The contexts of partnership and childbearing as determinants of union stability

A quantitative analysis on western and eastern German partnerships with data from the German Family Panel

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Prologue

About four years ago, Josh and Michaela proposed me to study the separation behavior of parents. I am very grateful for this inspiring suggestion, althoug I firstly was not very enthusiastic about this idea. I wished to do my PhD in Demography and I thought that separation was a research area rather reserved for sociologists and psychologists than for demographers. Now, I know I was not right. Not only are the rates of nuptiality and divorce genuine demographic measures that describe the structure of a population. One of the few theoretical demographical concepts, the idea of the Second Demographic Transition, deals with these rates. It is argued in this concept that the increasing rates in non-marital living arrangements, childbearing out of wedlock and divorce are indicators for a societal change that happened in the past decades in many countries, driven by secularization trends and value changes. And I lived in the most secularized region of the world, a region with one of the highest proportions of children born to non-married parents across Europe! If separation rates are increasing when marriage disappears as the standard way of family formation, what is happening to eastern German families? Are these families more exposed to the risk of separation than are western German families, which tend to be marital? This question raised my interest in studying the separation behavior of parents in Germany. I wanted to take a closer look on different living arrangements and their impact on union stability. This dissertation is the product of this research project.

By birth, I am a western German. I grew up in a traditional marital family in a Catholic area with my parents following the male-breadwinner model. My children were born to non-married parents, which still is not that common in my generation in western Germany. I did not follow the model of the male-breadwinner; rather did I pursue my studies on full-time base, being one of the very few mothers who had her children looked after at public childcare during their first year of life. When I arrived in Rostock (my first stay "abroad" in eastern Germany), I was surprised about the different way of doing family. Most of the mothers I met there were working full-time and had children in pre-school age which were in child-care since they were a few months old. The idea that marriage is a prequisite for family formation sounded strange to them as did Catholic ideas in general. I realized that my practical family concept was rather eastern German than western German. However, I had that western German idea in my mind that it would be *better* to be married to provide the children a secure and stable environment. My dissertation focuses on this aspect. Does only marriage provide children a stable family setting? Are non-marital living arrangements in general more likely to be ended? Which factors are responsible for this effect? Which role does the religious background play in eastern and western German partnerships?

I decided to write a cumulative dissertation, based on articles. At the end, four articles are included in my dissertation, supplemented by a technical report that documents the data structure. These articles have a chronology in which they are written. However, the review processes and the dynamic of the research process itself implied that it is not possible to put them in a clear temporal ordering. In consequence, the articles are sorted by topic (from general to specific) and by methodological technique (from basic to advanced).

I started to investigate the union stability of parents in comparative perspective during my first doctoral year. After some months, I realized that the situation in eastern and western Germany was too complex to treat this topic in one article. On the one hand, the two regions differ substantially in their religious structure and I found religious background to be a strong determinant of union stability. On the other hand, the union context played an important role for union stability. However, being cohabiting or married at the time of childbirth cannot be seen as an exogenous variable, because it is influenced by various factors (such the religious background). I therefore decided to split this topic in two articles. My "main" article (Paper IV) dealt with the union status at first childbirth on union stability. In that paper, I concentrated on potential selection effects that explain the higher fragility of cohabiting unions. I presented this research at different international conferences from 2011 to 2012, such as at the annual meeting of the Population Association of America (PAA) in Washington, the conference of the European Sociological Assocition (ESA) in Geneva, the European Population Conference (EPC) in Stockholm, the conference of the European Society for Family Relations (ESFR) in Lillehammer, and the Non-marital Childbearing Workshop in Southampton. I also spent within the DemoDoc program (a multinational doctoral program) one month at the Center for Demographic Studies in Barcelona to work on the article. The continued revision of the article substantially improved my work. My article on the effect of religion on union stability (Paper III) can be seen as a "side product" of this process.

I was very happy that with the German Family Panel I had great data to analyze my research purpose. It was coincidence and luck that I started my project just at the time when the first wave of pairfam was published. The Max Planck Institute had initiated with the DemoDiff project an eastern German subsample of the pairfam data that allow for East-West comparisons. From the beginning of my dissertation I took part in this project. During my first PhD year I got in contact with the raw data because I cleaned the partnership and fertility histories, which was a great but also labor intense experience. Upon initiation of Michaela, my colleague Sonja and I started a project to bring the retrospective information on partnership and fertility in an event history format. At that point we did not know that the work on this project would accompany us throughout our dissertation period. Just when we finalized after several months the first version of our data, the new pairfam wave was published. The structure of the partnership and fertility

information had substantially changed and we had to start again our work. But also the third pairfam wave and the DemoDiff data were finally integrated in our data set. We built the data set according to our research purposes; however the current data allows analyzing a wide range of research questions with regard to partnership and fertility behavior. We put much effort in making the transformation process as transparent as possible. That means that I am now not only able to show the results of my empirical studies, but the results are easily replicable.

The partnership data in the German Family Panel is very detailed. A special feature is that it includes information on partnerships independent from the household structure. With our event history data, I can therefore distinguish between living apart together partnerships, non-marital cohabitations and marriages. This motivated to two further research articles. Together with Michaela and Sonja I used our data to display the living arrangements of Germans born 1971 to 1973 at different points in their life course, with a special regard to their parental status (Paper I). The last article I wrote during my doctorate was Paper II, which dealt with the influence of the non-residential partnership episode prior to household formation on union stability. In contrast to the previous articles with multivariate analysis techniques (Paper III and Paper IV), I concentrated in this article not only on the partnerships of parents, but on residential unions in general. This was important, because I wanted to investigate the impact children have on union stability (which is obviously not possible if one samples only parents).

Finally, most of the revision work is done, as two articles are already published, another one is accepted for publication and the last one is in the review process of an international peer-reviewed journal. Most of the dissertation was written at the Max Planck Institute for Demographic Research in Rostock. I can only be thankful for the unique environment this institute offers. It does not only provide luxurious working places with a view over Rostock's river Warnow and a "carefree" package with great administrative and IT support. With its international atmosphere, numerous visiting scholars and an abundance of organized meetings, conferences and workshops it facilitates communication and collaboration on a very high level. I know that wherever my future work places will be, the institute will remain my professional home.

The last part of the dissertation was already written in my new professional environment, at the Interface Demography group at the Vrije Universiteit Brussel. My new work within the Divorce in Flanders project contects nicely to my doctoral project and enables me to continue my research on partnership and fertility behavior.

Brussels, 25.02.2014

Dissertation outline

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Summary

This dissertation focuses on the individual and regional contexts of partnership and childbearing as determinants of union stability. Despite the increasing prevalence of non-marital living arrangements, research on non-marital partnership forms is still limited: few studies have focused on LAT partnerships, and not much is currently known about the quantitative importance of LAT partnerships among couples with children. Scholars have largely concentrated on marriage as the point of reference, and have limited their attention to comparisons between the stability of marital and non-marital unions. However, the topic of non-marital living arrangements merits more focused scholarly attention. Most studies have started from the point of view of the household, focusing on residential couples who become parents. As a consequence, non-residential partnership episodes in which children may be also conceived and born tend to be overlooked. Some studies have addressed the union stability of cohabiting parents in a comparative perspective. The broader context in which the non-marital partnership is embedded, including partnership stability, has received relatively little attention. Based on the concept of the Second Demographic Transition, some scholars have suggested that the level of secularisation is related to the proportion of non-marital living arrangements and the rates of union dissolution. However, empirical research on this relationship is still rare. The first aim of this thesis is to describe partnership arrangements in two different contexts: namely, eastern and western Germany. The second aim is to analyse which individual and contextual factors determine the union stability of couples with children. These objectives are approached from a life course perspective. The choice of a trajectory in terms of a certain partnership arrangement, and the sequencing of the partnership events—namely, partnership, household, marriage, and family formation—are assumed to have consequences for the success of the future partnership. In sum, the empirical results revealed that among eastern and western German mothers, a non-marital partnership was most common at the beginning of a woman's reproductive career; that is, at the time she conceived her first child. The majority of the mothers lived outside of marriage at that point in time. Eastern German mothers were twice as likely as western German mothers to be living in a cohabiting union. Although cohabitation is commonly assumed to be much less stable than marriage, eastern and western German first-time parents did not differ in terms of overall union stability. In addition, the higher level of secularisation in eastern Germany does not appear to have contributed to a lower level of stability among eastern German partnerships. This is because the religious background of the mother and her partnership context at first childbirth had different effects on union stability among eastern Germans than among western Germans. Church membership significantly reduced the risk of separation among eastern German unions with children, but not among their western German counterparts. Moreover, cohabitation represented a more stable living arrangement in eastern than in western Germany. I found that

eastern German cohabiting unions were less negatively selected than those of western German cohabiting women: the former had on average a longer partnership duration prior to the first childbirth. The time spent together before family formation may indicate the level of positive selectivity of the couple, like the time spent together before household formation. My empirical findings showed that the shorter these periods were, the more likely it was that the partnership would be dissolved. The amount of time the couple spent together before their first child was born was the most important factor that influenced their choice of partnership context at childbirth and their separation risk: a short partnership duration made non-marital parenthood more likely, and increased the risk of partnership disruption after childbirth. However, in sum, the differences in the selection of eastern and western German women into non-marital motherhood could not completely explain their stability differences.

List of original publications

Paper I: Bastin, S., Kreyenfeld, M., & **Schnor, C.** (2012). Diversity of family forms in Eastern and Western Germany (In German language, original title: Diversität von Familien in Ost- und Westdeutschland).

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Paper III: Schnor, C. (2012). Trennungsrisiko von Paaren mit Kindern: Der Einfluss der Religion in West- und Ostdeutschland (In German language; English title: Separation risks of couples with children: The influence of religion in Western and Eastern Germany).

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Paper IV: Schnor, C. (2014). The effect of union status at first childbirth on union stability: Evidence from eastern and western Germany.

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CHAPTER 1

Introduction

1.1 Union stability in view of the Second Demographic Transition

In recent decades, the partnership patterns and family structures have undergone substantial changes in many European countries. Marriage rates have decreased, while the proportion of couples living together outside of marriage has grown. Cohabitation has replaced marriage as a choice of first union (Sobotka & Toulemon 2008), and non-residential partnerships—so-called "living apart together" (LAT) partnerships—have become widespread, at least in western Europe (Duncan & Phillips 2011; Régnier-Loilier et al. 2009). Similarly, more and more children are born to non-married parents (Kiernan 2004, Perelli-Harris et al. 2012). According to scholars, the increases in cohabitation and in childbearing within cohabitation are among the most striking changes that have occurred within the family in recent decades (Perelli-Harris & Sánchez-Gassen 2012). The spread in non-marital living arrangements was accompanied by a downward trend in fertility levels, an increase in the ages at marriage and childbearing, and a rise in divorce rates. Scholars ascribed these changes to the phenomenon known as the "Second Demographic Transition," a model of demographic change based on the original concept of the "First Demographic Transition."

The First Demographic Transition describes the shift from a demographic equilibrium with high mortality and fertility rates to a demographic equilibrium with low mortality rates and low fertility rates. However, in most countries, fertility rates did not stop at replacement levels, but rather continued to decline. As this trend was accompanied by a change in family structure, in 1986 Van de Kaa and Lesthaeghe started using the term "Second Demographic Transition" to describe it (Lesthaeghe & Van de Kaa 1986). They interpreted the developments in partnership and family structures as signs of a demographic change that had been triggered in part by an ideational shift (Van de Kaa 1987, 1997; Lesthaeghe & Van de Kaa 1986; Lesthaeghe 1995, 1998). The spread of secular values and the decline in the influence of churches on decisions regarding the private lives of individuals have led to this change: marriage is no longer seen as a necessary institution, and values of personal freedom and self-fulfilment have gained in importance (Lesthaeghe & Meekers 1986; Surkyn & Lesthaeghe 2004). According to Inglehart (1997), modernisation has been an important determining factor in the process of secularisation. Lesthaeghe and Van de Kaa have argued that the transition is universal and irreversible. However, some demographers have expressed doubts about the validity of the concept of the Second Demographic Transition (Sobotka 2008: 172). The model has, for example, been criticised for its concentration on northern and western Europe, and some scholars have questioned whether it is applicable in the eastern European context (e.g., Coleman 2004; see also the counter-argument made by Lesthaeghe 2010, Lesthaeghe & Surkyn 2008; Van de Kaa 2002). Demographic changes in partnership and family structures were indeed observed in northern and western European countries first, but they also occurred in the southern European countries, albeit later. During the

socialist period, the partnership and childbearing patterns in eastern Europe differed from those in western Europe (Kreyenfeld & Konietzka 2005; Sobotka 2008). However, even before the collapse of the communist regimes, the rates of cohabitation, divorce, and non-marital childbearing had increased as these societies underwent a process of modernisation (Coleman 2004; Hoem et al. 2009). Initially, the pronounced postponements of marriage and fertility after the collapse of socialism were not seen by demographers as being features of the Second Demographic Transition. Instead, they attributed these trends to the consequences of the economic crisis (Coleman 2004; Lesthaeghe 2010). But Van de Kaa and Lesthaeghe subsequently argued (Lesthaeghe 2010, Lesthaeghe & Surkyn 2008; Van de Kaa 2002) that these trends were indeed indicators of the Second Demographic Transition because they continued even after the insecure material situation of the initial transformation period had improved. The authors therefore concluded that the Second Demographic Transition emerged in eastern Europe as a permanent feature, as it has in the West (Lesthaeghe 2010; Lesthaeghe & Surkyn 2008; Sobotka 2008). Although it has been repeatedly criticised, the Second Demographic Transition concept has in recent decades become an important and mainstream concept among population scholars who investigate demographic changes in European societies (Coleman 2004). The model is seen as being particularly useful as a framework that encompasses the various changes in family and partnership behaviours and attitudes that have been occurring across Europe (Sobotka 2008).

The shift in attitudes towards the family was seen as having affected the whole process of family formation, including the rate of union dissolution (Lesthaeghe & Van de Kaa, 1986). Van de Kaa (2002: 10) stated that from a "purely demographic perspective", the "strong increase in divorce (where allowed) and in dissolutions of unions" is one of the features of the Second Demographic Transition. Lesthaeghe and Van de Kaa predicted that, at the macro level, the rates of union dissolution would continue to increase because of the rising divorce rates among married couples and the high rates of separation rates among cohabitants (Lesthaeghe & Van de Kaa 1986, Lesthaeghe 1998, 2010; Van de Kaa 1987, 1997). Lesthaeghe (1995) argued that the rise in standards regarding the quality of dyadic relationships and the reduction in the willingness to tolerate unacceptable forms of behaviour have accelerated increases in union dissolution: with increasing individualisation, the dyadic relationship has gained importance as a source of emotional satisfaction and self-fulfilment. Individuals want more from their private relationships, which increases the vulnerability of these unions: a relationship may be dissolved if the expectations of one of the partners are no longer being met. The understanding of what constitutes a partnership commitment has been altered. Promises about the future are increasingly interpreted as desires, hopes, and aims, and not as fully binding commitments (Allan et al. 2001). In the latter sense, the level of commitment among partnerships has even decreased (Lesthaeghe 1995). In sum, this line of argumentation promotes a link at the macro level between increasing levels of secularisation; increasing proportions of non-marital living arrangements,

such as LAT partnerships and cohabitation arrangements, sometimes with children involved; and increasing rates of union disruption. The Second Demographic Transition can therefore be interpreted as "a trend toward less committed and more fragile relations between men and women" (Bernhard 2004: 25). But is this really the case? Are relationship constellations more fragile when cohabitations are very common and religious norms have weakened? Does this link hold at the micro level?

1.2 Separation - consequences and determinants

It is important to examine this question more closely, because separation is an event that not only marks the end of a partnership, but has consequences for the future lives of separated individuals, and for their children. The break-up of a partnership lowers the sense of life satisfaction (Zimmermann & Easterlin 2006), and often produces financial hardship (Andreß et al. 2006). While these effects are sometimes only temporary, union dissolution can also have negative effects in the long run. The long-term consequences of separation include increased risks of mental problems, a lower life expectancy, and poverty in old age (Wagner 1997: 20 ff). Changes in the family structure, and especially parental separation, can also affect a child's future development and well-being (Amato 2001; Kim 2011; Kalil et al. 2011; Osborne & McLanahan 2007). Parental separation is one of the most common environmental stressors experienced by children, and it can produce externalised problems, internalised problems, and cognitive deficits (Amato 2000). Separation is often related to a loss of family income, particularly for mothers. Since mothers are generally the primary custodians of children following divorce, most children of couples who split experience a lowered standard of living (Amato 2000). The negative consequences of separation underline the importance of research that investigates the factors that determine union stability. Special attention should be paid to the effects of the recent changes in the social structure on the risk of union disruption.

Many factors which influence the risk of partnership break-up have been studied extensively (see Lyngstad & Jalovaara 2010 for a recent overview). Within the framework of the Second Demographic Transition, being in a non-marital living arrangement and having a secular background have been linked to an increased risk of separation. At the individual level, previous research has confirmed this link. Cohabitation and family formation within cohabitation have been found to be related to lower levels of union stability relative to marriage (Jensen & Clausen 2003; Wu & Musick 2008). Several studies have shown that individuals who have no religious background are at greater risk of union disruption (Lyngstad & Jalovaara 2010; Wagner 1997: 164; Lois 2009: 204). Research also identified contextual effects on the risk of separation. The effect of premarital cohabitation on divorce seems to depend on the prevalence of premarital

cohabitation in a society (Liefbroer & Dourleijn 2006). Divorce behaviour has also been found to be influenced by the level of regional secularisation (Mortelmans et al. 2009). The latter studies concentrated on marital unions. There are, however, still relatively few studies that have investigated the role of the contextual background in the stability of non-marital unions.

1.3 The German context

The focus of this dissertation is on the union dynamics of couples in Germany[1]. The strength of its national economy, as well as its family policies and its population structure, make Germany an important case for social scientific study. The country had the world's fourth-largest economy by nominal gross domestic product in 2012 (World Bank 2013). With around 80.5 million inhabitants in mid-2013, Germany is the most populous member state of the European Union, with a very high standard of living. As such, it ranks among the top 10 countries in the Better Life Index of the *Organisation for Economic Co-operation and Development* (OECD) (Kerényi 2011). Since the early 1970s, deaths in Germany have surpassed births. Today, the total fertility rate of Germany is around 1.4 children per woman (Haub & Gribble 2011). Viewed through the lens of the First Demographic Transition model, Germany has not only reached the last stage of this transition, but is "beyond the Demographic Transition's end" (Haub & Gribble 2011: 10).

The main reason for studying the determinants of union stability in the German context is, however, that the analysis of family life and partnership patterns in Germany can provide us with new insights into separation patterns. This is partly because of the particularly privileged position of marriage in Germany. Because marriage is protected by the German constitution, married couples are guaranteed special rights that are not available to non-marital couples. Marriage and non-marital cohabitation have been equalised to a lesser extent in Germany than in other European countries (Perelli-Harris & Sánchez-Gassen 2012). As there are not many countries in which marriage has maintained such a superior position relative to non-marital living arrangements, Germany provides us with an interesting case for studying the nature of non-marital and marital unions. Although marginalised by German legislation, cohabitations are quite common, especially in the eastern part of Germany. Eastern Germany has its own history as a result of having been a separate state from 1949 to 1990. Even today, the eastern German region differs markedly in its social structure from the rest of Germany. Thus, another reason why the German case is well-suited for conducting a comparative analysis is this clear divide between eastern and western Germany, which is, for example, characterised by the very different shares of church membership and marital childbearing in the two parts of the country. Eastern Germany

[1] Whenever I talk about "Germans", I refer to persons living in the territory of Germany, independent of their citizenship.

has become known as "the most secularized society in the world today" (Froese & Pfaff 2005: 397), with only a small minority (24 per cent) of the population belonging to a Christian church. Only about 40 per cent of eastern German children born in 2011 had married parents; similarly low percentages are only found in only a few European countries, like Estonia or Iceland (Poetzsch 2012). In western Germany, by contrast, 70 per cent of the population belong to a Christian church, and 63 per cent, or the majority of children are born within marriage (Froese & Pfaff 2005; Poetzsch 2012). The "natural experiment" (Witte & Wagner 1995: 387; Rosenfeld et al. 2004: 104) of the reunification of Germany allows us to study the dynamics of social change in a unique way. The pronounced differences between eastern and western Germany in terms of population and family structure justify making a distinction between the two regions in a comparative life course analysis, even 20 years after reunification (Schneider et al. 2012). Studying union stability based on a comparison of eastern and western Germany is scientifically relevant because it may help shed light on the relationship between secularisation, non-marital partnership arrangements, and high separation rates.

The stability of unions—especially with regard to cohabitations and partnerships with children—is a topic that has been studied to a much lesser extent in Germany than in other countries. This is partly because representative and detailed partnership data have rarely been available for Germany. This dissertation focuses on the partnership biographies of western and eastern Germans born in 1971-1973 and in 1981-1983, with data from the German Family Panel. These birth cohorts experienced adulthood in the context of a reunified Germany. However, the eastern German respondents spent their childhood in the German Democratic Republic (GDR).

1.4 Union stability in the life course perspective

In this dissertation, I use the life course perspective as the general conceptual approach for studying the contexts of partnership and childbearing that relate to the stability of partnerships. The longitudinal and interdependent perspectives emphasised in the life course approach appear to be very useful for my research purposes. The life course is conceptualised as the result of an individual's decision-making process, which affects different spheres of life simultaneously, and is embedded in a multi-level social context (Huinink 1998: 306). The concepts of trajectory and transition are central themes in the life course approach (Elder 1978, 1985; Elder et al. 2003). Life course dynamics take place over a time span, such as the trajectory of a partnership; and they are marked by a sequence of transitions, such as getting married and getting divorced. Transitions are embedded in trajectories that give them distinctive form and meaning. For example, the transition of "getting married" is embedded in the trajectories of "being not married" and "being married". This stresses the importance of time in the life course, conceptualised as the duration

or waiting time between transitions. A normative concept of social time can, for example, specify an appropriate duration for transitions, leading to relatively "early" and "late" transitions (Elder et al. 2003: 10). Interdependence and turning points are further key features of the dynamics of the life course. Interdependence refers to the interplay of trajectories and transitions within and across life stages, which result in the concurrence and overlap of transitions along different pathways. The different life stages are introduced, marked, or ended by turning points. The concepts of differentiated life courses and competing life spheres introduce the aspect of role strain. Life course decisions are influenced by the interplay of the different careers, and are shaped by past experiences. If we assume that transitions modify life trajectories, then it is clear that transitions are important turning points in life. The future effects of a transition can be appraised only by taking into account the nature of the event; the resources, beliefs, and experiences individuals bring to the situation; the definition of the situation; and the resulting lines of adaptation chosen from the available alternatives. The same transition followed by different lines of adaptation can lead to very different trajectories (Elder 1985: 35).

In the life course approach, the individual is viewed as being embedded in a broader dynamic context. Life course choices are constrained by the available opportunities, and are structured by social institutions, culture, and normative patterns (Elder et al. 2003). Social groups follow certain trajectories, influenced by the surrounding opportunity structure. This produces "social pathways" (Elder et al. 2003: 8). The broader context in which individuals are embedded and the aggregation of lives that follow these pathways affect the individual's life course choices. The life course of individuals is further embedded and shaped by the historical context and place, with the latter being defined as the combination of a geographic location, a culture, and a valuable investment (Elder et al. 2003: 12). The multi-level nature of the life course requires us to consider as determinants of individual behaviour not just the individual's personal background, but also the macro conditions (Dykstra & Van Wissen 1999). Cultural, social, political, and economic conditions influence the scope and course of action.

The transition to separation—i.e., from the trajectory "partnered" to the trajectory "not partnered"—can be considered as an event in one life sphere, the partnership biography. But changes in the reproductive biography can, for example, affect the likelihood of changes in the partnership biography, as having a child may negatively affect the likelihood of separation. It is, moreover, important to consider the different aspects surrounding a trajectory. To evaluate the effect of one transition, such as non-marital childbearing, on the future transition to separation, it is necessary to assess the nature and the definition of this childbearing context, including the factors that led the parents to refrain from getting married prior to having a child, such as the lack of a religious background; and the perception of this transition by the parents, such as whether they see non-marital childbearing as inferior to marital childbearing, or as an acceptable

alternative. Union stability can thus depend on the response of the parents to the situation at childbirth as much as on the event of the non-marital childbearing itself (Elder 1985: 36). Past trajectories may therefore influence the future path an individual's life course takes. To gain a better understanding of why couples separate, it can be useful to know at what age a given individual found a partner, and how long it took him or her to move in with the partner and to get married. Taking into account the individual decisions regarding marriage, childbearing, and separation as related processes enables us to distinguish between causal factors and selection effects. For example, cohabiting couples are less likely than married couples to have children and are more likely to separate. On the other hand, family formation enhances stability, and is strongly linked to marriage formation. Thus, the relationship between cohabitation and stability may be spurious, and may instead be related to relevant third factors, such as attitudes towards family formation and marriage. Viewing the broader context in which individual life courses are embedded may help us to understand how factors such as the level of secularisation or the prevalence of cohabitation influence life course decisions.

1.5 Purpose of this doctoral project

1.5.1 Research objectives

In this dissertation I have two main objectives. My first objective is to describe partnership trajectories. In my view, it is important that we have the entire picture of a partnership before attempting to draw a detailed picture of the dynamics of that intimate relationship. This picture includes the non-residential partnership period, or the LAT, which has often been ignored in studies in the past. In previous decades, scholars focused exclusively on the partnership stability of marriages (e.g., Becker et al. 1977; Morgan & Rindfuss 1985; Teachman 1982; Teachman & Polonko 1990). However, they agreed to define the date of marital dissolution as the date the couple stopped living together instead of the legal end of a marriage, because it is a "more realistic marker of the end of a marital union" (Bracher et al. 1992: 405). In more recent studies, researchers also considered non-marital residential episodes in their analyses, and examined the union stability of both marriages and cohabitations. But even in very recent studies, the partnership is thought to start with household formation (Jalovaara 2013; Lau 2012). In my dissertation, I aim to show that we need to look further, and to consider the non-residential partnership episode as an integral part of the partnership. It may be common to live apart together at first, and to move in together only after some time. In that case, the partnership duration is not to be equated with the duration of the co-residence, and the date when the LAT episode began may represent a more realistic marker of the start of the partnership than the start

of co-residence. I seek to investigate cohabiting and marital unions, while also taking into account their specific partnership histories.

The choice of the partnership form, or the trajectory of the relationship, may have consequences for the success of the future partnership; and for the timing of the main partnership events or transitions, including household formation, marriage formation, and family formation. This reveals the principles of the life course approach. The relevance of timing highlighted in life course research is taken seriously in this dissertation. I pay special attention to the question of whether separation is more or less likely when an event such as household formation or childbearing occurred "early" in the partnership biography. Another central aspect which is addressed in this dissertation is the importance of the sequencing of events for stability patterns; e.g., whether a marriage occurred before household formation or before family formation. Again, I believe that the timing of partnership events can be fully considered only if the entire partnership episode is taken into account.

My second objective is to find out which factors determine the union stability of couples with children. There are several reasons why I have decided to concentrate on fertile couples only. First, I chose this restriction because it appeared to be of special relevance. By focusing on fertile couples, I recognise that separation has implications not only for the adults, but also for the children. The negative economic consequences of separation make union stability an important issue in formulating social policies. It also becomes important in crafting educational policies, because the externalising and the internalising problems among children with separated parents can affect school life and increase the demand for psychological support and preventive actions in schools. Second, a gap in the research motivated me to concentrate on couples with children. There are still too few studies that focus on the union stability of cohabitations in a comparative perspective, and there are very few studies that focus on the stability of German cohabitations. Unfortunately, even recent studies which analysed the separation behaviour of non-married couples (e.g., Arranz Becker 2010) avoided comparing eastern and western German partnerships. In my view, the differences between the regions in the prevalence of cohabitation, and especially in the different proportions of children born outside of marriage, are good reasons for conducting a comparative analysis. However, to my knowledge, there is no German study that focuses on the stability of cohabitations with children from a demographic/sociological point of view. This is surprising, because there has been much more research on this topic in other countries (see, for example, Steele et al. 2006 for Britain, Jensen and Clausen 2003 for Norway, Kennedy and Thomson 2010 for Sweden, Le Bourdais et al. 2000a, b and Le Bourdais and Lapierre-Adamcyk 2004 for Canada, and the following studies for the United States: Manning et al. 2004; Manning 2004; Raley and Wildsmith 2004; Wu and Musick 2008). Third, I have chosen to concentrate on fertile unions only in order to include a further criterion applicable to marital

and non-marital unions, which increases their comparability. Non-marital cohabitation is often chosen by childless couples as a temporary arrangement before family and marriage formation take place. Thus, cohabitations and marriages may occur in successive stages of the private life course, which implies that they should not be seen as representing distinct groups (Jalovaara 2013). Empirical analyses of the stability differences between people in marriages and in cohabitations were therefore often akin to a comparison of "apples and oranges". Restricting the investigation to first-time parents ensures that groups, rather than life course stages, are analysed. By focusing on unions from the time of the first childbirth onwards, I compare partnerships in similar stages of the life course (the early years of parenthood). In light of the growing share of children born within cohabitation, it seems reasonable to compare fertile cohabitations and marriages. In this way, I can ensure that I am comparing "apples with apples". This makes it easier to ascribe differences in the stability of marital and non-marital unions to the specific union form.

Four concrete research questions are derived from these two main research objectives. The first two questions are related to the first objective, and focus on a general description of the partnership and family structure and the determinants of union stability. The other two research questions look more closely at the links between secularisation, cohabitation, and the risk of union disruption.

1.5.2 Research questions

While several determinants of union stability have been identified in prior research, there are aspects that remain unexplored. Prior research often has classified individuals with partners who are not living in the household as single. In fact, however, these individuals are partnered, and are therefore at risk of separation. There is still relatively little knowledge about how prevalent LAT partnerships are in the private life courses of young individuals, and especially of parents. Distinguishing between people who are married, cohabiting, in LAT partnerships, or single enables me to describe in detail the living arrangements which individuals choose, and in which arrangements children are born. Thus, my first research question is: *How prevalent are non-marital partnership forms among Germans, especially at the point in time when they start a family?* This question is addressed in Paper I. It includes a detailed description of the living arrangements across the life courses of young adults born between 1971 and 1973.

In many cases, non-residential partnerships lead to residential union forms, like marriage or cohabitation (Castro-Martin et al. 2008; Ermisch & Siedler 2009; Régnier-Loilier et al. 2009). Like premarital cohabitation, the LAT episode can be regarded as a step prior the formation of a more committed union. While there is abundant literature on premarital cohabitation and its effect on

separation risks, LAT partnerships have received little attention. The LAT stage of a relationship may, however, influence the risks of separation. First, partners who have spent a long period of time living in separate households are likely to have better knowledge of the partner's characteristics at the time the household is formed than partners who move in together shortly after the start of the relationship. On the other hand, partners who move in together quickly may be more convinced of the advantages of co-residence than those who wait. This leads me to suggest that the separation risks of couples may differ depending on whether their LAT episodes prior to moving in together were short or long. Second, household formation can be closely linked to family formation. Sharing a household has several practical advantages for couples who are raising children: the parents can share childcare tasks; their expenses are likely to be lower because a joint household generally costs less to run than two separate households; and they can easily meet in their free time, thus saving time and money. A large number of studies have found that, in general, the presence of children tends to stabilise marriages and cohabitations, at least at preschool ages (Guzzo 2009; Jalovaara 2013; Wu 1995), because having joint children is seen as an investment in the partnership. However, while an impending birth might motivate the LAT partners to move in together, it can also influence their risk of separation, as conceiving a child within a living apart together partnership might imply that the pregnancy was unplanned. Thus, for some couples, a child may not function as an investment in the partnership that stabilises the union. On the other hand, the timing of childbearing relative to household formation might be irrelevant with regard to union stability, as couples may be planning to start a family and establish a joint household simultaneously. The question of whether children conceived or born within non-residential partnerships tend to stabilise partnerships in the same way as children born to co-residing parents has not yet been answered. Thus, my second research question is: *How do the characteristics of the non-residential partnership period, such as the length the period and the presence of children, influence the risk of union dissolution after household formation* (Paper II)*?*

Scholars have identified several determinants that increase the risk of partnership dissolution among parents, such as not being religious and being not being married. However, prior research has not tested whether this finding is applicable to all contexts. There are contexts like that of eastern Germany, where secularisation is far advanced and cohabitation is the most prevalent union form in which children are born. Is union instability greater in this context than it is in contexts in which secularisation levels are low and marital childbearing is common? Within the framework of the Second Demographic Transition, it has been argued that at the macro level, increasing levels of secularisation are accompanied by decreasing proportions of marital childbearing, a spread of non-marital living arrangements, and increases in divorce rates. However, comparative analyses at the micro level are still rare. Examining the German case might provide us with some additional knowledge on this research issue. My third research question is therefore: *Are a high level of secularisation and a large proportion of non-marital childbearing at*

the regional level related to higher separation risks? Paper III and Paper IV are dedicated to addressing this research question.

With regard to the effect of cohabitation on union stability among eastern and western German parents, two competing expectations might be posited. On the one hand, it is possible that the composition of fertile couples living in cohabitation changes with the prevalence of childbearing within cohabitation at the macro level of society, which may lead to increases in union stability. Cohabitation often serves as a screening device for marriage, weeding out matches of less compatible partners (Oppenheimer 1988). Thus, there is a positive selection of couples into marriage and a negative selection into cohabitation. A higher share of childbearing within cohabitation can reduce the proportion of negatively selected couples among cohabiting parents, because highly compatible partners will decide to continue to cohabit. This should in turn improve the union stability of cohabitants, and may be the reason why cohabiting parents in eastern Germany tend to have more stable unions than their western German counterparts. On the other hand, it may be the case that, regardless of the proportion of births within cohabitation, the characteristics of cohabiting parents are quite similar. If that is true, then the risk of separation among cohabiting parents would be very similar in eastern and in western Germany, despite differences in their prevalence. These considerations lead me to formulate my final research questions: *Is cohabitation a more stable union arrangement in eastern Germany than in western Germany? What role does selection play?* Paper IV seeks to answer these questions.

The general research question is: *What determinants affect the stability of marital and non-marital unions, especially among parents in eastern and western Germany?* Answering this question not only gives us further insights into the intimate lives of young individuals in Germany; it also enables us to learn from this cross-regional comparison more about the influence of well-known determinants in contexts that differ in terms of social structure.

1.5.3 Structure of the dissertation

This doctoral thesis encompasses four articles (Paper I to IV), which can be found in Appendix B. These articles are embedded in a framework that allows to understand the motivation, the general background and the implications of this doctoral project. The structure of this dissertation is as follows: In Chapter 2, I provide the readers with information on the historical and institutional backgrounds of family formation and dissolution in eastern and western Germany. Referring to data from the official statistics, I show different indicators of marital stability and draw an initial picture of contemporary non-marital and marital living arrangements among the German population. In Chapter 3, I present the data on which my empirical analyses are based. In Chapter 4, I provide answers to the postulated research questions. In Chapter 5, I

summarise the main findings of this study. This chapter also includes a discussion of the findings and the implications of the findings, and suggestions for future research. One-page summaries of Papers I to IV can be found in Appendix A, while Appendix B provides the full versions of these papers. Appendix C contains a technical report that explains the preparation of the German Family Panel data for event history analysis.

CHAPTER 2

Country background

2.1 Marriage, childbearing, and separation in the private life courses of eastern and western Germans

This chapter provides an introductory description of developments in family formation and dissolution in eastern and western Germany through an analysis of marriage and divorce indicators. The structure of partnerships and families is linked to the cultural and institutional setting (Gauthier 2007). Public policies shape partnerships by defining the rights, responsibilities, opportunities, and constraints of the couple (Gauthier 2007; Perelli-Harris & Sanchez-Gassen 2012). These policies may encourage some types of family structure over others, by, for example, providing incentives to marry, have children within marriage, and to remain married (Matthias-Beck 2006:104). This link between policies and demographic behaviour is complex. The effects of policies on behaviour may arise not only from family policies, such as those that focus on marriage; but from a wide range of policies, including those related to public health, taxation, labour, elder care, and pensions. These links can vary according to context and across countries or regions, and may reflect different cultural settings (Pfau-Effinger 1998). These differences can result in wide range of marriage and separation behavioural patterns in a population, depending on the particular institutional context.

In the following, I will discuss both the structure and the legal regulation of relationships during their existence and after their dissolution. I begin by summarising the differences between eastern and western Germans prior to 1990. Being aware of the historical background is important in understanding how these regional differences evolved. This summary is followed by a description of the institutional background of contemporary Germany. I then provide a description of the trends in divorce after reunification, which should shed some light on the patterns of (marital) union stability in Germany today.

German laws mainly regulate marital relationships, and there are only a few laws that apply to non-marital relationships. Legal regulations that address non-marital living arrangements have mostly focused on non-married parents and their children. There are also laws that apply specifically to same-sex couples, such those that provide the option of registering the partnership. To ensure consistency in my line of argumentation, I have, however, decided to concentrate on opposite-sex non-marital unions in my discussion of the relevant legal developments.

Marital events like marriage formation and dissolution are thoroughly documented in the official statistics. The start and end points of non-married partnerships are, however, still difficult to track because this information is not registered. Thus, while relying on data from the official statistics, I have to focus on marital unions to describe trends in relationship dynamics in Germany. In line with the official statistics, I define divorces as marriages dissolved by court orders. Although in general the dynamics of non-marital relationships are not covered by register

data, the statistics on the proportion of children born to non-married mothers can provide some initial insight into the prevalence of non-marital families. Another official data source is the German microcensus household survey, which provides information on the proportion of non-marital residential partnerships with co-residing children in the German population. However, it is not possible to draw conclusions about the stability of these partnerships using this data source. I therefore restrict my description of non-marital partnerships to the development of marital and non-marital living arrangements in recent decades.

In my analysis, I distinguish eastern from western Germany. This definition is based on the borders of the division of the country in 1949, and which lasted until 1990. During this period, there were two German states: the GDR (German Democratic Republic) and the FRG (Federal Republic of Germany). Although the demarcation line between the eastern and western parts of Germany was an outcome of World War II, its roots go back to the formation of German territorial states in early modern times. Prior to 1949, "eastern Germany" referred to regions that were actually situated in the central part of the German empire (Klüsener & Goldstein 2012). Since 1990, the terms "eastern Germany" and "western Germany" have referred to regional territories within a single state. Berlin is included in the western German region in the period of 1949 to 1989, because the western part of the city belonged to the FRG. From 1990 onwards, Berlin is seen as part of eastern Germany.

2.2 The private life course in the period prior to 1990

2.2.1 Historical East-West differences (period prior to 1949)

Divorces

Regional differences in levels of divorce existed within Germany even before the GDR and the FRG were formed in 1949 (Engelhardt et al. 2002). Eastern Germany has had higher divorce rates than western Germany since the 1920s (Wagner 1997: 119-120). For a portion of the 19th century, the eastern and the western German regions had different family law regimes (Klüsener & Goldstein). The eastern German region mainly followed the liberal Prussian civil code, while parts of western Germany followed the French civil code and the Bavarian civil code. These codes considered marriage to be a contract between two individuals, and civil divorce was implemented in the legal system. Since 1903, the German civil code has universally regulated divorce. The different religious belief systems of the western and the eastern German populations led to differences in divorce behaviour after civil marriage was introduced and divorce was legally regulated (Engelhardt et al. 2002). From the 16th century onwards, each German state had the

right to determine the religious denomination of the subjects, which resulted in a substantial degree of between-state variation and a high degree of homogeneity within the states. Whereas eastern Germany was almost uniformly Protestant, western Germany was more heterogeneous, and consisted of both Protestant and Catholic regions. Christian churches generally promote life-long marriage, but most Protestant churches are more tolerant of marital dissolution than the Catholic Church.

Non-marital childbearing

If we look at the historic territories that make up Germany today, we can see that the levels of non-marital childbearing in eastern Germany exceeded those in western Germany in the 19th century (Klüsener & Goldstein 2012). The east-west gradient in the level of non-marital childbearing started to emerge as early as in the 18th century. During these centuries, eastern Germany belonged to East Elbia, an area in which the focus of the economy was on the large-scale production of agricultural goods. As a consequence, large farms with seasonal workers were more prevalent in eastern Germany. The workers lived far from home, and were exposed to a lower degree of social control than western Germans, who usually lived in villages and worked on small farms. In addition to the different mode of economic organisation, differences in religion had an impact on the social sanctioning of non-marital childbearing. Traditionally, the Protestant churches were more tolerant and imposed fewer sanctions on non-marital parents and their offspring than the Catholic Church. Furthermore, the bonds between the Protestant churches and their members were looser than they were in the Catholic faith. In sum, the normative pressure for marital childbearing was lower in eastern than in western Germany. However, according to laws from 1861, non-marital cohabitation was not legally accepted: couples who lived together outside of marriage were separated and sanctioned (Wagner 2005). However, differences in laws led to differences between the regions in terms of marital childbearing: in the 19th century, there had been restrictions on marriage and strong legal disadvantages for non-marital families in western Germany, which decreased the levels of non-marital fertility. Although the laws were harmonised within the German Empire, the non-marital childbearing levels did not converge (Klüsener & Goldstein 2012).

2.2.2 The era of the GDR and the FRG (1949 to 1990)

Divorces

During the period when Germany was divided, and especially in the decades immediately following 1949, eastern and western German divorce laws differed with regard to the principles that enabled legal divorce. In the divorce law of the GDR, the principle of irretrievable

breakdown was valid almost from the time the country was established (Wagner 1997: 158). This means that when the emotional relationship of two marital partners ended, the court did not have to declare that one of the spouses was at fault. Divorce did not have severe negative economic consequences because men and women were economically independent (Schneider 1994: 191; Huinink 1999). Like most men, most women were working full time. Child care was readily available, which enabled women to combine work and family. Alimony payments were discussed in the divorce proceedings, but they were usually restricted to a period of two years following the divorce, and were rarely ordered. The divorce regulations followed the principle that all long-term relations between the former spouses should be dissolved. In the post-marital period, the divorced partners had to support themselves and could not claim maintenance (Klose 1996: 269). If the divorced couple had common children, the non-custodial parent had to pay child support. In most such cases, the father was obliged to pay child support because the mother was awarded sole custody of the children. In addition to policies directly related to divorce, other policies such as the regulation of housing potentially affected divorce behaviour in the GDR. Because of the scarcity of housing, access to apartments was long restricted to marital couples. The repressive policies of the SED[2] regime towards the Christian churches led many eastern Germans to relinquish their church membership and refrain from having their children baptized. As a consequence, the influence of religious norms on life course decisions weakened and normative barriers to divorce became quite low, because separation was socially accepted.

In the FRG, marriages were difficult to dissolve, especially in the post-war years. The strong position of the Catholic Church in society and in politics—with the views of the Church being represented in government by, for example, the Christian Democratic Union party—influenced the image of the family in western Germany. Until 1977, a primary goal of divorce proceedings was to determine which of the spouses was at fault. It was not until after this date that the principle of irretrievable breakdown, in which divorce was permitted without assigning blame, was accepted (Schneider 1994: 190). Unlike in the GDR, in divorce proceedings in the FRG the pension benefits of the spouses were adjusted (*Versorgungsausgleich*). The spouse who worked less, generally the woman, was awarded pension benefits according to the marriage duration and her earning capacity during the marriage. The objective of the divorce laws was not only to shield the divorced partners from short-term negative economic consequences, but also to protect them from poverty in old age. Mothers usually obtained sole custody of the children after divorce. Since 1982, parents may be granted joint custody. In practice, however, joint custody is seldom awarded (Coester 1992).

[2] The Socialist Unity Party of Germany ("Sozialistische Einheitspartei Deutschlands") was the governing party of the GDR.

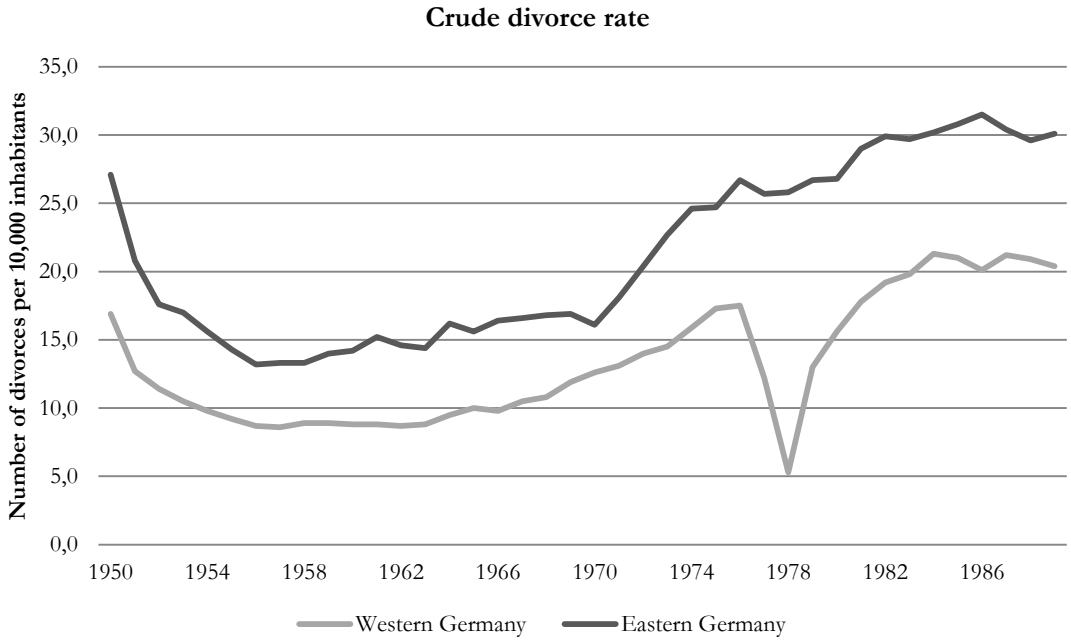


Figure 1: Crude divorce rates in eastern and western Germany, 1950-1989
Data source: Federal statistical office. Calculations: Federal Institute for Population Research[3]

The divorce rates[4] increased in both parts of the country during the period of division, as can be seen from Figure 1. The rates were relatively high in the immediate post-war period, decreased in the 1950s, and then increased until the fall of the Berlin Wall. In western Germany, this trend was temporarily interrupted with the legal reform of 1977, because it extended the length of time it took to complete the divorce process, thereby postponing the date of validity (Höhn 1980). Throughout the period, the FRG had lower divorce rates than the GDR (Wagner 1997: 117). Because couples in the GDR tended to divorce after having significantly shorter marriages and at younger ages than in the FRG, a significant share of minor children were affected by parental divorce in eastern Germany. In western Germany, divorces were often postponed until the children reached adulthood, and more married women were childless (Schneider 1994: 193).

[3] The data were taken from the following site:
http://www.bib-demografie.de/DE/ZahlenundFakten/05/Abbildungen/a_05_03_rohe_ehescheidungsziffer_w_o_ab1950.html?nn=3073800 [downloaded 2/12/2013]: "Rohe Ehescheidungsziffer für West- und Ostdeutschland, 1950 bis 2011".

[4] A detailed discussion of divorce rates follows in the next section. Crude divorce rates are presented because these are available for the total period of 1950-1989.

Non-marital childbearing

The differences between eastern and western Germany in the proportions of non-marital fertility increased after 1949 (see Figure 2). In the socialist regime of the GDR, there were incentive structures that encouraged marriage, but also some that encouraged cohabitation. Marriage was important for gaining access to certain goods, like apartments or credits. These financial incentives promoted early marriage and family formation. However, the Maternity and Children Protection Act of 1950 eliminated any discrimination against illegitimate children and their mothers, and non-married parents were granted special rights in child care-related areas in the 1970s. For example, in 1976 non-married mothers were given the option of taking paid maternity leave during the first year after first childbirth, while married women were granted maternity leave only after the second childbirth.[5] Unwed mothers also had a better chance of getting a place in a public child care facility, and they received more child benefits. These special privileges increased incentives to postpone marriage, at least until after the birth of the second child (Huinink 1999; Trappe 1995). Only from 1986 onwards were married mothers (and fathers) also permitted to take paid maternity leave (the "*Babyjahr*") after the birth of the first child (Kreyenfeld 2004: 280). The numbers of non-marital families increased, especially in the 1970s and 1980s, because it had by then become easier to gain access to housing. Still, many of the parents married when their second child was born (Trappe 1995). The increasing secularisation of the eastern German population displaced religious norms, which further increased the social acceptance of non-marital families.

Meanwhile, in the FRG, the age at marriage increased and cohabitation became a childless prelude to marriage. The prevalence of the marital family can be explained by the strong legal protections provided by this institution, which led to different treatments of married and non-married families. Marriage was strongly linked to family formation (Nave-Herz 1999, Huinink 1999), because it entailed economic advantages for the mothers and legal advantages for the fathers: The low availability of full-time child care in western Germany prevented mothers from participating in the labour market, and increased their dependence on their husband's income. A law dating back to 1900 stated that a non-marital child and his or her father were not considered to be kin.

[5] From 1984 onwards, mothers were granted a maternity leave of 18 months after the third childbirth.

