femmes en cohabitation ont généralement une probabilité plus faible d'avoir un premier enfant que les femmes directement mariées. En Europe de l'Ouest et du Nord, les femmes qui n'ont jamais eu de conjoint sont les moins susceptibles de devenir mère avant 40 ans, tandis que dans les autres pays, ce sont les femmes seules après une rupture d'union qui ont la plus faible probabilité de première naissance.

Júlia MIKOLAI • ITINERARIOS CONYUGALES Y LLEGADA TARDÍA DE LA PRIMERA MATERNIDAD EN EUROPA

La multiplicación de experiencias conyugales es susceptible de acentuar el aplazamiento de los nacimientos y de aumentar así el riesgo para las mujeres de no tener hijos involuntariamente. Hasta ahora, las investigaciones sobre las relaciones entre la formación de la unión y el primer nacimiento se han concentrado generalmente en la situación conyugal y en un solo país. Este artículo examina, en 12 países europeos, cómo la situación conyugal en el momento de la encuesta y el recorrido conyugal de las mujeres sin hijos a la edad de 30 o 35 años, están asociados a una llegada tardía de la maternidad. Se analiza la situación de las mujeres nacidas entre 1953 y 1962 gracias a los datos extraídos de Harmonized Histories. En los países de Europa del Norte y del Oeste, las mujeres casadas con sus cónyuges antes de los 30 años después de un periodo de cohabitación tienen la más fuerte probabilidad de tener el primer hijo entre 30 y 40 años, seguidas de las que se han casado directamente. En Europa del Sur y del Este pasa lo contrario. Las mujeres en cohabitación tienen una probabilidad menor de tener un primer hijo que las mujeres casadas directamente. Las mujeres menos susceptibles de ser madres antes de los 40 años son las que no han tenido jamás un cónyuge en Europa del Oeste y del Norte y las que quedaron solas después de una ruptura de unión en los otros países.

Keywords: first birth, partnership histories, partnership status, childlessness, Europe.