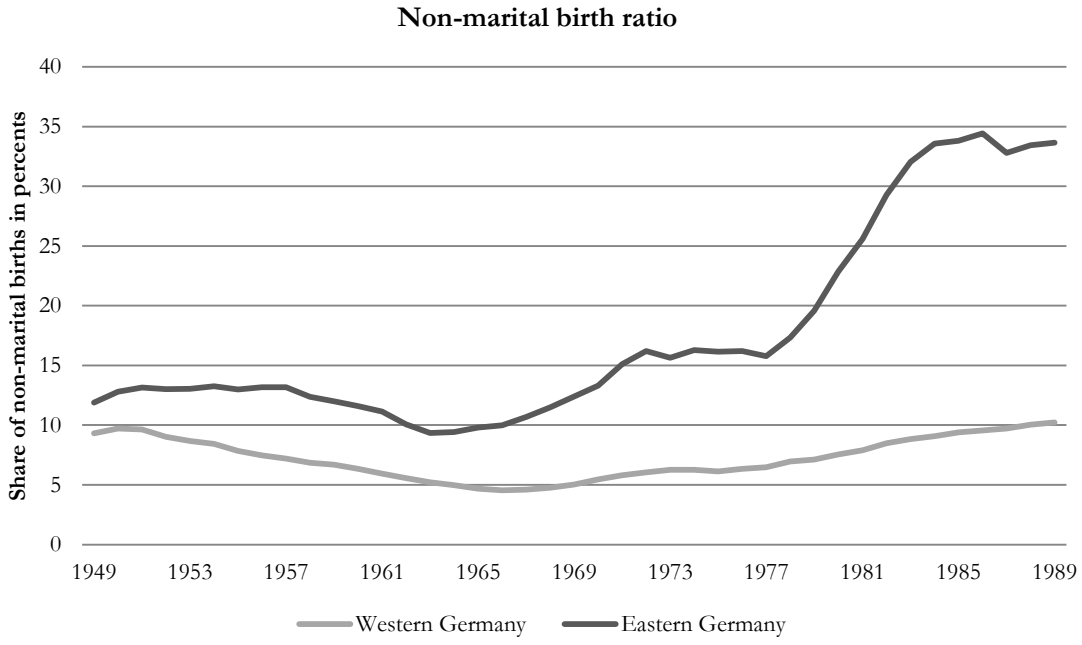


Figure 2: Non-marital birth ratios in eastern and western Germany, 1949-1989
Data source: Federal Statistical Office. Calculations: Federal Institute for Population Research[6]

Conflicts between Article 6(1) of the Basic Law, which called for the protection of marriage and the family; and Article 6(5), which stated that children born out of wedlock must not be discriminated against relative to legitimate children; impeded the equalisation of marital and non-marital childbearing. A first step in resolving these problems was made in 1970, when a law of (restricted) inheritance and legal acknowledgement of the biological paternity was introduced for children born out of wedlock.

[6] The data were taken from the following sites:
http://www.bib-demografie.de/DE/ZahlenundFakten/06/Abbildungen/a_06_03a_ehel_nichtehel_lbdgeb_w_ab1946.html?nn=3073508 [downloaded 2/12/2013]: "Ehelich bzw. nichtehelich Lebendgeborene in Westdeutschland, 1946 bis 2011".
http://www.bib-demografie.de/DE/ZahlenundFakten/06/Abbildungen/a_06_03b_ehel_nichtehel_lbdgeb_o_ab1946.html?nn=3073508 [downloaded 2/12/2013]: "Ehelich bzw. nichtehelich Lebendgeborene in Ostdeutschland, 1946 bis 2011".

2.3 Two became one? Developments after reunification (1990-today)

2.3.1 Institutional framework

Laws regulating current marital and cohabiting unions

After the reunification of Germany, the laws of western Germany also applied to the eastern German regions. In current German law, marriage is seen as a life-long institution that is guaranteed special protection under Article 6 of the Basic Law. The marriage serves as a contract between the spouses in a number of different life domains (Matthias-Beck 2006: 104). These domains include financial and insurance issues, as well as family relations and inheritance rules. Non-marital cohabitation currently has no legal status. The domains covered by a marriage contract are not regulated at an equivalent level in a non-marital union (Scherpe 2005). In addition, there are several legal benefits associated with marriage that cohabiting couples do not enjoy. Married couples can, for example, take advantage of joint taxation, in which the incomes of the two spouses are added together, split equally, and then taxed jointly. This tax system privileges marriage especially in cases in which there are large income differences between the spouses (Perelli-Harris & Sánchez-Gassen 2012). Married couples have also the right to co-insure the non-working partner in the health insurance plan of the spouse who works. Foreigners married to German citizens are allowed to acquire permanent residence, while cohabiting couples are treated as unrelated persons (Perelli-Harris & Sánchez-Gassen 2012). Married couples are in general required to support each other financially. Cohabiting couples are only expected to do so in case of need. However, social security benefits are not paid to an unemployed person with a marital or a non-marital partner who has the means to support him or her.

According to current German law, the mother of a child is the woman who gave birth to the child (§1591), while the father of the child is the man who is married to the mother at the time of childbirth, who has acknowledged paternity, or whose paternity is identified through an official paternity test. This means that while paternity is automatically established in case of marriage, non-married partners have to sign a declaration of paternity. Since the reform legislation governing the rights of the child was passed in 1998 (*Kindschaftsrechtsreformgesetz KindRG*), there has been no explicit distinction between marital and non-marital children. Non-marital children were granted the same inheritance and support rights as marital children. However, differences in the regulation of child custody remained until recently. Before 1998, non-married fathers were not permitted to file for joint custody. While this changed with the reform, non-married fathers still could only obtain shared custody if the child's mother agreed. This provision was criticised by the supreme court of Germany in 2010 (1 BvR 420/09). In 2013, a law was passed that followed the recommendations of the court and granted non-married fathers the option of obtaining custody

even without the mother's consent (through a court decision).[7] By default however, non-married mothers still have sole custody.

Non-marital families often consist of stepfamily arrangements. Marriage establishes family ties between the non-biological parent and the stepchildren. This has consequences for inheritance laws, health insurance, and taxes. Married stepparents have "small custody" (§1687b), which entitles them to make decisions regarding matters of daily life for their stepchildren. If the biological parent dies, the stepparent can obtain custody if the partners were married. Non-married stepparents are not granted these rights.

The legal regulations of marriage in case of separation and divorce

German law stipulates that marriage may be terminated only by death, divorce, or annulment. The divorce or annulment can only occur through a court order. The marriage reform act (*Erstes Gesetz zur Reform des Ehe- und Familienrechts 1. Ehe*RG), passed on 1 July 1977 in the FRG, remains valid today. According to this law, the marriage may be dissolved if it failed. This is considered to be the case when the marital relationship pursuant to §1353 of the Civil Code (*Bürgerliches Gesetzbuch BGB*) no longer exists (the so-called *mensa et toro*, or having separate tables and beds), and a reconciliation is not expected. According to § 1566, the marriage can be defined as having failed if the spouses live separately for more than one year and both agree to divorce. After three years of separation, the marriage can be divorced even against the will of the other spouse. In practice, the separation period is not enforced by the court if both spouses agree to the divorce.

In the period between marital separation and divorce, the spouse who is in the economically weaker position can claim alimony. The amount is based upon the marital living conditions. During the separation period, the spouse who was responsible for the household is not subject to income obligations.

An adjustment of pension benefits is usually a mandatory part of the divorce proceedings. The goal is to account for the different levels of pension entitlements each of the partners earned during the marriage. In 2009, the pension adjustment regulations were reformed. One of the changes was that in divorces of marriages with short durations (less than three years), pension benefits are adjusted only upon the request of one of the spouses.

Other family matters can also be regulated upon request in the divorce process, such as legal and physical custody and alimony payments. If there are joint children, the spouses usually keep joint legal custody after divorce; sole custody is granted only upon request. The regulation of alimony rights and obligations was extensively reformed in 2008. The reform strengthened the principle that each of the partners is responsible for himself or herself after the marriage ends, and it

[7] Custody conflicts that reach the court tend to occur when the parents are separated.

simplified the alimony regulations (Bosch 2007). Prior to 2008, divorced spouses could claim alimony, and only had to accept a job if it was appropriate in terms of their educational and professional background and their marital living conditions, which were defined as the duration of the marriage and the existence of joint children (§1574). This regulation often made it unattractive for women to return to the labour market after divorce (Bosch 2007). Divorced mothers received maintenance on the grounds that they could not be expected to work while looking after a young child. This could be the case until the child was in elementary school, but also thereafter, especially if the mother had several young children. After the reform went into effect, divorced spouses were obliged to search for an appropriate job to support themselves. By strengthening the requirement that spouses become self-supporting, the law essentially made long-term alimony payments to the former spouse the exception rather than the rule. The parent who has main custody of the children generally has a claim to alimony payments in the first three years after a child is born (§1570). After this period, the issue of whether the parent may continue to receive alimony is to be revisited. In most cases, the parents are expected to resume working when the child reaches the age of three. A claim might, however, continue to exist if the child is disabled and needs special attention. Another option for extending the period of alimony payments can be made on grounds of "post-marital solidarity" (§1570(2)). The life plans formulated by the spouses during marriage can influence the court's decision about whether to extend alimony payments. Whether the spouses had confidence in the role distribution during marriage may be considered important. For example, a wife who did not seek employment because she was looking after the children may be entitled to longer maintenance support than a wife who remained economically active. The options for accounting for the difference between the spouses' incomes within the marriage if both partners worked during the marital period were generally unchanged by the reform (§1573). In this case, the spouse who earned less is usually entitled to receive 3/7 of the income difference (Bosch 2007). This is based on the premise that most of the household work during marriage would have been done by a woman who gave up her career, and that a divorced woman who spent more time looking after the family than in paid employment should not experience a reduction in social status.

Legal regulations of cohabitation in case of separation

Cohabitation starts with the household formation of the partners. Unlike the date of marriage formation, the start of a cohabiting union is not officially registered in Germany. The option to register a non-marital partnership is restricted to same-sex couples. Similarly, cohabiting couples do not have to undertake any formal steps to end the relationship (Martiny 2005). As there is no official separation process for cohabitation, non-marital partners have no legal rights or responsibilities following the dissolution of the union, such as alimony payments (Martiny 2005). Any personal and economic investments the partners made in the joint family or household are

not reimbursed after separation (Wellenhofer 2005). But while cohabitation is not legally regulated on a systematic basis, German law provides cohabiting partners with some legal protections. The partners can enter into a partnership agreement which regulates issues such as asset allocation, the use of the shared apartment, maintenance, and retirement. However, most non-marital couples do not make use of this option (Martiny 2005).

The legal situation is, however, different if the couple have common children. In that case, the primary child care provider receives financial maintenance from the former partner for a minimum period of three years after the child was born (Bosch 2007; Martiny 2005). Before the law reform in 2008, non-married parents were worse off than married parents after separation because the former received child care alimony for a shorter period. The reform places non-married parents on an equal footing with married parents. Only the principle of post-marital solidarity (§1570(2)) does not apply to non-marital couples. Visitation rights are the same for non-married parents who split up as they are for divorced and separated parents. Since another legal reform in 2004 (§1685), stepparents who were not married to the biological parent also have the right to visit the stepchildren after separation.

2.3.2 Demographic key indicators - What do we know from official statistics?

Divorces

In the following section, I describe the trends in marital stability since the fall of the Berlin Wall. The data stem from the German statistical office, and were prepared by the Federal Institute for Population Research (BIB). They describe the development of divorce in eastern and western Germany from 1989[8] to 2011. There are different statistical ways to calculate the divorce intensity within a population, which I discuss below.

Since the 1970s, the number of marriages has been continuously decreasing in Germany, because there are more marriage dissolutions than there are marriage formations. In recent years, marriage dissolutions have exceeded marriage formations by an average of 150,000 annually. Most marriages are terminated by the death of a spouse, but one-third end in divorce. The annual number of divorces increased from 1990 to 2006, and has since then remained at the high level of 190,000 divorces per year. Immediately after reunification, the number divorces in eastern Germany fell sharply, to 14,243 in 1991 from 37,346 divorces in 1990. This low number is largely attributable to the introduction of western German divorce laws in eastern Germany, which led to a postponement of divorces. The transition years also increased feelings of insecurity, which

[8] For a comparison of the divorce behaviour to pre-reunification levels, I include the year 1989 instead of starting with 1990, the year of reunification.

may have led some couples to postpone or forgo the realisation of their marital dissolutions plans.

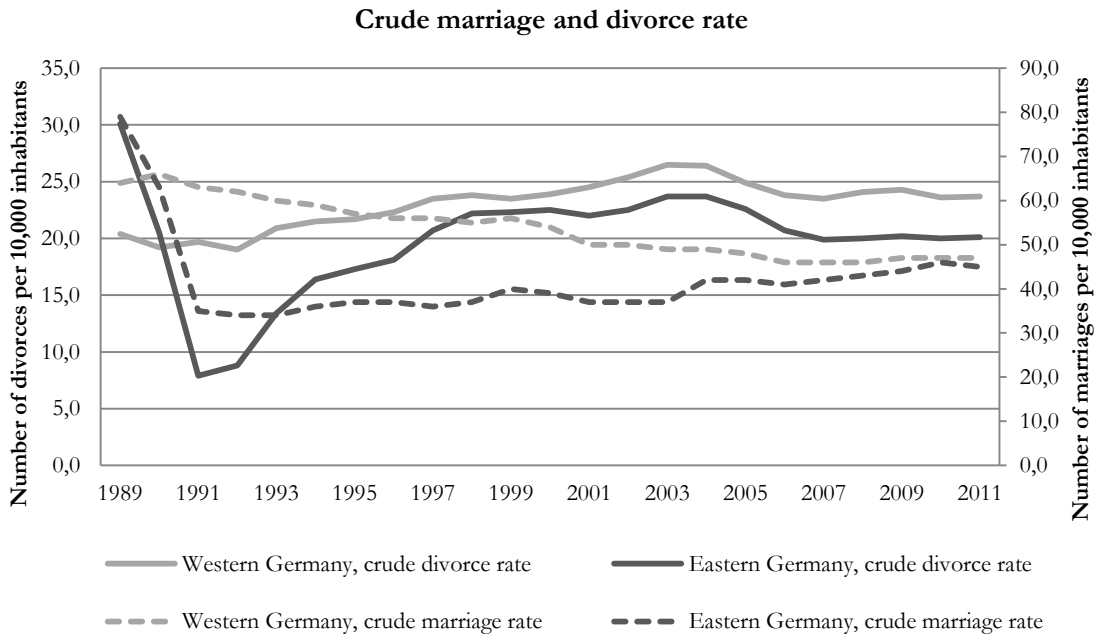


Figure 3: Crude marriage and divorce rates in eastern and western Germany, 1989-2011
Data source: Federal Statistical Office. Calculations: Federal Institute for Population Research[9]

As these absolute numbers of divorces are not standardised, they are strongly affected by population size and structure, and do not tell us much about the trends in a population. For example, the eastern German population also decreased by 231,000 from 1990 to 1991.[10] Unlike these absolute figures, the *crude divorce rate* takes into account changes in population size: the rate is calculated as the number of divorces per 10,000 inhabitants. Figure 3 presents the crude rates of marriage and divorce from 1989 to 2011. We can see that the marriage rates dropped in eastern and in western Germany. Over the observation period, the rates decreased by around one-third. In western Germany, the rate fell from 66 marriages to 47 marriages per 10,000

[9] The data were taken from the following sites**:**
http://www.bib-demografie.de/DE/ZahlenundFakten/05/Abbildungen/a_05_03_rohe_ehescheidungsziffer_w_o_ab1950.html?nn=3073800 [downloaded 2/12/2013]: "Rohe Ehescheidungsziffer für West- und Ostdeutschland, 1950 bis 2011".
http://www.bib-demografie.de/DE/ZahlenundFakten/04/Abbildungen/a_04_02a_eheschl_w_ab1950.html?nn=3073946 [downloaded 2/12/2013]: "Eheschließungen und rohe Eheschließungsziffer in Ostdeutschland, 1950 bis 2011".
http://www.bib-demografie.de/DE/ZahlenundFakten/04/Abbildungen/a_04_02b_eheschl_o_ab1950.html?nn=3073946 [downloaded 2/12/2013]: "Eheschließungen und rohe Eheschließungsziffer in Ostdeutschland, 1950 bis 2011".
[10] The cut-off day was 31 December.

inhabitants. Reunification also triggered a sharp decline in the eastern German marriage rate, which plummeted from 63 marriages per 10,000 inhabitants to 35 in 1991. By 2011, the eastern German marriage rate had increased to 45 marriages per 10,000 inhabitants. However, the pre-reunification high of 80 marriages per 10,000 inhabitants, which was reached in 1989, has not been seen again. It is likely that tempo effects have contributed to the temporarily depressed marriage rates. Before 1990, two different marriage regimes existed in eastern and western Germany. At the end of the 1980s, western German women were on average 25 years old at the time of first marriage, while eastern German women were about two years younger. Just one decade later, the average age at marriage among eastern German women was the same as that of western German women: i.e., 27 years. Scholars have argued that insecurity during the transition years led many couples to postpone their marriage plans (Arránz-Becker & Lois 2010; Huinink 1999). While the crude marriage rates only recently converged, the crude divorce rates in western and eastern Germany were similar staring in the late 1990s. The western German crude divorce rate increased only slightly in the 1990s, from 19 divorces per 10,000 inhabitants in 1990 to 24 divorces in 1998, and has since remained relatively stable. At 30 divorces per 10,000 inhabitants, the eastern German crude divorce rate in 1989 reflected the constantly higher divorce rates in that region during the division of Germany. Since reunification, however, the eastern German crude divorce rate has, at around 20 divorces per 10,000 inhabitants, been slightly below the western German rate.

A disadvantage of the crude divorce rate is that it does not directly relate to the population at risk, which is the group of married couples in a population. A further disadvantage is that it is strongly influenced by the age structure of a population. Eastern and western Germany differ markedly in terms of age structure. The decrease in fertility rates and the migration of numerous young people to the western part of the country have led to a substantial increase in the proportion of elderly people in eastern Germany (Grünheid 2009). That is important, as elderly people are less likely to divorce than middle-aged people: around three out of 1000 people aged 65 to 70 divorced in 2011, compared to 40 out of 1000 people aged 40 to 50.11

A more precise measurement is the specific divorce rate, which is expressed as the number of divorces per 10,000 marriages existing in the same calendar year. The advantage of the specific

[11] The data were taken from the following sites:
http://www.bib-demografie.de/DE/ZahlenundFakten/05/Abbildungen/a_05_16a_gesch_maenner_ag_d_1991_2001_2011.html?nn=3073800 [downloaded 2/12/2013]: "Im jeweiligen Kalenderjahr geschiedene Männer nach Altersgruppen in Deutschland, 1991, 2001 und 2011"
http://www.bib-demografie.de/DE/ZahlenundFakten/05/Abbildungen/a_05_16a_gesch_frauen_ag_d_1991_2001_2011.html?nn=3073800 [downloaded 2/12/2013]: "Im jeweiligen Kalenderjahr geschiedene Frauen nach Altersgruppen in Deutschland, 1991, 2001 und 2011"

divorce rate is that the non-marital population is excluded from the calculation. The number of marriages is estimated using the number of married women at the beginning of a calendar year. Figure 4 shows the specific divorce rate for eastern and western Germany. For purposes of comparison, the crude divorce rates are also included. The crude and specific divorce rates were almost identical until the mid-1990s. Since then, the specific rates have increased more than the crude rates. The divergence in the rates shows that the denominators are increasingly detached, possibly because of the increase in non-marital living arrangements—which include people in residential and non-residential partnerships, but also single individuals—especially in an ageing population. In 2011, there were 100 divorces per 10,000 marriages in eastern Germany. In western Germany, there were 110 divorces per 10,000 intact marriages.

Figure 4: Crude and specific divorce rates in eastern and western Germany, 1989-2011
Data source: Federal Statistical Office. Calculations: Federal Institute for Population Research[12]

12 The data were taken from the following site:
http://www.bib-demografie.de/DE/ZahlenundFakten/05/Abbildungen/a_05_04_ehescheidungsziffern_d_w_o_ab1960.html?nn=3073800 [downloaded 2/12/2013]: • " Scheidungsziffern der Ehen in Deutschland, West- und Ostdeutschland, 1960 bis 2011".

Besides these rates, there are also marriage-duration-specific measures for calculating the divorce propensity. Marriage duration is calculated as the time from the year of marriage formation to the year of legal divorce. As in most cases marriages are legally dissolved after at least one year of separation, the duration of the marriage is generally longer than the duration of the marital partnership. The duration-specific divorce rate is the number of divorced marriages to 10,000 marriages formed in the same marriage cohort. If the marriage duration-specific divorce rates of 25 marriage cohorts are added together, this gives us the *total divorce rate* for 25 years. The total divorce rate is based on a concept of hypothetical or synthetic cohorts. It reflects divorce rates across all marriage cohorts during a single calendar year, and indicates how many marriages would end in divorce if the divorce rate of the respective calendar year had remained constant over a period of 25 years. Thus, the total divorce rate is a hypothetical indicator based on the assumption that the divorce rates observed in a given period remained constant across the whole set of marriage cohorts. This rate does not account for divorces after a marriage duration of more than 25 years, which accounted for around 16 per cent of all divorces in Germany in 2012.[13]

The total divorce rate, presented in Figure 5, can be interpreted as follows. If the divorce behaviour of the year 2011 had continued for the next 25 years, 40 per cent of all western German marriages and 36 per cent of all eastern German marriages would have been dissolved. For comparative purposes, I also displayed the specific divorce rate. It is apparent that the two rates followed quite similar paths. The highest total divorce rates were in the years 2003 and 2004, when 43 per cent of marriages ended in divorce in western Germany and 41 per cent of marriages were dissolved in eastern Germany. However, the recent decrease cannot be interpreted as a decrease in divorce intensity in the marriage population (Dorbritz 2007).

[13] Data source: Federal Statistical Office: "Ehescheidungen: Deutschland, Jahre, Ehedauer", own calculations.

Figure 5: Specific and total divorce rates in eastern and western Germany, 1989-2011
Data source: Federal Statistical Office. Calculations: Federal Institute for Population Research[14]

Timing effects in the duration-specific divorce intensities have created this peak in the total divorce rate. Starting with marriages formed in 1998, the year with the highest divorce intensity has shifted from the sixth to the fifth year of marriage. This led to a superposition of divorce peaks from different marriage cohorts (Dorbritz 2007). It should also be noted that structural and behavioural changes influenced the increase in the divorce rates since 1990 (Grünheid 2013). If the behavioural component was fixed to the total divorce rate of 1990, there would have been many fewer divorces in 2011 (Grünheid 2013). This means that behavioural changes have contributed substantially to the increase in divorce intensity; while structural effects, which resulted in declining marriage rates, have slowed the development. An important behavioural change is the increase in divorce among couples who had been married for a long time, and a decrease in divorce among couples with short marriages. Couples who had been married for at least 25 years were twice as likely to have divorced in 2011 as in 1990. This can also be demonstrated using cohort estimates. The cohort divorce rate depicts the divorce behaviour of couples who got married in the same calendar year. It is calculated by adding up all of the duration-specific divorce rates of a particular marriage cohort until the time this cohort has

[14] The data were taken from the following site:
http://www.bib-demografie.de/DE/SahlenundFakten/05/Abbildungen/a_05_06_zusgef_ehescheidungsziffer_d_w_o_ab1970.html?nn=3073800 [downloaded 2/12/2013]: "Zusammengefasste Ehescheidungsziffern in Deutschland, West- und Ostdeutschland, 1970 bis 2011".

reached a certain marriage duration. If the divorce rate of a respective year indeed remained constant over 25 years, the estimates of the total divorce rate would have been identical to the cohort estimates. However, the total divorce rate can be distorted by the timing effects of divorce. This happens if the duration-specific divorce rates are not constant across the set of marriage cohorts. Cohort divorce rates therefore provide more precise information on divorce behaviour. However, the rates are only available for marriages which were formed some years ago. For divorce estimates on more recent marriages, period indicators like the total divorce rate have to be used (Preston et al. 2001: 101 ff).

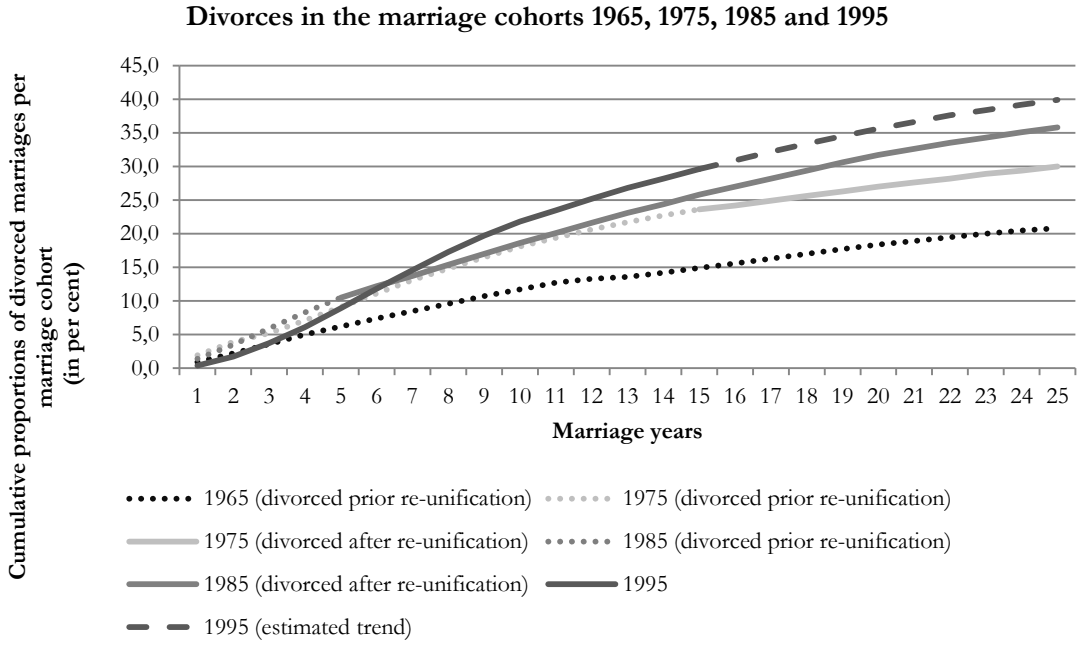


Figure 6: Proportion of divorced marriages during the first 25 marriage years in the marriage cohorts 1965, 1975, 1985, and 1995
Data source: Federal Statistical Office. Calculations: Federal Institute for Population Research (calculations from 2011)[15]

Separate cohort divorce rates for eastern and western Germany are not available in the official statistics of the Federal Statistical Office and the Federal Institute for Population Research. Therefore, cohort divorce rates for marriages formed in 1965, 1975, 1985, and 1995 are presented for Germany as a whole. I distinguished between the time before and after reunification. The cohort divorce rates indeed reveal an increase in divorce among younger marriage cohorts. After a marriage duration of 25 years, 21 per cent of marriages formed in 1965

[15] The data were taken from the following site:
http://www.bib-demografie.de/DE/ZahlenundFakten/05/Abbildungen/a_05_10_anteil_gesch_ehen_eheschl_jahrgaenge_ehedauer_d_1965_1975_1985_1995.html?nn=3073800 [downloaded 2/12/2013]: "Anteile der geschiedenen Ehen der Eheschließungsjahrgänge 1965, 1975, 1985 und 1995 nach der Ehedauer in Deutschland (Stand: 2011)".

and 30 per cent of marriages formed in 1975 were divorced. Of the couples who married in 1985, 36 per cent were already divorced. It can be expected that the proportion is even higher among younger marriage cohorts. As long as these rates are increasing, the total divorce rate will tend to underestimate the divorce behaviour among German couples.

Each divorce affects the life of at least two adult individuals of different sexes. If the marital couple had children, the number of affected individuals per divorced marriage is even higher. Figure 7 shows how many minor children per 1000 divorced marriages were affected by the divorce of their parents each year. In western Germany, the ratio in 2011 was 822 children per 1000 divorces. The number of children in divorced families increased after reunification, from 700 to 850 in 1997. The number then decreased temporarily, to 733 in 1999, and fluctuated at around 800 thereafter. In eastern Germany, however, there were only 641 children affected per 1000 divorces in 2011. After reunification, the ratio fell sharply, but then increased rapidly to 950 children per 1,000 divorces in 1995. Since the millennium, the ratio has again decreased, and is currently below the western German ratio. How can these developments be explained? The decreasing eastern German ratio may reflect the declining proportion of minor children in the population structure of eastern Germany. In fact, the proportion of children aged 0-14[16] in eastern Germany was declining until recently. The development in the 1990s, however, cannot be explained by the population structure. Rather, it seems that after the sharp drop in 1991 (which was due to the altered divorce legislation), the increased willingness to divorce among parents has led to a rise in the number of affected children per 1000 divorces. In western Germany in 1999, fewer children were affected by parental divorce than before and after this year. This was not because marital couples with children who divorced in this year had a lower average number of children (Emmerling 2007). Rather, it was because a high proportion of the couples who divorced in 1999 were childless. If we compare the western German levels since 1990, we can see that the proportion of divorced marriages with minor children was lowest in 1999, at 46 per cent, and was highest in 1997, at 54 per cent. The trend in the number of affected minor children can be explained by an almost identical pattern in the development of the divorce cases (Krack-Roberg 2009, 2011).

[16] Marital as well as non-marital children are included. The Federal Institute for Population Research only offers age-specific population structures by eastern and western Germany across time in the age categories 0-14, 15-24, 25-44, 45-64, 65+.

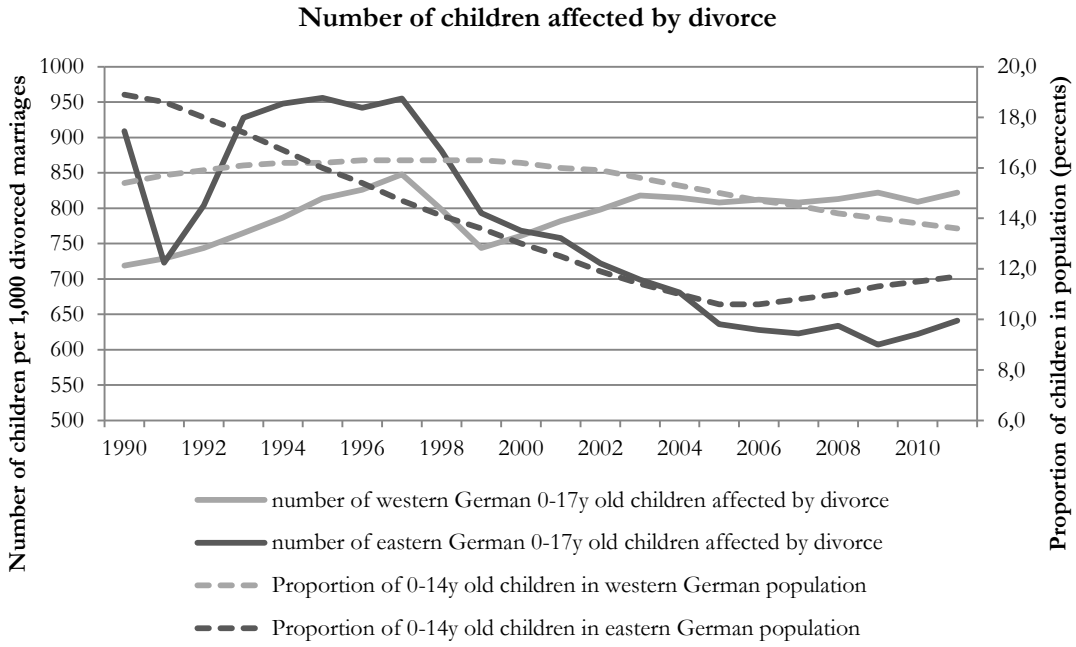


Figure 7: Children affected by parental divorce in eastern and western Germany, 1990-2011
Data source: Federal Statistical Office. Calculations: Federal Institute for Population Research[17]

[17] The data were taken from the following sites:
http://www.bib-demografie.de/DE/ZahlenundFakten/05/Abbildungen/a_05_14_ehesch_betr_minderj_kinder_1000gesch_ehen_w_o_ab1950.html?nn=3073800 [downloaded 2/12/2013]: "Von Ehescheidung betroffene minderjährige Kinder je 1.000 geschiedene Ehen in West- und Ostdeutschland, 1950 bis 2011".
http://www.bib-demografie.de/DE/ZahlenundFakten/02/Abbildungen/a_02_17a_ag_w_ab1990.html?nn=3074114 [downloaded 2/12/2013]: "Anteile der Altersgruppen in Westdeutschland, 1990 bis 2011".
http://www.bib-demografie.de/DE/ZahlenundFakten/02/Abbildungen/a_02_17b_ag_o_ab1990.html?nn=3074114 [downloaded 2/12/2013]: "Anteile der Altersgruppen in Ostdeutschland, 1990 bis 2011".

Non-marital partnerships and families

In this section, I describe the trends after reunification in non-marital childbearing and in non-marital cohabitation, with and without children. This gives us some initial insight into the prevalence of living arrangements outside of marriage. As I noted previously, there are two data sources that provide this information. The first source is official birth statistics, which also include the characteristics of the parents, such as the marital status. This information makes it possible to calculate the non-marital birth ratio as the proportion of live births to non-married parents relative to all live births.

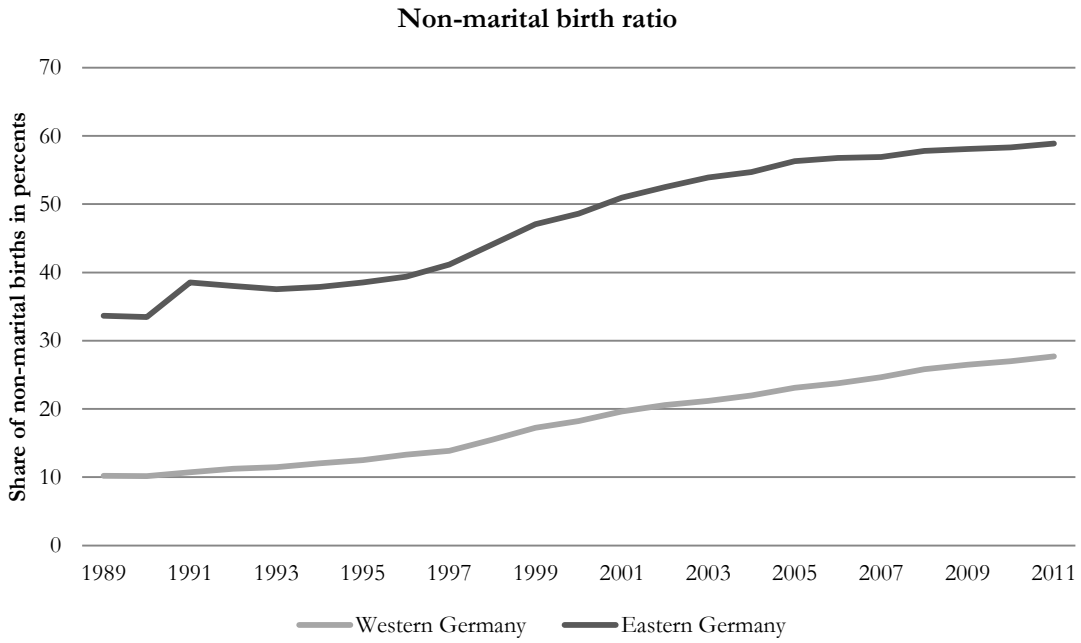


Figure 8: Non-marital births relative to all live births in eastern and western Germany, 1989-2011
Data source: Federal Statistical Office: birth statistics. Calculations: Federal Institute for Population Research[18]

[18] The data were taken from the following site:
http://www.bib-demografie.de/DE/ZahlenundFakten/06/Abbildungen/a_06_04_nichtehelichenquote_w_o_ab1946.html?nn=3073508 [downloaded 2/12/2013]: "Nichtehelichenquote für West- und Ostdeutschland, 1946 bis 2011".

Figure 8 shows the share in non-marital births based on the official birth statistics. In both eastern and western Germany, the share increased between 1989 and 2011. In western Germany, the share tripled in the period. In 1990, 10 per cent of western German children were born outside of marriage. By 2001, the share had already increased to 20 per cent. Almost 30 per cent of all children born in 2011 in western Germany had non-married parents. Despite this strong growth in non-marital births, the western German ratio has been consistently below the eastern German level, even after the fall of the Berlin Wall. One-third of eastern German children were born to non-married parents in the year of German reunification. Since the millennium, more children have been born outside of marriage than within marriage. Given that 59 per cent of the children born in 2011 had non-married parents, the eastern German non-marital birth ratio almost doubled in the period observed. There is clearly no convergence tendency between the eastern and western German share; the curves instead run parallel.

The birth statistics in Figure 8 give no detailed information on the partnership context of the parents at the time of childbirth. Thus, it is not clear whether the increase in non-marital births has been due to an increase in non-marital two-parent families, or to an increase in lone motherhood. Fortunately, there is a second official data source from which we can obtain information regarding the living arrangements of persons with children: namely, the microcensus, which is a random compulsory household survey. Every year about one per cent of the German population participate. Compared with voluntary surveys, the advantages of the microcensus are the large number of cases and the low non-response rate (Kreyenfeld et al. 2009). Because all members of a household are interviewed, information on the family and household composition is also included in this data. Since 1996, non-marital cohabitations have also been surveyed. Children are characterised as unmarried persons who live with at least one of their parents, and who have neither a cohabiting partner nor children of their own. Children who do not live in this household and LAT partners are not accounted for. Thus, the microcensus defines living arrangements by the household structure, and distinguishes between marital and non-marital couples living together and single persons (without a residential partner). The microcensus is not well-suited to providing information about the stability of marital and non-marital unions, because each household remains in the sample for a maximum time of four years, and even the dates of marriage are not gathered consistently.

The microcensus provides information on the family constellations[19] in which children live. In Figure 9, I focus on minor children and distinguish between children living in a marital family, children living in a non-marital two-parent family, and children living with only one parent. It is important to note that there is no distinction made between families with two biological parents

[19] Although the microcensus does not tell us whether the adults who are living with children are the biological parents, I refer to them as "parents".

and stepfamily arrangements. From Figure 9, we can see that marriage is the most prevalent family arrangement in which children live, even in eastern Germany. However, more and more children live in non-marital families. From 1996 to 2011, the proportion of children living outside of a marital family has increased from 13 to 22 per cent in western Germany, and from 25 to 43 per cent in eastern Germany. This trend is attributable to an increasing proportion of children living with single parents and in non-marital, two-parent families. In both eastern and western Germany, the proportion of children living with cohabiting parents doubled in the study period; although the share was still quite low in the western region. It has become more common to live with a single parent than with cohabiting parents. In 2011, 16 per cent of the western German children lived in one-parent families, and six per cent lived in non-marital two-parent families. In eastern Germany, a higher proportion of children lived in non-marital families. But even in this region, the proportion of children in single-parent families was higher than the proportion of children in cohabiting families: 24 per cent of the children lived in one-parent families, and 19 per cent lived in non-marital two-parent families in the year 2011.

At first glance, we may be tempted to conclude from these statistics that the increase in non-marital childbearing is mainly due to an increase in single motherhood, and that cohabitations play only a marginal role, especially in western Germany. However, we should refrain from comparing these statistics, because they tell us about the living arrangements of children at different times in the life course. While the birth statistics clearly refer to the parental marital status at childbirth, the statistics of the microcensus tell us about the family situation of children at some point during their childhood. The cross-sectional data neglect the fact that children can live in different family forms over the life course. The proportion of marital families among children may be higher than among newborns because a proportion of parents will get married after the child's birth. Living with a single parent might be a result of parental separation happening at some point during childhood. As was mentioned earlier, non-marital two-parent families often consist of stepparent arrangements. The prevalence of non-marital family arrangements among people with children is likely to be underestimated if we only consider the cross-sectional data. We would need longitudinal data to compare the living arrangements at different points in the children's life courses.

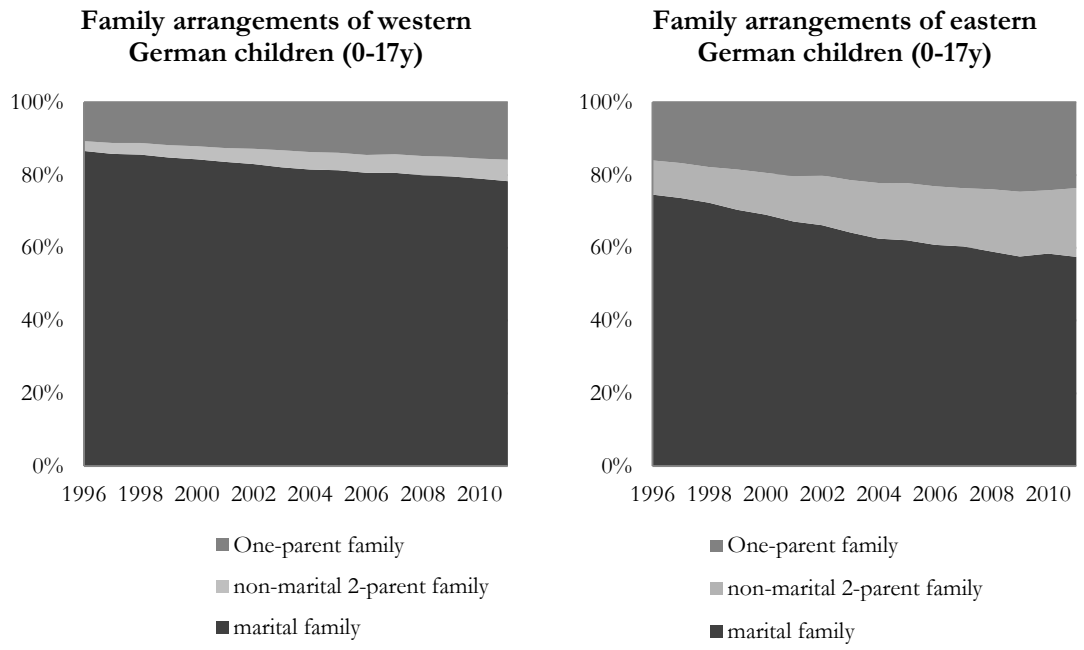


Figure 9: Living arrangements of children in eastern and western Germany, 1996 to 2011
Data source: Federal Statistical Office: microcensus. Calculations: Federal Institute for Population Research[20]

In the statistics presented in Figure 8 and Figure 9, the focus is on the living arrangements of children. But how prevalent are non-marital cohabitations in general in Germany? To answer this question, we have to change the focus again from children to adults, who are defined as individuals aged 18 years or older. Previous research has shown that the couples who cohabit in western Germany tend to be childless, while in eastern Germany this arrangement is often chosen by parents as well (Huinink 1999). The microcensus provides information on the living arrangements of adults in the period 1996 to 2011, which are presented in Figure 10. The share of cohabiting couples with children in the household has decreased to a greater extent in eastern Germany. In 2011, only around 20 per cent of western and eastern German adults were living with children. Marriage was the most common living arrangement among adults, regardless of whether children were present in the household. Around 10 per cent of the population were living in non-marital cohabitation. A larger share of eastern Germans than western Germans were living in non-marital unions involving children in 2011, but at four per cent, the share was still very low. Comparable proportions of German adults were living as single parents (two per

[20] The data were taken from the following sites:
http://www.bib-demografie.de/DE/ZahlenundFakten/12/Abbildungen/a_12_32b_ledige_kinder_in_familien_familienform_w_1996_2011.html?nn=3413586 [downloaded 2/12/2013]: "Minderjährige Kinder in Familien nach Familienform in Westdeutschland, 1996 bis 2011".
http://www.bib-demografie.de/DE/ZahlenundFakten/12/Abbildungen/a_12_32c_ledige_kinder_in_familien_familienform_o_1996_2011.html?nn=3413586 [downloaded 2/12/2013]: "Minderjährige Kinder in Familien nach Familienform in Ostdeutschland, 1996 bis 2011".

cent in western Germany and three per cent in eastern Germany), while a substantial proportion of Germans were living with neither children nor a partner. This does not, however, mean that these individuals were not partnered. The Federal Institute for Population Research has estimated that the proportion of people in LAT arrangements is comparable to that of people living in cohabitations.[21]

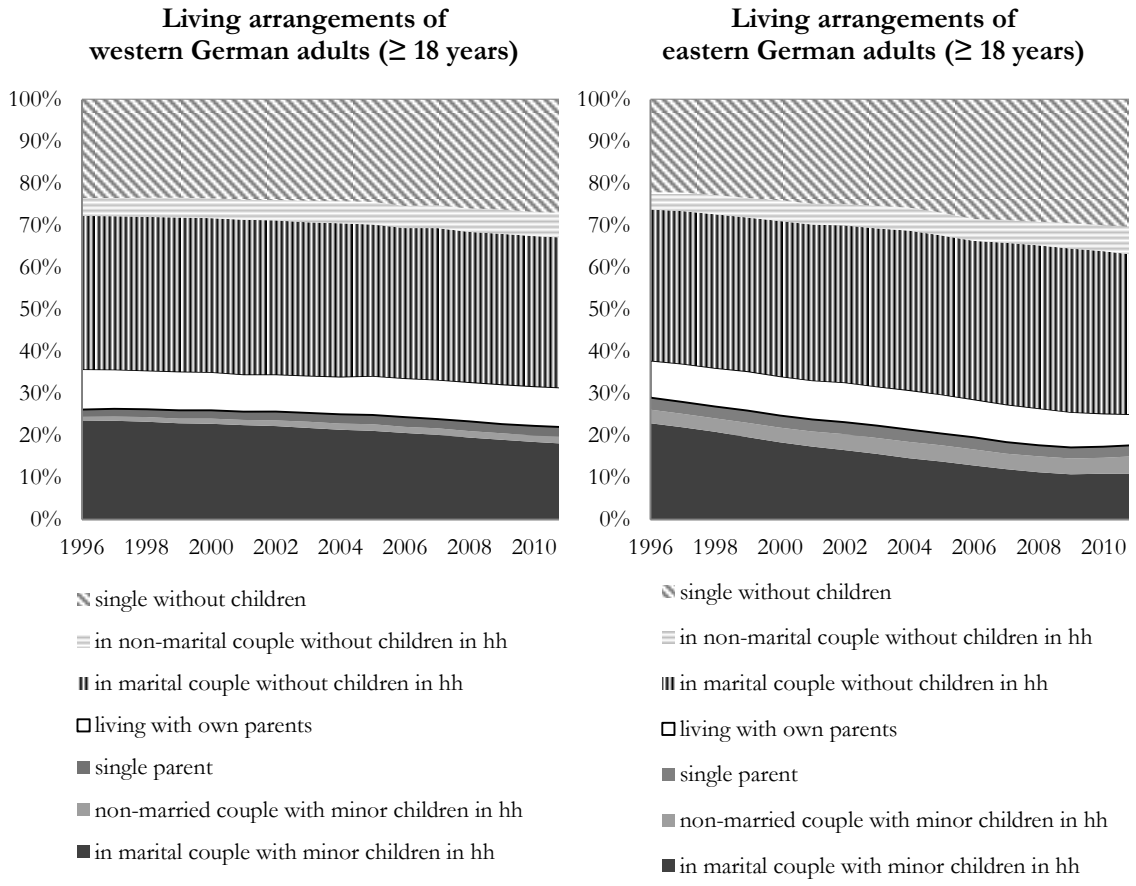


Figure 10: Living arrangements of adults (≥ 18 years) in eastern and western Germany, 1996-2011
Data source: Federal Statistical Office: microcensus. Calculations: Federal Institute for Population Research[22]

[21] http://www.bib-demografie.de/SharedDocs/Glossareintraege/DE/B/bilokale_partnerschaften.html?nn=3413680 [downloaded 2/12/2013].

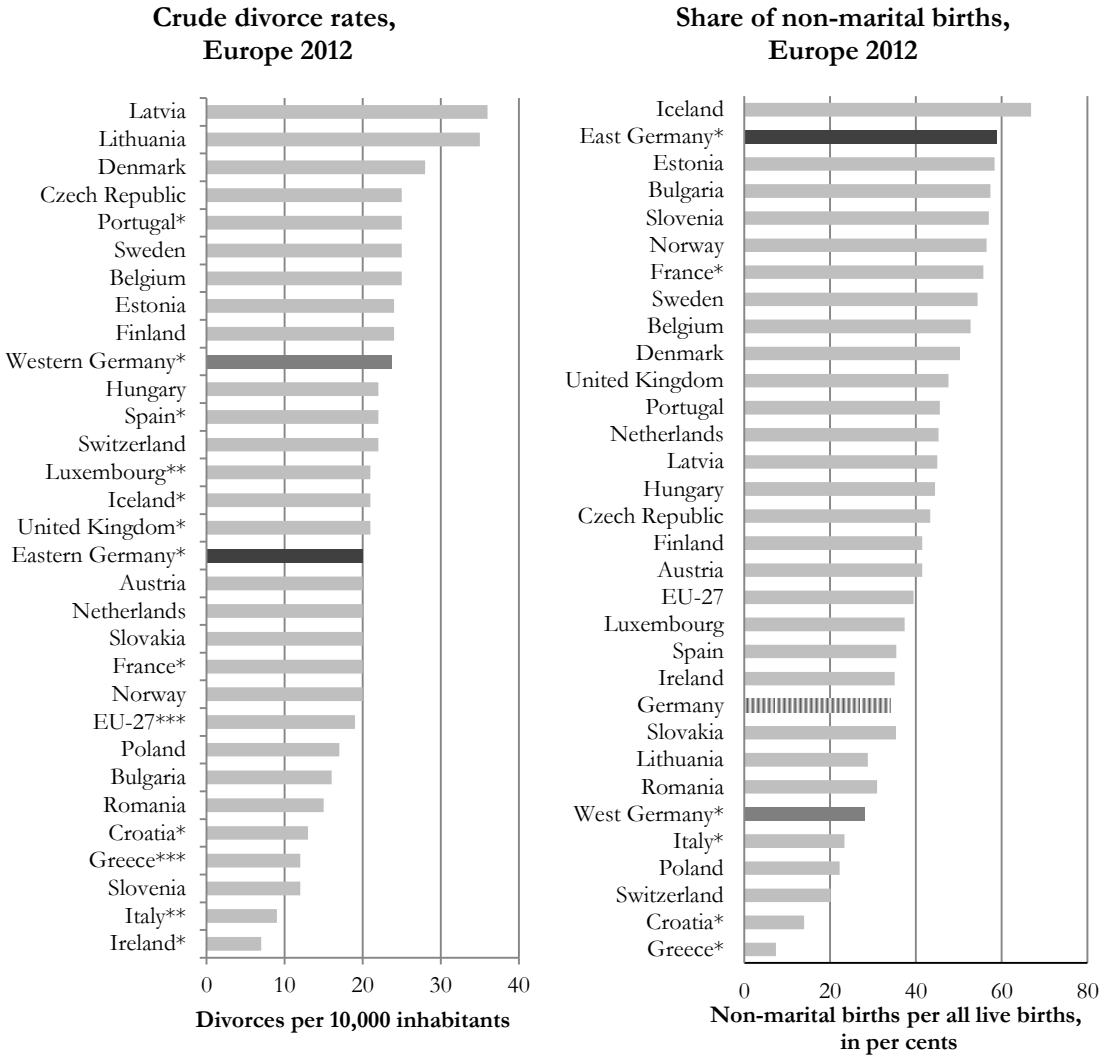
[22] The data were taken from the following sites:
http://www.bib-demografie.de/DE/ZahlenundFakten/12/Abbildungen/a_12_04b_bev_lebensform_w_1996_2011.html?nn=3413586 [downloaded 2/12/2013]: "Bevölkerung nach Lebensformen in Westdeutschland, 1996 bis 2011" (disregarding minor children).
http://www.bib-demografie.de/DE/ZahlenundFakten/12/Abbildungen/a_12_04c_bev_lebensform_o_1996_2011.html?nn=3413586 [downloaded 2/12/2013]: "Bevölkerung nach Lebensformen in Ostdeutschland, 1996 bis 2011" (disregarding minor children).

2.3.3 Eastern and western Germany in international comparison

Finally, it is important to situate eastern and western Germany within the European context. The definition of a family and the formal recognition of non-marital relationships vary with time and space, which makes it difficult to formulate a consistent, cross-national concept of what constitutes a family. Concentrating on marriages thus appears to be the lowest common denominator. *Eurostat* provides information on the most common statistics on divorce and non-marital relationships: i.e., the crude divorce rate and the share of non-marital births. As was discussed above, the crude divorce rate is strongly influenced by the ages and the marital statuses of the studied population. However, in absence of more concrete measurements, it provides a basis for comparison for all countries, regardless of the size of the population.

From Figure 11 we can see that eastern and western Germany had crude divorce rates above the European Union (EU-27) average, which was about 19 divorces per 10,000 inhabitants in 2009. The lowest crude divorce rates can be found in the Catholic countries of Ireland and Italy, with only seven and nine divorces per 10,000 inhabitants, respectively. The crude divorce rates were highest in the Baltic countries of Latvia and Lithuania. According to Kalmijn and Uunk (2007), country differences in marital instability are related to differences in divorce legislation, but also to variations in gender and family roles, as well as to differences in religious strength and composition. Partly as a result of religious differences, there are also important country differences in social norms regarding divorce.

Eurostat also offers information on the share of non-marital births in cross-national comparison. While the proportion of live births outside of marriage has increased in Europe in recent decades, there is still substantial variation. On average across Europe (EU-27), 40 per cent of all children were born to non-married parents in 2012. The highest proportions of non-marital births were found in Iceland and Estonia. Eastern Germany had a comparably high level, while western Germany (and Germany in total) ranked below the European average. In international comparison, eastern and western Germany represent nearly opposite ends of the spectrum, as can be seen from Table 11. The lowest shares of non-marital births—which means below 20 per cent—could be found in countries like Croatia and Greece. Like the international differences in divorce rates, the cross-national heterogeneity in marriage patterns is attributable to differences in legal regulations, gender roles, degrees of secularisation (Kalmijn 2007; Perelli-Harris et al. 2012; Perelli-Harris & Sanchez-Gassen 2012). Historical continuity also plays a role (Kalmijn 2007).



* data from 2011; ** data from 2010; *** data from 2009

* data from 2009; ** data from 2008; *** data from 2006

Figure 11: Crude divorce rates in European countries and non-marital births relative to all live births across western countries, and in eastern and western Germany
Sources: Eurostat[23], Federal Statistical Office: birth statistics (Calculations: Federal Institute for Population Research[24])

[23] The data were taken from the following sites:
http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tps00013&plugin=1 [downloaded 2/12/2013]: "Divorces per 1,000 persons"
http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tps00018&plugin=1 [downloaded 2/12/2013]: "Live births outside marriage (% live births)".
[24] The data were taken from the following site:
http://www.bib-demografie.de/DE/ZahlenundFakten/06/Abbildungen/a_06_04_nichtehelichenquote_w_o_ab1946.html?nn=3073508 [downloaded 2/12/2013]: "Nichtehelichenquote für West- und Ostdeutschland, 1946 bis 2011".

2.4 Concluding remarks on the German background

My research interest lies in the investigation of union stability in the period after reunification. Yet in order to understand differences in eastern and western German separation behaviour, it seems essential to me to consider the development in divorce rates in the period prior 1990.

The crude divorce rates were higher in eastern than in western Germany during the years when Germany was divided. The divergence in the rates did not start with the division of Germany into two states, as the eastern German crude divorce rate exceeded the western German rate before the GDR was formed. This led Wagner (1997) to conclude that the differences in the political systems were not the main driving factors for the differences in the crude divorce rates. Instead, he attributed the gap primarily to the different social structures of the eastern and the western German populations, especially in terms of their religious backgrounds (Wagner 1997: 303). After reunification, the secularisation level remained high in eastern Germany. In contrast, the crude divorce rate has been below the western German rate since 1990. The steep drop in the divorce rate in the beginning of the 1990s can be attributed to the period of transition, when western German divorce laws were implemented in eastern Germany and the sense of economic insecurity was strong. Surprisingly, the eastern German crude divorce rate has remained below the western German rate up to today. This seems to be contradictory given the high level of secularisation, but it can be explained when we take a closer look on the divorce indicators.

It might be assumed that east-west gap is attributable to changes in the eastern German population to which the crude divorce rate refers, such an increasing proportion of non-married (single, divorced, or widowed) individuals. The proportion of the population at risk of divorce relative to the total population might have simply been lower in eastern than in western Germany, which would have been reflected in lower crude divorce rates. But the specific divorce rate, which is a more precise period indicator of divorce that relates divorces to the married population, has shown very similar trends.

It is also possible that after the fall of the Berlin Wall, divorce-prone married couples were under-represented in eastern Germany. The divorce intensity is usually lower among people in long-lasting marriages and the elderly. Thus, the proportion of married couples with long marriages might have been higher in eastern than in western Germany, possibly as a consequence of the temporary drop in marriage rates. This can be taken into account with the total divorce rate. However, this indicator also shows that western German divorce rates exceeded eastern German divorce rates. It should be noted that this period indicator depicts only a synthetic cohort. The total divorce rate depicts divorce behaviour under the assumption that all of the other demographic parameters remain stable. Therefore, the measure is rather sensitive to timing effects. The average age at first marriage among eastern Germans increased markedly in the

1990s, while the increases among western Germans mainly occurred in the 1970s and the 1980s (Grünheid 2009). After reunification, this structural change might have depressed the period divorce rates, especially in eastern Germany. If marriage behaviour or duration-specific divorce behaviour is indeed changing across marriage cohorts, cohort estimators can give us more precise insights into the divorce behaviour of a population than the total fertility rate. Indeed, Schmitt and Trappe (2010) showed for first marriages formed after 1990 that eastern German marriages were at higher risk of divorce than western German marriages. This finding stresses the importance of looking at cohorts rather than at period rates when comparing eastern and western German marital stability. It also demonstrates that Wagner's observation holds for the post-reunification period as well: today, eastern Germany still has not only much higher levels of secularisation than western Germany, but also more unstable marriages. The religious context therefore deserves attention in research on marital stability.

However, in investigating the stability of partnerships, it is no longer sufficient to focus only on marital relationships, because non-marital partnership arrangements have become more common in recent decades. Although in the cross-sectional data the proportions of adults living in cohabitation suggest that this arrangement is a rather marginal phenomenon, the proportion of children born to non-married parents clearly demonstrates the quantitative importance of non-marital partnership forms in the German population.

From the point of view of the children, whether they live with married or non-married parents may make no difference, while living only with one parent does. However, it is not clear from population statistics how many children are born into cohabitations, and how similar to marriage cohabitations are. In the last 15 years, significant legal changes have been implemented that favour the equal treatment of children and their parents in non-marital and marital family forms, especially after separation. However, legislation still distinguishes between marital and non-marital unions in general. Marital spouses are guaranteed many exclusive rights, and are subject to many exclusive obligations. So far, it is not evident whether this leads to differences in union stability in the eastern and the western German contexts.

So far, official statistics have not gathered information on partnerships beyond the household. However, the Federal Institute for Population Research assumes that LAT partnerships are as common as cohabitations in the German population. This suggests it is becoming increasingly important that we take a closer look at these partnerships using detailed survey data.

CHAPTER 3

Data: The German Family Panel

3.1 The German Family Panel - pairfam and DemoDiff

This dissertation uses data from the first three waves of the German Family Panel (doi:10.4232/pairfam.5678.3.0.0; doi:10.4232/demodiff.5684.3.0.0). The panel is a nationwide random sample called "Panel Analysis of Intimate Relationships and Family Dynamics (pairfam)" (Huinink et al. 2010, Nauck et al. 2012), which consists of 12,402 German adults born in 1971-1973, 1981-1983, and 1991-1993; and who live in western or eastern Germany.25 This sample is supplemented by an oversample of 1,489 randomly selected eastern Germans born in 1971-1973 and 1981-1983, which is named "Demographic Differences in Life Course Dynamics in Eastern and Western Germany (DemoDiff)" (Kreyenfeld et al. 2011, 2013a, 2013b).

The vast majority of the German population live in the western part of the country. However, German history raises the question of whether family life in the former socialist eastern part of Germany differs from family life in the rest of the country. The German Family Panel, in combination with the DemoDiff data, offers a solid empirical basis for the analysis of family and partnership behaviour in eastern and western Germany.

The pairfam data are funded as a long-term project by the German Research Foundation (DFG), which was initiated by Josef Brüderl (University of Munich), Johannes Huinink (University of Bremen), Bernhard Nauck (University of Chemnitz), and Sabine Walper (University of Munich). The first three waves of the eastern German oversample were initiated and funded by the Max Planck Institute for Demographic Research (MPIDR). During this period, the DemoDiff project was coordinated by Michaela Kreyenfeld, Joshua Goldstein, and Rainer Walke (MPIDR); and was supported by Heike Trappe (University of Rostock) and Johannes Huinink (University of Bremen). Sylvia Keim and Andreas Klärner (University of Rostock) and Dirk Konietzka (Technische Universität Braunschweig) were members of the research team.

The first three waves were conducted annually as personal standardised interviews. The first survey wave of DemoDiff was realised one year after the start of the pairfam study between fall 2009 and spring 2010. Within the first interviews, the retrospective partnership histories were collected on a monthly basis. This partnership information was updated with each subsequent wave.

The German Family Panel is conceptualised as a multi-actor, multi-disciplinary, longitudinal study for researching partnership and family dynamics in Germany. The dissertation concentrates on

[25] For the first pairfam wave, 42,000 addresses were randomly drawn from the population registers of 343 randomly selected communities, which resulted in 12,402 anchor interviews. The overall response rate was 36.9 per cent. However, differences existed between the birth cohorts: the rate was 49 per cent for the youngest cohort (1991-1991), 33 per cent for those born 1981-1983, and 32 per cent for the oldest cohort (1971-1973). Response rates below 40 per cent have been common in Germany (Huinink et al. 2011).

information given by the anchor persons, and makes use of the very detailed partnership and family information gathered in this panel. An advantage of this dataset is that it includes information not only on episodes of co-residence with a spouse or partner, but also on partnership episodes that do not involve living together. Furthermore, retrospective information on biological children, as well as on non-biological children and the respondent's co-residential history with these children, is available. Former partners can be identified as the second biological parent of children in the retrospective data. A further advantage of the German Family Panel is that the project concentrates on young men and women. This makes it possible to describe recent trends in the private life courses of German adults. At the latest wave, the birth cohorts of 1971 to 1973 were a maximum of 42 years old, which means they were about to finish their reproductive careers. The respondents born between 1981 and 1983 were around 30 years old when they were interviewed the third time, which is the mean age of first marriage and first childbearing in Germany.[26] As a consequence, a substantial proportion of individuals of the birth cohorts 1971-1973 and 1981-1983 should have formed a partnership, transformed them into cohabitation or marriage, and become a parent. Some of these partnerships would have been dissolved at some point. In this dissertation, I focus on people from these cohorts, and provide detailed descriptions of the risk factors that lead young couples—some of whom may have small children—to separate.

Together with my colleague Sonja Bastin, I generated an event history dataset based on the information on the partnership and fertility biography included in release 3.1 of the German Family Panel. This dataset was carefully prepared and provides information on partnership and family trajectories in person-period format to users of the German Family Panel. Our aim was to create a dataset that allows users to conduct duration analyses immediately, without a major restructuring of the data. We improved the manageability of the data by transforming all of the available date information into time-varying variables. This dataset thus offers users the opportunity to analyse easily a variety of research topics, including fertility behaviour, union formation and dissolution, and the process by which partnerships are established. We were motivated to generate this dataset by the fact that the original data provided by the German Family Panel have a complex data structure. As such, the data needed to be edited extensively before analyses like event history or sequence analyses could be conducted. With our generated event history dataset, it is easy to identify the timing of family-related events, like the formation, dissolution, and interruption of marriages, and other types of partnerships; as well as the birth of children. In addition, further episode-specific information on the family arrangement is included. Transferring the data into a spell format involved two major tasks: bringing the partnership and

[26] According to the official statistics (Federal Statistical Office) of the year 2008—the year of the first pairfam wave—the mean age of women at their first marriage was 29.2 years (29.0 in western Germany and 29.9 in eastern Germany). The mean age of women at childbirth was 30.0 (30.2 in western Germany and 29.3 in eastern Germany).

fertility histories into convergent and compatible formats, and dealing with missing date information. The dataset also includes indicator variables for imputed date information, as well as for individuals who did not experience any events in their partnership or fertility biographies. We believe that this substantially improves the analyses of fertility and partnership behaviour using the German Family Panel data. Partnership and childbearing decisions can be closely linked in time; however, the relative timing might matter for future outcomes, such as union stability. Therefore, it was important to know whether the relative timing of, for example, marriage formation and first childbearing, referred to the exact dates given by the anchor or to imputation procedures. The transfer of the original data into spell format is documented in a technical report (see the annex). We also provided a STATA code (Eventhistory.do) that generated the event history dataset, which can be found on the homepage of the German Family Panel.[27]

I believe that these data offer new insights into the partnership dynamics of young Germans. However, the data also have some drawbacks, which should be mentioned. First, I had individual information for only one of the partners, but no couple data. Information on the individual characteristics of both partners was not available if the partnership was dissolved prior to the first interview. This means that the influence of individual characteristics on separation risks, such as religious affiliation, could only be captured for one of the partners. Although the dimensions of homogamy with regard to education, religion, or age are important for partnership prospects, this aspect cannot be modeled in this dissertation.

The cohort perspective makes it possible to look at the private life course decisions of rather young individuals in light of the research. This means, however, that the partnership trajectories at early adult ages are considered, while little can be said about partnership dynamics at later stages of the life course. The early date of censoring in the life course biographies implies that a number of separations cannot be represented, because the partnerships are "still" on-going. The cohort approach has the disadvantage that these cohorts might have followed particular life course trajectories which cannot be generalised. Therefore, it must be emphasised that the results of my empirical analyses can be transferred to eastern and western Germans born in the years 1971-1973 and 1981-1983, respectively, but that no conclusion regarding the living arrangements of the German population in general can be made.

I used the retrospective partnership and fertility information which the respondents had provided at the first interview. However, the retrospective data can be subject to recall problems. This should be considered when it comes to the interpretation of the empirical results (see section 3.2 in Paper II). According to Reimer (2005), past events are remembered as episodes or "chapters" in the life course. The trajectories are not always definite, but can be rather "fuzzy", which makes

[27] http://www.pairfam.de/de/daten/dokumentation.html#c1803

their retrospective listing difficult. Dates are the most difficult to remember, and can produce recall problems. Especially the formation and dissolution dates of LAT partnerships but also cohabitations are found to be less reliable, potentially because the respondents had problems to draw a clear line between between different partnership types (Kreyenfeld & Bastin 2013). Defining the partnership status at the time of first childbirth imposes difficulties, because partnership transitions tend to accelerate during the period of family formation. The farther back in the past the event occurred, the more likely it is that the date has been adjusted to norms. Women remember the dates of past events in their private life course better than men. Especially with regard to childbearing, men provide less reliable information than women. It has been shown for the German Family Panel data that women provide more reliable information on the partnership context at first childbirth than men (Kreyenfeld & Bastin 2013). Therefore, I decided to consider women and men only in the studies that looked at partnerships in general (Paper II), while I concentrated on women when it came to analysing parents and their union status at first childbirth (Paper I, Paper III and Paper IV).

3.2 Definitions: what is a partnership?

This dissertation deals with different forms of living arrangements: individuals can have a partner with whom they may or may not share a household, and to whom they may or may not be married. There is no uniform terminology in the literature, especially when it comes to alternative partnership arrangements outside of marriage. What is a "partnership" or a "union"? The definitions of such terms mainly depend on a scholar's focus. It can refer to marriage, but it can also include cohabitation: in German, the so-called "*nichteheliche Lebensgemeinschaft*". Moreover, the terms can also refer to a relationship between two individuals who do not share a household, which scholars in and outside of Germany have called "living apart together" (LAT) partnerships.

In the articles that accompany this dissertation, there is no congruent use of the terms. Priority was given to the comprehensibility of the texts, which means that instead of employing rather long but congruent definitions, I used terminologies which allowed me to refer to the different living arrangements briefly and concisely. In the following, I will discuss the different terminologies used.

It is important to understand that the German Family Panel includes different partnership dimensions. First, it provides information on whether the respondent has a partner. Second, it provides information on the partner with whom the respondent co-resides. Third, information about marriage is included in the data.

In the technical report, we defined the first dimension as a "union". The dimension of co-residence is called "cohabitation", and the third dimension of the marital status is called "marriage". These three dimensions of union, cohabitation, and marriage are included in our concept of "partnership". Thus, when we referred to issues that were relevant to any of these three dimensions, we used the term "partnership". This approach was appropriate when we dealt with the different dimensions that partnership living arrangements involve.

However, these dimensions are in practice interwoven (see Figure 1 in the technical report). A person can live with his/her partner, while not being married to him/her. Following the above terminology, this person has a union and a cohabitation, but not a marriage. In my articles, I refer to this as a "cohabitation" or as a "*nichteheliche Lebensgemeinschaft*". If the person is partnered, lives together with the partner in a household, and is married to this partner, this is called a marriage.

In Paper I, we distinguished between living apart together (LAT) partnerships, which were defined as non-marital non-residential partnerships, cohabitations, and marriages. Non-residential marital partnerships were defined as marriages, because we granted the marital status priority in the classification. In Paper II, the focus was on the partnership episode before household formation. I therefore referred to all relationships involving two individuals, independent of marital status and household arrangement, as a "partnership". Non-marital and marital partners who lived together in a household were referred to as "residential unions". The non-residential partnership episode prior to household formation was called the "LAT episode", regardless whether the couple was already married. In Paper III, my main focus was on marriage. I distinguished between marital and non-marital couples based on the marital status and the existence of a partnership, while I ignored the household context. In Paper IV, I focused on residential unions only, and distinguished between cohabitations and marriages. In this context, I used the terms "partnership" and "union" as synonyms.

CHAPTER 4

Study results – answers to the research questions

4.1 Preliminary remarks

In the following section, I will summarise the relevant results from the articles (Papers I to IV) that make up the core of this dissertation, and I will provide answers to the research questions I posed in Section 1.5. In the first article (Paper I), I described the diversity of partnership arrangements among eastern and western Germans at the time of family formation, and the risk of dissolution of these arrangements in the time that followed. In the second article (Paper II), I analysed whether the risk of dissolution among couples who moved in together soon after they became a couple differed from that of couples who spent a long time in an LAT arrangement prior to household formation. In the third article (Paper III), I investigated how the religious background of the partners influenced the risk of separation following the first childbirth in eastern and western Germany. In the fourth article (Paper IV), I focused on the level of union stability of eastern and western German cohabiting mothers. Accompanying this dissertation are the complete articles (in Appendix B) and one-page summaries of each article (in Appendix A). The summaries in Appendix A include information on the motivation, the background, the methodological approach, the analytical sample, and the empirical results of each article. The research questions do not necessarily correspond to a single article. Rather, the answers to these questions were provided in several of the dissertation articles. Each question is followed by a short answer, followed by a more detailed discussion of the background and the study's results.

Before summarising the results, I wish to stress again an important point regarding the data used. The empirical results refer to individuals of the birth cohorts included in the German Family Panel[28]; namely, the cohorts 1971 to 1973 and 1981 to 1983. It is important to keep in mind that the results only apply to members of these birth cohorts in eastern and western Germany. Because of the cohort structure, it is not possible to show a trend across time.

[28] For convenience, I call the German Family Panel in the following "pairfam."

4.2 *Research question 1* – How prevalent are non-marital partnership forms among Germans, especially at the point in time when they start a family?

Summarised answer

There is a very high prevalence of non-marital partnership forms at the start of a partnership. The vast majority of partnerships that are transformed into residential unions at some later point in time start with the partners not being married and not living together. Half of the couples in residential unions remain unmarried throughout their partnership. The prevalence of non-marital arrangements is still relatively high when couples become parents: mothers are most likely to be living in a non-marital living arrangement at the beginning of their reproductive career, and when they are very young. The higher proportion of non-marital living arrangements among eastern German mothers was mainly due to a greater prevalence of cohabiting unions. However, a substantial proportion of mothers were living in a non-residential partnership when they conceived their first child: i.e., about 20 per cent of eastern Germans and 16 per cent of western Germans. The results suggest that researchers should devote more attention to cohabitations and LAT partnerships.

Detailed answer

Marriage is the only heterosexual partnership form that is officially registered in Germany. The partnership forms outside of marriage include residential unions (cohabitations) and non-residential partnerships (LAT). LAT partnerships are so far not captured in the official statistics. The official birth statistics contain information about how many children are born in respective calendar years to married parents, but do not differentiate between births to cohabiting parents, births to parents in LAT partnerships, and births to unpartnered mothers. Despite the shortcomings of the cross-sectional data, there have so far been few attempts to reflect the dynamics of life and family forms in longitudinal section (Brüderl 2004). Longitudinal data that are able to capture the proportions of the different kinds of non-marital relationships, namely LATs and cohabitations, can reflect the diversity of private life. Such data may also provide information on the relative roles in contemporary society of marriage and the marital family on the one hand, and alternative living arrangements on the other. Previous research has often described non-marital living arrangements as temporary childless preludes to marriage and childbearing (see, for example, Jalovaara 2013). A central question is therefore how prevalent non-marital partnerships are among people with children, and how closely marriage is linked to family formation. In the following, I distinguish between women who are married, cohabiting, in LAT partnerships, or single; and describe in detail the living arrangements they choose when they start a family. I focus on women because they have been shown to remember the dates of childbearing and partnership events in their private life course better than men. For this

discussion, I mainly use the results of Paper I[29]. In this paper, I captured the diversity of living arrangements among Germans born in the period 1971-1973 in longitudinal section. To evaluate the importance of LAT partnerships in the partnership life course, I also refer to the results of Paper II, which addressed the issue of the duration of LAT episodes prior to household formation. The structure of the following section is as follows: First, I discuss the prevalence of the LAT episode in the partnership life course. Next, I evaluate the partnership contexts at different times in the women's life course: namely, at the time of interview, at the time of the first birth, and, among mothers, between different ages. The findings of this analysis indicate in which situations non-marital living arrangements with children are most prevalent. Finally, I discuss whether cohabitation works as a partnership arrangement after childbirth.

In Chapter 3, I used data from official statistics to show that the majority of western and eastern German adults live in marital unions. Figure 10 in Section 2.2.2 shows that in 2011 a substantial proportion of western and eastern Germans lived outside of marriage, and that most did not have a non-marital residential partner. This observation might suggest that these single people were not in a committed, intimate relationship; and could thus fuel concerns about the breakdown of partnerships and the rise of individualism (Tyrell 1988). It would, however, be wrong to conclude that partnerships play no role in the private life course of an individual without a residential partner. Based on longitudinal data, I revealed in Paper II that among German adults who were born in 1971 to 1973 and 1981 to 1983, 90 per cent of their residential unions started as LAT partnerships. LAT partnerships seem to signify a transitory partnership stage. Residential unions were preceded by an LAT episode that lasted on average between 10 and 25 months. There were also LAT partnerships which were not converted into residential unions, but which dissolved before household formation took place: previous research has shown that around half of non-residential partnerships result in residential unions, while the other half end in separation (Ermisch & Siedler 2008). As the LAT episode has a rather temporary character, it would be difficult to correctly capture these partnerships in cross-sectional data, even if this information could be gathered.

[29] Paper I was written in co-authorship. For the sake of simplicity, however, I have chosen to use the first person singular in the following.

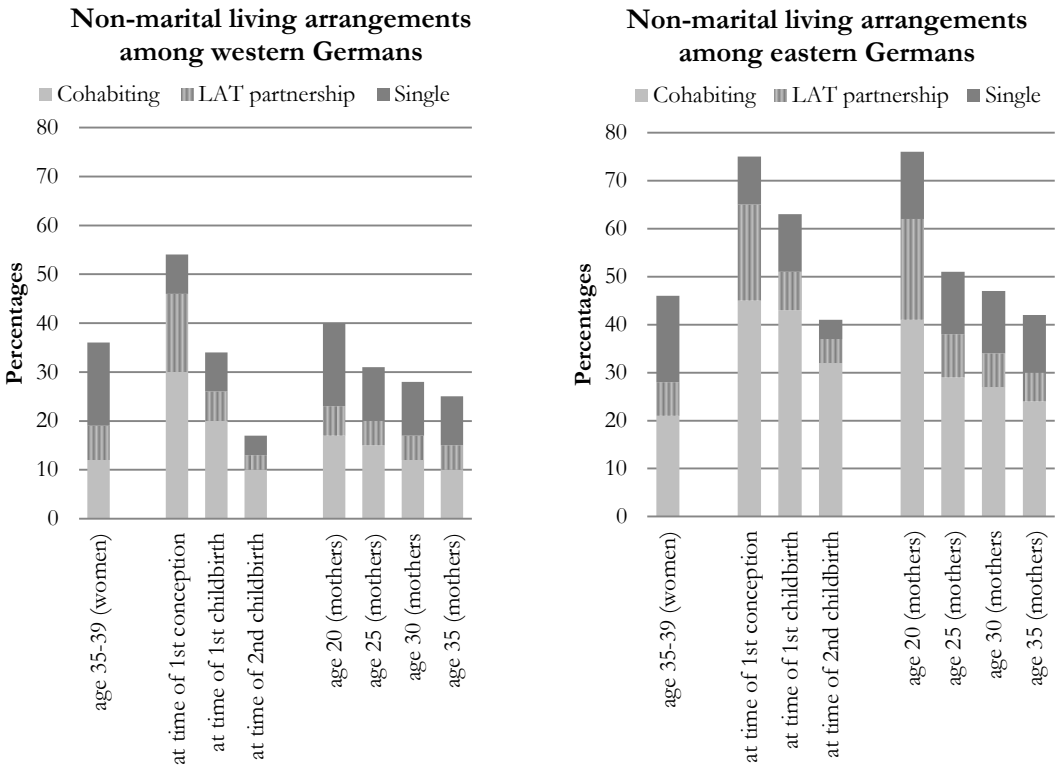


Figure 12: Proportion of non-marital living arrangements in the microcensus and in the pairfam data (women born 1971-1973)
Source: Own illustration based on Figures 2a and 2b and Tables 1 and 2 in Paper I.
Data source: pairfam/DemoDiff Release 1.0 (2008-2010);

Figure 12 summarises the findings from Paper I and shows the prevalence of non-marital living arrangements when the women were 35 to 29 years old, at the time of the first conception, and at the time of the first and the second childbirth. Furthermore, the figure shows the proportion of non-marital living arrangements among mothers at ages 20, 25, 30, and 35. The first bars in Figure 12 reveal that the vast majority of women aged 35 to 39 were partnered. Only 18 per cent did not have a partner. Marriage was the most prevalent union form,[30] but 35 per cent of the western German women and 46 per cent of the eastern German women were not married. These differences were mainly due to differences in the prevalence of cohabitation; the shares of single and LAT partnered women were identical in both regions. In eastern Germany, 21 per cent of the women were cohabiting, making this the most common non-marital living arrangement. Meanwhile, only 12 per cent of the women in western Germany were cohabiting, and about seven per cent were living in non-residential partnerships.

[30] For the sake of completeness, I should mention that the results for the male respondents were in line with the results for the female respondents. More men than women were not married, which can be explained by the higher age at marriage among men.

When we consider the partnership context at the time the women conceived their first child, we can see that the majority of the eastern (75 per cent) *and* the western (54 per cent) German women were not married. Cohabitation was not the only arrangement of choice, as LAT partnerships were also quite common at the time of conception: 20 per cent of the eastern German women and 16 per cent of the western German women were living in an LAT partnership when they became pregnant. These shares had decreased to eight and six per cent, respectively, by the time the child was born. Just 12 per cent of the eastern German mothers and eight per cent of the western German mothers had no partner when they gave birth to their first child. With regard to the link between marriage and childbearing among women, we find marked differences between eastern and western Germans. The proportion of eastern German non-married women decreased only slightly between the time of the first conception and the time of the first childbirth (from 75 per cent to 63 per cent). The proportion of women living in cohabitation remained almost constant, while the proportion of women in a partnership with separate households decreased. By the time of the second childbirth, however, the proportion of cohabiting mothers had also declined in eastern Germany. In western Germany, by contrast, the proportion of non-married women decreased strongly (from 54 per cent to 34 per cent) between the conception and the birth of the first child. The share of mothers living in either a cohabiting or an LAT relationship decreased markedly. At the time of the second childbirth, there were even fewer women in non-marital relationships.

The last bars in Figure 12 illustrate the choice of living arrangements among mothers at different ages. In sum, the analysis showed that at each age more than 25 per cent of the western German mothers and more than 40 per cent of the eastern German mothers lived in arrangements outside of marriage. The proportions were especially high among mothers at age 20, and decreased at later ages. When comparing these shares, it is important to note that motherhood becomes decreasingly selective with age: at age 20, only 13 per cent of western German women and seven per cent of eastern German women were mothers. At age 25, every third eastern German woman and every fourth western German woman had a child. At age 35, 80 per cent of the western German women and 74 per cent of the eastern German women were mothers. At all of these ages, cohabitation was more than twice as common among eastern German mothers than among their western German counterparts. In addition, the shares of mothers in LAT or partner-less arrangements were slightly higher in eastern Germany. LAT relationships were, however, relatively uncommon among mothers: above age 20, only around five per cent of the western Germans and up to 10 per cent of eastern Germans had a partner who did not live in the same household. The proportion of the mothers without a partner did not substantially change across the different ages: around 10 per cent were not partnered.

Looking at the partnership status of mothers at the time of childbirth and at different ages provides us with some information about the relevance of non-marital living arrangements in the life courses of young women. However, these statistics still only represent snapshots of the mothers' partnership contexts at different points in life. A next step is to consider how long the mothers lived in non-marital arrangements after their first childbirth in order to determine whether these arrangements were more transitory or more stable. I started by looking at women who were cohabiting at the time of their first childbirth. In Section 3.2 of Paper I, I analysed the relationship dynamics among women who were cohabiting at the time of their first childbirth, and considered the transition to marriage, as well as the transition to separation and to an LAT relationship, as changes in union status. Based on cumulative incidence curve estimations, I evaluated whether cohabitation tended to be a temporary union form that is rapidly transformed into marriage after the first childbirth, or whether it tended to end in separation. Alternatively, cohabitation could have served as a stable context in which to rear children, with few changes in the union context occurring in the first eight years after family formation. The results revealed that cohabitation was a rather stable union arrangement among first-time mothers during these years, especially among eastern German mothers. Eight years after their first childbirth, 30 per cent of the eastern German women, but only 15 per cent of the western German women, were still cohabiting.

In conclusion, I found that most of the mothers studied were in intimate relationships. The descriptive statistics revealed that non-marital living arrangements were most common at the beginning of the reproductive career, and among very young mothers (aged 20). This suggests that mothers were more likely to have been living with a partner outside of marriage at the time of family formation than thereafter. It therefore appears that examining non-marital living arrangements involving children at later points in time underestimates the prevalence of these arrangements. The higher proportion of non-marital living arrangements among eastern German mothers was mainly due to a greater prevalence of cohabiting unions. Eastern German mothers were twice as likely to be living in a cohabiting union as western German mothers. Also mothers who were living in LAT partnerships or without a partner at the time of the first childbirth were somewhat more common in eastern Germany (see also Bastin 2012). Assuming that partnership behaviour reflects the prevalent norms, these findings suggest that the norm that a mother should live with her partner and be married is less pronounced in the eastern German region.

Although it was less prevalent in western Germany, cohabitation appears to have been the most common non-marital living arrangement in both regions. LAT partnerships were less common among mothers. Nevertheless, one-third of the mothers who did not have a partner in the household after their first childbirth were in an LAT relationship. Around the time of the first childbirth, this percentage was even higher, especially at the time of the first conception. This

finding underlines the assumption that individuals with a non-residential partner should be considered partnered and at risk of separation, particularly because—as other studies have shown—these LAT partnerships tend to be fragile (Ermisch & Siedler 2009).

4.3 *Research question 2* – How do the characteristics of the non-residential partnership period, such as its length and the presence of children, influence the risk of union dissolution after household formation?

Summarised answer

My study results reveal that the length of the non-residential partnership episode had a stabilising effect on the residential partnership: compared to couples who moved in together relatively early (1-9 months after partnership formation), couples with an average LAT duration (10-25 months) had a lower risk of union dissolution. Their risk was, however, higher than that of couples who moved in together relatively late (26-120 months after partnership formation). A short LAT duration may be related to a high degree of uncertainty about the partner's attributes at the time the household is formed, which decreases the prospects of union success. Couples who formed a household directly seem to represent a special group, because they differ in terms of their characteristics and their degree of union stability from couples with an LAT duration of 1-9 months. Couples who became parents before they moved in together had a higher risk of union dissolution after household formation than couples who conceived their children while living together. This finding also suggests that the parents-to-be might not have had enough time to evaluate the partner's characteristics, which then resulted in an elevated risk of union disruption.

Detailed answer

LAT partnerships often function as temporary arrangements preceding household formation, because couples frequently have separate homes at the start of the partnership. The LAT period may serve as an episode in which the partner's characteristics are evaluated. This testing period may end with the investment in a joint household. In addition to couple dynamics, external constraints can influence the length of the LAT episode, such as the inability to find a job in the same location or the presence of children from previous partnerships. How well the partners know each other at the time of household formation and how much time the partners needed before deciding to move in together may be critical indicators of the stability of the union. The LAT period is usually a partnership episode during which few partnership-specific investments are made because the risk of separation is high. However, as the length of time people spend in non-residential partnerships is increasing, children might be conceived and even born to LAT couples. Extended periods of LAT and the conception of children within this partnership form might suggest that these couples are less committed. Thus, couples with long LAT periods may be at higher risk of separation than couples with shorter LAT episodes and couples who conceived their children after household formation.

In order to investigate this assumption, I present in the following the results of Paper II, in which I analysed the characteristics of the LAT episode that preceded household formation and its effect on union stability. My focus in Paper II was on residential unions in general, including

childless unions. Thus, I did not consider the partnership stability of LAT relationships. The event of interest is the dissolution of the household. I analysed the partnership biographies of both the male and the female respondents. The length of the partnership was also considered as a determining factor in Paper III and Paper IV. In these papers, I found that the union stability of married and non-married mothers was positively related to the length of the partnership prior to the first childbirth. However, the LAT episode was not distinguished from the time spent in a residential union prior to the first childbirth. Thus, these results can only give us some initial insight into the effect of partnership duration on the risk of union dissolution. To paint a more detailed picture of the characteristics of the LAT episode and its effect on union stability, I concentrate on the findings from Paper II. In the following, I first discuss the effect of the partnership duration prior to childbirth and the duration of the LAT episode as a determining factor of union stability among couples who lived together. Second, I focus on the timing of family formation relative to household formation, and its role for union stability.

The length of the LAT episode and union stability

According to the theoretical considerations of Becker et al. (1977) and Oppenheimer (1988), a relationship is more likely to be stable if the partners have solid information about each other's personal characteristics. A short LAT episode should be related to a high degree of uncertainty about the partner's attributes at the time the household is formed, which might decrease the prospects of union success. A negative relationship between non-residential partnership length and subsequent union stability is, however, also possible: the process of developing intimate relationships requires the partners to be motivated to invest in the partnership (Brown 2003). Hesitation to invest may indicate that the partners anticipate a high risk of disruption.

To my knowledge, there is no study in which the LAT period was considered as a determinant of non-marital union stability. A few studies have examined the LAT period as a potential determinant of marital stability. They have shown that having a long relationship prior to household formation reduces the risk of a marital break-up (Brüderl et al. 1999; Brüderl & Kalter 2001; Engelhardt 2002; Murphy 1985; Niephaus 1999). So far, these studies have measured the influence of LAT duration in a very crude way. First, they only used information on the duration of LAT measured in integer years. This is a drawback, because it is important to examine the first partnership year more precisely: I found that half of the partnerships were transformed into residential unions within the first year after partnership formation. Second, most previous research employed LAT duration as a continuous variable in the model without allowing for non-linearities between the effect of LAT duration and the (log)hazards. I overcame this issue in my research by constructing a categorical variable in which partnership duration prior to household formation was grouped into terciles according to the distribution in the data. The resulting final categories are: "1st tercile: 1-9 months," "2nd tercile: 10-25 months," and "3rd tercile: 26-120

months." Those respondents who reported having started their relationship as a residential union were grouped in a separate category. An advantage of taking this approach was that the risk of household dissolution among partnerships with an average partnership duration (≈ 2nd tercile) could be compared to that of couples who moved in together relatively early (1st tercile) or late (3rd tercile) in the relationship.

The multivariate results shown in Figure 13 demonstrate that whether the couple progressed to household formation quickly or slowly had a significant impact on the stability of the union. The model controlled for important background information, such as the age at the time the partnership was formed, the religious and educational background, and the parental status. The association between LAT length and household dissolution remained statistically significant when other individual and partnership characteristics were controlled for. The LAT length had a similar effect on the union stability in marriages and cohabitations. The risk of union disruption was higher if the couple had a short (1-9-month) non-residential partnership period before the joint household was formed. Couples who spent 10 to 25 months living apart together had better prospects. The chances of union survival were highest if the union belonged to the group of long-term LAT couples (> 26 months). The length of the LAT phase was clearly negatively linked to the risk of union dissolution. These results for unions with an LAT length of from one to 120 months suggest that the information argument prevails with regard to partnership duration. The LAT period functions as a testing stage that enables individuals not only to select the appropriate partner, but also to adapt to each other in daily life, and to formulate common strategies. The shorter the LAT period, the more likely it is that partnership difficulties will emerge after household formation. Thus, a long LAT period did not appear to have been associated with a low degree of commitment, which would have been reflected in higher rates of union disruption after moving in together. It instead showed that the partners were very well matched, because the low barriers to separation favoured a strong weeding-out of potential mismatches. If the couple overcame the obstacles to household formation after a long period of time, they were more likely to have enjoyed a high level of relationship stability after moving in together.

The unions without a prior LAT phase did not, however, fit in this picture: compared to the unions with a short LAT period (1-9 months) the partnerships which started as residential unions had a somewhat lower risk of union dissolution. This suggests that the couples who had formed a household directly represent a special group. There are several possible reasons why the group of direct household formers could be special. The respondents who reported entering cohabitation directly might have had a prior LAT period which they did not remember. Alternatively, these couples might have been highly committed: i.e., since they decided to start their partnership in

the more committed form of a residential union instead of in the less committed form of LAT, they may have been strongly convinced that their partnership would last.

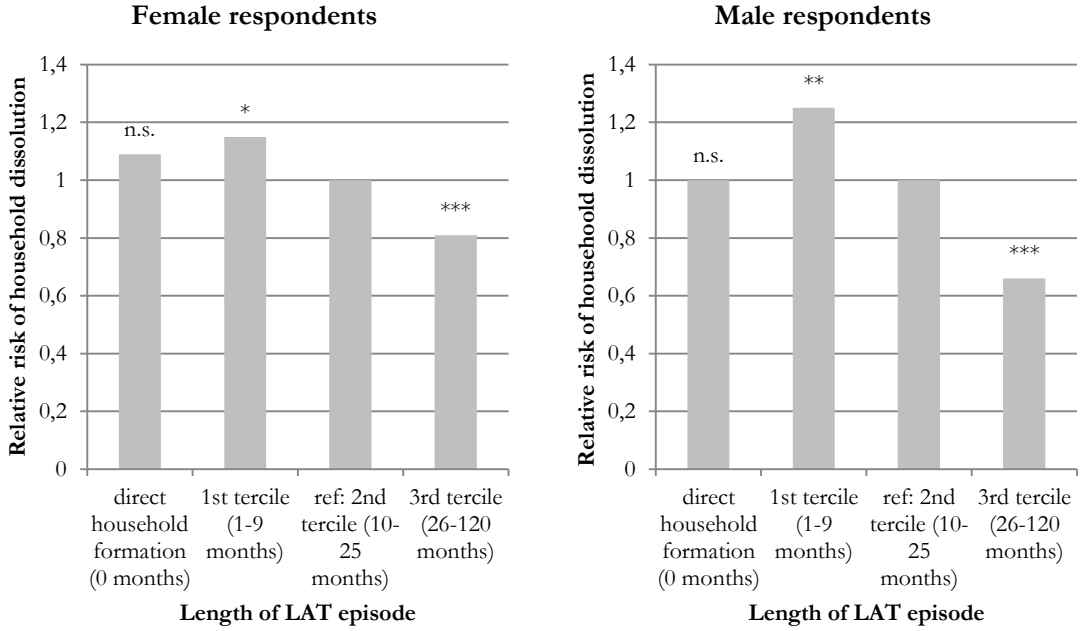


Figure 13: Effect of the LAT length on union dissolution, multivariate results by gender of the respondent
Source: Paper II, Table 2 (Model 3)
Data sources: Pairfam/DemoDiff, Release 3.0 (2008-2012)
Significance levels: *** p< 0.01; ** p< 0.05; p< 0.1.

The models were estimated for men and women separately. Both models included a person-specific random intercept and controlled for the baseline, birth cohort and birth place, marital status, union and partnership order, church membership, school education, educational enrolment, age and living arrangement at the time the partnership was formed, residence with both parents until 18th birthday, presence of stepchildren and presence and ages of common children, and employment status.

The presence of children in the LAT episode and union stability

It is commonly assumed that having common children can stabilise a couple's relationship. This is because common children, especially while they are young, facilitate the forging of clos ties between the parents and represent a form of union-specific capital (Becker et al. 1977). Previous studies have shown that the presence of common children of preschool age can steady partnerships (Guzzo 2009; Jalovaara 2013; Wu 1995). However, the effect of having a child on a relationship has been found to depend on the timing of the pregnancy (Teachman et al. 1991; Manning 2004). Some studies have found that common children conceived or born before marriage formation add less stability to the union than children born to married parents. Other studies have, however, shown that premarital children did not affect the risk of union dissolution (Upchurch et al. 2001; Liu 2002). There is not much knowledge about the effect of children conceived or born before household formation on the risk of union dissolution. The conception of a child within a living apart together partnership might indicate that the pregnancy was unplanned. The parents-to-be might not have had enough time to evaluate each other's characteristics, which should then result in an elevated risk of union disruption relative to that of a couple who conceived a child while co-residing. On the other hand, the joint decision to form a family and a household might indicate that the couple are strongly committed and trust that the partnership will continue. Thus, the conception of a child prior to household formation might have no or even a positive effect on union stability compared to a conception after the household is formed.

In Paper II, I investigated to what extent couples had already had common children before they moved in together, and how the presence of these children influenced the risk of union dissolution after the couple moved in together. A couple was considered to have "pre-union" children if the children were conceived or born prior to the date of household formation. Fourteen per cent of the couples with an LAT length of 10 to 25 months had conceived a child prior to household formation. Pre-union children were, at 10 per cent, less common among the unions with an LAT length of more than 25 months. The somewhat higher prevalence of pre-union children among unions with a shorter LAT duration might indicate that many of these pregnancies were not planned. The anticipated arrival of the child might have shortened the LAT period among the parents-to-be because the formation of a joint household offered several practical advantages: the parents could share childcare tasks, they could spend less money due to the economies of scale of having a single household, and they could easily meet in their free time. In the multivariate analyses, I distinguished between couples who had a common child who was conceived or born before household formation and those couples who had conceived a child only after household formation. In addition, I accounted for couples with no common children. The empirical results in Figure 14 show that having common children reduces the risk of union

dissolution; couples with no common children had the highest risk of union dissolution. Couples who became parents before they were living together had a significantly higher risk of union disruption than couples who conceived their children during the residential period.

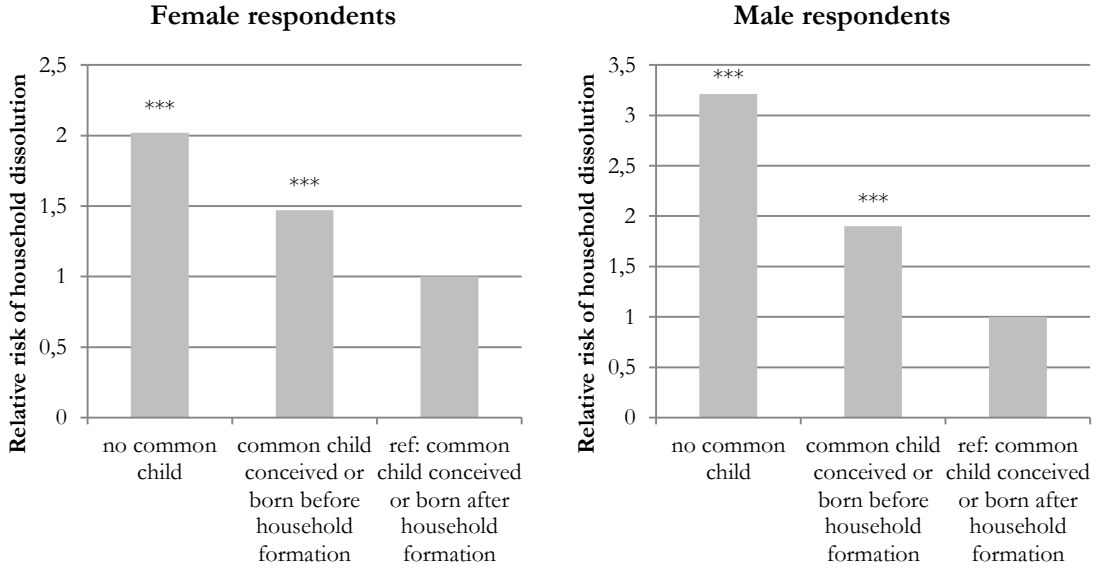


Figure 14: Effect of common children on the risk of union dissolution, multivariate results by gender of the respondent
Source: Paper II: Table 2, Model 2.
Data sources: pairfam/Demodiff, Release 3.0 (2008-2012).
Significance levels: *** p< 0.01; ** p< 0.05; p< 0.1.

The models were estimated for men and women separately. Both models included a person-specific andom intercept and controlled for the baseline, LAT length birth cohort and birth place, marital status, union and partnership order, church membership, school education, educational enrollment, age and living arrangement at the time the partnership was formed, residence with both parents until 18th birthday, presence of stepchildren, and employment status.

In conclusion, my results revealed that waiting pays off for couples. It is beneficial for union stability if the couple spends a long period of time being partnered but not living together before the partners move in together. Furthermore, it promotes union stability if the couple do not start having children until after they start living together. The sequencing of family and household formation seems to matter for stability. Waiting pays off for couples with regard to household formation, as well as with regard to family formation. Thus, the fact that LAT partnerships have become more widespread should not necessarily lead to concerns being raised that residential partnerships are becoming more fragile. Rather, a long non-residential partnership episode can help to increase union stability.

4.4 *Research question 3* – Are a high level of secularisation and a large proportion of non-marital childbearing at the regional level related to higher separation risks?

Summarised answer

Having no religion and not being married are usually indicators of an increased risk of union disruption. Thus, the level of secularisation and the proportion of non-marital unions may be related to the rates of separation. Compared to western Germans, eastern Germans are more likely to have no religious background and to start a family outside of marriage. However, eastern and western Germans both with and without children do not differ in terms of their risk of separation. This indicates that the context in which couples live has little effect on the overall rates of union dissolution. If, however, we look at the shares of single-parent families, it appears that the unions in eastern Germany were dissolved more often than the unions in western Germany, because a higher percentage of eastern German women were single parents at the time they gave birth.

Detailed answer

Eastern Germany has a much higher proportion of people with no religious background and a larger share of non-marital childbearing than western Germany. These trends are often accompanied by high rates of union dissolution, according to Van de Kaa (2002). The share of children born to non-married parents provides information about the prevalence of non-marital unions. These unions are usually found to be less stable than marriages. An increase in non-marital unions may lead to an increase in the rate of union dissolution, defined as the proportions of marital and non-marital union dissolutions. The Christian churches have been strong promoters of marriage and the marital family. Thus, religious communities have traditionally had positive sanctions for marriage and negative sanctions for non-marital relationships and separations. Previous studies have shown that at the individual level, the lack of a religious background and of marriage ties increase the risk of separation. However, not much is known about how the secularity of the context relates to union stability. Research that has addressed this question has so far concentrated on marital stability (e.g., Mortelmans et al. 2009). If secularisation levels are high and marriage rates are low, married couples are increasingly selective, and the rate of marital dissolution does not allow us to reach conclusions about overall union stability (Liefbroer & Dourleijn 2006). I concentrate in my research on both marital *and* non-marital unions, because taking both forms into account gives a more complete picture of union stability, especially in a secularised context. In each of the papers that accompany this dissertation, regional differences in the risk of separation have been taken into account. In the following, I refer to the results of the Papers I, II, III, and IV. First, I discuss the construction of the regional background information in these articles. Second, I refer to the descriptive statistics;

namely, to the Kaplan-Meier failure estimates. This is followed by a discussion of the coefficients of the regional covariate in the multivariate hazard models.

To determine whether the respondents were eastern or western German, I referred to the place of birth and to the place of residence at the time of the first interview. The regional information was differently constructed in the papers depending on the population at risk that was of interest for the respective research question. In Paper I, I defined the regional background by the place of residence. This was useful in assigning the respondent to either the eastern or the western German region. In Paper II, I considered the birth place of the respondent, which could be eastern Germany, western Germany, or outside of Germany; referring to potential socialisation influences. The focus of this paper was not an east-west comparison. The comparative analysis of union stability was addressed in more detail in Paper I, Paper III, and Paper IV. Respondents were included in the analysis only if the region of the birth place and of the place of residence at the time of the first interview were the same. By removing individuals who moved between the regions, the regional variable became more homogenous.

The Kaplan-Meier failure estimates in Figure 4 of Paper I and in Figure 1 in Paper III showed that the proportion of separated mothers born between 1971 and 1973 was higher in eastern Germany than in western Germany. This difference could be mainly attributed to the higher proportion of eastern German mothers without a partner at the time of the first childbirth (see the detailed description of the partnership situation in 4.2 in Paper I) and to the lower degree of stability of eastern German partnerships in the first year of family life. Among the mothers of the 1981-1983 birth cohorts, however, the proportion of separations was somewhat lower among eastern Germans than among western Germans between the first and the fourth birthdays of the first child. Table 1 in Paper IV shows that the percentages of women who had become mothers up to the interview dates were lower in western Germany than in eastern Germany. It may be the case that the western Germans who became mothers at young ages had selective characteristics that made them more likely to dissolve their unions than the eastern German mothers.[31]

Regional differences in the risk of separation of individuals from the birth cohorts 1971 to 1973 *and* 1981 to 1983 were taken into account in the multivariate models of the Papers II, III, and IV. In Paper III and Paper IV, the basic multivariate models[32] revealed no significant difference in the risk of separation between eastern and western Germans mothers. This finding appears to be robust: eastern and western German parents did not differ in their separation risks, independent of whether partnerships in total (as in Paper III) or residential unions only (as in Paper IV) were considered. This also applied to couples without children. The multivariate model in Paper II

[31] This aspect, though of interest, has not been investigated in detail in the multivariate analyses.
[32] These models—namely, Model 1 in Paper III and Model 0 in Paper IV—used as their main control covariates the birth cohort and the age of the first child.

(Model 1) included not just parents, but also childless individuals. These results showed no significant regional differences in the risk of union disruption among the male and the female respondents. Interestingly, there was a strong change in the region coefficients once the individual religious background of the women was accounted for:[33] eastern Germans then showed a significantly lower risk of separation than western Germans. Interactions of the religious and the regional background revealed that church membership reduced the risk of separation in eastern Germany only. This might explain the strong decomposition effect in the region coefficient.

In conclusion, my results showed that eastern and western Germans did not differ in terms of their risk of separation, even though the social structures of the regions in which they were living differed substantially. This finding applied not just to couples with children, but to unions in general. The high level of secularisation and the high proportions of cohabitation and non-marital childbearing in eastern Germany did not lead to a lower level of union stability relative to western Germany. Instead, the results indicated that the context in which couples live has little effect on the general dissolution behaviour. This argument only holds, however, when partnered individuals are considered. My results also revealed that eastern Germans are more likely than western Germans to have no partner at the time of family formation. If we take into account the proportions of women who start their family as a single parent, it appears that eastern German unions dissolve more frequently than western German unions. Furthermore, the findings suggest that the context may not have an impact on the overall union dissolution rates, even though it influences the determining effect of background characteristics, such as religious affiliation. Assuming that the religious composition had been the same in the two regions and the effect of religion remained the same, eastern Germans would even have a higher degree of union stability than western Germans.

[33] Eastern and western Germans show significant differences in the risk of separation in Models 2 and 3 (Paper II, Table 2), Model 2 to 5 (Paper III, Table 2) and in Models 3a to 5a (Paper IV, Table 4). Tests revealed that the change in the coefficients can be attributed to the determining influence of church membership. Church membership has a significant influence on the risk of separation, but only among female respondents: women who were not affiliated with a Christian church had much higher risks of separation compared to Catholics and Protestants.

4.5 *Research question 4* – Is cohabitation a more stable union arrangement among parents in eastern Germany than in western Germany? What role does selection play?

Summarised answer

The multivariate analyses focuses on the separation risks of first-time mothers by their union context at the time of childbirth. The results show that among cohabiting mothers, union stability is higher in eastern Germany than in western Germany. Eastern German cohabiting women have better prospects of partnership success than western German cohabiting women, although destabilising factors—like the lack of a religious background, a young age at childbirth, or full-time employment—are more widespread in the eastern region. Thus, the regional stability differences become more pronounced after accounting for these factors. Controlling for unobserved heterogeneity does not help to explain the stability differences between eastern and western German cohabiting mothers. A comparison of marriages and cohabitations shows that the negative selection into non-marital family formation is weaker in the eastern region: the characteristics of cohabiting and married mothers differ less in eastern than in western Germany. In sum, these findings indicate that context plays an important role in the union stability of cohabiting parents. The results lead me to conclude that cohabitation is a more stable and more marriage-like union arrangement among parents in eastern Germany than in western Germany.

Detailed answer

The transition to parenthood increases the level of commitment within the partnership because children represent a union-specific investment (Becker et al. 1977). Having children may motivate the couple to get married. Being married at the time of childbirth may be important for emotional reasons; normative, financial, and legal considerations can promote marital family formation as well. These arguments suggest that it is important to focus on the time of the birth of the first child when examining the impact of non-marital parenthood on the risk of separation.

A number of studies have found evidence that parents who were cohabiting when their first child was born are at higher risk of union disruption than married parents (see literature discussion in Chapter 1 of Paper IV). It is often suggested that cohabiting parents have a higher union dissolution rate than married parents because they do not have the same level of commitment, and that there is a negative selection into non-marital family formation. The level of commitment might be lower because no formal arrangement has been made, but also because cohabitants feel less emotionally committed and less socially accepted than married couples. Cohabitants may also have different attitudes than married people; e.g., they may be more open to the idea of separation, less attached to religious values, and more individualistic. There is a positive selection into marriage because cohabitation can serve as a screening device for marriage, as only couples with high stability prospects will choose to marry. Although there is substantial variation in the

share of births within cohabitation across different countries and regions, little is known about how the prevalence of cohabiting parents in a social context relates to the separation behaviour of cohabiting parents. A higher share of childbearing within cohabitation can reduce the share of separation-prone couples among cohabiting parents, because it is not only couples with deficiencies in their partnership who decide to remain in cohabitation, but also couples with a solid partnership.

In Germany, marriages and cohabitations are subject to the same legal and financial regulations in the eastern and the western region. However, the role of cohabitation may differ between the regions. Forming a family out of wedlock may violate social norms and signal a lack of commitment in western Germany, but this is true to a lesser extent in eastern Germany. Union stability may be higher among cohabiting unions in eastern Germany than in western Germany, because in the eastern region the negative selection into non-marital family formation is weaker or the commitment of cohabiting couples is higher. This hypothesis is addressed in detail in Paper IV. In the following, the results of this article are summarised. Additionally, I refer to the results of the Papers I, II, and III, which addressed differences in the union stability of cohabitations and marriages. The subsequent section opens with a discussion of these stability differences between cohabiting and marital unions. Second, I discuss the relative stability of eastern and western German cohabitations based on descriptive and multivariate findings. Finally, I focus on the selectivity of mothers who cohabited at the time their first child was born in an east-west comparative perspective.

Relative stability of cohabitation

In line with previous research, the results of my study indicated that union stability is significantly higher in marriage than in cohabitation. In Paper II (Table 2, Model2 and Model 3), I showed that among residential unions in general, cohabiting relationships had a higher risk of dissolution than marriages. Looking at the union context of first-time parents, I also found this link between marital status and stability. [34]

In the previous section (4.4), I argued that the high prevalence of births within cohabitation in eastern Germany and the high rates of dissolution of cohabitations in general should have led to a lower overall level of union stability. This was, however, not the case: the overall level of union stability was similar in eastern and western Germany, although the risk of separation was higher for cohabiting parents. This finding may indicate that the marital status has a different impact in the two regions, with cohabitation being a more stable arrangement in the eastern region. The results from the Kaplan-Meier failure estimates in Figures 5a and 5b in Paper I and in Figure 1 in

[34] Women who cohabited at the first childbirth and women who were married at the first childbirth showed significant differences in terms of the risk of separation in Figures 5a and 5b (Paper I), in Models 3 to 5 (Paper III, Table 2), and in Figure 1 and Models 1a to 4a in (Paper IV, Table 4).

Paper IV indeed suggested that cohabitations were more stable in eastern Germany. However, this difference turned out not to be statistically significant. To compare the risk of separation between eastern and western German cohabiting mothers in more detail, I interacted the region and the union context at childbirth in a hazard model. The coefficient results are shown together with the 95-per cent confidence intervals in Figure 15. The results revealed significant differences in the separation risks of eastern and western German mothers who were cohabiting, with the latter having an elevated risk of union disruption. It is likely that the east-west differences became significant because the higher risk of separation among mothers of the birth cohorts 1981 to 1983 (who were more prevalent in the eastern German sample) was controlled for.

Selection into cohabitation and union stability

In Paper IV, I looked in detail at the selectivity of mothers who cohabited at the time their first child was born. In the following, I summarise the main findings of Paper IV. In order to investigate the role of selection into childbearing within cohabitation, I analysed the sample composition and estimated a multivariate probit model (the probability of a first birth within cohabitation). Union stability was modelled in a stepwise modelling procedure to analyse the impact of background factors on the risk of separation. A joint estimation of this hazard model and the probit model allowed me to compare the determinants and to control for unobserved factors that affect both outcomes.

In the sample description (Table 2 in Paper IV), I found that eastern German cohabiting mothers had, on average, more education and a longer partnership duration prior to childbirth; both of which are factors known to increase union stability. On the other hand, the eastern Germans were younger at the birth of their first child and they had fewer subsequent children; both of which are factors associated with lower stability levels. Furthermore, eastern German cohabiting mothers were much less religious than their western German counterparts, and were more likely to have been in full-time employment after entering motherhood. Thus, the separation risk did not appear to differ based on the characteristics of mothers who cohabited in eastern and western Germany. A comparison of the probit and the hazard model results revealed that, in addition to a short union duration, the lack of a religious background was the main factor that promoted childbearing within cohabitation and increased the risk of separation.

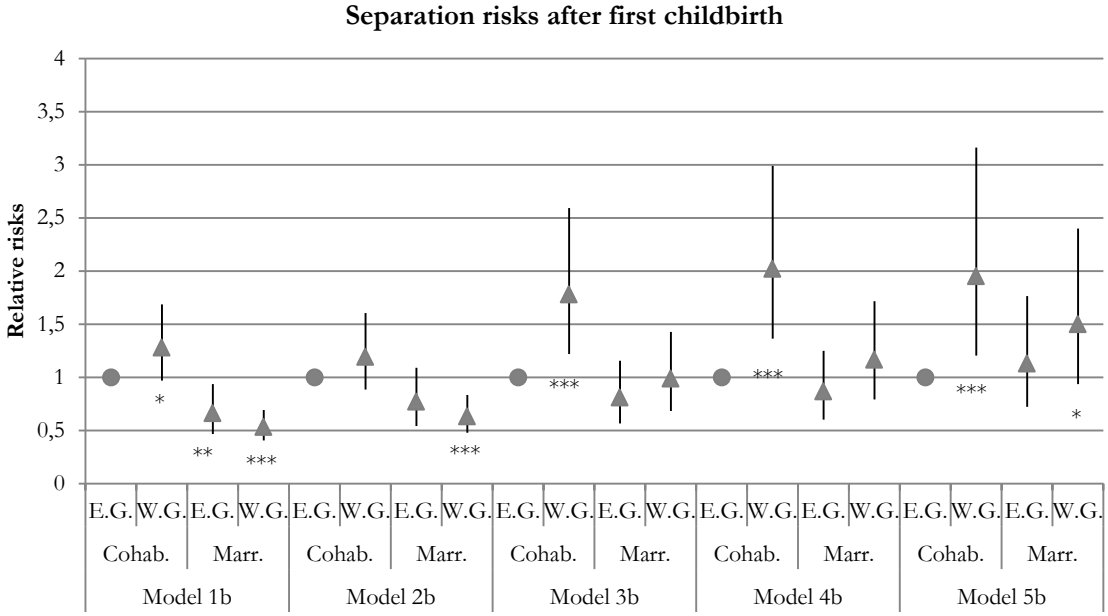


Figure 15: Results of an interaction of region and union form at the time the first child was born within the hazard models 1b to 5b, shown in relative risks with 95 per cent-confidence intervals and significance levels

Source: Paper IV, Figure 2

Data sources: pairfam/DemoDiff, Release 3.0 (2008-2012)

Notes: Significance levels: *** p < .01; **p < .05; *p < .10; Abbreviations: E.G. Eastern German women; W.G. Western German women; Cohab. Cohabiting at first childbirth; Marr. Married at first childbirth

Model 1b controlled for the region and union form at the time the first child was born (interaction), the piecewise continuous baseline (age of the first child) and birth cohorts. *Model 2b* controlled for the region and union form at the time the first child was born (interaction), the piecewise continuous baseline (age of the first child), birth cohorts, school education, partnership duration prior to first childbirth and age when the first child was born (linear and squared). *Model 3b* controlled for the region and union form at the time the first child was born (interaction), the piecewise continuous baseline (age of the first child), birth cohorts, school education, partnership duration prior to first childbirth, age when the first child was born (linear and squared), religious affiliation and economic activity. *Model 4b* controlled for the region and union form at the time the first child was born (interaction), the piecewise continuous baseline (age of the first child), birth cohorts, school education, partnership duration prior to first childbirth, age when the first child was born (linear and squared), religious affiliation, economic activity, parental separation, number of biological children, partnership order, child born before the custody reform in 1998, first child's characteristics (sex, health, season of birth). Model *5b* controlled for the region and union form at the time the first child was born (interaction), the piecewise continuous baseline (age of the first child), birth cohorts, school education, partnership duration prior to first childbirth, age when the first child was born (linear and squared), religious affiliation, economic activity, parental separation, number of biological children, partnership order, child born before the custody reform in 1998, first child's characteristics (sex, health, season of birth) and unobserved selection into childbearing within cohabitation.

The stepwise modelling procedure applied in Paper IV gives some information about the selection mechanisms that drive the union stability of cohabiting mothers. The results of these models are shown in Figure 15. In Model 1b, this difference was only weakly significant (p<.10).

After the lower level of school education, the shorter partnership duration prior to family formation, and the older age at childbirth of the average western German cohabiting woman were accounted for in Model 2b, the difference became insignificant. This result suggests that western German cohabiting women were indeed more negatively selected than their eastern German counterparts. However, adding information on religion and economic activity in Model 3b increased the stability difference again to a significance level of $p<.01$. The regional risk differential became even more pronounced in Model 4b, which accounted for the protective effect of further children and parental stability. Meanwhile, the examination of unobserved heterogeneity in Model 5b did not change the model results. Several checks were conducted to test the robustness of the results. Western German cohabiting mothers were shown to have had significantly elevated risks of separation in all of the models, except in the model that did not account for religion. This demonstrates that religion is an important factor in the union stability of first-time parents. In sum, the partnership duration prior to the first childbirth helped to explain the union stability gap between eastern and western cohabiting mothers, but accounting for other characteristics widened the gap even more. In contrast, I could completely explain the high risk of separation among cohabiting women relative to that of married women with the selection of the most separation-prone women into cohabitation: among eastern German women, the shorter union duration of cohabiting mothers was the main explanation for why they had a higher degree of union instability than married mothers. In western Germany, women who cohabited were in less stable unions than women who were married, as long as unobserved factors were not considered. Unmeasured partnership characteristics may have influenced these processes. These findings suggest that cohabitation and marriage differ in many more respects in western Germany than in eastern Germany.

The study's results lead me to conclude that cohabitation is a more stable union arrangement among parents in eastern Germany than in western Germany. The analysis showed that eastern German cohabiting women had better prospects of partnership success than western German cohabiting women, although destabilising factors—like the lack of a religious background, a young age at childbirth or full-time employment—were more widespread in the eastern region. Thus, we could assume that even higher risk differentials between eastern and western German cohabiting parents would emerge if the social structures were the same in the two regions. These results suggest that it is a complex undertaking to compare the union stability of cohabiting mothers in two separate contexts that differ in terms of the proportion of non-marital parenthood, even if these two regions share a language and a cultural background, and are subject to identical legal regulations. These contexts differ not only in their shares of non-marital childbearing, also in many other domains. The main conclusion of this study is therefore that the context plays a central role in the union stability of cohabiting parents. The prevalence of

childbearing within cohabitation seems to be one factor that influences the union stability of cohabiting mothers.

Against the background of the regional differences in separation risks, the question of whether these differences may be attributed to differences in the selection into marriage arises. In my view, the partnership duration prior to childbirth is the most important factor that drives the decision to cohabit at the first childbirth and the risk of separation afterwards. The length of the partnership before the first child is born may capture the level of positive selectivity, or the weeding-out effect; and it may indicate the maturity of the couple (Manlove et al. 2012). Research has shown that couples who become parents rapidly have lower levels of union stability (Hoem and Hoem 1992; Oláh 2001). Eastern German cohabiting mothers had, on average, a longer partnership duration prior to giving birth than their western German counterparts. The multivariate results demonstrated that the shorter partnership duration in particular helps to explain the higher risk of separation among western German cohabiting mothers. This suggests that western German couples may have had insufficient time to screen their partners. Less compatible partners were "weeded out" to a lesser extent before family formation took place, which increased the risk of separation afterwards. The observed and unobserved characteristics of the women who decided not to marry could not, however, explain why they had better union prospects in a setting in which their union type was more prevalent.

CHAPTER 5

Conclusion

5.1 The study's purpose

This dissertation has focused on the analysis of separation in Germany. Particular attention has been paid to the investigation of the separation rates of couples with children. Furthermore, the east-west German differences in behaviour have been explored, as have the differences in separation risks by length of the non-residential episode, religious background, and union type.

The behaviour of separation has been approached from a life course perspective (Elder et al. 2003). "Demographic events are milestones in people's lives" Willekens (1999:23). As such, they influence future outcomes in the life course. Family formation can be considered such a milestone. As I explained in Section 1.4, the choice of a trajectory in terms of a certain partnership arrangement, and the sequencing of partnership events—namely, partnership, household, marriage, and family formation—are assumed to have consequences for the future success of a partnership. In the life course approach, it is further assumed that individual life course choices and macro structures are interdependent. Decisions are constrained by the opportunities structured by social institutions and cultural and normative patterns, which are themselves influenced by life course patterns. Social groups can follow certain trajectories, producing "social pathways" that affect the individual's life course choices.

The empirical analyses have been based on the data from the first three waves of the German Family Panel (pairfam and DemoDiff), a large-scale panel survey containing detailed retrospective partnership information which was described in Chapter 3. The over-sampling of eastern Germans through the DemoDiff subsample enabled me to compare the determinants that influence union stability among eastern German and western German unions. This study has focused on the partnership biographies of young Germans of the birth cohorts 1981 to 1983 and 1971 to 1973. The data were carefully prepared for event history analysis. This data preparation was documented in a technical report (see Appendix C).

My research purpose was motivated by the concept of the Second Demographic Transition (see Section 1.1). This concept postulates a link between the secularisation level, the proportions of non-marital childbearing, and the rates of union dissolution at the macro level (Lesthaeghe & Van de Kaa 1986; Van de Kaa 2002). The substantial differences between east and west in the share of children born to married parents and in the proportion of church members led me to compare the separation behaviour of eastern and western German parents. The focus of my dissertation arose in part from the observation that non-marital living arrangements merit more attention in scholarly research on separation. The existing research has largely concentrated on marriage as the point of reference, and scholars have limited their attention to comparisons between the stability of marital and non-marital unions (Andersson 2002, 2003; Kiernan 2002; Manning et al. 2004; Manning 2004; Raley & Wildsmith 2004; Wu & Musick 2008; recent

overview in Lyngstad & Jalovaara 2010). So far, relatively few studies have investigated the union stability of cohabiting parents in a comparative perspective and in the broader context in which the non-marital partnership is embedded (Le Bourdais et al. 2000a, b; Le Bourdais & Lapierre-Adamcyk 2004; Clarke & Jensen 2004; Jensen & Clausen 2003; Steele et al. 2006). Previous research on marital stability found that the risk of divorce depends on the prevalent union behaviour and the secularisation level within a specific setting (Liebroer & Dourleijn 2006; Mortelmans et al. 2009), but these findings have not been applied to an investigation of non-marital union stability. Most studies started from the point of view of the household, focusing on residential couples who become parents (e.g., Manning et al. 2004; Wu & Musick 2008).

Four research questions were formulated based on the arguments of the SDT concept, the east-west differences in childbearing behaviour and church membership, and the current literature on separation behaviour. These questions, which are explained in detail in Section 1.5, are:

1 - How prevalent are non-marital partnership forms among Germans, especially at the point in time when they start a family?

2 - How do the characteristics of the non-residential partnership period, such as its length and the presence of children, influence the risk of union dissolution after household formation?

3 - Are a high level of secularisation and a large proportion of non-marital childbearing at the regional level related to higher separation risks?

4 - Is cohabitation a more stable union arrangement among parents in eastern Germany than in western Germany? What role does selection play?

From these research questions, four articles have emerged (see Appendix B). The first article (Paper I) described the diversity of family forms among eastern and western Germans. The second article (Paper II) analysed how the length of the partnership episode prior to household formation influenced a couple's dissolution risk. The third article (Paper III) focused on differences in the risk of separation following the first childbirth by the church membership of eastern and western German mothers. The fourth article (Paper IV) investigated how non-married cohabitation influences the risk of union dissolution among parents in eastern and western Germany.

In addition to these articles, I have, with the help of official statistics, provided in the second chapter of this dissertation a detailed description of the shares of children born out of wedlock and the rates of divorced marriages among eastern and western Germans. Furthermore, I have explained the institutional context in which German couples live and make decisions with regard to marriage, childbearing, and separation.

In the fourth chapter of this dissertation, I have provided answers to the research questions. These answers are briefly summarised as follows: (1) The vast majority of partnerships that were transformed into residential unions at some later point in time started with the partners not being married and not living together. Half of the couples in residential unions remained non-married. Mothers were most likely to have been living in non-marital living arrangements when they were very young and were at the beginning of their reproductive career. The higher proportion of non-marital living arrangements among eastern German mothers was mainly due to a greater prevalence of cohabiting unions. About 20 per cent of the eastern German mothers and 16 per cent of the western German mothers lived in a non-residential partnership (LAT) at the time they conceived their first child. (2) These couples had a higher risk of union dissolution after household formation than the couples who conceived their children while living together. The length of the non-residential partnership episode had a stabilising effect on the partnership. (3) The high proportion of children born to non-married parents and the high level of secularisation (defined as a low proportion of the population without church membership) in the eastern German region did not lead to a higher risk of separation among eastern German relationships with children relative to that among western Germans. (4) Women who were cohabiting at the time their first child was born had a higher degree of union stability if they were living in a context in which childbearing within cohabitation was common. In such a context, the difference in the union stability levels of cohabitation and marriage was smaller. The negative selection into non-marital parenthood was stronger within a context in which marriage represented the most common path to family formation: neither partnership duration nor any other observable characteristic was able to explain why the women who were cohabiting at their first childbirth were in less stable unions than the women who were married. Cohabiting women had higher risks of separation as long as unobserved factors were not considered. In the context in which childbearing within cohabitation was common, the shorter partnership duration of the cohabiting mothers explained why they had a higher degree of union instability than married mothers.

5.2 Research contributions

To the best of my knowledge, no other study has examined the impact of the non-marital partnership episode on the separation behaviour of parents in the way it has been done in this dissertation. The results of this doctoral thesis have contributed to research on union stability in several ways.

Partnerships in longitudinal section

The focus on non-marital partnerships—including partnership episodes in which the partners did not live together, and their effects on partnership stability in longitudinal section—is one of the methodological merits of this dissertation. Most of the existing analyses on living arrangements were based on cross-sectional data. However, this approach fails to take into account the complexity of living arrangements across the life course (Brüderl 2004). More transitory living arrangements, such as LAT or even cohabitation, are captured to a lesser extent in cross-sectional studies. Thus, those studies are likely to underestimate the prevalence of certain living arrangements in a population. The detailed partnership information in the German Family Panel have made it possible to determine the dates of partnership formation and household formation, as well as the dates of separation and household dissolution. The respondents who were not living with a partner in the household were considered partnered rather than single if they were in an LAT partnership. The results of this dissertation have implications for further research because they provide information about the prevalence of LAT partnerships and cohabitations within the life course of young adults (Paper I), and about the impact of the LAT episode on dissolution risks (Paper II). The finding that the LAT episode prior to household formation is positively linked to subsequent stability improves our understanding of partnership dynamics. The results suggest that the non-residential partnership episode is an important stage in the partnership during which partners can collect information about each other. A short LAT episode seems to be related to a high degree of uncertainty about the partner's attributes at the time the household is formed, which decreases the prospects of union success.

Societal context

The empirical findings of this study contribute to our understanding of partnerships in their broader context. I extended the findings of previous studies by demonstrating that context-specific differences in separation behaviour exist among unions with children in general and cohabitations in particular. Two determinants of union stability—namely, the partnership context and the religious background—have been analysed in detail in an east-west comparison. The results represent methodological and empirical contributions to the existing literature.

My study has shown that, despite the assumptions inherent in the SDT concept, a high level of secularisation and a high proportion of non-marital childbearing do not lead to higher separation rates among couples with children in Germany. Beyond the general observation that cohabitations are less stable than marriages, I was able to demonstrate that cohabitations are not highly fragile in all contexts. Previous studies have suggested that a higher share of childbearing within cohabitation reduces the share of negatively selected couples among cohabiting parents, which in turn improves their degree of union stability and makes them more similar to married parents (Heuveline & Timberlake 2004; Steele et al. 2006). To the best of my knowledge, no previous empirical study that focused on the union stability of first-time parents has addressed

this issue in detail. Paper IV contributes to the research on this topic by providing empirical support to the theoretical argumentation. A methodological merit of Paper IV is that I was able to transfer the method of simultaneous model estimations, which has often been used to study the influence of premarital cohabitation on the risk of divorce, to the framework of non-marital childbearing and partnership stability. A hazard model that evaluated the transition to separation was estimated jointly with a model that accounted for the probability of a first birth within cohabitation, which allowed me to control for factors that affect the selection into the union status at first childbirth. The findings indicated that the unobserved heterogeneity mechanisms can be applied to the stability of the unions of parents who started a family while cohabiting. The comparison of the determinants that drove the decision to cohabit at the first childbirth and the determinants that led to separation offers new insights into the selectivity of cohabitation. My results suggest that cohabitation can be nearly equivalent to marriage in terms of union stability if this partnership context is chosen by a large share of the population. The selectivity of cohabitation is much weaker in this context, and the differences in the stability levels of marriage and cohabitation can be attributed to fewer factors than in the context in which marital childbearing is rather common. A possible reason for these results is that childbearing within cohabitation may be perceived differently in these two contexts, with cohabitation being primarily a childless prelude in western Germany, and an accepted alternative to marriage in eastern Germany (Heuveline & Timberlake 2004; Perelli-Harris et al. 2012).

My findings in Paper III suggest that the individual religious background has a different impact on union stability of parents depending on the secularisation level of the specific context. Church members and non-church members differed in terms of their risk of separation in eastern Germany, but not in western Germany. Eastern German church members had the highest level of union stability, possibly because they tend to distance themselves from the secular environment and strongly identify with the church community and its norms regarding family stability (Pollack & Pickel 2007). My results indicated that the high degree of secularisation in eastern Germany does not lead to a secularisation of the church members, but rather to a segregation of the population, which is reflected in the different separation behaviour of mothers.

German unions

This study helps to close the existing research gap on the stability of non-marital unions in Germany. In contrast to previous German studies, which excluded non-marital partnerships from their analysis or waived an east-west comparison (see, for example, Wagner 1997 or Arránz Becker 2008), I considered non-marital partnerships in my analysis, and concentrated on differences between eastern and western German cohabitations in terms of their prevalence, composition, and stability levels. Furthermore, I focused on the partnership context at the time the couple became parents, which has been done for other countries, but so far not for Germany.

I found that non-marital partnerships were of quantitative importance, including among young parents. This led me to conclude that analyses of union stability should include both marital and non-marital partnerships. Several determinants influence the risk of separation of eastern and western German unions differently, as the interactions between the region and the partnership form or religious background have shown. This suggests that the persistent differences in the social structures of the two regions may also affect the partnership stability of parents. These differences may be rooted in the past; however, "[f]amily systems that may have shaped marriage and cohabitation patterns in the past can continue to influence both family patterns and policies." (Perelli-Harris & Sánchez-Gassen 2012: 440). Distinguishing between eastern and western Germany therefore makes sense, even after reunification. Regional differences did not, however, exist with regard to the stability of marriages: the period divorce rates in Chapter 2 suggested that eastern German marriages are somewhat more stable than western German marriages. However, when I examined the stability levels of couples who were married at the time of the first childbirth using cohort data, I found that the risk of separation was similar for western and eastern German marriages.

Sequencing of partnership events

According to the principles of the life course approach, one life course decision influences other decisions. This study has shown that this assumption holds with regard to the decision to remain in cohabitation, instead of marrying or separating. Couples who did not marry before their first child was born faced higher risks of separation than married couples (Paper IV). The finding that the sequencing matters is not new; previous studies that looked at marital stability have showed that whether were children were born prior to marriage mattered (e.g., Liu 2002). In my study, however, I moved away from the focus on marriages and showed that the sequencing of partnership events also plays a role for the stability of non-marital unions. Couples who conceived a child before they started living together had a higher risk of union disruption than couples who first moved in together and then started planning a family (Paper II). These findings demonstrate that it is important to consider the individual context in which each transition is situated when evaluating its impact on union stability.

5.3 Critical reflections

This study helps to shed more light on the determinants of union stability in Germany, especially among unions with children. However, some critical reflection on this study is called for. To place the study in the research context, it is important to identify its limitations. Which questions remain unanswered? Which aspects require a closer examination? What are the limitations of the dataset used?

Selective sample

This dissertation used retrospective partnership information from individuals born in the periods 1971 to 1973 and 1981 to 1983 who participated in interviews of the German Family Panel between 2008 and 2012. This means that the life course biographies were censored relatively early. The age at censoring ranged from 25 to 42, depending on the birth year and the participation of the respondents in the interview waves. Thus, the study concentrated on partnership trajectories in early adult ages and on the partnership stability of couples with rather young children. Given the limitations of these data, little can be said about the partnership dynamics in the later stages of the life course and the partnership situation in families with older children. A disadvantage of the cohort approach used in the German Family Panel is that the birth cohorts studied might have followed particular life course trajectories which cannot be generalised. The results of my empirical analyses can therefore applied to eastern and western Germans born in the years 1971-1973 and 1981-1983, respectively. These findings do not, however, allow me to reach conclusions about the living arrangements of the German population in general.

Restricted sample size

It is important to critically reflect on the restrictions that the limited sample size imposed. With regard to the categorisation of eastern and western Germany, it is possible to take as the regional reference information the place of residence, as was done in Paper I; or the birth place, as was done in Paper II. However, migration between east and west introduces some heterogeneity and makes it difficult to compare individuals of the two regions defined by a single criterion. It therefore seems reasonable to bring in additional information or to combine the regional information when eastern and western Germans are being compared (Schneider et al. 2012). I chose this option in Paper III and Paper IV, which only included respondents who at the time of interview were living in the region (eastern vs. western Germany) where they were born. It would have been interesting to compare the separation behaviour of the migrants to that of the non-mobile eastern and western German populations (Vatterrott 2012). However, the sample size of these migrants was too small to allow me to conduct reliable analyses. For the same reasons, I had to exclude same-sex couples from the analysis. The group of homosexual partnerships was rather small, and it was likely that they deviated from opposite-sex couples in their transitions to family formation and marriage formation.

Sample size restrictions also mattered in the interaction models in Paper III and Paper IV. The oversampling of eastern Germans through the DemoDiff sample enabled me to compare eastern and western Germans. However, the interaction of the different types background information hit up against the limits of the amount of data available, resulting in some rather small categories.

I therefore decided to show the coefficient results together with the confidence intervals whenever I interacted information (see Paper III and Paper IV). The sample size restrictions should be kept in mind in the interpretation of the results.

Lacking information

Although they offer very detailed partnership histories, the data do not include all of the relevant information in a retrospective way. For example, there is no information on the individual characteristics of all of the partners: information on the partner's educational level, (which would make educational homo- and heterogamy an issue) and age (which would make age homo- and heterogamy an issue) was only available for the partner if the partnership was intact at one of the interviews. Information about the individual backgrounds of the partners can tell us more about the match quality of the partnership (Becker et al. 1977). I could not directly measure the compatibility of the partners in my models, although match quality was a central issue in my theoretical argumentation (especially in Paper II and Paper IV). Rather, I attempted to capture the partnership characteristics with a model that accounted for unobserved heterogeneity (Paper IV).

In addition, some respondent-specific information was not available retrospectively. In Paper II, Paper III, and Paper IV, I captured the religious background using information on the religious affiliation of the respondent. A drawback of the data was that the information about whether the respondent was affiliated to a church and regularly attended religious services was gathered only at the time of the first interview. As I analysed separations prior to that date, I had to assume that the information on religion was constant across the life course of the respondent, which seemed more plausible with regard to church membership (According to Lois (2011), church attendance is subject to substantial volatility.). Church membership is, however, a very rough indicator of an individual's religious background, because it does not offer information about the personal level of religiousness: individuals might be affiliated with a church, but neither regularly attend religious services nor describe themselves as very religious. Thus, some of these church members might be more accurately categorized as belonging to the secularised part of the population. Because of the data limitations, I could not take this issue into account. Instead, I considered whether church members had met the church standards during childhood and adolescence. Some of these norms might also be deeply embedded in the social structures, and might become relevant at specific stages of the life course, such as family formation or union dissolution.

Non-considered theoretical aspects

I did not consider all of the determinants that are assumed by various theories to matter for partnership prospects. In the dissertation framework, I did not place an emphasis on theoretical arguments that explain separation behaviour at the micro level. The relevant argumentation,

mostly related to the new home economics (Becker et al. 1977) and to exchange theory (Thibaut & Kelley 1958, Levinger 1979), was included in the articles. These two theoretical perspectives dominate the literature on the determinants of union stability until today. Both of these lines of theoretical argumentation assume that the individual will decide rationally based on the advantages and disadvantages of the current partnership and any alternative partnership, and that they will take into account the factors impeding separation. In the model of partnership stability that is based on exchange theory, union stability is explained by three factors: the benefits of the current partnership, the available alternatives to that partnership, and the barriers to dissolution. In the perspective of the new home economics, the most important factors for union stability are the costs and benefits of the partnership versus the alternatives and the marriage-specific capital. In this dissertation, I concentrated on the benefits of the current partnership as the main explanatory factor of union stability. The availability of alternative partnership candidates was not modelled in the empirical part. In line with Becker et al. (1977), I assumed that the age of the respondent at the partnership formation (Paper II) and at the first childbirth (Paper III and IV) can tell us about the respondent's access to attractive alternative candidates on the partner market. Children were assumed to represent a union-specific investment which increases the barriers to separation. There are, however, other kinds of investments—such as the purchase of a house—that were not considered in this dissertation, even though they have been shown to stabilise unions (South & Spitze 1986).

5.4 Future research perspectives

The perspectives for future research outlined here mainly arise as a result of the study's drawbacks. But the findings of this study also provide the basis for the formulation of additional research questions.

Limitation-based suggestions for future research

Due to the limited sample size, I chose a fairly homogenous sample, leaving out groups with a potential for having different fertility and partnership behavioural patterns. Future studies with access to better data might allow for more heterogeneity in the sample by including same-sex couples or migrants in their analysis. Future research should further aim to replicate the results of this study with a larger sample that includes a broader cohort range.

This study could not explicitly consider the quality of the partner match (defined as the combination of the individual characteristics of the partners), although it has been assumed to be an important factor with regard to union stability (Becker et al. 1977). Future studies might

evaluate how the match quality helps to explain the positive relationship between the length of the LAT period and subsequent union stability.

The analyses in Paper IV could not explain the differences in the stability levels of eastern and western German cohabitations. Personality traits and attitudes might be relevant in explaining how the choice of cohabitation relates to union stability. Attitudes and perceived norms towards marriage at the individual level and their prevalence at the macro level have been found to be crucial factors for the likelihood of childbearing outside marriage (Lappegard et al. 2014). It is the task of future research to investigate the role of attitudes towards marriage and separation in union stability differentials.

Further research perspectives arise from the inclusion of alternative methods. In Paper II it was assumed that the weeding-out process played a central role, but this aspect was not modelled in the empirical part of this research. Future studies may include the decision to form a household as a process in the modelling. I investigated in Paper III and Paper IV the effect of the union context at the first childbirth, ignoring later changes in the union context. However, the union context at the time the first child was born represents only a snapshot in the partnership biography of the parents. The couple might have married after their first child was born. This should be considered in the interpretation of the results. Future studies might evaluate whether eastern German cohabiting unions also have higher stability levels than western German cohabiting unions if marriage formations following the first childbirth are considered. In Paper IV I assumed a standard normal distribution in the variances of the probit and hazard model, which is quite restrictive. To relax this assumption, I let the variance of the hazard model vary, while still assuming a normal distribution. Future studies may aim to further relax this distribution to test the robustness of the model results.

Finding-based suggestions for future research

The study investigated the link between the level of secularisation, the prevalence of non-marital childbearing, and the level of union stability by comparing the partnership behaviour of eastern and western Germans. The study provided new insights into this topic; however, the findings remained rather preliminary because only two contexts were compared. It appears to be necessary to conduct a more broadly based comparative study of different contexts that are characterised by a sufficient degree of variation in the childbearing and partnership behaviour. Such a broad cross-contextual study will allow researchers to draw more robust conclusions. First, future studies should aim to compare the rates of union dissolutions across several countries and to relate these rates to the national contexts of childbearing behaviour and secularisation levels. Second, future research should also compare the union stability of cohabitations with children and address potential context-specific differences in separation

behaviour. Third, more empirical studies are needed that apply advanced methodological techniques to evaluate the paths of selection that lead parents to cohabit and to separate in different contexts. Future case studies of union stability should take into account in the interpretation of their results that the effects of cohabitation or religious background can be context-specific.

The partnership durations prior to household formation and prior to family formation appeared to be very important determinants of union stability in this study. The longer the LAT episode lasted and the more time the partners had spent together before they became parents, the higher their degree of union stability was. Future research should therefore consider the partnership duration as a determining factor of separation. In the life course approach, the importance of time is stressed, conceptualised as duration or waiting time between transitions (Elder et al. 2003). Researchers may also take a closer look at the effects of different durations, considering, for example, the length of time the couple spent together before household formation, together with the waiting time prior to marriage and family formation.

Taking into account the partnership market might provide additional insights into the determining effect of the LAT episode on union stability, because the greater availability of alternative partners may explain the high degree of fragility of LAT partnerships at the beginning of the partnership career.

5.5 Concluding remarks

In the previous sections, I discussed the contributions of this study to existing research. Finally, I would like to stress the implications of this dissertation for the non-scientific world; namely, for policy-makers.

A first question is whether the existing legal regulations of the separation process and the period thereafter should be modified. The empirical findings in this study have shown that parents who were cohabiting at the time of the first childbirth were more likely to separate than married parents. Separation therefore represents a higher risk for non-married parents. Problems arise with separation, such as the need to ensure that the parent with whom the children no longer lives provides financial support for the children and continues to see them regularly. The transition to the new family situation can be facilitated for the family if they can rely on legal provisions that regulate the rights and obligations of each family member. In Chapter 2 I discussed in detail the legislation that regulates the parents' rights and responsibilities following separation. The dissolution of a marriage is accompanied by a court process in which the spouses agree on alimony payments and pension adjustments. Dissolutions of non-marital unions are not

subject to legal regulations, unless the couple had children. Since 2008 non-married parents, like married parents, have been able to receive child care alimony following the dissolution of a union dissolution for a limited period of time. The ability to claim alimony for reasons of solidarity is limited to former married spouses. Visitation rights are the same for divorced and separated parents. Thus, it seems that most of the concerns that arise from a union separation that involves children are addressed in the current legislation. Especially in the wake of the recent legal reforms, the marital status of the parental couple has become less important. These legal developments have thus taken the increasing number of non-marital families and family forms into account. In my view, current law points in the right direction, because it regulates the consequences of the separation of couples with children, almost independent of their marital status. However, the regulations may be not sufficient, because children with non-married parents are still disadvantaged in certain ways: their mothers do not have the same rights to maintenance after separation as married mothers, which can indirectly affect the living conditions of the children.

Second, it is possible ask whether these non-marital family arrangements should be subject to more legal regulations while they exist. The empirical findings in this study revealed that German family life is characterised by diversity: a substantial number of parents are living in a cohabiting relationship or even in an LAT partnership, especially at the time the family is formed. For a proportion of German parents, cohabitation represents a stable living arrangement. However, current policies still privilege marital families over non-marital families by providing the former with exclusive financial advantages. In Chapter 2, I discussed these advantages—namely, the joint taxation of the marital couple and the option to add a spouse to a health insurance plan—which are even more beneficial if one of the partners is not working or is working only part-time. Especially during the early years of family life when the children are young, one of the partners—most often the woman—takes on the role of being the main child care provider, reducing his or her economic activity. Providing financial benefits to married parents can thus lead to differences in the economic positions of various family forms. Future policies may therefore be structured towards ensuring the equal treatment of families. Recently, there have been calls to extend the entitlement to joint taxation to registered homosexual couples: in May 2013, the Supreme Court decided that the unequal treatment of registered civil partnerships and marriages with regard to income splitting is unconstitutional because both kinds of partnerships are communities of consumption and production (Supreme Court press release No. 41/2013 of 6 June 2013). The judges tied the entitlement to income splitting to the registration of a partnership. At present, only same-sex couples can register their relationship. Heterosexuals are excluded from the opportunity to register their partnership outside of marriage. This means that the unequal tax treatment of married and non-married heterosexual couples was not affected by the court's decision. In other countries, such as France and Belgium, legislation allows heterosexual couples

to register their relationship, too. An alignment of German law with the legal regimes of these European countries would mean that heterosexual non-married couples could benefit from income splitting by registering their partnership. The joint taxation of families has been discussed as a possible alternative to the joint taxation of couples, and was supported by the Conservative and the Liberal parties during the last federal elections in the autumn of 2013. This approach has, however, also been criticised in some quarters (Ochmann & Wrohlich 2013). Based on considerations of social justice, family arrangements should be subject to more equalised legal regulations. One option would be to allow the couples to choose their taxation status without marrying, which would relegate marriage to being a more private arrangement. But as long as the protection of marriage, anchored in the Basic Law, is interpreted as providing special financial benefits, this pathway is rather unlikely.

A third question is whether the increase in cohabitation levels should be of concern for policy-makers. Higher proportions of non-married parents may result in a higher percentage of children ending up in single-parent families or step-family arrangements, a trend which has societal and political relevance. Lone-parent families tend to have lower incomes than two-parent families (Thomas & Sawhill 2005). To ensure that children have equal opportunities, policy-makers have the responsibility to develop measures that can offset the negative effects of separation on children (Mooney et al. 2009). If non-marital childbearing is increasing and the high degree of fragility of non-marital partnerships remains, an increase in expenditures on social policies designed to reduce the levels of poverty and the risk of poor well-being among children in separated families may become necessary. An expansion of cohabitation might also raise the issue of whether governments should support policies that promote marriage. My findings showed no significant differences in the levels of union stability of eastern German and western German first-time parents, despite the large gap in cohabitation levels. This suggests that policy-makers should not be concerned about the increase in non-marital family forms, as this development does not necessarily imply increases in single-parent families or step-family arrangements. Policies that seek to prevent families from breaking up by promoting marriage are therefore likely to be inefficient.

In sum, the results of this doctoral study lead me to suggest that policy-makers should not necessarily assume that the spread of non-marital families is problematic. These families do not endanger the stability of couples with children in general, and therefore do not call into question the basic family model consisting of two biological parents. Non-marital families can function as relatively stable family arrangements if they are no longer the exception to marriage. Policies should allow these families to live in conditions equal to those of marital families, thereby relegating marriage to a private choice.

Epilogue

I would like to close this dissertation by quoting the words of Willekens (1999: 25).

> "The ultimate aim of research is (...) to determine how factors that are location- and period-specific affect people's lives, i.e. how threads and historical landscape (social, economic, cultural, political, and technological) are connected."

The variations in non-marital childbearing and in the spread of non-marital family forms across countries and regions represent a challenge and an opportunity for family research. The different contexts of family life in eastern and western Germany inspired me to examine in this study the contexts of partnership and stability as determinants of union stability.

REFERENCES

Bibliography of Chapter 1 to 5

Allan, G., Hawker, S., & Crow, G. (2001). Family diversity and change in Britain and Western Europe. *Journal of Family Issues*, 22(7), 819-837.

Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of marriage and family*, 62(4), 1269-1287.

Amato, P. R. (2001). Children of divorce in the 1990s: An update of the Amato and Keith (1991) meta-analysis. *Journal of Family Psychology*, 15(3), 355-370.

Andersson, G. (2002). Children's experience of family disruption and family formation: Evidence from 16 FFS countries. *Demographic Research*, 7(7), 343-364.

Andersson, G. (2003). Dissolution of unions in Europe: A comparative overview. *MPIDR Working Paper 2003-004*, Rostock: Max Planck Institute for Demographic Research.

Andersson, G., & Philipov, D. (2002). Life-table representations of family dynamics in Sweden, Hungary, and 14 other FFS countries: A project of descriptions of demographic behavior. *Demographic Research*, 7(4), 67-144.

Andreß, H. J., Borgloh, B., Bröckel, M., Giesselmann, M., & Hummelsheim, D. (2006). The economic consequences of partnership dissolution—a comparative analysis of panel studies from Belgium, Germany, Great Britain, Italy, and Sweden. *European Sociological Review*, 22(5), 533-560.

Arránz Becker, O., & Lois, D. (2010). Unterschiede im Heiratsverhalten westdeutscher, ostdeutscher und mobiler Frauen Zur Bedeutung von Transformationsfolgen und soziokulturellen Orientierungen. *Soziale Welt*, 61(1).

Arránz Becker, O. (2008). *Was hält Partnerschaften zusammen? Psychologische und soziologische Erklärungsansätze zum Erfolg von Paarbeziehungen*. Wiesbaden: VS Verlag.

Bastin, S. (2012). Dynamik alleinerziehender Mutterschaft. Partnerschaftsverläufe in der frühen Elternbiografie. In: Huinink, J., Kreyenfeld, M., & Trappe, H. (eds.): Familie und Partnerschaft in Ost- und Westdeutschland. Ähnlich und doch immer noch anders. *Journal of Family Research*, Special Issue 9, 201-228.

Becker, G.S., Landes, E.M., & Michael, R.T. (1977). An economic analysis of marital stability. *The Journal of Political Economy*, 85, 1141-1187.

Bernhardt, E. (2004). Is the Second Demographic Transition a useful concept for demography? *Vienna yearbook of population research*, 2, 25-28.

Bosch, R. (2007). Die wesentlichen Änderungen im neuen Unterhaltsrecht. *Forum Familienrecht,* F8/2007, 293-307.

Bracher, M., Santow, G., Morgan, S.P., Trussell, J. (1993). Marriage Dissolution in Australia: Models and Explanations. *Population Studies*, 47 (3), 403-425.

Brown, S.L. (2003). Relationship Quality Dynamics of Cohabiting Unions. *Journal of Family Issues*, 24(5), 583-601.

Brüderl, J., Diekmann, A., Engelhardt, H. (1999). Artefakte in der Scheidungsursachenforschung? Eine Erwiderung auf einen Artikel von Yasemin Niephaus [Engl.: Artifacts in the causes of divorce research? A reply to an article by Yasemin Niephaus]. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 51, 744-753.

Brüderl, J., & Kalter, F. (2001). The dissolution of marriages: The role of information and marital-specific capital. Journal of Mathematical Sociology, 25(4): 403-421.

Brüderl, Josef (2004): Die Pluralisierung partnerschaftlicher Lebensformen in Westdeutschland und Europa. *Aus Politik und Zeitgeschichte*, 19, 3-10.

Castro-Martín, T., Domínguez-Folgueras, M., & Martín-García, T. (2008). Not truly partnerless: Non-residential partnerships and retreat from marriage in Spain. *Demographic Research*, 18(16), 443-468.

Clarke, L., & Jensen, A.-M. (2004). Children's risk of parental break-up: Norway and England/Wales compared. *Acta Sociologica*, 47(1), 51-69.

Coester, M. (1992). Sorgerecht bei Elternscheidung und KJHG. *Zeitschrift für das gesamte Familienrecht*, 39(6), 617-625.

Coleman, D. (2004). Why we don't have to believe without doubting in the" Second Demographic Transition"—some agnostic comments. *Vienna Yearbook of Population Research*, 2, 11-24.

Dorbritz, J. (2007). Rückgang der Scheidungsintensitaet in 2005 und 2006. *BIB-Mitteilungen,* Volume 28, 04/2007, 13-16.

Duncan, S., & Phillips, M. (2011). People who live apart together (LATs): new family form or just a stage? *International Review of Sociology*, 21(3), 513-532.

Dykstra, P. A., & van Wissen, L. J. (1999). Introduction: The life course approach as an interdisciplinary framework for population studies. In: P. A. Dykstra, & L. J. van Wissen (eds.): *Population Issues: An Interdisciplinary Focus*. New York: Kluwer Academic/Plenum Publishers, 1-22.

Elder, G. H., Jr. (1978). Family history and the life course. In: T. K. Hareven (ed.): *Transitions: The family and the life course in historical perspective*, New York: Academic Press, 17-64.

Elder, G. H., Jr. (1985). Perspectives on the Life Course. In: G. H. Elder Jr.: *Life Course Dynamics*. Ithaca, New York: Cornell University Press, 23-49.

Elder, G.H., Jr., Johnson, M. K., & Crosnoe, R. (2003). The emergence and development of life course theory. In: J. T. Mortimer, & M.J. Shanahan (eds.): *Handbook of the Life Course*. New York: Kluwer Academic/Plenum Publishers, 3-19.

Emmerling, D. (2007). Ehescheidungen 2005. *Wirtschaft und Statistik*, 2/2007, 159-168.

Engelhardt, H. (2002). *Zur Dynamik von Ehescheidungen. Theoretische und empirische Analysen* [Engl.: On the dynamics of divorce. Theoretical and empirical analyses]. Berlin: Duncker & Humboldt.

Engelhardt, H., Trappe, H., & Dronkers, J. (2002). Differences in Family Policy and the Intergenerational Transmission of Divorce: A Comparison between the former East and West Germany. *Demographic Research*, 6(11), 295-324.

Ermisch, J., & Siedler, T. (2008). Living Apart Together. In: Brynin, M., Ermisch, J. (eds.), *Changing relationships*, New York: Taylor & Francis, 29-43.

Froese, P., & Pfaff, S. (2005). Explaining a religious anomaly: A historical analysis of secularization in Eastern Germany. *Journal for the Scientific Study of Religion*, 44(4), 397-422.

Gauthier, A. H. (2007). The impact of family policies on fertility in industrialized countries: a review of the literature. *Population Research and Policy Review*, 26(3), 323-346.

Grünheid, E. (2013). Ehescheidungen in Deutschland: Entwicklungen und Hintergründe. *BIB Working Paper* 1/2013. Wiesbaden: Bundesinstitut für Bevölkerungsforschung.

Grünheid, E. (2009). Überblick über die demografische Entwicklung in West-und Ostdeutschland von 1990 bis 2004. In: I. Cassens, M. Luy, & R. Scholz (eds.): *Die Bevölkerung in Ost-und Westdeutschland. Demografische, gesellschaftlicheund wirtschaftliche Entwicklungen seit der Wende*. Wiesbaden: VS Verlag für Sozialwissenschaften, 12-47.

Guzzo, K.B. (2009). Marital Intentions and the Stability of First Cohabitations. *Journal of Family Issues*, 30(2), 179-205.

Haub, C., & Gribble, J. (2011). The World at 7 Billion. *Population Bulletin*, 66(2), 1-14.

Heuveline, P., & Timberlake, J. M. (2004). The role of cohabitation in family formation: The United States in comparative perspective. *Journal of Marriage and Family*, 66(5), 1214-1230.

Hoem, B., & Hoem, J. (1992). The disruption of marital and non-marital unions in contemporary Sweden. In: Trussel, J., Hankinson, R., Tilton, J. (eds.), *Demographic applications of event history analysis*. Oxford: Clarendon Press, 61-93.

Höhn, C. (1980). Rechtliche und demographische Einflüsse auf die Entwicklung der Ehescheidungen seit 1946. *Zeitschrift für Bevölkerungswissenschaft*, 6, 335-371.

Huinink, J. (1999). Die Entscheidung zur Nichtehelichen Lebensgemeinschaft als Lebensform – Ein Vergleich zwischen Ost- und Westdeutschland. In: T. Klein & W. Lauterbach (eds.): *Nichteheliche Lebensgemeinschaften. Analysen zum Wandel partnerschaftlicher Lebensformen*. Opladen: Leske &Budrich.

Huinink, J. (1998). Ledige Elternschaft junger Frauen und Männer in Ost und West. In: Metze, R., Mühler, K., & Opp, K.-D. (eds.): *Der Transformationsprozess. Analysen und Befunde aus dem Leipziger Institut für Soziologie*. Leipzig: Leipziger Universitätsverlag, S. 301-320.

Huinink, J., Brüderl, J., Nauck, B., Walper, S., Castiglioni, L., & Feldhaus, M. (2011). Panel analysis of intimate relationships and family dynamics (pairfam): Conceptual framework and design. *Zeitschrift für Familienforschung*, 23(1), 77-101.

Inglehart, R., & Welzel, C. (2005*). Modernization, cultural change, and democracy: The human development sequence*. Cambridge University Press.

Inglehart, R. (1997*). Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton, NJ: Princeton University Press.

Jalovaara, M. (2013). Socioeconomic resources and the dissolution of cohabitations and marriages. *European Journal of Population*, 29(2), 167-193.

Jensen, A.-M., & Clausen, S.-E. (2003). Children and family dissolution in Norway: The impact of consensual unions. *Childhood*, 10(1), 65-81.

Kennedy, S., & Thomson, E. (2010). Children's experiences of family disruption in Sweden: Differentials by parent education over three decades. *Demographic Research*, 23, 479-508.

Kalil, A.,Mogstad, M., Rege, M., & Votruba, M. (2011). Divorced father's proximity and childrens' long run outcomes: Evidence from Norwegian register data. *Demography,* 48(3), 1005-1027.

Kalmijn, M. (2007). Explaining cross-national differences in marriage, cohabitation, and divorce in Europe, 1990–2000. *Population Studies*, 61(3), 243-263.

Kalmijn, M., & Uunk, W. (2007). Regional value differences in Europe and the social consequences of divorce: A test of the stigmatization hypothesis. *Social Science Research*, 36(2), 447-468.

Kerényi, Á. (2011). The Better Life Index of the Organisation for Economic Co-operation and Development. *Public Finance Quarterly*, 56(4), 518-538.

Kiernan, K. (2004). Unmarried Cohabitation and Parenthood in Britain and Europe. *Law & Policy*, 26(1), 33-55.

Kiernan, K. (2002). Cohabitation in Western Europe: Trends, issues, and implications. In A. C. Crouter, A. B. Crouter (eds.), *Just Living Together: Implication of cohabitation on families, children, and social policy*, Mahwah: Lawrence Erlbaum, 3-32.

Kim, H.S. (2011): Consequences of parental divorce for child development. *American Sociological Review*, 76(3), 487-511.

Klüsener, S., & Goldstein, J. (2012). The Long-Standing Demographic East-West-Divide in Germany. *MPIDR Working Paper* 2012-007, Rostock.

Klose, B. (1996). *Ehescheidung und Ehescheidungsrecht in der DDR – ein ostdeutscher Sonderweg?* Baden-Baden: Nomos Verlagsgesellschaft.

Krack-Roberg, E. (2009). Ehescheidungen 2008. *Wirtschaft und Statistik*, 11/2009, 1191-1203.

Krack-Roberg, E. (2011). Ehescheidungen 2009. *Wirtschaft und Statistik*, 3/2011, 239.

Kreyenfeld, M., Schmidtke, K., & Zühlke, S. (2009). Eignet sich das Mikrozensus-Panel für familiensoziologische Fragestellungen? Untersuchung am Beispiel der Frage nach den ökonomischen Determinanten der Familiengründung. *Zeitschrift für Familienforschung/Journal of Family Research*, 21(3).

Kreyenfeld, M. (2004). Fertility decisions in the FRG and GDR: An analysis with data from the German Fertility and Family Survey. *Demographic Research*, 3 (11), 275-318.

Kreyenfeld, M. & Konietzka, D. (2005). Nichteheliche Lebensgemeinschaften - Demographische Trends und gesellschaftliche Strukturen. In: Scherpe, J. M., &Yassari, N. (Eds.): *Die Rechtsstellung nichtehelicher Lebensgemeinschaften*. Tübingen: Mohr Siebeck.

Kreyenfeld, M.; Goldstein, J.; Walke, R.; Trappe, H.; Huinink, J. (2013a): *Demographic Differences in Life Course Dynamics in Eastern and Western Germany (DemoDiff).* GESIS Datenarchiv, Köln. ZA5684 Datenfile Version 3.0.0, doi:10.4232/demodiff.5684.3.0.0

Kreyenfeld, M., Walke, R., Salzburger, V., Lenke,R., Hensel, T. & Mir Mousavi, B. (2013b): *DemoDiff Supplement to the pairfam Data Manual (Release 3.0)*. Rostock: Max Planck Institute for Demographic Research, May 2013.

Kreyenfeld, M., Huinink, J., Trappe, H., & Walke, R. (2012). DemoDiff: A Dataset for the Study of Family Change in Eastern (and Western) Germany. *Schmollers Jahrbuch*, 132, 1-8.

Kreyenfeld, M., Walke, R., Salzburger, V., Schnor. C., Bastin, S., & Kuhnt, A.-K (2011). DemoDiff – Wave 1: Supplement to the pairfam Data Manual. *MPIDR Technical Report* 2011-004, Rostock: Max Planck Institute for Demographic Research.

Kreyenfeld, M., & Bastin, S. (2013). Blurred Memory, Deliberate Misreporting, or "Truly Tales"? How Different Survey Methods Affect Respondents' Reports of Partnership Status at First Birth. *MPIDR Working Paper* WP 2013-017 (November 2013).

Lappegard, T., Klüsener, S., & Vignoli, D. (2014): Societal Norms, Economic Conditions and Spatial Variation of Childbearing in Cohabitation across Europe. *MPIDR Working paper* 2014-002 (January 2014).

Lau, C. Q. (2012). The Stability of Same-Sex Cohabitation, Different-Sex Cohabitation, and Marriage. *Journal of Marriage and Family*, 74(5), 973-988.

Le Bourdais, C., Neill, G., & Vachon, N. (2000a). Family disruption in Canada: Impact of the changing patterns of family formation and of female employment. *Canadian Studies in Population*, 27(1), 85-105.

Le Bourdais, C., Neill, G., & Marcil-Gratton, N. (2000b). L'effet du type d'union sur la stabilité des familles dites "intactes". *Recherches sociographiques*, 41(1), 53-74.

Le Bourdais, C., & Lapierre-Adamcyk, E. (2004). Changes in conjugal life in Canada: Is cohabitation progressively replacing marriage? *Journal of Marriage and the Family*, 66(4), 929-942.

Lesthaeghe, R. and van de Kaa, D. J. (1986). Twee Demografische Transities? (Two Demographic transitions?). In: D. J. van de Kaa and R. Lesthaeghe (eds.): *Bevolking: Groei en Krimp (Population: Growth and Decline)*, Deventer: Van Loghum Slaterus, 9-24.

Lesthaeghe, R., & Meekers, D. (1986). Value changes and the dimensions of familism in the European community. *European Journal of Population*, 2(3), 223-268.

Lesthaeghe, R., Surkyn, J., (1988). Cultural dynamics and economic theories of fertility change. *Population and Development Review*, 14, 1–45.

Lesthaeghe, R. (1995). The second demographic transition in Western countries: An interpretation. *Gender and family change in industrialized countries*, 17-62.

Lesthaeghe, R. (1998). On theory development: applications to the study of family formation. *Population and development review*, 1-14.

Lesthaeghe, R., & Surkyn, J. (2008). When history moves on: The foundations and diffusion of a second demographic transition. in: R. Jayakody, A. Thornton, & W. Axinn (eds.):*Ideational perspectives on international family change*, New York: Taylor & Francis, 81-118.

Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. *Population and Development Review*, 36(2), 211-251.

Levin, I., & Trost, J. (1999). Living apart together. *Community, work & family*,2(3), 279-294.

Levinger, G. (1976). A social psychological perspective on marital dissolution.Journal of Social Issues, 32(1), 21-47.Liefbroer, A.C., & Dourleijn, E. (2006). Unmarried cohabitation and union stability: Testing the role of diffusion using data from 16 European countries. *Demography*, 43(2), 203-221.

Liefbroer, A.C., & Dourleijn, E. (2006). Unmarried cohabitation and union stability: Testing the role of diffusion using data from 16 European countries. *Demography*, 43(2), 203-221.

Lois, D. (2009). *Lebensstile und Entwicklungspfade nichtehelicher Lebensgemeinschaften*. Wiesbaden: VS Verlag für Sozialwissenschaften.

Lois, D. (2011). Wie verändert sich die Religiosität im Lebensverlauf? *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 63(1), 83-110.

Liu, G. (2002). How premarital children and childbearing in current marriage influence divorce of Swedish women in their first marriages. *Demographic Research*, 7, 389-406.

Lyngstad, T. H., & Jalovaara, M. (2010). A review of the antecedents of union dissolution. *Demographic Research*, 23(10), 257-292.

Manlove, J., Wildsmith, E., Ikramullah, E., Ryan, S., Holcombe, E., Scott, M., Peterson, K. (2012). Union Transitions Following the Birth of a Child to Cohabiting Parents. *Population Research and Policy Review*, 31, 361-386.

Manning, W.D., Smock, P.J., & Majumdar, D. (2004). The relative stability of cohabiting and marital unions for children. *Population Research and Policy Review*, 23(2), 135-159.

Manning, W.D. (2004). Children and the stability of cohabiting couples. *Journal of Marriage and Family*, 66(3), 674-689.

Matthias-Bleck, H. (2006). *Jenseits der Institution. Lebensformen auf dem Weg in die Normalität*. Würzburg: Ergon.

Martiny, D. (2005). Rechtsprobleme der nichtehelichen Lebensgemeinschaft während ihres Bestehens nach deutschem Recht. In: J.M. Scherpe & N. Yassari (eds.): *Die Rechtsstellung nichtehelicher Lebensgemeinschaften*. Tübingen: Mohr Siebeck, 79-100.

Mooney, A., Oliver, C., & Smith, M. (2009). *Impact of family breakdown on children's well-being. Evidence review*. Thomas Coram Research Unit Institute of Education, University of London.

Morgan, S.P., & Rindfuss, R. (1985). Marital Disruption: Structural and Temporal Dimensions. *American Journal of Sociology*, 90, 1055-1077.

Mortelmans, D., Snoeckx, L., & Dronkers, J. (2009). Cross-Regional Divorce Risks in Belgium: Culture or Legislative System? *Journal of Divorce & Remarriage*, 50(8), 541-563.

Nauck, B., Brüderl, J., Huinink, J., Walper, S. (2012). *Beziehungs- und Familienpanel (pairfam).* GESIS Datenarchiv, Köln. ZA5678 Datenfile Version 3.0.0, doi:10.4232/pairfam.5678.3.0.0.

Nave-Herz, R. (1999). Die Nichteheliche Lebensgemeinschaft als Beispiel gesellschaftlicher Differenzierung. In: T. Klein & W. Lauterbach (eds.): *Nichteheliche Lebensgemeinschaften. Analysen zum Wandel partnerschaftlicher Lebensformen.* Opladen: Leske &Budrich.

Niephaus, Y. (1999). Der Einfluss vorehelichen Zusammenlebens auf die Ehestabilität als methodisches Artefakt? [Engl.: The impact of premarital cohabitation to marriage stability as a methodological artifact?]. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 51, 124-139.

Ochmann, R., & Wrohlich, K. (2013): Familiensplitting der CDU/CSU: Hohe Kosten bei geringer Entlastung für einkommensschwache Familien. *DIW Wochenbericht* 36/2013, 3-11.

Oláh, L. Sz. (2001). Gender and family stability: Dissolution of the first parental union in Sweden and Hungary. *Demographic Research*, 4, 29-96.

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

Osborne, C., & McLanahan, S. (2007). Partnership Instability and Child Well-Being. *Journal of Marriage and Family*, 69(4), 1065-1083.

Perelli-Harris, B., Kreyenfeld, M., Sigle-Rushton, W., Keizer, R., Lappegård, T., Jasilioniene, A., & Di Giulio, P. (2012). Changes in union status during the transition to parenthood in eleven European countries, 1970s to early 2000s. *Population studies*, 66(2), 167-182.

Perelli-Harris, B., & Sánchez Gassen, N.E. (2012). How similar are cohabitation and marriage? The spectrum of legal approaches to cohabitation across Western Europe. *Population and Development Review*, 38, 435-467.

Pollack, D., & Pickel, G. (2007). Religious individualization or secularization? Testing hypotheses of religious change – The case of Eastern and Western Germany. *The British Journal of Sociology, 58*, 603-632.

Poortman, A.-R., & Liefbroer, A. C. (2010). Single's relational attitudes in a time of individualization. *Social Science Research*, 39, 938-949.

Pfau-Effinger, B. (2005): Culture and Welfare State Policies: Reflections on a Complex Interrelation. *Journal of Social Policy*, 34, 3-20.

Pötzsch, O. (2012). Geburtenfolge und Geburtenabstand – neue Daten und Befunde. In: Statistisches Bundesamt (ed.), *Wirtschaft und Statistik*, February 2012.

Poortman, A.-R., & Liefbroer, A. C. (2010). Single's relational attitudes in a time of individualization. *Social Science Research*, 39, 938-949.

Preston, S., Heuveline, P., & Guillot, M. (2000). *Demography: measuring and modeling population processes.*

Raley, R. K., & Wildsmith, E. (2004). Cohabitation and Children's Family Instability. *Journal of Marriage and the Family*, 66(1), 210-219.

Reimer, M. (2005). *Autobiographisches Gedächtnis und retrospektive Datenerhebung: Die Rekonstruktion und Validität von Lebensverläufen*. Berlin: Max-Planck-Institut für Bildungsforschung (Dissertation).

Regnier-Loilier, A., Beaujouan, É., & Villeneuve-Gokalp, C. (2009). Neither single, nor in a couple. A study of living apart together in France. *Demographic research*, 21(4), 75-108.

Rosenfeld, R. A., Trappe, H., & Gornick, J. C. (2004). Gender and work in Germany: Before and after reunification. *Annual Review of Sociology*, 103-124.

Scherpe, J.M. (2005). Einführung: Nichteheliche Lebensgemeinschaften als Problem für den Gesetzgeber. In: J.M. Scherpe & N. Yassari (eds.): *Die Rechtsstellung nichtehelicher Lebensgemeinschaften*. Tübingen: Mohr Siebeck.

Schneider, N.F. (1994). *Familie und private Lebensführung in West- und Ostdeutschland. Eine vergleichende Analyse des Familienlebens 1970-1992*. Stuttgart: Enke.

Schneider, Naderi, & Ruppenthal (2012). Familie in Deutschland nach dem gesellschaftlichen Umbruch. Sind Ost-West-Differenzierungen in der Familienforschung zwanzig Jahre nach der Wiedervereinigung noch sinnvoll? In: Huinink, J., Kreyenfeld, M., & Trappe, H. (eds.): Familie und Partnerschaft in Ost- und Westdeutschland. Ähnlich und doch immer noch anders. *Zeitschrift fuer Familienforschung/Journal of Family Research*, Special Issue 9, 29-53.

Sobotka, T., & Toulemon, L. (2008). Overview Chapter 4: Changing family and partnership behaviour: Common trends and persistent diversity across Europe. *Demographic Research*, 19(6), 85-138.

Sobotka, T. (2008). Overview chapter 6: The diverse faces of the second demographic transition in Europe. *Demographic Research*, 19(8), 171-224.

South, S. J., & Spitze, G. (1986). Determinants of divorce over the marital life course. *American Sociological Review*, 583-590.

Steele, F., Joshi, H., Kallis, C., Goldstein, H. (2006). Changing compatibility of cohabitation and childbearing between young British women born in 1958 and 1970. *Population Studies*, 60(2), 137-152.

Surkyn, J., & Lesthaeghe, R. (2004). Value Orientations and the Second Demographic Transition (SDT) in Northern, Western and Southern Europe: An Update. *Demographic Research Special Collections*, 3(3), 45-86.

Teachman, J.D. (1982). Methodological Issues in the Analysis of Family Formation and Dissolution. *Journal of Marriage and the Family*, 44, 1037-1053.

Teachman, J.D., Thomas, J., Paasch, K. (1991). Legal Status and the Stability of Residential unions. *Demography*, 28(4), 571-586.

Teachman, J. D., & Polonko, K. A. (1990). Cohabitation and marital stability in the United States. *Social Forces*, 69(1), 207-220

Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: John Wiley & Sons, Inc.

Thomas, A., & Sawhill, I. V. (2005). For love and money? The impact of family structure on family income. *The Future of Children*, 15(2), 57-74.

Trappe, H. (1995). *Emanzipation oder Zwang? Frauen in der DDR zwischen Beruf, Familie und Sozialpolitik*. Berlin: Akademie Verlag.

Tyrell, Hartmunt (1988): Institutionalisierung und Deinstitutionalisierung. In: K. Lüscher, F. Schultheis, & M. Wehrspaun (eds.): *Die „postmoderne" Familie*. Konstanz: Universitätsverlag, 145-156.

Upchurch, D. M., Lillard, L. A., Panis, C. W. A. (2001). The Impact of Non-Marital Childbearing on Subsequent Marital Formation and Dissolution. In: Wu, Haveman, and Wolfe (eds.): *Out of Wedlock: Trends, Causes, and Consequences of Nonmarital Fertility*. Russell Sage, New York.

Van de Kaa, D. J. (1997). Options and sequences: Europe's demographic patterns. *Journal of the Australian Population Association*, 14 (1), 1-30.

Van de Kaa, D. J. (1987). Europe's second demographic transition. *Population bulletin*, 42(1), 1-57.

Van de Kaa, D. J. 2002. *The idea of a Second Demographic Transition in industrialized countries*. Paper presented at the Sixth Welfare Policy Seminar of the National Institute of Population and Social Security, Tokyo, Japan, 29 January 2002. URL: [downloaded 16/12/2013] http://www.ipss.go.jp/webjad/WebJournal.files/population/2003_4/Kaa.pdf

Vatterrott, A. (2012). Selektion, Adaption oder Sozialisation? Eine Analyse nichtehelicher Geburten von Ost-West-Migrantinnen innerhalb Deutschlands. In: Huinink, J., Kreyenfeld, M., & Trappe, H. (eds.): Familie und Partnerschaft in Ost- und Westdeutschland. Ähnlich und doch immer noch anders. *Zeitschrift für Familienforschung/ Journal for Family Research*, 24, Special issue 9, 147-171.

Wagner, M. (1997). *Scheidung in Ost- und Westdeutschland. Zum Verhältnis von Ehestabilität und Sozialstruktur seit den 30er Jahren*. Frankfurt: Campus Verlag.

Wagner, S. (2005). Das nichteheliche Zusammenleben aus rechtshistorischer Sicht – eine Tour d'Horizon durch die Geschichte des Konkubinats. In: J.M. Scherpe & N. Yassari (eds.): *Die Rechtsstellung nichtehelicher Lebensgemeinschaften*. Tübingen: Mohr Siebeck.

Wellenhofer, M. (2005). Rechtsprobleme bei Auflösung der nichtehelichen Lebensgemeinschaften – unter Lebenden und im Todesfall. In: J.M. Scherpe & N. Yassari (eds.): *Die Rechtsstellung nichtehelicher Lebensgemeinschaften*. Tübingen: Mohr Siebeck, 101-136.

Willekens, F. J. (1999). The Life Course: Models and Analysis. *Population Issues*, 23-51.

Witte, J. C., & Wagner, G. G. (1995). Declining fertility in East Germany after unification: A demographic response to socioeconomic change. *Population and Development Review*, 387-397.

World Bank (2013). *Gross domestic products 2012*. World Development Indicators Database, 23 September 2013. URL: http://databank.worldbank.org/data/download/GDP.pdf

Wu L.L., & Musick K. (2008). Stability of Marital and Cohabiting Unions Following a First Birth. *Population Research and Policy Review*, 27(6), 713-727.

Wu, Z. (1995). The Stability of Cohabiting Relationships: The Role of Children. *Journal of Marriage and the Family*, 57, 231-236.

Zimmermann, A. C., & Easterlin, R. A. (2006). Happily ever after? Cohabitation, marriage, divorce, and happiness in Germany. *Population and Development Review*, 32(3), 511-528.

Appendix A

Summaries of the dissertation articles (Paper I – IV)

A.1 Paper I: Diversity of Family Forms in Eastern and Western Germany

(In German language, original title: Diversität von Familien in Ost- und Westdeutschland)

Authors: Sonja Bastin, Michaela Kreyenfeld and Christine Schnor

This study provides a detailed description of the living arrangements of young adults using detailed longitudinal data that allowed for a differentiation between the marital status, the household context, and the partnership.

Background: European societies have faced a fundamental demographic change in recent decades. Indicators of the demographic change are decreasing birth and marriage rates, increasing divorce rates, and a growing number of non-traditional living arrangements. The traditional family seems to lose its importance within the private life course. These changes lead researchers to question the role of marriage in family life.

Aim: This study aims at exploring the intimate life course of Germans born between 1971 and 1973, with a special focus on family formation.

Data and methods: The data come from the first wave of the German Family Panel (*pairfam*), collected in 2008/2009, and from an eastern German supplement sample (*DemoDiff*). The detailed data allow us to differentiate between the marital status, the household context, and the partnership.

Main Findings: The descriptive findings demonstrate that Germans of the birth cohorts 1971-1973 show marked differences in their family behaviours, even though they made their partnership and fertility choices within the context of re-unified Germany. In general, the traditional marital family is more prevalent among western Germans than among eastern Germans, but it does not hold a monopoly position in any region. Cohabitation has become a relevant union form among parents in western and eastern Germany. Living-apart-together arrangements (LAT) also exist, especially among couples who became parents at young ages. East-west differences in marriage behaviour are very pronounced around the time of the first childbirth. Eastern Germans tend to be less likely to marry before childbirth, but also after childbirth. Non-marital cohabitation seems to be a long-term living arrangement for more eastern Germans than western Germans. Being married at childbirth is related to lower risks of separation, compared to cohabiting. However, cohabitation is found to be more stable in eastern Germany than in western Germany, while marriages are less stable. Compared to western Germans, eastern German women are more likely to lack a partner at the time of childbirth, and are more likely to separate within the first family year.

A.2 Paper II: Does waiting pay off? – The effect of partnership duration prior to household formation on union stability

Author: Christine Schnor

This article investigates how the length of the non-residential partnership episode—known as LAT (living apart together)—relates to separation behaviour.

Background: There is a large body of literature that studies the role of the cohabitation episode prior to marriage in union stability. However, few studies have examined how the LAT period before moving together influences separation risks. This is surprising because this study finds that 90 per cent of the unions were preceded by an LAT period of some length. We might expect that a short LAT period would a negative influence on union stability, because the partners might lack information about each other, and mismatches are therefore possible. However, also a positive influence of a short LAT period is also conceivable: a fast transition to household formation can show the couple's commitment to the union.

Aims: This study aims to explore the partnership episode that precedes household formation, with special attention given to its effect on the dissolution behaviour of married and non-married couples.

Data and Methods: The data for the empirical analyses come from the German Family Panel. The dataset includes 8,230 residential non-marital and marital unions of 2,899 men and 3,866 women born in 1971 to 1973 and in 1981 to 1983. Multilevel piecewise constant survival models are estimated to assess the influence of the length of the LAT (living apart together) period on stability. The variable that indicates the LAT length is grouped in terciles, according to the distribution in the data.

Main findings: The results reveal that union stability is positively related to the LAT length. The risk of union disruption is higher if the couple had a short (1-9-month) non-residential partnership period before the joint household was formed. Couples who spent 10 to 25 months living apart together have better union prospects. The chances of union survival are highest if the union belongs to the group of long-term LAT couples (> 26 months). Partnerships that had no LAT period represent a special case: they were more stable than unions with a LAT length of one to nine months. Cohabiting unions have much lower levels of union stability than marital unions. The LAT length was positively associated with union stability in marital and non-marital unions.

A.3 Paper III: Separation risks of couples with children: The influence of religion in Western and Eastern Germany

(In German language, original title: Trennungsrisiko von Paaren mit Kindern: Der Einfluss der Religion in West- und Ostdeutschland)

Author: Christine Schnor

This study analyses the risk of separation of eastern and western German mothers, with special regard to their religious affiliation.

Background: In the Christian church, marriage is believed to be a reliable, secure, and life-long partnership. With increasing secularisation, the religious norms of marital childbearing and marital stability seem to have weakened. According to the Second Demographic Transition framework, the increases in non-marital living arrangements and divorce rates are results of this value change. Indeed, a large number of studies have shown a higher risk of union disruption among individuals who are not affiliated with a church. But does secularisation really lead to a higher overall level of union instability? Germany stands out as an ideal case for investigating the impact of secularisation level on union stability, because 70% of the western German population belong to a Christian community, compared to only 24% of the eastern German population.

Aim: This study aims to explore the relationship between secularisation (at the individual and regional levels) and separation risks among married and non-married parents.

Data and Method: The analysis draws on data from the first wave of the German Family Panel, and is restricted to women born in 1971-1973 or in 1981-1983 who were partnered at the time of the first childbirth. The sample amounts to 1,763 women. Detailed descriptive statistics show the characteristics of non-affiliated women, and multivariate regressions provide information about their risk of separation. Interaction models reveal differences by marital status and region.

Main findings: The empirical results confirm that non-affiliated women who were married at the time of family formation had a higher risk of separation than Catholics and Protestants. The social norm of marital childbearing and marital stability is strongest among Catholics, as they have a very high share of marital childbearing, and they have the highest degree of stability if they were married and the lowest stability if they were not married at the time of the first childbirth. The results further show that the union stability of western and eastern German mothers does not differ significantly. This can be attributed to the very high degree of partnership stability among eastern German church members and the insignificant influence of religion in western Germany. Among western Germans, the marital status at childbirth works as the main determinant of union stability.

A.4 Paper IV: The effect of union status at first childbirth on union stability: Evidence from eastern and western Germany

Author: Christine Schnor

This study is the first systematic analysis of the impact cohabitation has on the union stability of young parents in a comparative perspective; namely, in eastern and in western Germany.

Background: Relatively little is known about how the union stability of cohabitations differs in different contexts, and little attention has been paid to the relationship between the prevalence of births among cohabiting couples and the separation behaviour of the parents. Germany is an example of a country with an extraordinary degree of regional variation in the share of non-marital births: 60 per cent of the eastern German children, but only 27 per cent of the western German children are born to non-married (most often cohabiting) parents.

Aims: This study aims to provide new evidence on the effect of cohabitation on the stability of unions with children. It seeks to explore the characteristics of German cohabiting mothers that influence their risk of separating, and to compare an area in which the majority of children are born outside of marriage to an area in which this is not the case.

Data and Methods: The data come from the first three waves of the German family panel, and include 1,844 married and cohabiting mothers born in 1971-1973 and 1981-1983. Union stability is modelled with Kaplan-Meier survival estimates and in a piecewise continuous hazard model. The union context at the first childbirth is brought into the picture with a detailed sample description and a multivariate probit model. Simultaneous estimations allow me to control for factors that affect the selection into the union status at childbirth and separation risks. The interaction of region and union status enable me to analyse regional differences in the union stability of cohabiting women.

Main findings: The empirical results suggest that the union stability of cohabiting mothers is positively related to their prevalence: survival curves showed that eastern German cohabiting mothers had a greater degree of union stability than their western German counterparts. This difference increased in the event-history model, which accounted for the particular composition of eastern German society, including the relatively low level of religious affiliation among the population. Controlling for unobserved heterogeneity did not change this result.

Appendix B

Full versions of the dissertation articles (Paper I – IV)

B.1 Paper I: Diversity of Family Forms in Eastern and Western Germany

(In German language, original title: Diversität von Familienformen in Ost- und Westdeutschland)

Authors: Sonja Bastin, Michaela Kreyenfeld und Christine Schnor

Published as a book chapter in: Krüger, D., Herma, H., & Schierbaum, A. (eds.): *Familie(n) heute: Entwicklungen, Kontroversen, Prognosen.* Weinheim, Juventa, 126-145.

Zusammenfassung

In diesem Beitrag wird die Diversität der Lebensformen in Deutschland mit den Daten der ersten Welle des Beziehungs- und Familienpanels (*pairfam)* aus den Jahren 2008/09 dargestellt. Die Analysen wurden auf die Kohorten 1971-1973 beschränkt. Diese Jahrgänge haben im wiedervereinten Deutschland das Erwachsenenalter erreicht und wesentliche familiale Übergänge, wie die Geburt des ersten Kindes, mittlerweile vollzogen. Der Schwerpunkt der Analysen liegt auf der Dynamik, die Lebensformen nach der Familiengründung erfahren. Es zeigen sich große Ost-West-Unterschiede in den Familienbildungsmustern. Ostdeutsche Befragte sind häufiger unverheiratet bei der Geburt ihres ersten Kindes und heiraten zudem seltener nach der Familiengründung als westdeutsche Befragte. Ostdeutsche Frauen trennen sich insbesondere im ersten Lebensjahr ihres Kindes häufiger als westdeutsche Mütter. Zudem ist mit mehr als zehn Prozent der Anteil an Personen, die bereits bei der Geburt des ersten Kindes keinen Partner (mehr) haben, in Ostdeutschland auffällig hoch. Betrachtet man Trennungsrisiken nach der Lebensform zum Zeitpunkt der Geburt des ersten Kindes zeigt sich, dass nichteheliche Lebensgemeinschaften ein höheres Trennungsrisiko aufweisen als eheliche Lebensgemeinschaften. Im Ost-West-Vergleich sind ostdeutsche Ehen instabiler. Nichteheliche Lebensgemeinschaften weisen in Ostdeutschland hingegen eine niedrigere Trennungswahrscheinlichkeit auf als in Westdeutschland.

Abstract

In this paper data from the first wave of the German family panel (*pairfam*) is used to study the diversity of living arrangements in Germany. The analyses are restricted to the birth cohorts 1971-1973. These cohorts have entered adulthood after unification, but made significant transitions, like the birth of their first children, until interview in 2008/09. The investigation focuses on the union dynamics after the birth of the first child. We find significant differences in family formation patterns between eastern and western Germany. Respondents in eastern Germany are more often unmarried than western German respondents when the first child is born. Also after family formation, western Germans remain more likely to marry than eastern Germans. Separation rates are higher in eastern Germany in the immediate year after childbirth. A striking feature of the eastern German pattern is that a large fraction of roughly ten percent of the respondents does not have a partner (anymore) when the first child is born. We have also studied how partnership status at first birth relates to separation rates. In line with other studies, we find that cohabiting unions are less stable than marital unions. Comparing behavior in eastern and western Germany, we find that marital unions in the West are more stable than in the East. However, cohabiting unions in the eastern part of Germany display lower separation rates than non-marital unions in the western states.

1 Einleitung

Unsere Vorstellung vom familialen Wandel ist vor allem von der Idee geprägt, dass die Familie in Deutschland − wie auch jene in anderen westeuropäischen Ländern − seit den 1960er Jahren durchgreifenden Veränderungen unterworfen ist. Der radikale Rückgang der Heirats- und Fertilitätsraten, der Anstieg der Scheidungsintensität und die Zunahme von nichtehelichen Lebensgemeinschaften und anderen Lebensformen jenseits der bürgerlichen Kleinfamilie werden dabei routinemäßig unter die Begrifflichkeiten der Pluralisierung, Destandardisierung oder Deinstitutionalisierung gefasst oder auch mit wertenden Begriffen wie dem „Zerfall der Familie" belegt (Tyrell 1988; Nave-Herz 1997; Strohmeier 1993; Wagner und Franzmann 2000; Peuckert 2008). In der internationalen Forschung stehen häufig modernisierungstheoretische Überlegungen im Vordergrund, um den familialen Wandel zu beschreiben, wobei insbesondere unter den Begrifflichkeiten des „zweiten demographischen Übergangs" die Vorstellung eines gleichgerichteten Prozesses der zunehmenden Modernisierung und Diversifizierung der Familienstrukturen vertreten wird (Van de Kaa 1987; Lesthaeghe 1992).

Eine Vielzahl von empirischen Studien sind für Deutschland (Strohmeier 1993; Schneider et al. 1998; Wagner und Franzmann 2000) wie auch für andere europäische Länder (Elzinga und Liefbroer 2007; Fokkema und Liefbroer 2008) vorgelegt worden, die diesen Wandel darstellen. Zudem publiziert die amtliche Statistik regelmäßig Kennziffern, in denen auf Basis der Daten des Mikrozensus die Lebens- und Familienformen abgebildet werden (Statistisches Bundesamt et al. 2011). Trotz dieser Fülle an empirischen Evidenzen sind bislang nur selten Versuche unternommen worden, die Dynamik der Lebens- und Familienformen im Längsschnitt abzubilden (Brüderl 2004). Ziel dieses Beitrags ist es, diese Diversität der Lebensformen im Längsschnitt zu erfassen, indem die Dynamik, welcher Lebensformen nach der Familiengründung unterworfen sind, dargestellt wird.

Als Datenbasis dienen die erste Welle des deutschen Beziehungs- und Familienpanels (*pairfam)* (Huinink et al. 2011) sowie der ostdeutschen Zusatzstichprobe *DemoDiff* (Kreyenfeld et al 2011).[35] Die für Deutschland repräsentative Panelstudie befragt seit 2008/2009 jährlich Personen der Geburtskohorten 1971-1973, 1981-1983 und 1991-1993. Durch die retrospektive Erhebung von Partner- und Elternschaftsbiografien können die gesamten Lebensläufe dieser Kohorten abgebildet werden. Da jedoch die Kohorten 1981-1983 und 1991-93 noch relativ jung sind und damit viele Übergänge im familialen Lebenslauf noch nicht erfahren haben, konzentrieren wir uns in diesem Beitrag auf die Lebensläufe der Geburtsjahrgänge 1971-73. Diese Kohorten sind

[35] Wenn im Folgenden das „Beziehungs- und Familienpanel" genannt wird, sind damit die Daten des Projekts „Panel Analysis of Intimate Relationships and Family Dynamics" (pairfam) sowie des Projekts "Demographic Differences in Life Course Dynamics in Eastern and Western Germany" (DemoDiff) gemeint.

zum Zeitpunkt der Befragung zwischen 35 und 39 Jahre alt. Eine Besonderheit dieser Jahrgänge ist, dass sie das Erwachsenenalter im wiedervereinigten Deutschland durchlebt, jedoch die ostdeutschen Befragten dieser Kohorten ihre Sozialisation noch in der DDR erfahren haben (Mayer und Schulze 2009). Aus diesem Grund und auf Basis der Tatsache, dass sich familiale Verhaltensweisen in Ost- und Westdeutschland weiterhin unterscheiden, führen wir alle Analysen getrennt für Ost- und Westdeutschland durch.

Der Beitrag ist wie folgt aufgebaut. In Teil 2 werden auf Basis einfacher Kreuztabellen die Lebens- und Familienformen in Ost- und Westdeutschland nach Alter dargestellt. Zur Klassifikation von Lebens- und Familienformen werden, neben dem Vorliegen einer Elternschaft, die Dimensionen Familienstand, Haushaltskontext und Paarbeziehung herangezogen. Teil 3 fokussiert die Dynamik der Lebensformen nach der Geburt des ersten Kindes. Ein erheblicher Anteil der Befragten, insbesondere in Ostdeutschland, lebt in einer nichtehelichen Lebensgemeinschaft, wenn das erste Kind geboren wird. Auf Basis von Zeitdaueranalysen wird dargestellt, ob diese Lebensform von Dauer ist oder die Personen auch noch nach der Familiengründung heiraten. Zudem wird das Trennungsverhalten nach der Familiengründung untersucht. Teil 5 liefert eine abschließende Betrachtung.

2 Lebensformvariationen der Geburtskohorten 1971-1973

2.1 Versuch einer Taxonomie der Lebensformen

Der Versuch einer Kategorienbildung von Lebens- und Familienformen muss sich zwangsläufig an einem Lebensformen- und Familienbegriff orientieren. Während mittlerweile einheitlich das Kind als konstituierendes Moment der Familie definiert wird, gibt es bislang kein einheitliches Vorgehen zur Klassifikation von Lebensformen. In der amtlichen Statistik dominiert weiterhin eine auf den Haushalt beschränkte Definition der Lebensformen. Demgegenüber wird in der familiensoziologischen Forschung durch die Verfügbarkeit neuerer Datensätze vermehrt der Versuch unternommen, auch die haushaltsübergreifenden Strukturen zu erfassen, indem „Living-Apart-Together Beziehungen“ betrachtet oder die komplexen Wohnverhältnisse abgebildet werden, in denen Stieffamilien leben (Feldhaus und Schlegel 2011; Feldhaus und Huinink 2011; Schneider et al. 2001). Wir folgen diesem Vorgehen und berücksichtigen haushaltsübergreifende Strukturen in der Weise, dass wir die drei Dimensionen Familienstand, Haushaltskontext und Vorliegen einer Paarbeziehung heranziehen, um Lebensformen zu kategorisieren (siehe auch Huinink und Konietzka 2007: 39). Der *Familienstand* gibt dabei den Grad der rechtlichen Institutionalisierung einer Partnerschaft wieder und unterscheidet die Dimensionen ledig,

verheiratet und geschieden bzw. verwitwet.[36] Der *Haushaltskontext* zeigt an, ob die Person mit einem Partner zusammen in einem Haushalt lebt (ohne Koresidenz, mit Koresidenz). Die Dimension der *Paarbeziehung* beinhaltet, ob eine Partnerschaft zu einer Person vorliegt (kein Partner, Partner).

Aus den drei Dimensionen Familienstand, Haushaltskontext und Paarbeziehung ergeben sich 9 logische Kategorien, wobei einige der Kategorien dünn besetzt sind. Abbildung 1 verdeutlicht diesen Umstand auf Basis der ersten Welle des Beziehungs- und Familienpanels, welche auf die Stichprobe der Frauen und Männer der Geburtskohorten 1971-73 reduziert wurde.[37] Die Verwitweten werden in der Darstellung zusammen mit den Geschiedenen ausgewiesen, da die Befragten der Kohorten 1971-73 noch relativ jung sind und es bislang kaum verwitwete Personen in diesen Geburtsjahrgängen gibt (N=15).

[36] Personen in eingetragenen Partnerschaften wurden als verheiratet betrachtet.

[37] Die gesamte Stichprobe des Beziehungs- und Familienpanels umfasst 4.792 Befragte der Kohorten 1971-1973. 145 Personen wurden aus den Analysen ausgeschlossen, da für diese Personen keine validen Fertilitäts- oder Partnerschaftsbiographien oder keine Angaben zum Wohnort zum Befragungszeitpunkt vorlagen.

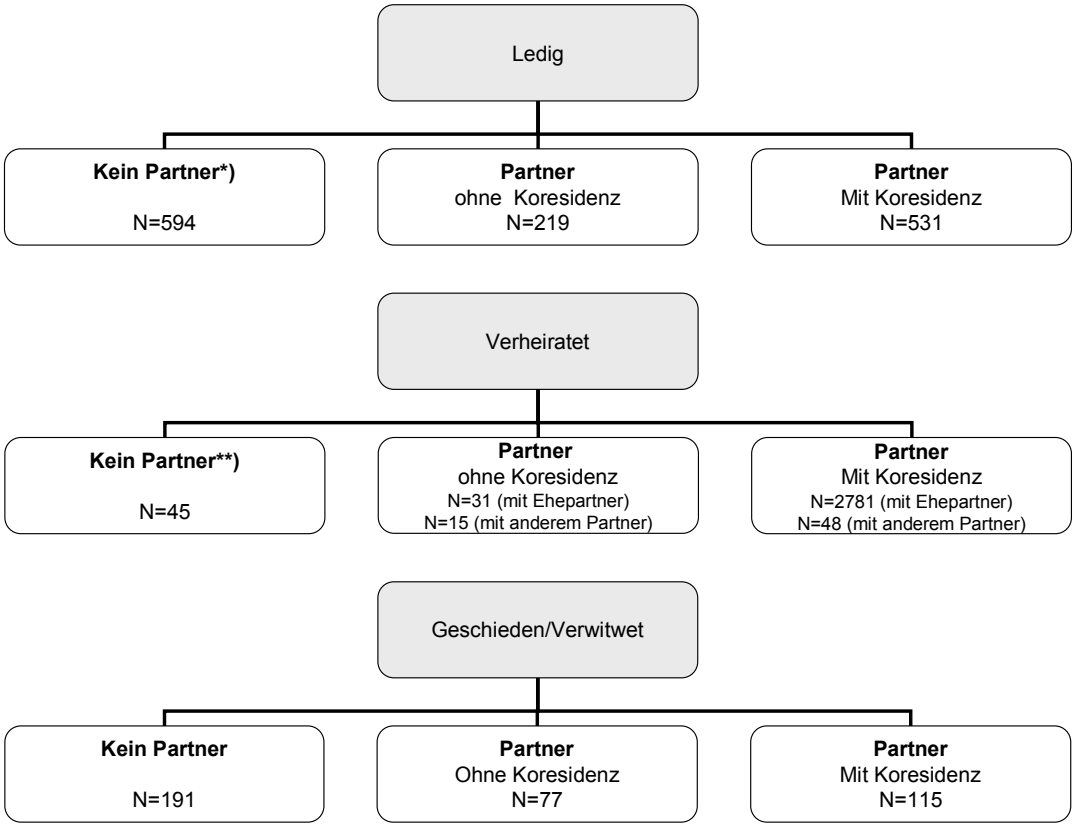


Abbildung 1: Lebensformen der Geburtskohorten 1971-73 zum Zeitpunkt der Befragung nach Familienstand, Paarbeziehung und Haushaltskontext in absoluten Zahlen
Anmerkung: *) 6 Fälle führen einen gemeinsamen Haushalt mit dem ehemaligen Partner, geben aber an, keine Beziehung zu führen. **) 12 Fälle führen einen gemeinsamen Haushalt mit dem Ehepartner, geben aber an, keine Beziehung zu führen
Quelle: pairfam/DemoDiff Welle 1

Um zu einer Kategorisierung von Lebensformen zu gelangen, haben wir die in Abbildung 1 dargestellten Kategorien in vier Lebensformentypen gruppiert. Die Gruppierung lehnt sich an bisherige Klassifikationsversuche an, in denen die Partnerschaftsform und der Haushaltskontext die dominierenden Elemente bei der Gruppierung von Lebensformen darstellen (Huinink und Konietzka 2007). Da die eheliche Familie jedoch weiterhin ein Bezugspunkt der sozialpolitischen Regelungen ist, bildet die eheliche Lebensgemeinschaft eine übergeordnete Kategorie im Lebensformenschema:

- Personen in **ehelichen Lebensgemeinschaften** umfassen jene, die verheiratet sind und mit dem Ehepartner in einer partnerschaftlichen Beziehung leben. Auch Personen, die nicht mit dem Ehepartner zusammen wohnen, werden als Personen in ehelicher Lebensgemeinschaft definiert, sofern sie eine partnerschaftliche Beziehung zum Ehepartner bzw. zur Ehepartnerin pflegen. Auf Grund des Scheidungsprozesses, der sich über mehrere Jahre hinstrecken kann, ist es prinzipiell möglich, dass sich eine verheiratete

Person in einer Partnerschaft mit einem neuen Partner befindet, mit dem sie möglicherweise bereits zusammen lebt (siehe Abbildung 1). Diese Personen werden nicht als eheliche Lebensgemeinschaften betrachtet.

- Personen in **nichtehelichen Lebensgemeinschaften (NEL)** umfassen jene, die mit einem Partner oder einer Partnerin im selben Haushalt leben, mit dem bzw. der sie nicht verheiratet sind. Dies bedeutet, dass auch geschiedene und verwitwete Personen unter diese Kategorie gefasst werden, wenn sie mit einem neuen Partner bzw. einer neuen Partnerin zusammenleben. Verheiratete werden ebenfalls als nichteheliche Lebensgemeinschaft gefasst, wenn sie sich von dem Ehepartner bzw. von der Ehepartnerin getrennt haben und mit einem neuen Partner bzw. einer neuen Partnerin zusammenleben.

- Personen in **Living-Apart-Together-Beziehungen (LAT)** führen eine nichteheliche Partnerschaft, wobei der Lebenspartner bzw. die Lebenspartnerin nicht im gleichen Haushalt lebt. Auch geschiedene und verwitwete Personen können unter diese Kategorie gefasst werden, wenn sie eine Partnerschaft mit getrennten Haushalten angegeben haben. Verheiratete Personen werden als LAT klassifiziert, wenn sie sich von dem Ehepartner bzw. der Ehepartnerin getrennt haben und eine neue Partnerschaft mit getrennten Haushalten eingegangen sind.

- **Partnerlose** sind Personen, die, unabhängig vom Familienstand, zum Befragungszeitpunkt keinen Partner bzw. keine Partnerin haben.

Tabelle 1 zeigt, in welchen Lebensformen Männer und Frauen der Geburtskohorten 1971-73 zum Befragungszeitpunkt, d.h. im Alter von 35 bis 39 Jahren, lebten. Die Tabelle unterscheidet nach dem Geschlecht der Befragten sowie nach Ost- und Westdeutschland, wobei sich die Definition von Ost- und Westdeutschland auf die Wohnregion zum Befragungszeitpunkt bezieht. Wie aus der Tabelle zu ersehen ist, ist die eheliche Lebensgemeinschaft vor allem in Westdeutschland die dominante Lebensform, während in Ostdeutschland die nichteheliche Lebensgemeinschaft stärker verbreitet ist. Betrachtet man die Unterschiede zwischen Männern und Frauen, fällt zum einen der höhere Anteil Unverheirateter unter den männlichen Befragten auf, der sich insbesondere durch das höhere Erstheiratsalter von Männern erklären lässt.

Tabelle 1: Lebensformen der Geburtskohorten 1971-73 zum Befragungszeitpunkt, Spaltenprozente

	Frauen		Männer	
	Ostdeutsch-land	Westdeutsch-land	Ostdeutsch-land	Westdeutsch-land
Partnerlos	17,9	17,3	21,4	22,1
LAT	7,1	6,6	10,3	6,6
NEL	21,3	11,7	26,5	16,2
Ehe	53,7	64,5	41,8	55,1
Fallzahlen	*744*	*1.768*	*690*	*1.445*

Quelle: pairfam/DemoDiff Welle 1 (gewichtete Werte)

2.2 Elternschaft und Lebensform in verschiedenen Altersphasen

Für eine umfassende Darstellung familialer Lebensformen ist es notwendig neben der Lebensform auch nach dem Elternschaftsstatus zu unterscheiden. Prinzipiell wird eine Unterscheidung zwischen biologischer Elternschaft sowie Adoptiv-, Pflege- und Stiefelternschaft getroffen (Vaskovics 2009; Schwab und Vaskovics 2011). Folgt man der Logik einer haushaltsübergreifenden Sichtweise, müsste zudem berücksichtigt werden, ob eine Koresidenz eines Kindes mit dem befragten Elternteil vorliegt. Da Befragte mehr als ein Kind haben können, ergeben sich eine Vielzahl von Elternschafts- und Koresidenzkonstellationen. Um die Darstellung der Familienformen übersichtlich zu gestalten, lassen wir im Folgenden den Aspekt der Koresidenz der Kinder und der Stiefelternschaft unberücksichtigt (siehe hierzu Steinbach 2008; Kreyenfeld und Martin 2011; Feldhaus und Huinink 2011). Unberücksichtigt bleibt auch die Dimension der Pflege- und Adoptivelternschaft (siehe hierzu Alt und Lange 2011). Unterscheidungsdimension für die Klassifikation von Lebensformen ist im Folgenden nur das Vorliegen einer biologischen Elternschaft, unabhängig von der Koresidenz des Kindes bzw. der Kinder. Der Nachteil dieser Klassifikation ist, dass dem Vorliegen einer biologischen Elternschaft das Primat eingeräumt wird, es jedoch für den alltäglichen Lebenszusammenhang möglicherweise relevanter ist, ob ein Kind bzw. Kinder im Haushalt leben. Wir haben dennoch dieses Vorgehen gewählt, da die weiteren Analysen die Dynamik der Lebensformen nach der Familiengründung fokussieren und somit die Geburt des ersten Kindes als einschneidendes Lebensereignis definiert wird.

Tabelle 2 gibt für Personen mit Kindern die jeweilige Lebensform wieder. Da Lebensformen über den Lebenslauf variieren, sind sie nach Alter dargestellt. Zudem gibt die Tabelle für jedes Alter den Anteil an Befragten mit Kindern an. Ostdeutsche Frauen der Geburtskohorten 1971-73 sind demnach deutlich früher in ihren Lebensläufen Mutter geworden als Westdeutsche. Mit 30

Jahren haben bereits 65 Prozent der ostdeutschen Frauen mindestens ein Kind bekommen, in Westdeutschland sind es hingegen nur 53 Prozent der Frauen. Bis zum Alter 35 schwächen sich die Unterschiede in den Anteilen Kinderloser ab, da mehr west- als ostdeutsche Frauen in dieser Lebensphase eine Familie gründen. Unter ost- und westdeutschen Männern ist Kinderlosigkeit ähnlich verbreitet. Der Anteil an Vätern steigt in beiden Landesteilen gleichermaßen mit dem Alter.

Über den Lebenslauf hinweg zeigt sich insgesamt eine deutliche Konstanz der Verteilung der Lebensformen innerhalb der betrachteten Gruppen. Die Ehe ist in jeder Altersgruppe die am häufigsten gewählte Lebensform von Müttern und Vätern. Eine Ausnahme stellen lediglich Ostdeutsche dar, die im Alter von 20 Mutter oder Vater geworden sind. Aufgrund geringer Fallzahlen können zu den Lebensformenvariationen in diesem Alter jedoch keine gesicherten Aussagen gemacht werden. Mit zunehmendem Lebensalter wächst in Ostdeutschland der Anteil an ehelichen Lebensgemeinschaften unter den Personen mit Kindern. Auffällig ist dennoch, dass auch im späteren Alter die nichteheliche Lebensgemeinschaft in Ostdeutschland deutlich häufiger verbreitet ist als in Westdeutschland. Im Alter von 35 Jahren sind es 24 Prozent der ostdeutschen Mütter und 29 Prozent der Väter, die in dieser Lebensform zu finden sind. In Westdeutschland sind es gerade mal 11 Prozent der Mütter und Väter. LAT-Beziehungen haben unter den älteren Befragten mit Kindern weder in Ost- noch in Westdeutschland eine Bedeutung. Diese Lebensform ist in erster Linie unter den jungen Müttern und Vätern in Ostdeutschland zu finden.

Table 2: Lebensformen von Frauen und Männern mit Kindern der Geburtskohorten 1971-73, Spaltenprozente

Mütter Ostdeutschland	***Alter 20***	***Alter 25***	***Alter 30***	Alter 35
Partnerlos	13,9	12,8	12,6	12,1
LAT	20,7	8,5	6,7	6,4
NEL	41,3	29,4	27,2	24,1
Ehe	24,2	49,3	53,5	57,5
Fallzahlen	97	256	456	538
% Mütter nach Alter	*12,5*	*35,8*	*64,5*	*79,6*
Mütter Westdeutschland	**Alter 20**	**Alter 25**	**Alter 30**	**Alter 35**
Partnerlos	17,3	11,1	10,5	10,4
LAT	6,1	5,0	5,0	4,8
NEL	16,5	14,9	12,1	10,2
Ehe	60,1	69,0	72,4	74,6
Fallzahlen	*62*	*306*	*687*	*975*
% Mütter nach Alter	*6,7*	*27,6*	*53,2*	*74,2*
Väter Ostdeutschland	**Alter 20**	**Alter 25**	**Alter 30**	**Alter 35**
Partnerlos	12,8	13,4	12,7	10,9
LAT	22,5	11,4	4,9	6,4
NEL	38,9	36,0	38,3	29,3
Ehe	25,8	39,1	44,1	53,4
Fallzahlen	*15*	*106*	*275*	*389*
% Väter nach Alter	*2,0*	*14,8*	*39,9*	*59,9*
Väter Westdeutschland	**Alter 20**	**Alter 25**	**Alter 30**	**Alter 35**
Partnerlos	3,9	8,9	8,1	6,0
LAT	19,8	5,2	3,2	3,3
NEL	11,1	15,5	16,3	10,9
Ehe	65,3	70,4	72,3	79,9
Fallzahlen	*17*	*117*	*356*	*587*
% Väter nach Alter	*2,1*	*13,2*	*34,3*	*53,1*

Quelle: pairfam/DemoDiff Welle 1 (gewichtete Werte)

3 Lebensformendynamik der Frauen der Geburtskohorten 1971-1973

3.1 Kopplung von Heirat und Familiengründung

Abbildung 2 gibt einen Einblick in die Kopplung von Lebensform und Fertilitätsbiographie. Dargestellt ist die Lebensform zum Zeitpunkt der Geburt des ersten Kindes, neun Monate vor der Geburt und zum Zeitpunkt der Geburt des zweiten Kindes. Diese und die folgenden Darstellungen haben wir auf weibliche Befragte begrenzt. Der wesentliche Grund für dieses Vorgehen ist, dass in den Analysen nur Personen berücksichtigt werden können, die bereits Elternschaftserfahrung gemacht haben. Die befragten Frauen in unserer Stichprobe haben dies zu einem größeren Anteil getan als dies für die männlichen Befragten der Fall ist, sodass die Stichprobe der weiblichen Personen mit Kindern weniger selektiv ist als die der männlichen Population.

Abbildung 2 zeigt, dass zwei Drittel der westdeutschen, aber nur gut ein Drittel der ostdeutschen Frauen zum Zeitpunkt der Geburt ihres ersten Kindes verheiratet sind. In Ostdeutschland lebt ein erheblicher Anteil der Mütter zum Zeitpunkt der Erstgeburt in einer nichtehelichen Lebensgemeinschaft (43 Prozent). Partnerlosigkeit bei Geburt des ersten Kindes ist zwar eher die Ausnahme, jedoch sind es immerhin 12 Prozent der ostdeutschen und acht Prozent der westdeutschen Frauen, die keinen Partner haben, wenn ihr erstes Kind geboren wird. Ost-West-Unterschiede existieren auch in der Frage, ob eine Schwangerschaft einen Anlass zur Heirat darstellt. In Westdeutschland zeigt sich, dass gerade zwischen Schwangerschaftsbeginn und Geburt des ersten Kindes der Anteil der unverheirateten Frauen stark zurückgeht (von 54 auf 34 Prozent). Die Schwangerschaft stellt damit im Westen immer noch einen wesentlichen Anlass zur Eheschließung dar. In Ostdeutschland geht der Anteil unverheirateter Frauen zwischen diesen beiden Zeitpunkten nur mäßig (von 75 auf 63 Prozent) zurück. Betrachtet man den Zeitpunkt der Geburt des zweiten Kindes, stellt man für Ost- wie auch für Westdeutschland fest, dass die weite Mehrzahl der Frauen verheiratet ist. Inwiefern dies daran liegt, dass Personen zwischen der Geburt des ersten und zweiten Kindes heiraten oder es in erster Linie die verheirateten Frauen sind, die ein zweites Kind bekommen, kann jedoch auf Basis dieser Abbildung nicht beurteilt werden.

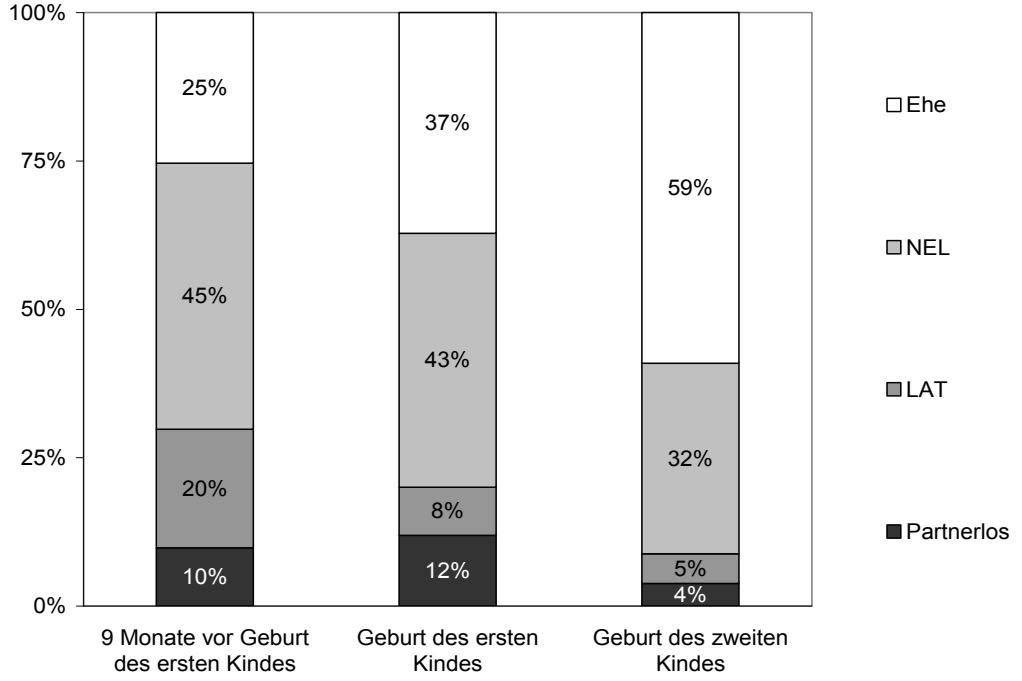


Abbildung 2a: Lebensformen und Kindgeburt, Frauen der Geburtskohorten 1971-73, Ostdeutschland

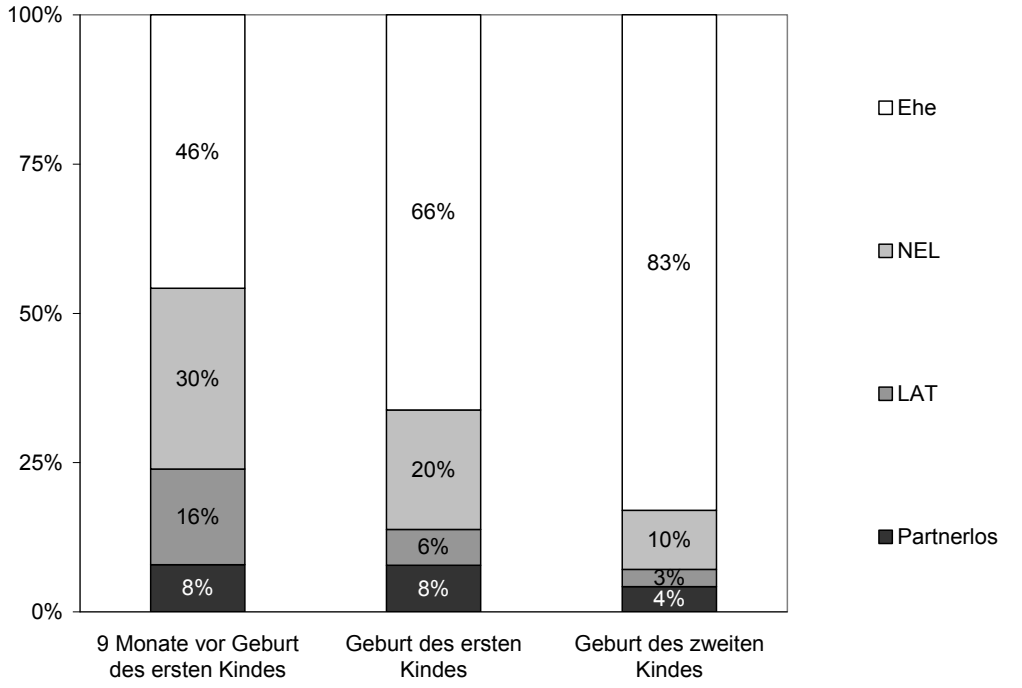


Abbildung 2b: Lebensformen und Kindgeburt, Frauen der Geburtskohorten 1971-73, Westdeutschland

Quelle: pairfam/DemoDiff Welle 1 (gewichtete Werte)

3.2 Nichteheliche Lebensgemeinschaft mit Kindern: Eine stabile Lebensform?

In Ostdeutschland leben 43 Prozent aller Frauen in einer nichtehelichen Lebensgemeinschaft (NEL), wenn das erste Kind geboren wird. In Westdeutschland heiratet die Mehrzahl vor der Familiengründung. Dennoch sind es auch in Westdeutschland 20 Prozent, die zum Zeitpunkt der Erstgeburt in einer NEL leben. Eine wesentliche Frage ist, ob nichteheliche Lebensgemeinschaften eine stabile Lebensform darstellen, oder auch nach der Familiengründung Eheschließungen stattfinden. In der Literatur wird häufig die Vorstellung vertreten, dass nichteheliche Lebensgemeinschaften eher temporärer Natur sind, da sie entweder zügig in eheliche Lebensgemeinschaften transferiert werden oder sich die Partnerschaften auflösen (Klein und Lauterbach 1999).

Abbildung 3 zeigt vor dem Hintergrund dieser Fragestellung die Stabilität von nichtehelichen Lebensgemeinschaften. Die Abbildung enthält Personen, die bei der Geburt des ersten Kindes in einer nichtehelichen Lebensgemeinschaft lebten. Dargestellt ist der Zeitraum ab Geburt bis zum achten Geburtstag des ersten Kindes. Da der Übergang aus der NEL in eine Ehe erfolgen kann, die Partner sich jedoch auch trennen oder lediglich in verschiedene Haushalte ziehen können (LAT), sind verschiedene Folgezustände möglich. Um den Übergang in diese unterschiedlichen Folgezustände abzubilden, haben wir kumulierte Inzidenzfunktionen geschätzt (Gooley et al. 1999).

Die Abbildung gibt Hinweise auf eine gewisse Stabilität der NEL in den ersten Familienjahren. In Ostdeutschland leben 30 Prozent der Frauen, die bei Geburt des ersten Kindes in einer NEL lebten auch noch in dieser Lebensform, wenn das erste Kind acht Jahre alt ist. In Westdeutschland ist der Anteil mit 15 Prozent deutlich geringer. Gerade in Westdeutschland heiraten noch relativ viele Frauen nach der Familiengründung. Dies gilt insbesondere für die unmittelbare Zeit nach der Geburt des ersten Kindes, doch auch zwischen dem zweiten und fünften Lebensjahr sind in Westdeutschland anteilmäßig mehr Eheschließungen zu verzeichnen als in Ostdeutschland. Direkte Partnerschaftstrennungen aus der NEL sind sowohl in Ost- als auch in Westdeutschland nur sehr selten in den ersten zwei Lebensjahren des Kindes zu finden.

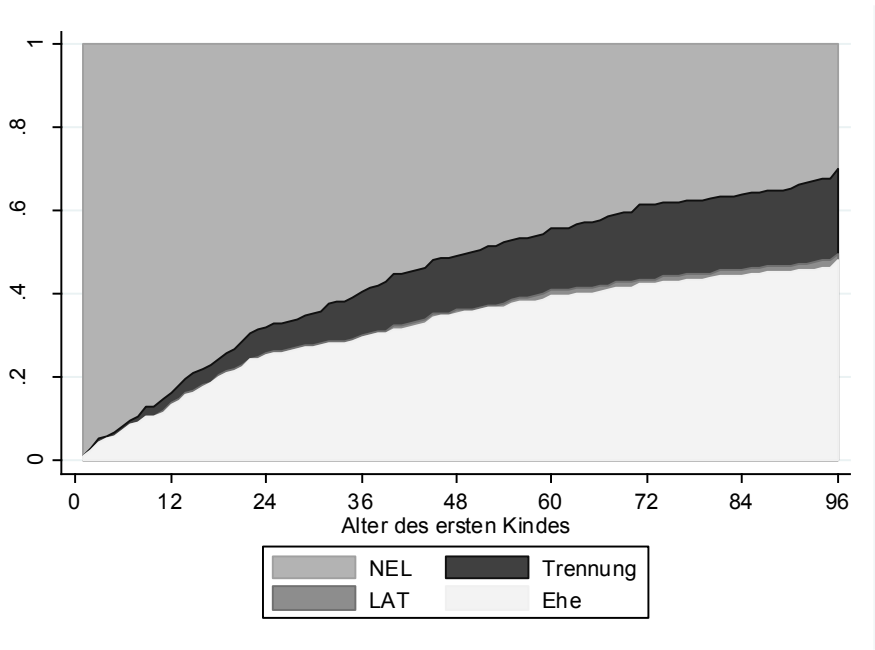


Abbildung 3a: Wechsel von der NEL in andere Lebensformen nach Alter des ersten Kindes (in Monaten), Frauen der Kohorten 1971-73, Ostdeutschland

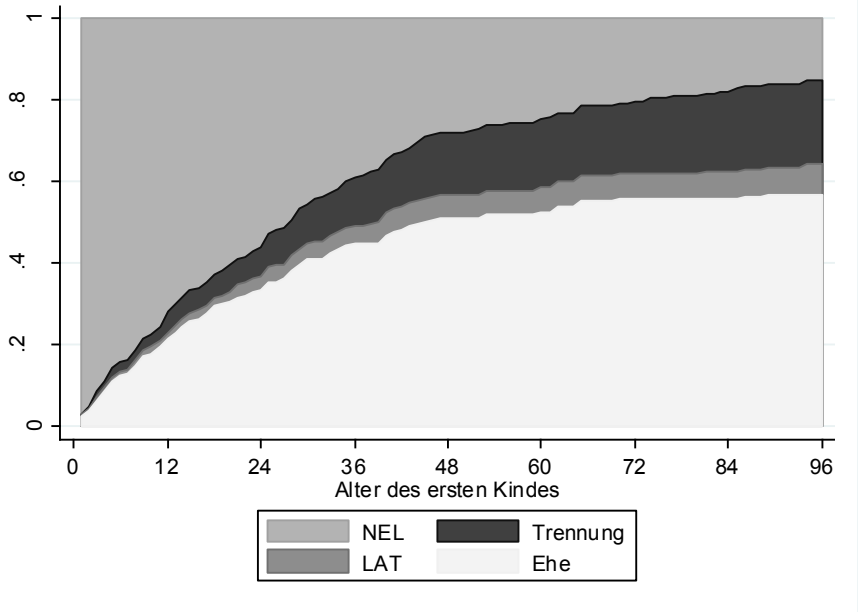


Abbildung 3b: Wechsel von der NEL in andere Lebensformen nach Alter des ersten Kindes (in Monaten), Frauen der Kohorten 1971-73, Westdeutschland

Anmerkung: Die Abbildungen basieren auf kumulierten Inzidenzfunktionen.

Quelle: pairfam/ DemoDiff Welle 1 (ungewichtete Analysen)

3.3 Trennung nach der Familiengründung

Trennung und Scheidung sind einschneidende Ereignisse in den Lebensläufen von Personen. Dies gilt umso mehr, wenn aus einer Partnerschaft Kinder hervorgegangen sind. Die bisherigen Analysen zur Dynamik von nichtehelichen Lebensgemeinschaften geben bereits Hinweise auf das Trennungsrisiko von nichtehelichen Lebensgemeinschaften. Eine allgemeine Schlussfolgerung auf die Stabilität von Paarbeziehungen nach der Familiengründung ist hiermit jedoch nicht möglich, da lediglich der erste Übergang aus der nichtehelichen Lebensgemeinschaft in diesen Analysen erfasst wird. Es wird nicht berücksichtigt, dass eine Trennung erfolgen kann, nachdem eine NEL in eine Ehe transformiert wurde. Zudem ist die Betrachtung nur auf Partnerschaften beschränkt, die innerhalb einer nichtehelichen Lebensgemeinschaft eine Familie gegründet haben. Diese sind jedoch in Ost- und Westdeutschland unterschiedlich verbreitet.

Abbildung 4 gibt nun Aufschluss über das Trennungsverhalten von allen Frauen, nachdem sie ihr erstes Kind geboren haben. In die Darstellung gehen auch Frauen ein, die sich bereits zum Zeitpunkt der Geburt getrennt haben oder nie eine partnerschaftliche Beziehung zu dem Vater des Kindes pflegten.[38] Im betrachteten Zeitraum ist der Anteil an getrennten Müttern in Ostdeutschland durchgängig höher als in Westdeutschland. Dies ist hauptsächlich auf den höheren Anteil an bei Geburt partnerlosen Frauen in Ostdeutschland und der höheren Partnerschaftsinstabilität von ostdeutschen Müttern im ersten Lebensjahr ihres Kindes zurückzuführen. Wie aus der Abbildung zu ersehen ist, sind zum Zeitpunkt der Geburt des ersten Kindes bereits elf Prozent der Frauen in Ostdeutschland und sieben Prozent der westdeutschen Frauen getrennt.[39] Acht Jahre nach der ersten Kindgeburt sind 27 Prozent der westdeutschen Frauen nicht mehr mit ihrem Partner zusammen, im Osten haben bereits 34 Prozent eine Trennung hinter sich. Demzufolge ist insbesondere aufgrund der unterschiedlichen Ausgangslage die Trennungswahrscheinlichkeit für Personen mit Kindern in Ostdeutschland deutlich höher als in Westdeutschland.

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38 Die Prozesszeit ist die Zeit seit Geburt des ersten Kindes bis zur Trennung vom Partner bzw. von der Partnerin, den bzw. die die Befragte zu dem Zeitpunkt hatte als sie ihr erstes Kind geboren hat. Vor dem Hintergrund, dass einer außerpartnerschaftlichen Schwangerschaft i.d.R. eine sexuelle Beziehung vorausgegangen ist, werden auch Personen berücksichtigt, die keine Partnerschaft angegeben haben.

39 Die Zahlen unterscheiden sich geringfügig von den Ergebnissen aus Abbildung 2a und Abbildung 2b, da die Überlebensfunktionen nicht gewichtet wurden.

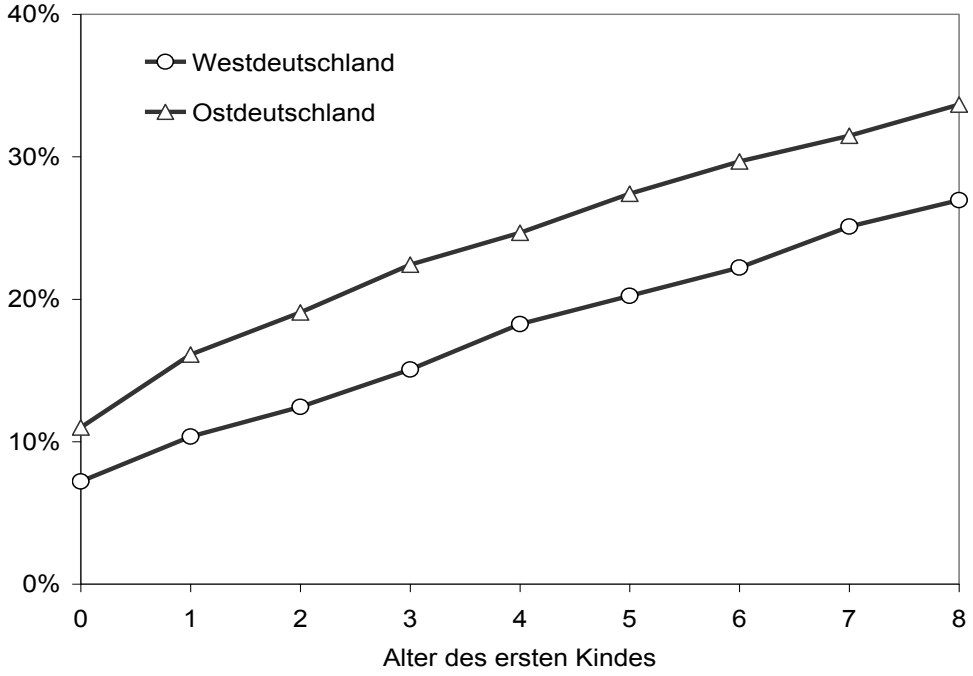

Abbildung 4: Anteil der Mütter der Kohorten 1971-73, die sich getrennt haben, nach Alter des ersten Kindes

Anmerkung: Die Abbildungen basieren auf Kaplan-Meier-Failure-Funktionen

Quelle: pairfam/DemoDiff Welle 1 (ungewichtete Analysen)

Abbildung 5 unterscheidet die Trennungswahrscheinlichkeit nach der Form der Partnerschaft zum Zeitpunkt der Kindgeburt. Ausgeschlossen von dieser Darstellung werden Mütter, die sich zum Zeipunkt der Geburt keine Partnerschaft angegeben haben. Zudem ist die Trennungswahrscheinlichkeit von Frauen nicht dargestellt, die ihr erstes Kind in einer LAT-Beziehung bekommen haben, da diese Gruppe relativ klein ist (siehe Abbildung 2). Entsprechend unterscheidet Abbildung 5 nur Frauen, die entweder in einer nichtehelichen Lebensgemeinschaft oder in einer ehelichen Lebensgemeinschaft lebten, als das erste Kind geboren wurde. Die Abbildung zeigt, dass Mütter, die mit ihrem Partner zum Zeitpunkt der Geburt in einer nichtehelichen Lebensgemeinschaft lebten, einem höheren Trennungsrisiko ausgesetzt sind als Mütter, die sich zum gleichen Zeitpunkt in einer ehelichen Lebensgemeinschaft befanden. Auffällig sind zudem die Ost-West-Unterschiede. Unter den ehelichen Lebensgemeinschaften sind die ostdeutschen Partnerschaften instabiler, während es bei den nichtehelichen Lebensgemeinschaften die westdeutschen Partnerschaften sind, die eine höhere Instabilität aufweisen. Erklären lässt sich dieser Sachverhalt am ehesten mit der Tatsache, dass die westdeutsche Population, die bei Geburt des ersten Kindes (noch) unverheiratet ist, deutlich selektiver ist als die Population in Ostdeutschland, wo die nichteheliche Familiengründung wesentlich verbreiteter ist.

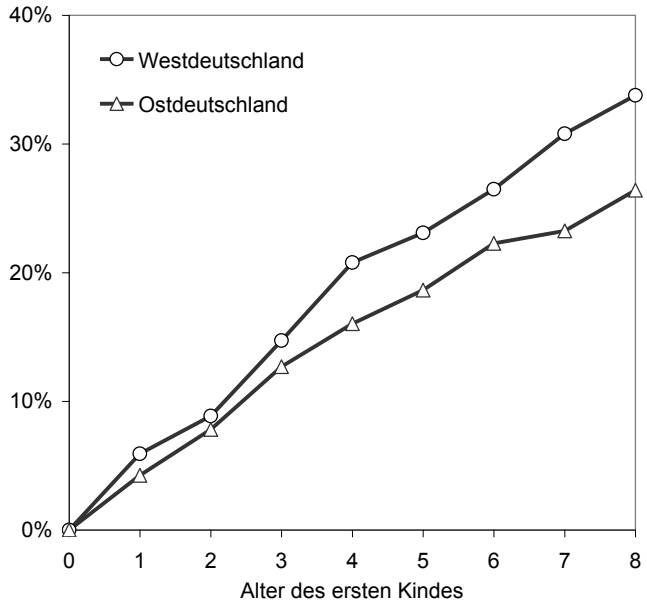

Abbildung 5a: Anteil der Mütter der Kohorten 1971-73, die sich getrennt haben, nach Alter des ersten Kindes; Frauen, die bei Geburt des ersten Kindes in einer NEL lebten

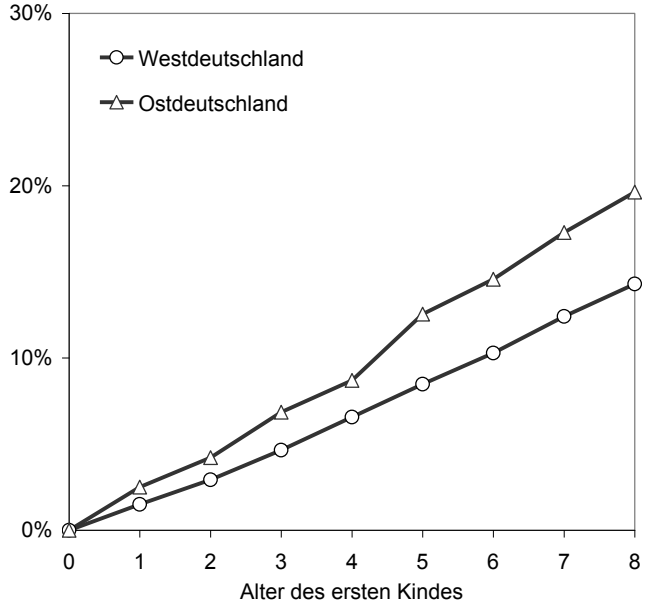

Abbildung 5b: Anteil der Mütter der Kohorten 1971-73, die sich getrennt haben, nach Alter des ersten Kindes; Frauen, die bei Geburt des ersten Kindes in einer Ehe lebten

Anmerkung: Die Abbildungen basieren auf Kaplan-Meier-Failure-Funktionen

Quelle: pairfam/DemoDiff Welle 1 (ungewichtete Analysen)

4 Fazit

Ziel dieses Beitrags war es die Diversität der Lebens- und Familienformen aus einer Längsschnittperspektive zu betrachten. Als Datensatz haben wir das Beziehungs- und Familienpanel verwendet, wobei wir uns auf die Geburtskohorten 1971-1973 beschränkt haben, die zum Befragungszeitpunkt wesentliche familiale Übergänge, wie die Geburt des ersten Kindes, weitgehend realisiert hatten. Obwohl diese Geburtsjahrgänge ihre Partnerschafts- und Elternschaftsentscheidungen im wiedervereinigten Deutschland getroffen haben, bestehen für diese Kohorten in den Lebens- und Familienformen erhebliche Ost-West-Unterschiede. Im Einklang mit bisherigen Studien zeigt sich die relativ hohe Verbreitung nichtehelicher Lebensgemeinschaften mit Kindern in Ostdeutschland, wobei diese Lebensform vor allem im frühen Lebenslauf eine besondere Relevanz besitzt. Frühe Erstelternschaft ist insbesondere in Ostdeutschland mehrheitlich nichteheliche Elternschaft. In Westdeutschland dominiert in jedem Lebensalter die eheliche Lebensgemeinschaft unter den Personen mit Kind.

Eine Darstellung der Lebensformen zum Zeitpunkt der Geburt des ersten Kindes unterstreicht zwar vorhergehende Befunde, die darauf verweisen, dass der Übergang in die Ehe in Westdeutschland mehrheitlich vor der Familiengründung realisiert wird. Auf immerhin ein Drittel der westdeutschen Frauen der Kohorten 1971-73 trifft dies jedoch nicht zu. In Ostdeutschland sind es sogar deutlich mehr als die Hälfte der Frauen, die bei Erstgeburt nicht verheiratet sind. In beiden Landesteilen leben Frauen, die bei Geburt ihres ersten Kindes unverheiratet sind, mehrheitlich in einer nichtehelichen Lebensgemeinschaft.

Die weitere dynamische Betrachtung zeigt, dass auch nach der Familiengründung Lebensformen einer erheblichen Dynamik unterworfen sind. Westdeutsche Frauen, die in einer NEL ihr erstes Kind bekommen haben, heiraten häufig noch in den ersten Jahren nach Geburt des ersten Kindes. In Ostdeutschland ist die Wahrscheinlichkeit geringer nach der Erstgeburt noch zu heiraten. Dennoch hat etwa die Hälfte der ostdeutschen Frauen, die bei Geburt des ersten Kindes in einer NEL lebten, acht Jahre später geheiratet. Dieser Befund deutet darauf hin, dass es neben der Familiengründung weitere Determinanten gibt, welche für eine Eheschließung relevant sind.

Betrachtet man die Trennungsverhalten nach Familiengründung zeigt sich, dass die Trennungswahrscheinlichkeit ostdeutscher Mütter höher als die westdeutscher Frauen mit Kindern ist. Wenn das erste Kind acht Jahre alt ist, haben sich 27 Prozent der Frauen in Westdeutschland und 34 Prozent der ostdeutschen Frauen von dem Partner, den sie bei Geburt hatten, getrennt. Für Ostdeutschland fällt dabei der relativ hohe Anteil der Frauen auf, der bereits bei Geburt des ersten Kindes keinen Partner (mehr) hatte. Dieser Aspekt ist vor allem vor dem Hintergrund relevant, dass die Kinder dieser Befragten bereits im frühen Alter die Erfahrung

machen in einem Einelternhaushalt zu leben und möglicherweise früh in ihren Lebensläufen den Eintritt in eine Stieffamilie erfahren. Im Hinblick auf Ost-West-Unterschiede ist an dieser Stelle ferner relevant, dass die Trennungswahrscheinlichkeit von westdeutschen Müttern, die bei Geburt ihres ersten Kindes in einer NEL leben, höher ist als von vergleichbaren ostdeutschen Frauen. Dies weist auf eine unterschiedliche Selektivität der nichtehelichen Lebensgemeinschaft in den beiden Teilen Deutschlands hin.

Insgesamt zeigt die Längsschnittbetrachtung, dass auch nach der Familiengründung Lebensformen einer erheblichen Dynamik unterliegen, welche sich zudem unterschiedlich zwischen Ost- und Westdeutschland darstellt. Dieser Befund ist vor allem vor dem Hintergrund relevant, dass die Analyse von Lebens- und Familienformen zumeist einer Querschnittslogik folgt. In diesem Forschungsbereich sind in der Vergangenheit vor allem Fortschritte erzielt worden, indem die haushaltsübergreifenden Strukturen, in denen Befragte leben, erfasst wurden. Die Komplexität, die Lebensformen über den Lebenslauf entfalten, ist bislang hingegen nicht in gleicher Weise Rechnung getragen worden. Gerade für die jungen Kohorten, deren Lebensläufe auch nach der Familiengründung noch deutlichen Dynamiken unterworfen sind, ist es umso relevanter geworden, eine Längsschnittperspektive einzunehmen, um deren familiale Lebenssituation verstehen zu können.

5. Referenzen

Alt, Christian /Lange, Andreas (2011): Kindschaftskonstellationen in Vater-Mutter-Familien und in Einelternfamilien. In: Schwab, Dieter/ Vaskovics, Laszlo A. (Hrsg.): Pluralisierung der Elternschaft und Kindschaft. *Zeitschrift für Familienforschung* - Sonderheft 8, Leverkusen: Verlag Barbara Budrich.

Brüderl, Josef (2004): Die Pluralisierung partnerschaftlicher Lebensformen in Westdeutschland und Europa. Aus Politik und Zeitgeschichte B19: 3-10.

Elzinga, Cees /Liefbroer, Aart (2007): De-standardization of family-life trajectories of young adults: a cross-national comparison using sequence analysis. *European Journal of Population* 23: 225-250.

Feldhaus, Michael /Schlegel, Monika (2011): Vielfalt (mobiler) Lebensformen? *Aus Politik und Zeitgeschichte* B41: 37-38.

Feldhaus, Michael /Huinink, Johannes (2011): Multiple Elternschaft. Eine Analyse zur Vielfalt von Elternschaft in Folgepartnerschaften. *Zeitschrift für Familienforschung* (im Erscheinen).

Fokkema, Tineke /Liefbroer, Aart (2008): Trends in living arrangements in Europe: Convergence or divergence? *Demographic Research* 19: 1351-1418.

Gooley, Ted A. /Leisenring, Wendy /Crowley, John /Storer, Barry. E. (1999): Estimation of failure probabilities in the presence of competing risks: new representations of old estimators. *Statistics in Medicine* 18: 695-706.

Huinink, Johannes /Brüderl, Josef, et al. (2011): Panel Analysis of Intimate Relationships and Family Dynamics (pairfam). *Zeitschrift für Familienforschung* 23: 77-101.

Huinink, Johannes /Konietzka, Dirk (2007): *Familiensoziologie. Eine Einführung.* Frankfurt/Main.

Klein, Thomas /Lauterbach, Wolfgang (1999) (Hrsg.): *Nichteheliche Lebensgemeinschaften. Analyse zum Wandel partnerschaftlicher Lebensformen.* Opladen: Leske+Budrich.

Kreyenfeld, Michaela /Martin, Valerie (2011): Economic conditions of stepfamilies from a cross-national perspective. *Zeitschrift für Familienforschung* 23: 128-153.

Kreyenfeld, Michaela /Walke, Rainer /Salzburger, Veronika /Schnor, Christine /Bastin, Sonja /Kuhnt, Anne-Kristin (2011): DemoDiff - Wave 1. Supplement to the pairfam-Data Manual. *Max Planck Institute for Demographic Research*. Technical Report No. 4.

Lesthaeghe, Ron (1992): Der zweite demographische Übergang in den westlichen Ländern: Eine Deutung. *Zeitschrift für Bevölkerungswissenschaft* 18: 313-354.

Mayer, Karl Ulrich /Eva Schulze (2009): *Die Wendegeneration. Lebensverläufe des Jahrgangs 1971*. Frankfurt/Main: Campus Verlag.

Nave-Herz, Rosemarie (1997): Pluralisierung familialer Lebensformen – ein Konstrukt der Wissenschaft? In: L. A. Vaskovics (Hrsg.): *Familienleitbilder und Familienrealitäten.* Opladen: Leske+Budrich: 36-49.

Peuckert, Rüdiger (2008): *Familienformen im sozialen Wandel.* 7. vollständig überarbeitet Auflage. Opladen: Leske + Budrich.

Schneider, Norbert F. /Hartmann, Kerstin /Limmer, Ruth (2001): Berufsmobilität und Lebensform. Sind berufliche Mobilitätserfordernisse in Zeiten von Globalisierung noch mit Familie vereinbar? *Schriftenreihe des Bundesfamilienministeriums*, Band 208. Stuttgart: Kohlhammer.

Schneider, Norbert F. /Rosenkranz, Doris /Limmer, Ruth (1998): *Nichtkonventionelle Lebensformen. Entstehung, Entwicklung, Konsequenzen*. Opladen: Leske+Budrich.

Schwab, Dieter /Vaskovics, Laszlo A. (Hrsg.) (2011): *Pluralisierung der Elternschaft und Kindschaft*. Leverkusen: Verlag Barbara Budrich (im Erscheinen).

Statistisches Bundesamt (Destatis) /Wissenschaftszentrum Berlin für Sozialforschung (WZB) /Deutsches Institut für Wirtschaftsforschung (DIW) (2011): *Datenreport 2011*.

Stauder, Johannes (2011): Regionale Ungleichheit auf dem Partnermarkt? Die makrostrukturellen Rahmenbedingungen der Partnerwahl in regionaler Perspektive. *Soziale Welt* 62: 41-69.

Steinbach, Anja (2008): Stieffamilien in Deutschland. *Zeitschrift für Bevölkerungsforschung* 33: 153-180.

Strohmeier, Klaus Peter (1993): Pluralisierung und Polarisierung der Lebensformen in Deutschland. *Aus Politik und Zeitgeschichte* B17: 11-22.

Tyrell, Hartmunt (1988): Institutionalisierung und Deinstitutionalisierung. In: K. Lüscher et al. (Hrsg.): *Die „postmoderne" Familie.* Konstanz: Universitätsverlag: 145-156.

Van de Kaa, Dirk J. (1987): Europe's Second Demographic Transition. *Population Bulletin* 42: 3-57.

Vaskovics, Laszlo A. (2009): Segmentierung der Elternrolle. In G. Burkart (Hrsg.): *Zukunft der Familie: Prognosen und Szenarien* (Sonderheft 6 der Zeitschrift für Familienforschung). Opladen & Farmington Hills: Barbara Budrich: 269-296.

Wagner, Michael /Franzmann, Gabriele (2000): Die Pluralisierung der Lebensformen. *Zeitschrift für Bevölkerungswissenschaft* 25: 151-173.

B.2 Paper II: Does waiting pay off? –The effect of partnership duration prior to household formation on union stability

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Abstract

This article investigates how the length of the non-residential partnership phase, which is known as LAT (living apart together), relates to separation behavior. There is a large body of literature on the effects of cohabiting prior to marriage on union stability. However, relatively few studies have examined how the LAT period before moving in together influences separation risks. This is surprising, as this study has found that 90 percent of the unions were preceded by an LAT period. On the one hand, we might expect to find that a short LAT period has a negative influence on union stability, because the partners have relatively little information about each other, and mismatches are therefore possible. It is, however, also conceivable that a short LAT period prior to moving in together is indicative of the couple's commitment to the union. Data for the empirical analyses came from the German Family Panel. The dataset includes 8,230 residential non-marital and marital unions of 2,899 men and 3,866 women born in 1971-1973 and in 1981-1983. Multilevel piecewise constant survival models were estimated to assess the influence of the length of the LAT (living apart together) period on stability. The results reveal that union stability is positively related to the length of the LAT phase. However, the separation rates of unions without a prior LAT period are also low. The LAT stage has a similar impact on cohabitations and on marriages. The findings suggest that the LAT period is a significant phase in the partnership which enables couples to acquire information about the quality of the partnership.

1 Introduction

Over the past few decades, new forms of living arrangements within partnerships have emerged in many western countries. Partnerships can be defined as emotional relationships in which the partners may or may not be married, and may or may not share a residence. The term "union" usually refers only to couples who live together, in cohabitation or in marriage. Couples who live in separate households represent a distinct partnership type referred to as "living apart together" (LAT) (Duncan & Phillips 2011; Levin & Trost 1999). The proportion of partners living in a non-marital union has increased in recent years, and cohabitation has replaced marriage as the leading choice for a first union (Sobotka & Toulemon 2008). In addition to cohabitation, non-residential partnerships have become widespread, at least in western Europe (Duncan & Phillips 2011; Régnier-Loilier et al. 2009). This trend has been interpreted by some scholars as representing an expression of individualization, which may imply less commitment to others (Lesthaeghe & Surkyn 1988; Poortman & Liefbroer 2010). Delayed union formation, the increase in non-traditional living arrangements, and rising rates of separation are aspects of the broader societal change which has been called the Second Demographic Transition (Lesthaeghe & Meekers 1986; Lesthaeghe 2010; van de Kaa 1987). The trend toward extended periods of LAT has caused some observers to raise concerns that partnerships are becoming more fragile.

However, LAT often functions as a temporary arrangement preceding household formation (Ermisch & Siedler 2009): couples frequently have separate homes at the start of the partnership, and there is a considerable flow from non-residential partnerships to cohabitation and marriage (Castro-Martin et al. 2008; Ermisch & Siedler 2009; Régnier-Loilier et al. 2009). How well the partners knew each other at the time of household formation and how much time the partners needed before deciding to move in together may have critical effects on the stability of the union. According to the theoretical considerations of Becker et al. (1977) and Oppenheimer (1988), a relationship is more likely to be stable if the partners have solid information about each other's personal characteristics. A short LAT episode should be related to a high degree of uncertainty about the partner's attributes at the time the household is formed, which might decrease the prospects of union success. Other scholars have, however, suggested that there is a negative relationship between non-residential partnership length and subsequent union stability (Thibaut & Kelley 1959). The process of developing intimate relationships requires the partners to be motivated to invest in the partnership (Brown 2003). A hesitation to invest may indicate that the partners anticipate a high risk of disruption.

This study follows up on the view of the LAT partnership as a stepping stone to a more committed residential partnership, and focuses on the separation behavior of couples who had just started living together. The article investigates the risk of separation among married and unmarried couples in a residential union. Married and cohabiting couples have a lot in common:

couples who live together tend to develop similar daily routines (Levin 2004; Jalovaara 2013; Rindfuss & VandenHeuvel 1990). There is empirical evidence that several determinants of union dissolution have similar effects on both union forms (Jalovaara 2013). People in residential unions profit from being able to pool their resources and from the economies of scale that come from sharing a home (Oppenheimer 1988). These advantages are forfeited if the partners decide to dissolve the partnership (Rhoades et al. 2012). To avoid the high costs of separation, it is essential to form a residential union with good prospects for stability. A large number of studies have focused on premarital cohabitation as a stepping stone to marriage, and have examined the role of cohabitation in marital stability (e.g. Bracher et a. 1993; Jalovaara 2013, Thomson & Colella 1992, Lillard et al. 1995, Berrington & Diamond 1999). However, previous studies rarely accounted for the non-residential partnership period prior to household formation, because appropriate data for studying this phase of the partnership were not widely available. The findings of most surveys are not suitable for addressing this research question because they do not include information on the non-residential partnership period. In this paper, the German Family Panel is used, which offers detailed partnership histories, including starting and ending dates of LAT episodes. German non-residential partnerships do not appear to be exceptional with regard to their prevalence and duration, as a British-German comparison revealed (Ermisch & Siedler 2009). Thus, although this study refers to a single country, the results may be transferable to other settings. Retrospective partnership histories of German women and men born in 1971-1973 or in 1981-1983 are used. These data therefore allow to study residential unions and partnership dynamics at early adult ages, but not at later stages of the life course. The analytical sample consists of 8,230 partnerships.

Our goal in this paper is to reduce the research gap on the non-residential partnership period. It is the first study that seeks to explore how the LAT period influences the risk of separation among residential marital *and* non-marital partnerships.

2 Background

2.1 Theoretical considerations and hypotheses

In the economic theory of the family (Becker 1991; Becker et al. 1977), household formation is considered essential because it enables the production of commodities. Although the focus of this theory is on marriage, its findings can be applied to all unions, since household and marriage formation are seen as coinciding. Oppenheimer's theory of marriage timing (Oppenheimer 1988) also concentrates on marriage, and considers cohabitation as a potential precursor to marriage.

According to these theoretical concepts, the key to union stability is for the partners in a couple to have information about each other's characteristics. Participants in the partner market have limited information about the utility they can expect from potential mates because they have only limited information about their traits (e.g., honesty, reliability, personality). People date and try to gather information about the characteristics of each prospective partner. A good match is the result of a selection process and of adaptive socialization during the courtship process (Oppenheimer 1988). Because each of the partners has incomplete information about the other at the start of the partnership, suboptimal matches are possible, and the disruption risk is high. This implies that immediately after partnership formation, the couple is cautious about investing due to uncertainty. As a consequence, couples who take the time to collect information about the potential domestic partner should have much better prospects of union success than couples who move in together quickly. Those partners who discover that they are not well matched are less likely to form a household, and will presumably end the partnership (Lillard et al. 1995). Thus, high separation rates lead to a weeding-out of non-compatible couples. With increasing partnership duration, the partners who continue living apart together not only get to know each other better; they become increasingly positively selected. This process should enhance the stability of the union after household formation. Based on these considerations, the following main hypothesis can be derived: the longer the LAT period, the more stable the union is likely to be after household formation (Hypothesis 1a).

According to exchange theory (Thibaut & Kelley 1959: 12ff), the partners in a couple aim to broaden their exchange and deepen their investments. Relationship stability is determined by the intensity of successful interactions. The rewards and costs of these interactions are evaluated by the partners, and lead them to decide to invest further through more interactions or to end the relationship. The rewards of the interactions are compared with the potential rewards from the available alternative partners. The partners who rapidly make investments may be strongly convinced that the relationship will last, while the partners who hesitate to invest may have doubts about whether the stability of the relationship, and may continue to consider alternative partners (Brown 2003). Household formation is an investment that seems to be practically motivated by the transaction costs of interactions, which increase if interactions are extended, such as through more time spent together engaging in leisure activities, cooking, sleeping, etc. If the interaction density exceeds a critical mass, a joint household has strong interaction and specialization benefits, because the partners share time, money, and household tasks. However, a certain loss of freedom and independence contributes to the costs of household formation (Rhoades et al. 2010, 2012). The non-residential partnership period can be regarded as a step in the courtship process. The longer the relationship persists without the partners moving in together, the greater the perceived union instability might be, as the intention to co-reside remains unrealized. For partners who are together for a long period of time prior to household

formation, the costs of forming a joint household might outweigh the potential rewards for longer than they do for partners who move in together quickly. This situation might arise because one or both of the partners has strongly individualistic attitudes, or for practical reasons, such when the partners are unable to find jobs in the same location (Carmichael 1995). On the other hand, in some cases the rewards of household formation may be lower because, for example, the couple does not share daily routines. These factors may be associated with a decrease in the benefits of forming a joint household even after the couple move in together, and may therefore threaten union stability. A long partnership duration before household formation may further indicate that the interaction density between the partners had not been increasing. However, interaction density seems to be essential for union stability. If the interaction density continues to grow slowly after household formation for a couple who took a long time to move in together, it is likely that their union stability will be lower than that of a couple who started to co-reside shortly after the partnership was formed. As a consequence, the competing research hypothesis is that the length of the partnership before the household was formed negatively affects union stability (Hypothesis 1b).

So far, I have considered the potential effects of the LAT period on the stability of residential unions without further differentiating by union characteristics. In the following section, I will look at the effect of the parental status at the time of household formation and of the marital status of the union. In previous studies, children were found to stabilize partnerships, especially when the children were young (Guzzo 2009; Jalovaara 2013; Wu 1995). A closer look at the children's characteristics suggests, however, that the presence of children from previous partners, as well as of children born before household formation, might increase the risk of partnership break-up (Liu 2002; Teachman et al. 1991). The conception of a child within a living apart together partnership might indicate that the pregnancy was unplanned. Following the argumentation of Hypothesis 1a, the parents-to-be might not have had enough time to evaluate the partners characteristics, which should then result in a elevated risk of union disruption relative to that of a couple who conceived a child while co-residing. Following Hypothesis 1b, on the other hand, the joint decision to form a family and a household might indicate that the couple are strongly committed and trust that the partnership will continue. Thus, the conception of a child prior to household formation might have no or even a positive effect on union stability compared to a conception after the household is formed.

To the extent that a short LAT period negatively affects union stability, there are two reasons why this effect might be weaker if the couple are married than if they are not. First, married couples should be more committed to the partnership, because they have entered into a formal arrangement that increases the rewards they can expect from the partnership and the costs of separation (Blossfeld et al. 1999; Le Bourdais et al. 2000; Perelli-Harris & Sánchez Gassen 2012).

Because of this commitment, they may be less willing than non-married couples to end an unsatisfactory relationship and be more willing to make an effort to improve the quality of the relationship. The second reason is related to the positive selection into marriage. The period of living apart together does not necessarily directly precede marriage; the couple may have started to live together and then decided to get married. In this case, partnerships with short LAT periods are likely to be sorted out prior to marriage due to their high risk of separation.

2.2 Previous empirical findings

There is still very limited knowledge about how the partnership phase between dating and living together influences union stability. Only a few studies on marital stability have examined the LAT period as a potential determinant of marital stability. The research that exists has shown that having a long relationship prior to household formation reduces the risk of a marital break-up (Brüderl et al. 1999; Brüderl & Kalter 2001; Engelhardt 2002; Murphy 1985; Niephaus 1999). Unfortunately, these studies did not analyze whether this effect differed between direct marriages and marriages preceded by cohabitation.

Moreover, even these studies did not consider the LAT period as an integral part of the partnership dynamics that are relevant for the analysis of union stability. This may be because the periods of living apart together were of minor importance in past decades, as many couples did not move in together due to external constraints. However, LAT is now largely recognized and accepted as a partnership form. Couples may live apart not just because they are forced to do so by circumstances, but because they have chosen not to live together, even though it would be possible for them to do so (Duncan & Phillips 2011). Although it is a common stage on the path to cohabitation and marriage, the non-residential partnership phase was often ignored in social surveys (Castro-Martin et al. 2008), and, as a consequence, appropriate data (in terms of large representative samples with detailed date information) were not available. Most surveys only provide information about the household formation date, which prior research has taken as the partnership start point (Manning 2001; Raley 2001). However, it is not that simple: the time spent in a partnership is not to be equated with the time spent in a residential non-marital or marital union (Carmichael 1995).

Related literature on the effect of cohabitation before marriage can shed some more light on my research goal. Similar to LAT, premarital cohabitation is a precursor to a more committed partnership arrangement. It is possible that the effects on separation of the length of these preceding partnership phases are alike. However, the premarital cohabitation phase differs from the LAT phase in that it is not experienced by all of the couples, whereas the LAT phase is a standard stage in the partnership life course. Referring to the decision to marry directly or after

cohabitation, a large number of studies have analyzed *whether* premarital cohabitation affected the risk of marital dissolution (e.g., Brien et al. 2006; Brüderl et al. 1997; Kulu & Boyle 2009; Lillard et al. 1995; Svarer 2004). Comparatively few studies have considered how the length of premarital cohabitation relates to divorce risks. Several studies have shown that the risk of divorce decreases with the amount of time the couple cohabited prior to marriage, provided the cohabitation period did not exceed two years (Berrington & Diamond 1999; Bracher et al. 1993; Hoem 1989; Jalovaara 2013; Klijzing 1992; Murphy 1985). Couples who cohabited for longer periods had less marital stability. Other studies even found that the risk of marital breakdown is positively related to cohabitation length (Teachman & Polonko 1992; Thomson & Colella 1992). While the positive effect of cohabitation duration on marriage dissolution is explained by the lower degree of commitment of couples who cohabit long term, the negative effect of the cohabitation duration on separation is commonly attributed to the testing character of this partnership phase.

A number of studies have examined LAT partnerships in Germany, and have described the transition from LAT to co-residence or separation.[40] A study on German marriage cohorts formed between 1999 and 2005 showed that it took couples an average of 2.4 years to move in together (50 percent formed a household within the first year of the partnership) (Schneider & Rüger 2008). Survival estimates based on GSOEP data revealed that 80 percent of the non-residential partnership episodes lasted more than one year, but only 13 percent were intact after 10 years (Ermisch & Siedler 2009). Around 55 percent of these German LAT partnerships were transformed into residential unions, while 45 percent were dissolved before household formation (Ermisch & Siedler 2009). Non-residential partnerships mainly occurred among young people: the earlier the partnership was formed in the life course of the couple, the longer the non-residential period lasted (Schneider & Rüger 2008). At around the age of 25, the LAT partnership was often transformed into a residential union (Asendorpf 2008; Ermisch & Siedler 2009; Régnier-Loillier et al. 2009).

[40] These studies referred to data which included information on the LAT episode, but they had had certain drawbacks: e.g., that the date information was collected on a yearly basis, that the study did not account for partner changes (e.g., Ermisch & Siedler 2009), or that study only considered the partnership histories of marital couples (Schneider & Rüger 2008).

3 Methodology

3.1 Sample

The data were drawn from the German Family Panel (pairfam Release 3.1), a nationwide random sample of 13,891 German adults born in 1971-1973, 1981-1983, and 1991-1993; including an oversample of eastern German respondents (DemoDiff 2.0) (pairfam: Huinink et al. 2010, Nauck et al. 2012; DemoDiff: Kreyenfeld et al. 2011, 2013a, 2013b).[41] A design weight was used in the descriptive analyses that accounted for the under-/overrepresentation of the birth cohorts in the gross sample and the oversampling of eastern Germans.[42] Personal standardized interviews were conducted annually from 2008 to 2012. In the first interview, retrospective partnership histories on monthly basis were collected. The partnership information was updated with each subsequent wave. I made use of a ready-to-use event history dataset that incorporates all of the relevant partnership and fertility information (Schnor & Bastin, forthcoming). The analyses included the retrospective partnership histories of both the male and the female respondents. A drawback of the data was that information on the individual characteristics of both partners was not available in cases in which the partnership was dissolved prior to the first interview. This implies that individual information for only one of the partners was available, and that there were no couple data. Thus, I decided to conduct separate analyses for the male and the female respondents.[43] Some variables may be expected to affect the separation risks of men and women differently, such as employment status (Jalovaara 2013). Beyond that, some variables might have different meanings. For example, because men are on average older than women at the time of partnership formation, age may play a different role among women than among men. Being age 23 when the household was formed might be rather standard among women, while it might signify an early event in the private life course of men.

The analysis was limited to residential partnership episodes of women and men born in 1971-1973 or in 1981-1983. Members of the youngest cohort (born 1991-1993) were not considered because most (95 percent) had not experienced household formation at the time of the most recent interview. Partnerships formed before the 14th birthday of the respondent were excluded because the pairfam questionnaire only asked about partnership episodes starting after that date. I also excluded partnerships which started after household formation, partnerships with

[41] The German Family Panel is coordinated by Josef Brüderl, Johannes Huinink, Bernhard Nauck, and Sabine Walper. It is funded as a long-term project by the German Research Foundation (DFG).
[42] In detail, I used the following weights (Kreyenfeld et al. 2013): birth cohorts 1971-73, eastern Germany (including East Berlin): 0.395; birth cohorts 1981-83, eastern Germany (including east Berlin): 0.414; birth cohorts 1971-73, western Germany: 1.098; birth cohorts 1981-83, western Germany: 0.961.

43 In a joint model I would have to interact gender with all of the other covariates in order to exclude the possibility that the influence on separation differs between men and women.

cohabitation breaks, partnerships in which residential episodes with different partners overlapped, partnerships which ended with the partner's death, as well as partnerships for which the partnership duration prior to household formation exceeded 10 years. Unions in which the joint household was dissolved while the partnership remained stable were dropped, because this was more related to job mobility than to union stability. In addition, partnerships were omitted if information on the partnership or fertility biography or the country of birth was missing. Same-sex residential partnerships were excluded as well, because there were only a few cases in the sample.[44] The remaining sample consists of 6,536 first residential unions and 1,694 higher order residential unions of 2,899 men and 3,866 women.

3.2 Method and operationalization

My aim was to model the union stability of residential unions, with a focus on the impact of the partnership duration before the partners moved in together. Therefore, the period observed and the event of interest had to be defined. The data offer information on the date of household dissolution (= union dissolution), as well as on the date of partnership dissolution (= separation), as partnership histories beyond residential union episodes were collected. Household dissolution was defined as the dependent variable, because the study focused on residential unions; thus, the main interest lay in the length of the residential episode. In most cases, household and partnership dissolution were close together in time, and occurred within a time frame of one year, as can be seen from Figure 4 (Appendix). A multilevel piecewise constant survival model was used to estimate the relative risks of household dissolution (Gutierrez 2002). The observation time started with household formation. The observation was censored with the time of the latest interview and eight years after household formation to account for the young age structure of the respondents. The household episode was split into yearly intervals within the first three years, and again after five years, which resulted in five baseline categories (0-1 years, 1-2 years, 2-3 years, 3-5 years, 5-8 years). There were data on the household dissolutions of one or more unions per respondent. This implied a multilevel structure of the data: to account for within-respondent heterogeneity, a random intercept for each respondent was added to the model.

The partnership duration prior to household formation was considered as an independent time-constant variable. The information on the partnership formation date was based on self-reported partnership histories. It should be taken into account that, in contrast to the marriage date, the partnership formation date is often less clearly definable (Duncan & Phillips 2011; Régnier-Loillier et al. 2009). Partnership formation may be perceived as a period rather than as a date, and

[44] There were 77 same-sex unions in the sample, which represented less than one percent of the analytical sample.

its definition can be related to the first kiss, the first night spent together, the first declaration of love, or the introduction of the partner to friends/parents. The questionnaire did not specify any criteria, and left the definition up to the respondent. Information was gathered on episodes of partnerships, residential unions, and marriages. With regard to the retrospectivity of the partnership information, it is important to note that the information might have been subject to recall problems (Reimer 2005). The respondents might not have remembered the concrete dates correctly (Dex 1995; Reimer 2005: 35), they might have mixed up the dates. In the case of unions without a prior LAT episode, for example, the household formation date might be remembered as the partnership start date, although the partnership had started some time before. Direct marriages without prior non-residential episodes represented a special case.[45] They might indicate a recall problem, because it seems unlikely that partnership, cohabitation, and marriage formation were commenced simultaneously. However, the definition of the partnership start was left to the respondent, who might have had reasons for saying that the partnership started on the marriage date. Difficulties in recalling past events and periods increase with age (Reimer: 40). In this study, the young age structure of the respondents minimizes the risk of recall bias. Research has shown that men recall retrospective information differently from women, and that the quality of partnership histories tends to be higher when reported by women than when reported by men (Cherlin & McCarthy 1984; Reimer 2005: 40, 79). This gives another reason for estimating the effect of partnership duration on stability separately for male and female respondents.

[45] Among all direct marriages, only 9 percent had identical dates of partnership, household and marriage formation.

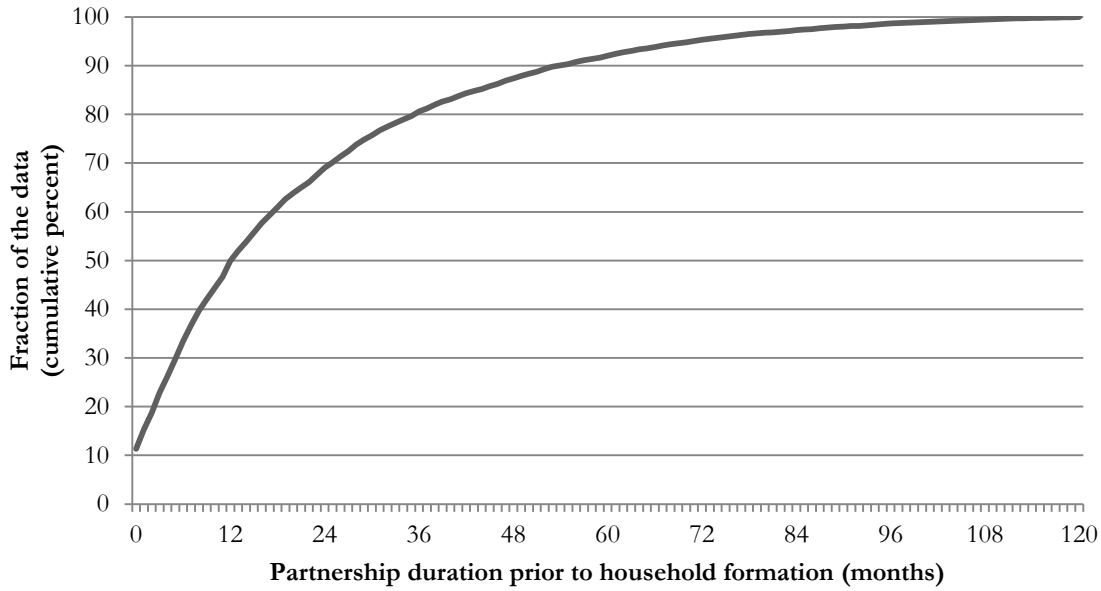

Figure 1: Cumulative percentage of partnership length prior to household formation.
Source: German family panel (pairfam/DemoDiff), Release 3.0 (2011/2012)
Note: Weighted sample

Figure 1 shows how the LAT length was distributed in the data. About 10 percent of the partnerships started directly with household formation, and 50 percent of the partnerships formed a household within their first partnership year. Another 20 percent did so within the second union year. The vast majority, or 90 percent, had moved in together within the first five years of the partnership, while only 10 percent reported partnership durations of five to 10 years prior to household formation. The length of the partnership periods reported by the younger birth cohorts (1981-1983) did not differ from those reported by the older birth cohorts (1971-1973). Likewise, the distribution of the variable was found to be identical for male and female respondents.

Previous studies which considered the LAT length included it as a linear measure with yearly intervals in the respective equations (Brüderl et al. 1999; Brüderl & Kalter 2001; Engelhardt 2002; Niephaus 1999). As half of the partnerships were transformed into residential unions within the first partnership year, the categorization in yearly intervals might be too rough. I therefore decided against using a metrical (be it linear, squared, or logarithmic) definition. Instead, I constructed a categorical variable in which partnership duration prior to household formation was grouped into terciles according to the distribution in the data. The resulting final categories are "1st tercile: 1-9 months," "2nd tercile: 10-25 months," and "3rd tercile: 26-120 months." Those who reported having started their relationship as a residential union were grouped in a separate

category. An advantage of taking this approach was that the risk of household dissolution among partnerships with an average partnership duration (≈ 2nd tercile) could be compared to that of couples who moved in together relatively early (1st tercile) or late (3rd tercile) in the relationship.

Several control covariates were considered in the multivariate regression models. There was information on the marital status of the partnership. If the marriage occurred prior to household formation, a time-constant category stated that it is a "direct marriage;" two further time-varying categories accounted for the time spent living together while not married and the time spent living together while married after some period of non-marital cohabitation ("converted marriage"). A distinction between direct marriages and converted marriages is made because partners who get married before moving in together often have very traditional attitudes and represent a selected subgroup (Klijzing 1992; Köppen 2011: 235; Liebroer & Dourleijn 2006). According to Bennett et al. (1988) and Lillard et al. (1995), couples who start their union by getting married are more committed to the institution of marriage than couples who start their union with non-marital cohabitation, and who marry at some later point in time.

The parental status of each union was defined as childless (= no common offspring) or as having common children of a certain age. There might have been a common child present (or underway) at the time of household formation; these cases were defined as having a "pre-union child." Stepchildren were defined as the biological offspring of the respondent or of his partner and a previous partner who lived in the household at the time of household formation.

Several covariates provided information about the partnership history of the respondent. These included the age at which a household was formed, the order of the residential union, and the number of (previous) partners (including the partner with whom the household was formed). The age at the entry into a cohabiting union has been shown to be negatively related to disruption risks, (Berrington & Diamond 1999, Jalovaara 2013, White 1990). This is because younger people tend to be less mature, and they have a greater availability of alternative partners (Becker et al. 1977). First residential unions might have a greater level of stability than higher order unions, because the latter might be formed by individuals who are more prone to separation. In previous studies, the cohabitation order was shown to have no effect on stability, while higher order marriages were found to be less stable than first marriages (Berrington & Diamond 1999; Manlove et al. 2012; Poortman and Lyngstad 2007; Steele et al. 2006). The number of previous partners can serve as an indicator of an extensive partner search (Becker et al. 1977). Having had prior partnerships may indicate that the current partner has been tested and has been shown to be suitable as a residential partner (in contrast to prior candidates), which may be related to increased union stability. On the other hand, individuals with a previous partnership may have lower levels of union stability because may be more prone to separation than people who are partnered for the first time. There is also information about whether the respondent

lived with his or her parents at the time the partnership was formed. Living in the parental home might suggest that these individuals were less mature, which would be associated with a higher risk of union break-up (Becker et al. 1977).

The models further included personal information on the educational, religious, and family backgrounds of the respondents, and on their economic activities. The levels of school education were broken down into three categories: low (no certificate or lower secondary education), middle (secondary education), and high (high school diploma). Missing information on school education was ascribed to a separate category. Empirical studies have shown that more highly educated individuals have better partnership prospects than their less educated counterparts (Brüderl et al. 1997; Jalovaara 2013; Berrington & Diamond 1999). Education can increase household stability, because highly educated individuals are expected to make better partner choices and to have fewer communication problems (Amato 1996). A further variable showed whether the male or female respondent was enrolled in education (including tertiary education) at the time the partnership was formed. This may be related to a lower degree of union stability because the person is not yet settled and may be less mature and forward-looking with regard to partner choice (Becker et al. 1977).

Church membership provides information about the person's religious background. Respondents who were neither Catholic nor Protestant, but who belonged to another religious community were grouped in a single category. A number of studies have shown that Catholics marry later and have a lower risk of union dissolution than non-Catholics (Hoem & Hoem 1992; Lehrer 2004; Lillard et al. 1995; Oláh 2001; Teachman 2002). The costs of union dissolution are particularly high in Catholicism, because the church prohibits separation after entry into marriage. The higher costs associated with making a mistake suggests that Catholics may engage in a more intensive partner search and take more time to form a household than non-Catholics (Lehrer 2004).

Individuals who experienced parental separation have been shown to be more likely to dissolve their unions (Lyngstad & Jalovaara 2010). As there was information on whether the respondent lived with both biological parents until his or her 18th birthday, this was taken as an indicator of whether a parental separation occurred during the respondent's childhood or adolescence. A time-varying variable provided information on the current employment status. Based on the self-assessed employment history, I distinguished between employed and non-employed episodes. Information on living with both biological parents and on employment status was not available for all of the respondents because these data were gathered in the second and the third waves of the German family panel, respectively. A separate category indicated missing information, which applied if the respondent did not reply or did not participate in the respective waves.

4 Results

4.1 Descriptive results

In Figure 2, Kaplan-Meier survival estimates show the probability of union survival within the period observed. The unions formed in the early months of the partnership (1st tercile) had the lowest survival probabilities: only around 63 percent of the unions were intact eight years after household formation. In contrast, the residential unions with a prior non-residential period of 10 to 25 months (2nd tercile) had somewhat higher survival probabilities, as 67 percent had not experienced household dissolution. Among those who had directly formed a household, a similar proportion (68 percent) were still together. Among those couples who had spent a relatively long period living apart before they moved in together (3rd tercile), the probability of union survival was highest: 76 percent were still living together at the end of the observation period.

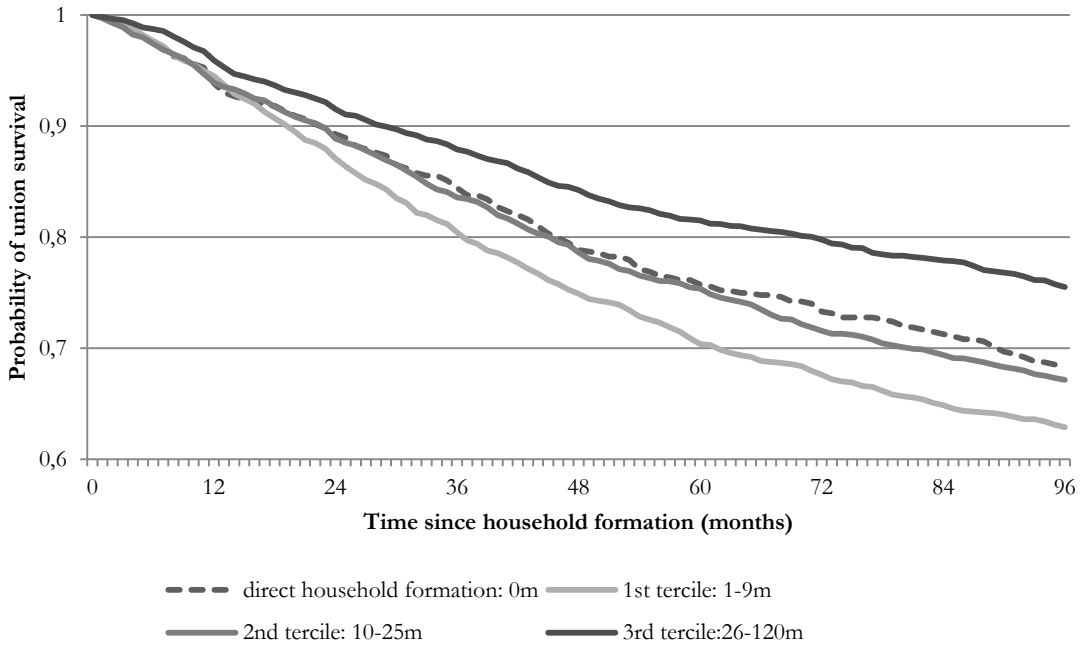

Figure 2: Kaplan-Meier survival estimates. Household stability by partnership duration prior to household formation (in terciles).

Source: German family panel (pairfam/DemoDiff), Release 3.0 (2011/2012)

Note: Weighted sample

Sample composition

The sample composition by gender and duration of the LAT phase is shown in Table 1. It reveals whether the respondents with a short LAT period prior to household formation differed in their characteristics from the respondents who waited a substantial amount of time before moving in with their partner.

The unions with different prior LAT periods spent similar amounts of time living together while unmarried. Direct marriages were most prevalent among the couples who had no prior partnership history. During the observation period, half of the time was spent childless. The unions with different prior partnership periods did not vary substantially in terms of the amount of time they spent with children at different ages. Stepchildren were more predominant in the households with a short prior partnership duration, as reported by the female respondents. According to Table 1, several of the couples conceived a common child prior to household formation. These pre-union children were most common among the unions with a prior LAT length of 10 to 25 months (2nd tercile). However, the male respondents in unions with a long LAT period (3rd tercile) spent more time in unions with a pre-union child than male respondents in unions with a shorter LAT phase.

At the time of household formation, the men were on average two years older than the women. Interestingly, the age at which a household was formed does not seem to have been related to the length of the prior partnership. This suggests that the partnerships which lasted for several years before the partners moved in together were formed at younger ages than the partnerships with shorter partnership durations; this assumption is confirmed by the data. With regard to the partnership order, the sample demonstrates that the majority of the households were not formed with the first partner, but with partners of a higher order. However, the residential partnership studied was often the first union in the respondent's life course. This was more likely to have been the case if the partners had been together for several years before moving in together. The correlation between the order of the partnership and the residential union was found to be modest (estimations showed a correlation coefficient of 0.42 for the partnerships of the male respondents and of 0.44 for the partnerships of the female respondents, respectively).

The majority of the individuals with an LAT period of 26 months or more (3rd tercile) had been living with their parents at the time the partnership started, while this living arrangement was less common among the respondents with a shorter partnership duration. The respondents who had spent several years dating their partner (3rd tercile) were also more highly educated and were more likely to have been enrolled in education at the time the partnership was formed. In sum, these characteristics indicate that the long-term LAT couples were a special group consisting mainly of young people who did not have prior partnership experience, and who were not living

independently when they fell in love with their partner. In some cases, the student lifestyle and the still-dominant parental influence may have kept these young adults from moving in together (Brien et al. 2006; Thornton et al. 1995). Finally, Catholic respondents were more prevalent among the group of long-term LAT couples (3rd tercile).

Table 1 also reveals that the partnerships that were directly transformed into residential unions were a selected group. Both the women and the men in this category tended to be non-Christian church members and foreign-born, and they were more likely than others to have formed direct marriages and to have stepchildren. On the one hand, these characteristics suggest that these couples were more traditional; instead of prolonged dating, they committed to the partnership rather quickly. These traits may also suggest, however, that these couples defined the start of the partnership as the start of their joint life. The presence of stepchildren provides a practical reason for why the partners moved in together soon after the partnership started: when children live in the household of one of the partners, it becomes necessary to organize childcare if the partners want to meet outside of the household. Thus, the partners may have chosen to move in together quickly in order to simplify their relationship.

Table 1: Sample composition by gender and partnership duration prior to household formation (terciles), in column percent

LAT length	**Direct household formation: 0 months**		**1st tercile: 1-9 months**		**2nd tercile: 10-25 months**		**3rd tercile: 26-120 months**	
Respondents	Male	Female	Male	Female	Male	Female	Male	Female
Partnership characteristics								
Parental status (TV)								
No common child	53	50	55	52	58	51	51	54
Common child conceived/born before hh formation	6	7	9	11	10	15	17	9
Common child conceived/born only after hh formation	41	43	36	37	32	34	32	37
Number and age of common children (TV)								
No children	53	50	56	52	54	51	57	54
1child, <2 years	19	18	19	19	19	19	19	21
1 older child	10	9	9	9	9	9	8	7
2 or more children, youngest <2years	14	16	11	14	14	15	12	13
2 or more children, youngest older	5	6	4	6	5	7	4	4
Stepchildren in household (TC)								
No	93	83	95	86	96	91	99	95
Yes	7	17	5	14	4	3	1	5
Pre-union child (TC)								
No	94	94	92	90	86	86	90	91
Yes	6	6	8	10	14	14	10	9
Marital status (TV)								
Cohabiting	47	46	53	49	49	50	49	47
Married (direct marriage)	28	28	13	14	18	17	17	19
Married (marriage after cohabitation)	25	26	34	37	32	33	34	34
Individual background characteristics								
Age when partnership was formed (mean in years) **(TC)**	25.8	23.3	25.2	23.4	24.3	22.7	21.6	19.8
Partnership order (TC)								
1st order	44	40	35	32	39	39	51	55
Higher order	56	60	65	68	61	61	49	45
Union order (TC)								
1st order	70	67	73	70	83	78	92	92
Higher order	30	33	27	30	17	22	8	8
Lived with parents when partnership was formed (TV)								
Alone	66	64	64	63	55	55	43	40
With parents	34	36	36	37	45	45	57	60
School education (TC)								
Low	30	31	27	22	27	19	21	14
Middle	39	42	37	44	35	41	33	39
High	30	26	35	33	37	39	45	46
Missing	<1	<1	<1	1	<1	<1	<1	<1

Enrolled in education when partnership was formed (TC)								
No	87	82	85	80	80	77	76	71
Yes	13	18	15	20	20	23	24	29
Church membership (TC)								
Catholic	25	22	27	27	30	29	36	37
Protestant	23	30	29	33	30	32	28	32
None	32	30	35	32	30	30	26	23
Other	20	17	8	7	9	8	9	8
Missing	<1	<1	<1	<1	<1	<1	<1	<1
Birth cohorts (TC)								
1971-1973	72	64	64	63	63	64	62	60
1981-1983	28	36	36	37	37	36	38	40
Birth place (TC)								
West G.	55	51	64	61	66	66	70	70
East G.	19	18	21	21	18	18	17	17
Elsewhere	26	31	15	18	15	16	13	13
Lived with both parents until age 18 (TC)								
Yes	47	51	50	48	58	57	60	59
No	19	25	20	24	15	18	11	14
Missing	34	24	30	28	27	25	29	27
Employment status (TV)								
Non-empl.	7	18	8	19	8	17	6	16
Employed	37	31	48	33	49	33	55	36
No inform.	56	50	44	49	43	50	39	48
Sample size	404	528	1,089	1,444	960	1,351	1,007	1,447
Events	106	163	361	468	263	378	200	310

Source: German family panel (pairfam/DemoDiff), Release 3.0 (2011/2012)

Notes: Weighted sample

TC: Time-constant information (presented in mean values or in column percent, respectively)

TV: Time-varying information (presented as relative exposure time in percent of total person months (column percents))

4.2 Multivariate results

Table 2 gives the multivariate regressions by gender. The results are shown in relative risks. In a first step, I estimated a basic model (Model 1), which included the baseline (time since household formation), the central covariate of interest (partnership duration prior household formation), and control covariates which accounted for the special data structure of the German Family Panel (birth cohort design, oversampling of eastern Germans). Model 2 included other control covariates (religion, education, living with both parents, age at partnership formation, partnership order, presence of stepchildren, marital and employment status). It further controls for the parental status of the union, distinguishing between being childless and having a common child conceived prior to or after household formation. Model 3 additionally accounts for the children's ages. Figure 3 shows the results of an interaction of the marital status with the length of the LAT period prior to household formation.

LAT length and union stability

The results in Model 1 to 3 show that whether the couple progressed to household formation quickly or slowly had a significant impact on the stability of the union. The association between LAT length and household dissolution remained statistically significant when other individual and partnership characteristics were controlled for. Compared to the 2nd tercile, the risk of dissolution was significantly higher among those who moved in together during the first nine months of the partnership (1st tercile), and it was lower among the couples who spent several years dating before forming a household (3rd tercile). The length of the LAT phase was clearly negatively linked to the risk of union dissolution. These findings lend support to the first research hypothesis (H1a), which states that a long LAT phase should improve the partners' knowledge of each other's characteristics, and should therefore increase stability. The unions without a prior LAT phase did not, however, fit in this picture: compared to the unions with a short LAT period (1st tercile), the partnerships which started as residential unions had a somewhat lower risk of union dissolution. This suggests that the couples who had formed a household directly represent a special group.

Family status and union stability

From Model 2 it can be seen that the couples who already had common children at the time of household formation had a significantly higher risk of breaking up than the couples who formed a family after they had moved in together. The risk of dissolution was highest among the couples without common children. This most likely shows that the couples with pre-union children had not had enough time to evaluate each other's characteristics, which may give additional support to Hypothesis 1a. Model 3 reveals that having several children or one child under age two reduced the risk of union dissolution if the children were not already present at the time the household was formed. Having a single child above the age of two reduced the disruption risk

only among the unions reported by the male respondents, while the risk was not different from being childless among the unions reported by the female respondents. Living in a stepfamily had a different impact on union stability depending on whether the respondents were male or female. Women who were living with their own or their partner's children from previous relationships had an increased risk of union dissolution, while men experienced significantly higher levels of union stability when they formed a stepfamily. It is likely that the differences between men and women in the recall of stepfamily episodes produced this finding, as Martin and colleagues (2011) have argued. According to official statistics (Statistisches Bundesamt 2012), the majority of children live with their mother after their parents separate, which means that stepfamilies often consist of a biological mother and a non-biological father. If this partnership splits up, the mother will continue to live with her children, while the children's contact with the stepfather might stop. This suggests that the male respondents may be more likely to underreport the presence of stepchildren. As a consequence, the stability of the unions with stepchildren among the male respondents would have been overestimated in the analysis.[46]

Other factors associated with union stability

Among both the male and the female respondents, marriage was found to strongly promote union stability. The direct marriages had a risk of union dissolution that was similar to that of the marriages preceded by cohabitation. Most of the results of the other control covariates were in line with previous findings. The partnerships formed by the respondents of the birth cohorts 1981-1983 had a higher risk of household dissolution than the partnerships formed by the men and women born in 1971-1973. This might be related to the fact that the partnership histories of the people in the younger cohorts were censored earlier. Thus, early and probably more unstable partnerships were over-represented. The disruption risk among the female respondents in eastern Germany turned out to be lower than that of their counterparts in western Germany, once the control covariates were added. Separate estimations indicated that this decomposition effect was attributable to the religious background (results not shown). Women who were not religious had an elevated risk of experiencing household disruption. Non-affiliated individuals were over-represented in eastern Germany (Schnor 2012). Controlling for the separation-proneness of religiously unaffiliated persons thus affected the coefficients on birth place. This relationship was found only among the female respondents, which suggests that religious background played a more important role among the women. The unions of the respondents who had not been living with both parents until they reached adulthood were less stable, as were the unions of the male

[46] This is indeed confirmed by model estimations which considered the stepfamily constellation. These results showed that among the unions reported by the male respondents, the stepfather families had significant *lower* relative risks of separation (0.23 ($p < 0.01$)) than the unions without stepchildren (ref.). The stepmother families faced higher risks (1.63 (n. s.)). Among the female respondents, however, the stepfather families had significantly *higher* relative risks of separation (1.26 ($p < 0.05$), as did the stepmother families (1.33 (n. s.)).

respondents who had been living with their parents at the time the partnership was formed. Women with low levels of education or episodes of non-employment had an increased risk of union dissolution.

Table 2: Relative risks from a piecewise constant survival model of household dissolution within eight years after household formation among German men and women born 1971-1973 and 1981-1983

	Model 1		*Model 2*		*Model 3*	
Respondent	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Partnership duration prior household formation						
Direct household formation	1.02	1.13	1.00	1.09	1.00	1.09
1st quintile (1-9 months)	1.26***	1.19**	1.27**	1.14*	1.25**	1.15*
2nd quintile (10-25 months)	1	1	1	1	1	1
3rd quintile (26-120 months)	0.71***	0.76***	0.66***	0.81***	0.66***	0.81***
Baseline (time since household formation) (TV)						
0-1 years	0.91	0.79**	0.79**	0.69***	0.79**	0.69***
1-2 years	1	1	1	1	1	1
2-3 years	1.03	1.07	1.22*	1.24**	1.20*	1.22**
3-5 years	0.86	0.95	1.34**	1.36***	1.27**	1.30***
5-8 years	0.63***	0.68***	1.48***	1.32***	1.31*	1.23*
Residential union order						
1st order	1	1	1	1	1	1
Higher order	1.00	1.12	1.16	1.12	1.20	1.14
Birth cohorts						
1971-1973	1	1	1	1	1	1
1981-1983	1.89***	1.49***	1.36***	1.25***	1.36***	1.26***
Birth place						
West G.	1	1	1	1	1	1
East G.	1.03	0.95	0.95	0.68***	0.94	0.67***
Elsewhere	0.44***	0.56***	0.76*	0.85	0.76*	0.84*
Stepfamily						
No			1	1	1	1
yes			0.46***	1.20*	0.45***	1.27**
Parental status (TV)						
No common child			3.21***	2.02***		
Common child conceived/born before hh formation			1.90***	1.47***		
Common child conceived/born only after hh formation			1	1		
Pre-union Child						
No					1	1
Yes					1.63***	1.31**
Number and ages of common						

children (TV)				
No children			1	1
1child, <2 years			0.27***	0.48***
1 older child			0.57***	0.84
2 or more children, youngest <2years			0.18***	0.26***
2 or more children, youngest older			0.52***	0.68***
Marital status (TV)				
Cohabiting	1	1	1	1
Married (direct marriage)	0.29***	0.47***	0.30***	0.50***
Married (marriage after cohabitation)	0.29***	0.32***	0.30***	0.34***
Church membership				
Catholic	1.16	0.92	1.16	0.92
Protestant	1	1	1	1
None	1.16	1.40***	1.15	1.39***
Other	1.17	0.70**	1.18	0.72**
Missing	1.05	0.92	1.02	0.78
School education				
Low	1.12	1.17*	1.13	1.17*
Middle	1	1	1	1
High	1.06	1.02	1.06	1.03
Missing	0.86	1.53	0.95	1.58*
Enrolled in education when partnership was formed	1	1	1	1
No	1.12	0.90	1.13	0.89
Yes				
Lived with both parents until age 18	1	1	1	1
Yes	1.32***	1.47***	1.32***	1.44***
No	1.23*	1.09	1.23*	1.07
Missing				
Lived with parents when partnership was formed	1	1	1	1
No	1.14	1.07	1.15	1.06
Yes				
Age when partnership was formed	1.12	1.13*	1.12	1.13*
14-19 years	1	1	1	1
20-23 years	0.87	0.88	0.88	0.90
24-28 years	0.78*	0.78*	0.79*	0.77*
29-38 years				
Partnership order				
1st order	1	1	1	1
Higher order	1.16	1.14	1.15*	1.13*
Employment status (TV)				

Non-employed			1.17	1.18**	1.17	1.20**
Employed			1	1	1	1
Missing			0.96	1.03	0.95	1.03
N (unions) =	3460	4770	3460	4770	3460	4770
N (respondents) =	2888	3864	2888	3864	2888	3864
N (union dissolutions) =	930	1319	930	1319	930	1319

Source: *German family panel (pairfam/DemoDiff), Release 3.0 (2011/2012)*

Notes: All models include a person-specific random intercept;
Significance levels: *** p < 0.01; ** p < 0.05; * p < 0.1.
TV = time-varying covariate (on monthly base)

Marital status, LAT length and union stability

Figure 3 shows the effect of the length of the LAT period on the risk of union dissolution, depending on the marital status of the union. The direct marriages and the converted marriages were grouped into a single category because of sample size issues and because the multivariate results in Table 2 suggested that their risks of union dissolution were very similar. The results are shown in standardized relative risks with 95 percent confidence intervals.

Among the non-marital and the marital unions, the risk of union dissolution decreased with the length of the non-residential partnership episode if the unions without any LAT period were disregarded. It was hypothesized that this effect should be stronger among the non-marital cohabitations than among the marriages. The empirical results could not clearly confirm this assumption; they rather suggest that the effect of the LAT period does not depend on the marital status of the union.

A short LAT length (1st tercile) had a significant impact on the stability of the cohabitations, but not on the marriages. Similar amounts of person-time were spent in cohabitation and in marriage, and the LAT categories had similar sizes. However, there were far fewer union dissolutions among the marriages. Thus, the range of the 95 percent confidence intervals was larger among the latter group. Based on the directions of the effects, the results suggest that a short LAT period decreased union stability among the marriages as well. The unions in which the non-residential period exceeded 25 months were more stable than the unions with shorter LAT periods. These results were significant only among both the marital and the non-marital unions reported by the male respondents; however, the results from the female respondents pointed in the same direction. Control covariates like religious affiliation did not produce these differentials; the interaction terms in a model without control covariates (equivalent to Model 1) showed very similar results with identical significance levels.

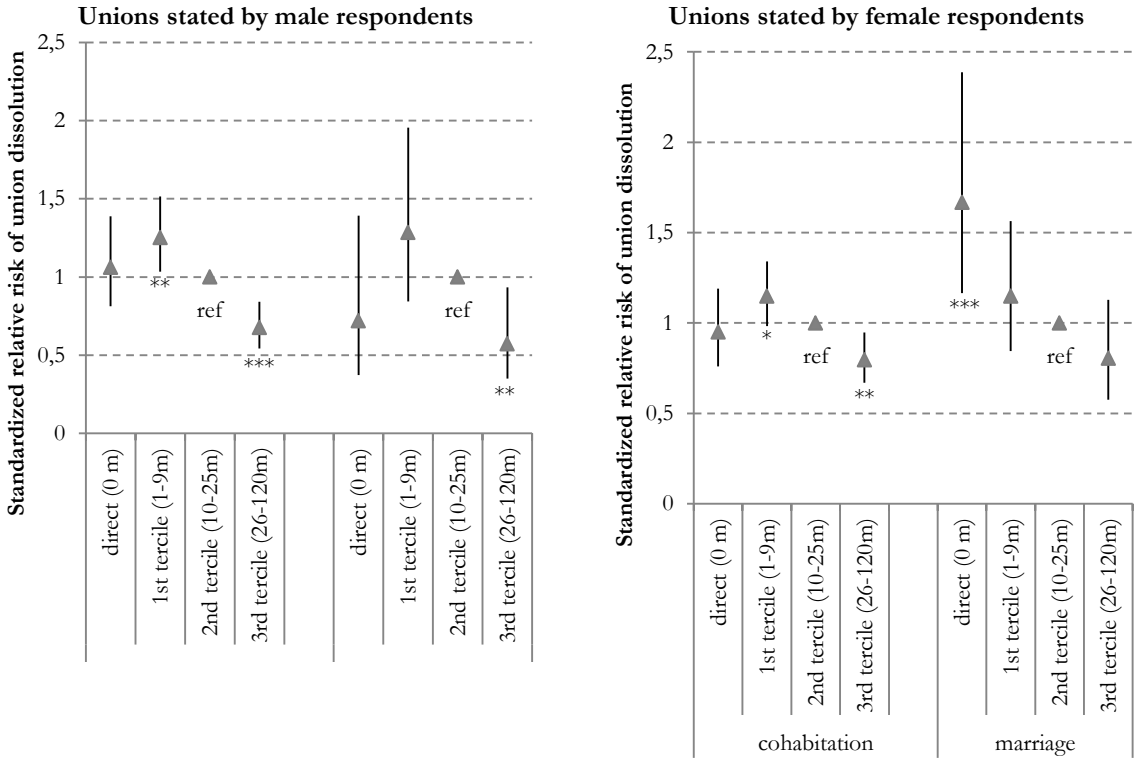

Figure 3: Transition to union dissolution; results of an interaction of marital status and LAT length, shown in standardized relative risks (within each union context, unions with a short LAT length (1-9 months) present the reference category)

Source: German family panel (pairfam/DemoDiff), Release 3.0 (2011/2012)

Both models included a person-specific random intercept and controlled for the baseline, birth cohort and birth place, union and partnership order, church membership, school education, educational enrollment, age and living arrangement at the time the partnership was formed, residence with both parents until 18th birthday, presence of stepchildren and presence and ages of common children, and employment status.

Significance levels: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$; ^{o} $p < 0.15$

Figure 3 does not provide clear results regarding the relative risk of union dissolution for the couples with no prior period of living apart together. Except in the case of the marriages reported by the female respondents, the partnerships which directly started as residential unions had a higher degree of union stability than the unions with a prior LAT period of one to nine months. However, the range of the 95 percent confidence intervals was quite wide. It is difficult to determine why the marital unions without a prior LAT period had significantly higher levels of instability only among the unions reported by the female respondents. This finding may indicate that the data did not rely on the same unions. Partnership histories reported by male respondents are often assumed to be less reliable than those reported by women, possibly because men have

more problems remembering the correct dates of marriage and household formation.[47] In this case, I would not be comparing the same kind of unions. It is also possible that women are more likely than men to assign the same date to the partnership formation, the household formation, and the marriage if the union was dissolved. The stability of the unions with direct household formation would be then be underestimated. It should also be noted that the women and the men belonged to the same birth cohorts, but were different ages when the household was formed. The analysis followed the unions in their first eight years; thus, the cut-off point may have been different for the male and the female respondents.

5 Conclusion – Does waiting pay off?

This study examined the effects of partnership duration prior to household formation on union stability. A number of previous studies have focused on the antecedents of union stability. However, the influence of the LAT period has rarely been examined. This seems surprising because most partners lived in separate households before they moved in together: this study revealed that around 90 percent of the unions formed by men and women born in 1971-1973 and in 1981-1983 were preceded by some period of living apart together, and that 50 percent of the residential unions were formed within the first partnership year, which confirmed the findings of previous research (Schneider & Rüger 2008). While one might expect that the LAT period would have had a stabilizing influence on union stability, it was also conceivable that it would have had a destabilizing influence. The economic theory of the family (Becker 1991; Becker et al. 1977; Oppenheimer 1988) stressed the importance of couples knowing each other's attributes. Couples should experience higher levels of union stability if they had sufficient time to collect information about the partner before they invested in the partnership through household formation (Hypothesis 1a). The competing hypothesis (1b) referred to arguments prevalent in exchange theory (Thibaut & Kelley 1959), and stated that the LAT length should negatively affect union stability because it indicates that the couple hesitated in investing in the partnership.

The empirical results showed that the risk of household dissolution declines with the amount of time spent in a partnership prior to household formation. The risk of union disruption was higher if the couple had a short (one to nine months) non-residential partnership period before the joint household was formed. Couples who spent 10 to 25 months living apart together had better union prospects. The chances of union survival were highest if the union belonged to the group of long-term LAT couples (> 26 months). It seems that the information argument

[47] Identical dates of marriage and household formation may be an indication of recall difficulties. More of the men (43 percent) than the women (34 percent) who were married at the time they moved in their partner reported that the marriage formation date and the household formation date were identical.

(Hypothesis 1a) prevails with regard to partnership duration. While keeping their separate residences, a couple can spend their day-to-day life together in a "trial union" that allows them to evaluate each other's characteristics. Several traits can be readily assessed after the first meeting (e.g., education, religion, family background, race, appearance). During the courtship process, traits that are more difficult to assess, such as honesty, reliability, and personality, can be evaluated (Oppenheimer 1988). The LAT period functions as a testing stage that enables individuals not only to select the appropriate partner, but also to adapt to each other in daily life, and to formulate common strategies. The shorter the LAT period, the more likely it is that partnership difficulties will emerge after household formation. Thus, a long LAT period did not appear to have been associated with a low interaction density, which would have been reflected in higher rates of union disruption after moving in together, as had been postulated in Hypothesis 1b. It instead showed that the couple were very well matched because the low barriers to separation favored a strong weeding-out of potential mismatches. If the couple overcame the obstacles to household formation after a long period of time, they were more likely to have enjoyed a high level of relationship stability after moving in together. Unlike the premarital cohabitation phase, a longer LAT phase was not shown to have increased the risk of union dissolution. It is possible that an optimal time frame exists only with regard to premarital cohabitation, with those who rush to marriage having an increased chance of mismatch, and those who waited quite a while before marrying having reasonable doubts about the success of the marriage.

The couples who spent more than 25 months in separate residences before moving in together were often Catholic, started their partnership at a young age, did not have prior partnership experiences, and were not living independently when the partnership was formed. The living conditions at the time the partnership was formed—such as being enrolled in education or living with their parents—were not found to have influenced the stability of unions after the household was formed. Having a higher level of education or a religious background tended to increase the stability of the union, but it did not explain why unions with a long LAT period showed the highest stability levels. This clearly demonstrates that the period of living apart together had an independent influence on union stability which could not be explained by individual characteristics.

The partnerships that had no LAT period represented a special case. According to Hypothesis 1a, these unions should have been more fragile than the unions with an LAT length of one to nine months. However, the results revealed that they were more stable. This may be related to a recall problem: the respondents who reported entering cohabitation directly may have in fact had a prior LAT period which they did not remember. However, this finding may also show that these partners were highly committed: i.e., that they decided to directly start their partnership in the

more committed form of a residential union instead of in the less committed form of LAT, maybe because they were strongly convinced that their partnership would last.

Fourteen percent of the unions with an LAT length of 10 to 25 months had conceived a child prior to household formation. Pre-union conceptions were less common among the unions with an LAT length of more than 25 months. This might indicate that the pregnancy was not planned. The anticipated arrival of the child might have shortened the LAT period among the parents-to-be because the formation of a joint household offered several practical advantages: the parents could share childcare tasks, they could spend less money due to the economies of scale of having a single household, and they could easily meet in their free time. After household formation, however, these couples experienced a higher risk of union disruption than the couples who conceived their children during the residential period. These results provide additional support for Hypothesis 1a: waiting pays off with regard to household formation, as well as with regard to family formation.

The multivariate results revealed that the cohabiting unions had much lower levels of union stability than the marital unions. The LAT length was positively associated with union stability in both of the union forms. It was assumed that the length of the LAT period would have affected the cohabitations more than the marriages. Previous studies have shown that the partnership duration prior to household formation reduced the risk of separation among marriages (e.g., Brüderl et al. 1999; Brüderl & Kalter 2001). This study has provided some evidence that the effect is similar on cohabitations as it is on marriages. This leads to suggest that the same mechanisms drive the stability of non-marital and marital residential unions: not having enough time to test the partner prior to household formation has negative consequences for marital and non-marital union stability; while taking the time to get to know, test, and weed out incompatible partners adds to the stability of marriages and cohabitations. Due to the limited sample size, these conclusions remain rather tentative. Future studies are needed to shed more light on the effect the LAT period has on the stability of cohabitations in comparison to the effect it has on marriages.

This study provided new insight into the topic of union stability, and contributed to understanding the non-residential partnership phase. The results showed that waiting pays off for couples, as the length of the partnership period prior to household formation had a significant influence on the union dissolution risk. However, the empirical analyses could not disentangle the exact mechanisms that explain the positive relationship between the length of the LAT period and subsequent union stability. The theoretical literature suggests that personality traits should be more relevant than socio-demographic characteristics in explaining the transition to household formation. This issue was not addressed because individual information on both partners was lacking. While it was assumed that the weeding-out process played a central role, this aspect was

not modeled in the empirical part of this research. Future studies may include the decision to form a household as a process in the modeling.

In the private life courses of many individuals, the dates of partnership, residential, and marital episodes are often far apart. This study demonstrates that empirical research on separation needs to pay more attention to the appropriate definition of the events of interest. In the past, researchers switched their focus from marriage to the period of co-residence: several decades ago, scholars (e.g., Becker et al. 1977; Morgan & Rindfuss 1985; Teachman 1982; Teachman & Polonko 1990) agreed to define the date of marital dissolution as the date the couple stopped living together rather than as the legal end of a marriage, because it is a "more realistic marker of the end of a marital union" (Bracher et al. 1992: 405). These studies focused exclusively on the partnership stability of marriages. In more recent studies, researchers also considered non-marital residential episodes in their analyses and analyzed the union stability of marriages and cohabitations. This study has shown that one needs to look further and consider the non-residential partnership episode as an integral part of the partnership. The date of partnership formation represents a more realistic marker of the start of a partnership than the date when the couple moved in together. It was also shown that the date of separation and the date of moving out of the joint household often differ. This makes it necessary to clarify the event of interest. In the present study, the focus was on residential unions. Household dissolution was defined as the dependent variable. The detailed partnership information included in the German Family Panel made it possible to distinguish the dates of partnership formation and household formation, as well as the dates of separation and household dissolution. Fortunately, a growing number of surveys gather detailed partnership information. In the future, the distinction between partnership formation and household formation in the data should be less of a concern.

In recent decades, new forms of private living arrangements, such as cohabitation and non-residential partnerships, have become common in many societies. However, the fact that LAT partnerships have become more widespread should not necessarily lead concerns being raised that partnerships in general are becoming more fragile. Rather, a long non-residential partnership episode helps to increase union stability. Waiting—not rushing—pays off.

5 References

Amato, P.R. (1996). Explaining the Intergenerational Transmission of Divorce. Journal of Marriage and the Family, 58(2): 628-640.

Asendorpf, J. B. (2008). Living apart together: Alters-und Kohortenabhängigkeit einer heterogenen Lebensform [Engl.: Living apart together. Age and cohort dependency of a

heterogeneous living arrangement]. KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie, 60(4): 749-764.

Becker, G.S., Landes, E.M., Michael, R.T. (1977). An economic analysis of marital stability. The Journal of Political Economy, 85: 1141-1187.

Becker, G.S. (1991). A Treatise on the Family, Enlarged Edition. Cambridge, Mass.: Harvard University Print.

Bennett, N.G., Blanc, A.K., & Bloom, D.E. (1988). Commitment and the Modern Union: Assessing the Link Between Premarital Cohabitation and Subsequent Marital Stability. American Sociological Review, 53(1): 127-138.

Berrington, A., & Diamond, I. (1999). Marital Dissolution among the 1958 British birth cohort: The role of cohabitation. Population Studies, 53(1): 19-38.

Blossfeld, H.-P., Klijzing, E., Pohl, K„ Rohwer (1999). Why do cohabiting couples marry? An example of a causal event history approach to interdependent systems. Quality and Quantity, 33: 229-242.

Bracher, M., Santow, G., Morgan, S.P., Trussell, J. (1993). Marriage Dissolution in Australia: Models and Explanations. Population Studies, 47 (3): 403-425.

Brien, M.J., Lillard, L.A., Stern, S. (2006). Cohabitation, Marriage, and Divorce in a Model of Match Quality. International Economic Review, 47(2): 451-494.

Brown, S.L. (2003). Relationship Quality Dynamics of Cohabiting Unions. Journal of Family Issues, 24(5): 583-601.

Brüderl, J., Diekmann, A., Engelhardt, H. (1999). Artefakte in der Scheidungsursachenforschung? Eine Erwiderung auf einen Artikel von Yasemin Niephaus [Engl.: Artifacts in the causes of divorce research? A reply to an article by Yasemin Niephaus]. Kölner Zeitschrift für Soziologie und Sozialpsychologie, 51: 744-753.

Brüderl, J., & Kalter, F. (2001). The dissolution of marriages: The role of information and marital-specific capital. Journal of Mathematical Sociology, 25(4): 403-421.

Brüderl, J., Diekmann, A., Engelhardt, H. (1997). Erhöht eine Probeehe das Scheidungsrisiko? [Engl.: Does a trial marriage increase the risk of divorce?]. Kölner Zeitschrift für Soziologie und Sozialpsychologie, 49: 205-222.

Carmichael, G. A. (1995). Consensual partnering in the more developed countries. Journal of the Australian Population Association, 12(1): 51-86.

Castro-Martín, T., Domínguez-Folgueras, M., & Martín-García, T. (2008). Not truly partnerless: Non-residential partnerships and retreat from marriage in Spain. Demographic Research, 18(16): 443-468.

Cherlin, A., & McCarthy, J. (1984). Demographic Analysis of Family and Household Structures. Final Report Contract No 1.HD.12802, National Institute for Child Health and Human Development.

Dex, S. (1995). The Reliability of Recall Data: a Literature Review. Bulletin de Méthodologie Sociologique, 49: 58-89.

Duncan, S., & Phillips, M. (2011). People who live apart together (LATs): new family form or just a stage?. International Review of Sociology, 21(3): 513-532.

Engelhardt, H. (2002). Zur Dynamik von Ehescheidungen. Theoretische und empirische Analysen [Engl.: On the dynamics of divorce. Theoretical and empirical analyses]. Berlin: Duncker & Humboldt.

Ermisch, J., & Siedler, T. (2008). Living Apart Together. In: Brynin, M., Ermisch, J. (eds.), Changing relationships, New York: Taylor & Francis: 29-43.

Gutierrez, R. G. (2002). Parametric frailty and shared frailty survival models. Stata Journal, 2(1): 22-44.

Guzzo, K.B. (2009). Marital Intentions and the Stability of First Cohabitations. Journal of Family Issues, 30(2): 179-205.

Hoem, J. M. (1989). Limitations of a heterogeneity technique: selectivity issues in conjugal union disruption at parity zero in contemporary Sweden. Stockholm Research Reports in Demography No. 56.

Hoem, B., & Hoem, J. (1992). The disruption of marital and non-marital unions in contemporary Sweden. In: Trussel, J., Hankinson, R., Tilton, J. (eds.), Demographic applications of event history analysis. Oxford: Clarendon Press: 61-93.

Huinink, J., Brüderl, J., Nauck, B., Walper, S., Castiglioni, L., Feldhaus, M. (2010). Panel Analysis of intimate relationships and family dynamics (pairfam): Conceptual framework and design. Arbeitspapier des Beziehungs- und Familienpanels, No.17.

Jalovaara, M. (2013). Socioeconomic resources and the dissolution of cohabitations and marriages. European Journal of Population, 29 (2): 167-193.

Klijzing, E. (1992). 'Weeding'in the Netherlands: first-union disruption among men and women born between 1928 and 1965. European Sociological Review, 8(1): 53-70.

Köppen, K. (2011). Marriage and Cohabitation in western Germany and France (Doctoral dissertation, Rostock, Univ., Diss., 2011).

Kreyenfeld, M., Walke, R., Salzburger, V., Schnor. C., Bastin, S., & Kuhnt, A.-K (2011). DemoDiff – Wave 1: Supplement to the pairfam Data Manual. MPIDR Technical Report 2011-004, Rostock: Max Planck Institute for Demographic Research.

Kreyenfeld, M., Goldstein, J., Walke, R., Trappe, H., Huinink, J. (2013a): Demographic Differences in Life Course Dynamics in Eastern and Western Germany (DemoDiff). GESIS Datenarchiv, Köln. ZA5684 Datenfile Version 3.0.0, doi:10.4232/demodiff.5684.3.0.0

Kreyenfeld, M., Walke, R., Salzburger, V., Lenke,R., Hensel, T. & Mir Mousavi, B. (2013b): DemoDiff Supplement to the pairfam Data Manual (Release 3.0). Max Planck Institute for Demographic Research, Rostock.

Kulu H., & Boyle P.J. (2009). Premarital cohabitation and divorce: support fort the 'trial marriage' theory? Demographic Research, 23(31): 879-904.

Le Bourdais, C., Neill, G., Vachon, N. (2000). Family disruption in Canada: Impact of the changing patterns of family formation and of female employment. Canadian Studies in Population, 27: 85-105.

Lesthaeghe, R., Meekers, D. (1986). Value changes and the dimensions of familialism in the European community. European Journal of Population, 2: 11-33.

Lesthaeghe, R., Surkyn, J., (1988). Cultural dynamics and economic theories of fertility change. Population and Development Review, 14: 1–45.

Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. Population and Development Review, 36: 1-14.

Levin, I. (2004). Living Apart Together: A New Family Form. Current Sociology, 52(2): 223-240.

Levin, I., & Trost, J. (1999). Living apart together. Community, work & family, 2(3): 279-294.

Liu, G. (2002). How premarital children and childbearing in current marriage influence divorce of Swedish women in their first marriages. Demographic Research, 7: 389-406.

Lehrer, E.L. (2004). Religion as a Determinant of Economic and Demographic Behavior in the United States. Population and Development Review, 30: 707-726.

Lillard, L.A., Brien M.J., Waite L.J. (1995). Premarital cohabitation and subsequent marital dissolution: a matter of self-selection? Demography, 32: 437-457.

Lyngstad, T.H., & Jalovaara, M. (2010). A review of antecendents of union dissolution. Demographic Research, 23: 257-292.

Manlove, J., Wildsmith, E., Ikramullah, E., Ryan, S., Holcombe, E., Scott, M., Peterson, K. (2012). Union Transitions Following the Birth of a Child to Cohabiting Parents. Population Research and Policy Review, 31: 361-386.

Manning, W.D. (2001). Childbearing in Cohabiting Unions: Racial and Ethnic Differences. Family Planning Perspectives, 33(5): 217-223

Martin, V., Le Bourdais, C., & Lapierre-Adamcyk, É. (2011). Stepfamily instability in Canada–The impact of family composition and union type. Zeitschrift für Familienforschung/Journal of Family Research, 23(2): 196-218.

Morgan, S.P., & Rindfuss, R. (1985). Marital Disruption: Structural and Temporal Dimensions. American Journal of Sociology, 90: 1055-1077.

Murphy, M. J. (1985). Demographic and Socio-economic Influences on Recent British Marital Breakdown Patterns. Population studies, 39 (3): 441-460.

Nauck, B., Brüderl, J., Huinink, J., Walper, S. (2012). Beziehungs- und Familienpanel (pairfam). GESIS Datenarchiv, Köln. ZA5678 Datenfile Version 3.0.0, doi:10.4232/pairfam.5678.3.0.0.

Niephaus, Y. (1999). Der Einfluss vorehelichen Zusammenlebens auf die Ehestabilität als methodisches Artefakt? [Engl.: The impact of premarital cohabitation to marriage stability as a methodological artifact?]. Kölner Zeitschrift für Soziologie und Sozialpsychologie, 51: 124-139.

Oláh, L. Sz. (2001). Gender and family stability: Dissolution of the first parental union in Sweden and Hungary. Demographic Research, 4: 29-96.

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

Perelli-Harris, B., & Sánchez Gassen, N.E. (2012). How similar are cohabitation and marriage? The spectrum of legal approaches to cohabitation across Western Europe. Population and Development Review, 38: 435-467.

Poortman, A.-R., & Lyngstad, T. H. (2007). Dissolution risks in first and higher order marital and cohabiting unions. Social Science Research, 36: 1431-1446.

Poortman, A.-R., & Liefbroer, A. C. (2010). Single's relational attitudes in a time of individualization. Social Science Research, 39: 938-949.

Raley, R.K. (2001). Increasing fertility in cohabiting unions: Evidence for the second demographic transition in the United States? Demography, 38: 59-66.

Regnier-Loilier, A., Beaujouan, É., & Villeneuve-Gokalp, C. (2009). Neither single, nor in a couple. A study of living apart together in France. Demographic research, 21(4): 75-108.

Reimer, M. (2005). Autobiographisches Gedächtnis und retrospektive Datenerhebung: Die Rekonstruktion und Validität von Lebensverläufen (Doctoral Dissertation at the Free University Berlin). Max Planck Institute for Human Development.

Rindenfuss, R.R., & VandenHeuvel, A. (1990). Cohabitation: A Precursor to Marriage or an Alternative to Being Single? Population and Development Review, 16(4): 703-726.

Rhoades, G.K., Stanley, S.M., Markman, H.J. (2010). Should I Stay or Should I GO? Predicting Dating Relationship Stability From Four Aspects of Commitment. Journal of Family Psychology, 24(5): 543-550.

Rhoades, G.K., Stanley, S.M., Markman, H.J. (2012). The Impact of the Transition to Cohabitation on Relationship Functioning: Cross-Sectional and Longitudinal Findings. Journal of Family Pyschology, 26(3): 348-358.

Schneider, N. F., & Rüger, H. (2008). Beziehungserfahrungen und Partnerschaftsverläufe vor der Heirat. Eine empirische Analyse von Angehörigen der Eheschließungskohorte 1999-2005 [Engl.: Experiences with relationships and the course of the premarital partnership. An

empirical analysis of members of the 1999-2005 marriage cohort in Germany]. Zeitschrift für Familienforschung/Journal of Family Research, 20(2): 131-156.

Schnor, C. (2012). Trennungsrisiko von Paaren mit Kindern: Der Einfluss der Religion in West- und Ostdeutschland [Engl.: Separation risks of couples with children: The influence of religion in Western and Eastern Germany]. Zeitschrift für Familienforschung/Journal of Family Research, Special Issue 9: 229-256.

Schnor, C., & Bastin, S. (forthcoming). Partners and Babies. Partnership and Fertility Histories of the German Family Panel (pairfam/DemoDiff, waves 1-3) as an Event History Data Set. Forthcoming as a pairfam Technical Report.

Sobotka, T., & Toulemon, L. (2008). Overview Chapter 4: Changing family and partnership behaviour: Common trends and persistent diversity across Europe. Demographic Research, Special Collection 7: 85-138.

Statistisches Bundesamt (2012): Bevölkerung und Erwerbstätigkeit. Haushalte und Familien, Ergebnisse des Mikrozensus. Fachserie 1, Reihe 3, Wiesbaden.

Steele, F., Joshi, H., Kallis, C., Goldstein, H. (2006). Changing compatibility of cohabitation and childbearing between young British women born in 1958 and 1970. Population Studies, 60: 137-152.

Svarer, M. (2004). Is your love in vain? Another look at premarital cohabitation and divorce. Journal of Human Ressources, 39: 523-535.

Teachman, J.D. (1982). Methodological Issues in the Analysis of Family Formation and Dissolution. Journal of Marriage and the Family, 44: 1037-1053.

Teachman, J.D., Thomas, J., Paasch, K. (1991). Legal Status and the Stability of Residential unions. Demography, 28(4): 571-586.

Teachman, J. D., & Polonko, K. A. (1990). Cohabitation and marital stability in the United States. Social Forces, 69(1): 207-220.

Teachman, J.D. (2002). Stability across cohorts in divorce risk factors. Demography, 39(2): 331-352.

Thibaut, J. W., & Kelley, H. H. (1959). The social psychology of groups. New York: John Wiley & Sons, Inc.

Thomson, E., & Colella, U. (1992). Cohabitation and Marital Stability – Quality or Commitment. Journal of Marriage and the Family, 54(2): 259-267.

Thornton, A., Axinn, W. G., & Teachman, J. D. (1995). The influence of school enrollment and accumulation on cohabitation and marriage in early adulthood. American Sociological Review, 762-774.

Van de Kaa, D.J. (1987). Europe's second demographic transition. Population Bulletin, 42: 1-59.

White, L.K. (1990). Determinants of Divorce – a Review of Research in the 80s. Journal of Marriage and the Family, 52(4): 904-912.

Wu, Z. (1995). The Stability of Cohabiting Relationships: The Role of Children. Journal of Marriage and the Family, 57: 231-236.

6 Appendix

7.1 Figures

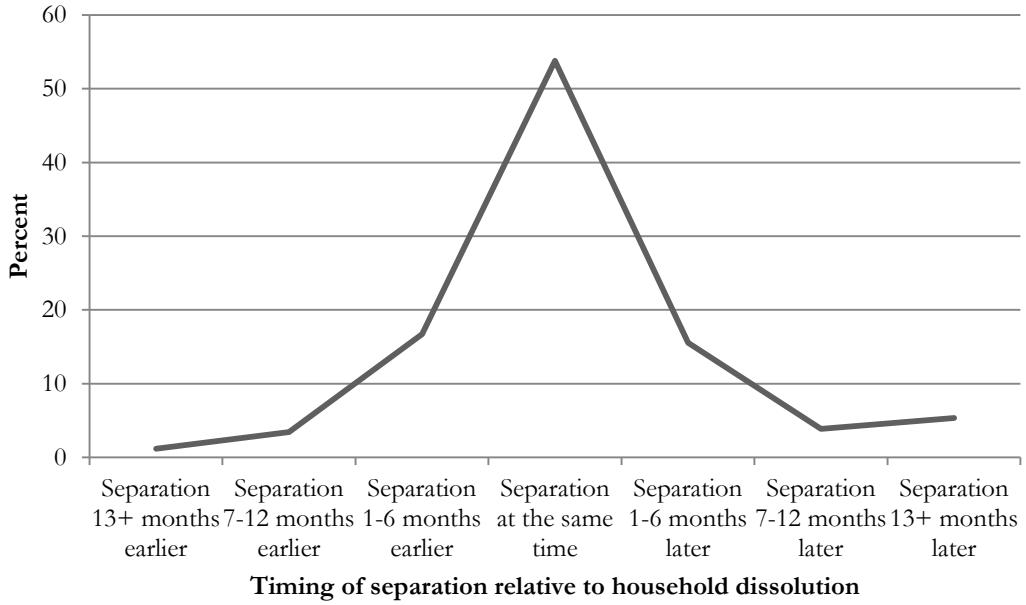

Figure 4: Timing of separation relative to household dissolution (= dependent variable) among partnerships in which household dissolution occurred within the first eight years of co-residence (N=2,249)

Source: German family panel (pairfam/DemoDiff), Release 3.0 (2011/2012)

Note: Weighted sample

7.2 Robustness checks

Several sensitivity checks were conducted to test whether the results concerning the determining influence of the LAT length on union stability were robust to changes in the sample (see Table 3, Table 4 and Figure 5 in Appendix). In check I, partnerships which started during the teenage years were dropped, because they might differ from partnerships formed in adulthood. Check II excluded unions whose LAT length exceeded five years. Check III considered the total union episode gathered in the German Family Panel without censoring after eight years. In check IV the analysis was restricted to first unions. Separate models for the older and the younger birth cohorts were estimated in check V. These modifications did not change the model results, but the coefficients lost significance in the sample that included only respondents born in 1981 to 1983; this is likely attributable to the sample size.

In Table 2, the multivariate results in Model 2 showed that the risk of union dissolution decreased after the first year of household formation. It could be argued that a long dating period increases union stability, because the couple enters the analysis at a later point, when the baseline risk is already lower (Teachman & Polonko 1990). Engelhardt 2002, Niephaus 1999). This argument was tested in two ways. First, the partnership duration (baseline) was interacted with the length of the LAT period, which can reveal whether the baseline was shifted to the left among unions with longer dating duration (Figure 5). Second, I estimated a model in which the baseline date was shifted by the length of the LAT phase, and treated couples with a prior LAT period as left-truncated cases (Check VI). However, these checks did not provide additional explanation. The sample statistics revealed that the unions with differing LAT phases spent similar amounts of time in marriage and with children. A plausible explanation for this finding is that with household formation a new "clock" starts, and thus the risk of union dissolution does not clearly continue the separation trend observed for the time while not living together.

When only higher order unions were considered (Check VII), the results revealed different relative risks for unions of different LAT lengths; e.g., the risk of union disruption among the couples who directly formed a household was significantly higher than the risk of the couples in the 2nd tercile, which had always functioned as the reference category. Accounting for the faster transition to household formation among higher-order unions, the results were similar to those for first unions.

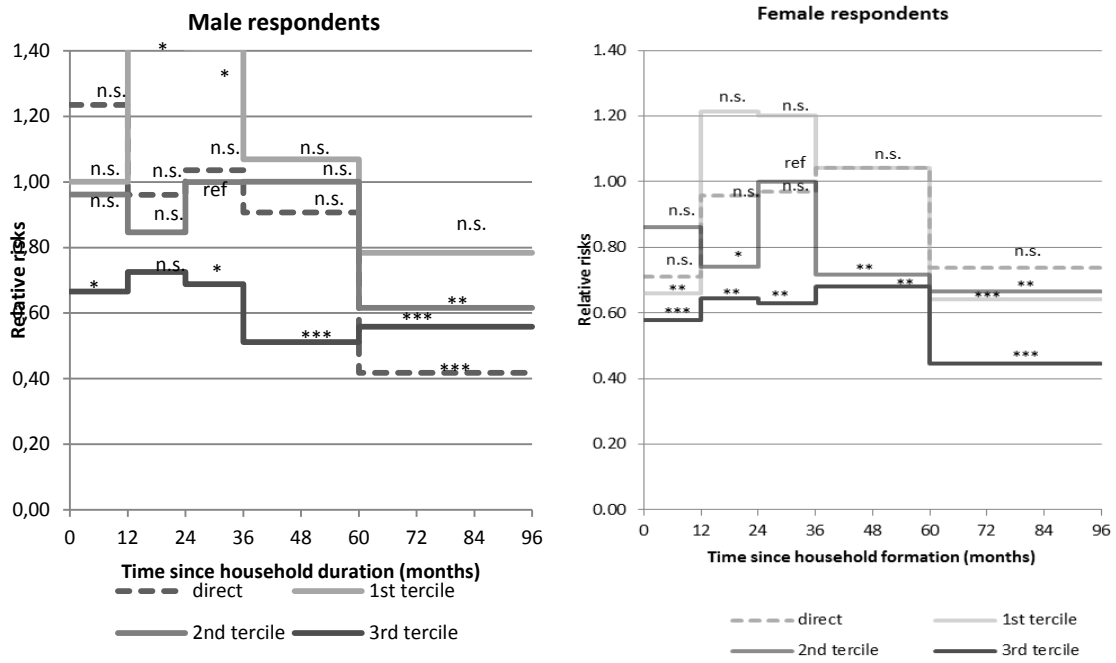

Figure 5: Robustness check VII: Interaction of the baseline with the dating length, results shown in relative risks.

Source: German family panel (pairfam/DemoDiff), Release 3.0 (2011/2012)

Notes:

Both models included a person-specific random intercept and controlled for birth cohort and birth place, union order.

Significance levels: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Table 3: Robustness checks I-VI

	Check I	***Check II***	***Check III***	***Check IV***	***Check V***		***Check VI***
	Sample: only those who were age 18+ when partnership was formed	Sample: Only unions with maximum dating length of 5 years	Without censoring after 8 years (last observed exit at 282 months)	Sample: only first unions	Sample: only birth cohorts 1971-1973	Sample: only birth cohorts 1981-1983	Dating length considered as part of baseline; Sample: only first unions; Without censoring after 8 years
				Unions reported by male respondents			
Direct: 0m	1.01	1.01	1.05	0.84	1.14	0.76	0.86
1st tercile: 1-9m	1.26**	1.26**	1.26***	1.18*	1.29**	1.24	1.21**
2nd tercile: 10-25m	1	1	1	1	1	1	1
3rd tercile: 26-120m	0.66***	0.71***	0.65***	0.64***	0.75**	0.55***	0.63***
				Unions reported by female respondents			
Direct: 0m	1.16	1.08	1.14	0.90	1.13	1.02	0.98
1st tercile: 1-9m	1.18*	1.14**	1.13*	1.19**	1.14	1.14	1.16**
2nd tercile: 10-25m	1	1	1	1	1	1	1
3rd tercile: 26-120m	0.81**	0.85**	0.77***	0.83**	0.72***	0.91	0.78***

Source: German family panel (pairfam/DemoDiff), Release 3.0 (2011/2012)

Notes: All models included a person-specific random intercept and controlled for birth cohort and birth place, union and partnership order, church membership, school education, educational enrollment, age and living arrangement at the time the partnership was formed, residence with both parents until 18th birthday, presence of stepchildren and presence and ages of common children, employment status, marital status.

Significance levels: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Table 4: Robustness check VIII

Check VIII: *Sample: only higher-order unions*		
	Unions reported by male respondents	*Unions reported by female respondents*
Direct household formation	1.85**	1.47**
original 1st tercile: 1-9 months	1.66**	1.02
original 2nd tercile: 10-25 months	1	1
original 3rd tercile: 26-120 months	0.95	0.62*
Direct household formation	1.13	1.40**
adapted 1st tercile: 1-5 months	1.19	0.98
adapted 2nd tercile: 6-14 months	1	1
adapted 3rd tercile: 15-120 months	0.59**	0.78

Source: German family panel (pairfam/DemoDiff), Release 3.0 (2011/2012)

Notes: All models included a person-specific random intercept and controlled for birth cohort and birth place, union and partnership order, church membership, school education, educational enrollment, age and living arrangement at the time the partnership was formed, residence with both parents until 18th birthday, presence of stepchildren and presence and ages of common children, employment status, marital status.

Significance levels: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

B.3 Paper III. Separation risks of couples with children: The influence of religion in Western and Eastern Germany

(In German language, original title: Trennungsrisiko von Paaren mit Kindern: Der Einfluss der Religion in West- und Ostdeutschland)

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Zusammenfassung

In Westdeutschland gehören 70% der Bevölkerung einer christlichen Gemeinschaft an, in Ostdeutschland sind es 24%. Bisherige Studien belegen ein höheres Trennungsrisiko von Konfessionslosen. Wie beeinflusst der höhere Anteil an Konfessionslosen in Ostdeutschland die Stabilität von Beziehungen mit Kindern? Der Beitrag analysiert das Trennungsverhalten von Müttern mit dem Beziehungs- und Familienpanel (pairfam) und seiner ostdeutschen Ergänzungsstichprobe DemoDiff. Die Ergebnisse zeigen, dass konfessionslose Frauen ein höheres Trennungsrisiko als konfessionell gebundene Frauen haben. Die Beziehungsstabilität von west- und ostdeutschen Müttern unterscheidet sich jedoch nicht signifikant. Dies ist auf die hohe Partnerschaftsstabilität von ostdeutschen Konfessionsangehörigen und den insignifikanten Einfluss der Konfessionszugehörigkeit in Westdeutschland zurückzuführen.

Abstract

In Western Germany, 70% of the population belongs to a Christian denomination, while the share in Eastern Germany is only 24%. Previous studies showed a higher risk of union disruption for persons who are not affiliated to a church. How does the higher share of non-affiliated persons in Eastern Germany influence the stability of unions with children? Based on the German Family Panel (pairfam) and its supplementary sample for Eastern Germany (DemoDiff) the present study analyses the separation behavior of mothers. Compared to women belonging to the Catholic or Protestant Church, the results show that non-affiliated women have a higher risk of separation. However, the union stability of Western and Eastern German mothers does not differ significantly. This can be attributed to the higher partnership stability of Eastern German church members as well as to the insignificant impact of church membership on these issues in Western Germany.

Keywords: religion, church membership, separation, union stability, nonmarital family formation, Western Germany, Eastern Germany, pairfam, DemoDiff

1 Einleitung

„*Ich* verspreche *dir die Treue in guten und bösen Tagen, in Gesundheit und Krankheit, bis der Tod uns scheidet*" (EKD 2011). Dieses Trauversprechen geben sich Paare bei einer kirchlichen Eheschließung. In der katholischen wie evangelischen Kirche[48] gilt die Ehe als lebenslange Verbindung zweier Menschen. Sie steht für eine stabile, verlässliche und verbindliche Beziehung, in der ein Paar die langfristige Verantwortung füreinander übernimmt. Die in der Ehe gebotene Sicherheit und Solidarität wird als Schutzraum für Familie gesehen. In der christlichen Glaubenslehre gilt daher die ehebasierte Familie als optimale Lebensform für Kinder (Lüke 2005; Schockenhoff 2005).

Die Durchsetzungskraft dieser religiösen Norm wird durch die zunehmende Säkularisierung geschwächt (Abramson/Inglehart 1995; Norris/Inglehart 2004): Der Rückgang von Religiosität in einer Gesellschaft lässt sich in Zusammenhang mit einer zunehmenden Verbreitung von nichtehelichen Lebensformen und einer steigenden Partnerschaftsinstabilität setzen (Lesthaeghe 1986, 1998, 2010; van de Kaa 1987). Empirische Untersuchungen bestätigen, dass konfessionell ungebundene Personen eine stärkere Neigung zur nichtehelichen Familiengründung und ein höheres Scheidungsrisiko besitzen (Arránz Becker/Lois/Nauck 2010; Arránz Becker/Lois 2010; Kreyenfeld/Konietzka/Walke 2011a; Wagner 1997; Brüderl/Diekmann/Engelhardt 1997; Lois 2008). Neben dem Einfluss der individuellen religiösen Bindung spielt der regionale Kontext eine entscheidende Rolle: Das niedrigere Scheidungsrisiko in religiösen Regionen lässt sich durch ihren geringeren Säkularisierungsgrad erklären, wie eine regional vergleichende Studie zu Belgien belegt (Mortelmans/Snoeckx/Dronkers 2009).

In Deutschland gehört die deutliche Mehrheit (63%) einer christlich-kirchlichen Gemeinschaft an (Pollack/Pickel 2003; Kirchenamt der EKD 2011). Gesamtdeutsche Zahlen verdecken jedoch die deutliche Diskrepanz zwischen West- und Ostdeutschland. Die konfessionelle Zugehörigkeit ist in Westdeutschland mit 70% wesentlich stärker verbreitet als in der östlichen Region, wo lediglich 24% einer christlichen Kirche angehören (Statistisches Bundesamt 2010).

Der vorliegende Beitrag untersucht, welchen Einfluss der soziale Bedeutungsverlust von Religion auf das Trennungsverhalten von Ost- und Westdeutschen hat. Der besondere Fokus liegt hierbei auf Partnerschaften mit gemeinsamen Kindern. Die Erforschung der Determinanten der Partnerschaftsstabilität von Eltern ist von besonderer Bedeutung, da viele Studien die negativen Konsequenzen einer Trennung auf die schulischen Leistungen und das psychosoziale Wohlergehen von Kindern belegen (zusammenfassend: Amato 2001; neuere Studien: Kim 2011; Kalil et al. 2011).

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[48] Im Folgenden wird mit „katholisch" die römisch-katholische Glaubensgemeinschaft bezeichnet. Die Bezeichnung „evangelisch" bezieht sich auf die Evangelische Kirche in Deutschland (EKD).

Bisherige Untersuchungen des Trennungsrisikos von Paaren in Deutschland konzentrierten sich vorwiegend auf die Ehestabilität (Brüderl/Diekmann/Engelhardt 1997; Wagner 1997; Engelhardt/Trappe/Dronkers 2002). In der vorliegenden Untersuchung trägt der Einbezug von nichtehelichen Partnerschaften der zunehmenden Bedeutung dieser Lebensform als Ort von Familie Rechnung. Bisher wurde die Stabilität von nichtehelichen Partnerschaften u.a. aufgrund der mangelnden deutschen Datenlage erst in wenigen Studien berücksichtigt (beispielsweise in Lois 2009: 189ff). Die vorliegende Untersuchung leistet einen Beitrag zur Schließung dieser Lücke. Die Daten des deutschen Beziehungs- und Familienpanels (pairfam) ermöglichen mit der Zusatzstichprobe für Ostdeutschland (DemoDiff) eine detaillierte Analyse des Trennungsverhaltens in West- und Ostdeutschland.

Im Folgenden wird im theoretischen Teil die Bedeutung der Konfessionszugehörigkeit anhand von kirchlichen Ehenormen und des Zusammenhangs von Säkularisierung und Beziehungsstabilität im theoretischen Konzept des Zweiten Demographischen Übergangs und der Säkularisierungstheorie erläutert. Dem schließt sich die Beschreibung des konfessionellen Kontextes in West- und Ostdeutschland an. Die Forschungslage sowie bestehende Lücken werden kurz skizziert. Der Hypothesenteil beschäftigt sich mit der Frage, welche Bedeutung der unterschiedliche Säkularisierungsgrad von West- und Ostdeutschland für das Trennungsverhalten von Paaren mit Kindern hat. Im Analyseteil wird zunächst der Datensatz beschrieben und ein erster Einblick in regionale Unterschiede im Trennungsrisiko von Müttern auf Basis von Kaplan-Meier-Failure-Funktionen gegeben. Anschließend werden stufenweise multivariate Modelle geschätzt, um einen Einblick in die Determinanten des Trennungsverhaltens in West- und Ostdeutschland zu gewinnen. Die empirisch signifikanten Interaktionen zwischen Konfessionszugehörigkeit, Familienstand und Region geben tiefere Einsicht in den Kontext von Konfession und Beziehungsstabilität. Im Fazit werden die zentralen Ergebnisse der vorliegenden Untersuchung zusammengefasst.

2 Allgemeiner theoretischer Hintergrund

Sowohl die evangelische als auch die katholische Kirche befürworten die eheliche Partnerschaft sowie ihre lebenslange Dauer. Die evangelische Kirche sieht in der Ehe insbesondere für Paare mit Kindern die beste und angemessenste Lebensform. Eine erneute kirchliche Heirat nach einer Scheidung ist in der evangelischen Kirche grundsätzlich möglich. Die katholische Kirche betrachtet die Ehe als einen nur durch den Tod aufzulösenden Bund, der zugleich ein Symbol der Verbindung Christi zur Kirche ist. Eine kirchliche Wiederheirat nach Scheidung ist nur möglich, sofern die erste Ehe von der katholischen Kirche für nichtig erklärt wird. Nichteheliche Beziehungen werden von der katholischen Kirche als Vorstufe der Ehe toleriert, solange die

Beziehung kinderlos und als Übergangsphase erkennbar ist. Die Ehe sollte sich spätestens mit der Familiengründung anschließen (Lüke 2005; Schockenhoff 2005).

In der Kirchengemeinde äußern sich diese religiösen Werte in einer positiven Sanktionierung der Ehe und einer negativen Sanktionierung von nichtehelichen Lebensgemeinschaften mit Kindern und Trennungen (Lois 2009: 131f.). Personen, die in diesem Umfeld aufwachsen, erleben die ehebasierte Familie und – innerhalb der katholischen Kirchengemeinde – die kirchliche Unauflösbarkeit der Ehe als gesellschaftliche Normen. Das Bedürfnis nach Konformität und sozialer Anerkennung und die Erwartungshaltungen des sozialen Umfeldes tragen dazu bei, dass diese Normen im persönlichen Lebenslauf angestrebt werden (Lois 2009: 131ff.; Thornton/Axinn/Xie 2007: 119ff.). Die Konfessionszugehörigkeit gilt daher als ein Indikator für normative Orientierungen auch im Erwachsenenalter (Hill/Kopp 2006: 293; Pickel 2011).

Die zunehmende gesellschaftliche Säkularisierung schwächt diese Durchsetzungskraft religiöser Normen: Mit abnehmender Religiosität stiegen in der Vergangenheit die Scheidungsraten und die Verbreitung neuer Lebensformen in einer Gesellschaft an. Dies wird im Konzept des „Zweiten Demographischen Übergangs" als Wechsel zu einem neuen demographischen Regime begriffen, dessen Ursache ein tiefgreifender gesellschaftlicher Wertewandel ist (Lesthaeghe 1986, 1998, 2010; van de Kaa 1987: S.12ff.).

Eine Erklärung für diesen Zusammenhang bietet die Säkularisierungstheorie, welche Säkularisierung als einen Prozess des sozialen Bedeutungsverlustes von Religion definiert, der insbesondere durch die Modernisierung vorangetrieben wird: Wissenschaftliche Erklärungen gewinnen gegenüber religiösen Deutungsmustern an Bedeutung und begünstigen so das rationale Handeln von Individuen. Die Wohlfahrtssteigerung reduziert die Sorge um materielle Sicherheit, dadurch nimmt der Bedarf nach transzendenter Kompensation ab und die individuelle Selbstverwirklichung wird wichtiger. Die Religion wird in den privaten Bereich gedrängt und verliert an gesellschaftlicher Bedeutung. Die individuelle Bereitschaft zur Einhaltung religiöser Normen sinkt somit in der Gesellschaft. Mit zunehmender Individualisierung steigt die Entscheidungsfreiheit im Lebenslauf, der Rückgriff auf religiöse Begründungen erfolgt nach individuellen Bedürfnissen, beispielsweise bei lebenszyklisch wichtigen Passageriten (Pickel 2011: 135ff., 393ff.; Abramson/ Inglehart 1995; Inglehart 1998; Inglehart/Basañez/Moreno 1998; Norris/Inglehart 2004; Wilson 1982: 148ff., Bruce 2002: 4ff.).

Der Säkularisierungsprozess wird beeinflusst von der Bedeutung der Religion im gesellschaftlichen Kontext: Religiöse Normen können aufgrund ihrer langen Tradition die gesamtgesellschaftliche Kultur beeinflusst haben und so auch jenseits von religiösen Institutionen ihre Wirkung auf das demographische Verhalten entfalten (Inglehart/Baker 2000). Die Loslösung ursprünglich religiöser Normen aus ihrer kirchlichen Einbindung ist Teil der funktionalen

Differenzierung von Religion (Pickel 2011: 393ff.). Religiöse Werte können als gesellschaftliche Werte fortbestehen, während die Kirchengemeinschaft selbst an sozialer Bedeutung verliert. Darüber hinaus kann die Art der religiösen Prägung der Gesellschaft zu einer Pfadabhängigkeit führen: So hat der Protestantismus bereits eine Säkularisierungstendenz inne, welche den religiösen Bedeutungsverlust begünstigt, während der Katholizismus eine höhere Widerstandskraft aufweist (Inglehart/Baker 2000; Martin 1978; Pickel 2011: 156ff.).

Die Beziehungsstruktur zwischen Kirche und Politik setzt die Rahmenbedingungen des Wirkungsspektrums von Religion. Staatliche Zugangsregelungen zu religiösen Sozialisationsorten – beispielsweise durch den Einbezug der Religion als Schulfach – sind für die gesellschaftliche Wirkung von Religion ebenso essentiell wie Maßnahmen zur finanziellen Förderung der Kirchen – wie der Kirchensteuer. Die Unterdrückung von Religion, wie sie in der sozialistischen Politik der DDR erfolgte, führt daher zu einem Verlust an religiöser Vitalität in der Gesellschaft (Martin 1978; Pickel 2011: 156ff.).

Aufgrund der zunehmenden Säkularisierung sinkt der Anteil der Kirchenmitglieder in der Gesellschaft. Dies schränkt die gesellschaftliche Verbreitung von religiösen Werthaltungen und Normen ein. Trotz dieses sozialen Bedeutungsverlustes kann die Religion immer noch relevant für das Handeln und Verhalten von religiös gebundenen Personen sein: Auch in modernen Gesellschaften richten Religionsangehörige die Organisation ihrer Partnerschaft nach bestimmten religiösen Prinzipien aus, die für Personen ohne religiösen Hintergrund kaum Bedeutung besitzen und greifen in ihren Entscheidungen auf religiöse Motivationen zurück (Pickel 2011: 393ff.). Der Einfluss religiöser Normen beschränkt sich zum großen Teil auf den zwischenmenschlichen Bereich; insbesondere in den Bereichen Familie und Partnerschaft hat Religion eine prägende Kraft, da diese weniger rationalisiert sind als andere Lebensbereiche (Pickel 2011: 393ff.).

3 Religionszugehörigkeit in West- und Ostdeutschland

In Deutschland sind die Zugehörigkeit zur katholischen Religion oder einer evangelischen Kirche sowie das Fehlen einer konfessionellen Bindung sehr unterschiedlich verbreitet. Historisch gesehen gehört Deutschland zu den protestantischen Ländern (Inglehart/Baker 2000). Der Westen und insbesondere der Süden Deutschlands sind jedoch katholisch geprägt. Insgesamt gehörten 2008 in Westdeutschland 37% der Bevölkerung der katholischen und 33% einer evangelischen Kirche an. In Ostdeutschland bekennt sich hingegen nur knapp ein Viertel der

Bevölkerung zum christlichen Glauben: 19% der Ostdeutschen waren 2008 evangelisch, 5% katholisch.[49] Die große Mehrheit der Ostdeutschen ist konfessionslos.

Die intergenerationale Transmission der Zugehörigkeit zu einer kirchlichen Gemeinschaft ist in West- wie Ostdeutschland hoch: Kinder christlicher Eltern werden in der Regel bereits in ihrem ersten Lebensjahr durch die Taufe in die kirchliche Gemeinschaft aufgenommen. Insgesamt erhielten 2009 unter den Kindern mit mindestens einem konfessionell gebundenen Elternteil 75% (unter den Katholiken) bzw. 78% (unter den Protestanten) die Taufe (Sekretariat der Deutschen Bischofskonferenz 2011; Kirchenamt der EKD 2011).

Der Anteil an Konfessionslosen ist in den westdeutschen Gebieten hauptsächlich auf den post-materialischen Wertewandel und die zunehmende Individualisierung zurückzuführen (Pickel 2003). Dies zeigt sich an der Korrelation von Nichtreligiosität und postmaterialistischen Werten (Pollack/Pickel 2007). Die aus der Individualisierung hervorgehende Distanz zur Religion ist die wesentliche Vorbedingung für den Austritt aus der Kirchengemeinschaft (Pickel 2011: 393ff.).

In Ostdeutschland hat die geringere Bindekraft des protestantischen Glaubens zur Verbreitung der Konfessionslosigkeit beigetragen; der Einfluss der sozialistischen Politik wird als verstärkende Ursache für die verbreitete Säkularisierung gesehen (Pollack/Pickel 2007; Pickel 2003; Meulemann 2009). Die repressive Politik des SED-Regimes im traditionell protestantischen Ostdeutschland führte durch Kirchenaustritte und eine geringe Taufbereitschaft zu einem starken Anstieg der Konfessionslosigkeit in der Bevölkerung. Der auf der Grundlage des dialektischen Materialismus basierende Atheismus wurde bereits in den Anfangsjahren der DDR zur offiziellen Politik des SED-Regimes erklärt und damit zum Gegenpol von religiösen Werten (Froese/Pfaff 2005). Meulemann (2003) spricht von einer „erzwungenen Säkularisierung" durch die staatliche Implementierung nicht-religiöser Bräuche in der Bevölkerung (wie etwa der Jugendweihe), welche religiöse Traditionen weitgehend verdrängte (vgl. auch Froese/Pfaff 2005). Die Säkularisierung in der DDR bedeutete somit nicht eine Individualisierung der Gesellschaft, vielmehr setzten sich Konformitätsdruck und gesellschaftliche Sanktionierung im außerreligiösen Kontext fort. Da es sich heutzutage im ostdeutschen Raum mehrheitlich um Konfessionslose in zweiter bzw. dritter Generation handelt, welche nicht-religiös sozialisiert wurden, ist eine Revitalisierungstendenz nicht wahrscheinlich (Wohlrab-Sahr et al. 2009; Pollack/Pickel 2007). Ebenso fehlen im Osten jedoch neureligiöse Ansätze – wie etwa fernöstliche Religionsformen – oder das Aufleben einer subjektiven Religiosität ohne kirchliche Einbindung (Pollack/Pickel 2007; Pollack 2002). Die fehlende subjektive Relevanz der religiösen Dimension für das persönliche Leben bezeichnet Storch (2003: 244) als „diesseitsorientierten Pragmatismus".

[49] Eigene Berechnungen für das Jahr 2008 nach Daten der Mitgliederzahlen der christlichen Kirchen (Statistisches Bundesamt 2010: 64) und der Statistik der Fortschreibung des Bevölkerungsbestandes (Statistisches Bundesamt 2011).

Die unterschiedliche geschichtliche Entwicklung der Religion in West- und Ostdeutschland hat regionale Unterschiede zwischen Konfessionsangehörigen und Konfessionslosen zur Folge. So haben westdeutsche Konfessionslose einen weitaus stärkeren Bezug zur Religion als ostdeutsche: Der Studie von Pollack und Pickel (2007) zufolge glauben 52% der Konfessionslosen in Westdeutschland an Gott, im Osten sind es hingegen nur 12%. Unter den Konfessionsangehörigen gibt es keine regionalen Unterschiede in der Kirchgangshäufigkeit, allerdings geben ostdeutsche Konfessionsangehörige wesentlich häufiger als westdeutsche an, religiös zu sein. Die Religion hat in Westdeutschland Bedeutung als Kulturraum. In Ostdeutschland ist die Religion eher ein Identifikationsobjekt. Ostdeutsche Konfessionsangehörige bezeichnen sich selbst als religiös in Abgrenzung zu ihrer Umwelt. Die Kirchenzugehörigkeit bestimmt die Einstellung zur religiösen Dimension an sich (Pollack/Pickel 2007).

4 Forschungsstand

Studien für Deutschland zur ehelichen Stabilität belegen ein höheres Scheidungsrisiko von Konfessionslosen, die Unterschiede zwischen Protestanten und Katholiken sind nur gering (Brüderl/Diekmann/Engelhardt 1997; Lois 2008, 2009: 200; Wagner 1997: 164ff.; Engelhardt/Trappe/Dronkers 2002). Ein signifikanter Einfluss der Konfessionszugehörigkeit auf das Trennungsrisiko von nichtehelichen Beziehungen kann nicht festgestellt werden (Lois 2008, 2009: 204).

Das Verhältnis von ost- und westdeutschen spezifischen Scheidungsziffern[50] ist von der Zäsur der Wiedervereinigung geprägt. Vor 1990 lag die Scheidungsrate in der DDR höher als in der BRD (Wagner 1997; Böttcher 2006). Seit der deutschen Wiedervereinigung liegt die ostdeutsche unter dem westdeutschen Niveau; in den letzten Jahren haben sich die Scheidungsziffern allerdings deutlich angenähert (Krack-Roberg 2009). Neuere Forschungsergebnisse belegen, dass für jüngere Kohorten diese Unterschiede nicht zutreffen: Schmitt und Trappe (2010) zeigen für Erst-Ehen, die nach 1990 geschlossen wurden, dass ostdeutsche Ehen ein höheres Trennungsrisiko besitzen als westdeutsche Ehen.[51] Auch Bastin, Kreyenfeld und Schnor (2012) weisen darauf hin, dass bei Familiengründung verheiratete ostdeutsche Mütter der Geburtsjahrgänge 1971 bis 1973 in Ostdeutschland eine höhere Trennungswahrscheinlichkeit besitzen als westdeutsche verheiratete Mütter.

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50 Die spezifische Ehescheidungsziffer gibt die Anzahl an Ehescheidungen pro 10.000 bestehenden Ehen im jeweiligen Kalenderjahr an.

51 Die niedrigere spezifische Scheidungsziffer von Ostdeutschen ist demnach hauptsächlich auf einen Kompositionseffekt der Heiratskohorten zurückzuführen.

Für die Zeit vor der Wiedervereinigung zeigt sich, dass die Zugehörigkeit zu einer christlichen Konfession das Scheidungsrisiko in West- wie Ostdeutschland senkt (Wagner 1997: 164ff.; Engelhardt/Trappe/Dronkers 2002; Böttcher 2006). Böttcher (2006) stellt fest, dass sich das höhere Scheidungsrisiko in der DDR durch strukturelle Unterschiede, wie der höheren weiblichen Erwerbsbeteiligung, erklären lässt. Berücksichtigt man Unterschiede in der Religiosität, sinkt das ostdeutsche Scheidungsniveau unter das westdeutsche (Böttcher 2006). Wagner (1997: 166) kommt zu dem Ergebnis, dass konfessionelle Unterschiede in der Ehestabilität in der DDR schwächer ausgeprägt waren als in der BRD. Er folgert daraus, dass Konfessionslosigkeit in Westdeutschland bedeutsamer war als in Ostdeutschland. Mit der Familiengründung kann sich der Einfluss des religiösen Hintergrundes auf die Beziehungsstabilität verändern. So zeigt Wagner (1997: 169) für westdeutsche Ehen, dass sich Unterschiede im Trennungsverhalten von Konfessionsangehörigen und Konfessionslosen nach der Geburt eines Kindes noch verstärken, da sich das Scheidungsrisiko von Konfessionslosen weniger stark reduziert als von Konfessionsangehörigen. In der deutschen Forschung gab es bisher keine explizite Fokussierung auf die Determinanten der Beziehungsstabilität von Eltern, wie sie in der englischsprachigen Literatur zu finden ist (beispielsweise in Wu/Musick 2008; Manning/Smock/Majumdar 2004; Manlove et al. 2012).[52]

Die Forschungslage zu Ost-West-Unterschieden im Trennungsverhalten im wiedervereinten Deutschland ist insbesondere für nichteheliche Beziehungen lückenhaft. In Untersuchungen der Beziehungsstabilität von ehelichen und nichtehelichen Lebensgemeinschaften wird der regionale Hintergrund nicht kontrolliert (Lois 2008, 2009) oder die Koeffizienten werden nicht abgebildet (Arránz Becker 2008: 206ff.). Eine neuere deskriptive Untersuchung zu Ost-West-Unterschieden zeigt, dass Mütter, die mit ihrem Partner zum Zeitpunkt der Geburt in einer nichtehelichen Lebensgemeinschaft lebten, in Ostdeutschland ein geringeres Trennungsrisiko besitzen als in Westdeutschland (Bastin/Kreyenfeld/Schnor 2012). Berücksichtigt man eheliche wie nichteheliche Partnerschaften ist die Beziehungsstabilität von ostdeutschen Müttern nur im ersten Jahr nach Familiengründung deutlich niedriger als in Westdeutschland, während sich im späteren Betrachtungszeitraum kaum Unterschiede ausmachen lassen.

Zusammenfassend ist festzustellen, dass in der bisherigen Forschung das Verhältnis von ostdeutscher und westdeutscher Ehestabilität von der betrachteten Risikogruppe abzuhängen scheint. Die Kenntnisse über Ost-West-Unterschiede im Trennungsrisiko von nichtehelichen Beziehungen – insbesondere von Eltern – sind bisher sehr begrenzt. Die Vernachlässigung der nichtehelichen Lebensgemeinschaft ist insbesondere für Ostdeutschland problematisch, da die deutliche Mehrheit (74%) der Ostdeutschen außerhalb der Ehe eine Familie gründet (Pötzsch

[52] Bisher wurde lediglich der westdeutsche Kontext in international vergleichenden deskriptiven Untersuchungen berücksichtigt (Kiernan 2002; Andersson 2002, 2003).

2012).[53] Da regional vergleichende Untersuchungen des Einflusses von Religion mit neueren Daten fehlen, ist unklar, ob die Forschungsbefunde der Vorwendezeit für das wiedervereinigte Deutschland zutreffen. Die Untersuchung des Einflusses des konfessionellen Hintergrundes auf die Beziehungsstabilität von Eltern verdient daher mehr Aufmerksamkeit.

5 Hypothesen

Das Ziel der Untersuchung ist es, den Einfluss der Konfessionszugehörigkeit auf die Beziehungsstabilität von Eltern in West- und Ostdeutschland zu analysieren. Die Verbreitung nichtehelicher Lebensformen und die zunehmende Instabilität von Lebensformen werden von Vertretern der Theorie des Zweiten Demographischen Übergangs gleichermaßen als Zeichen des Wertewandels angesehen (Lesthaeghe 1986, 1998, 2010; van de Kaa 1987: S.12ff.). Als wesentlicher Motor dieses Wertewandels gilt die Säkularisierung. Dahinter steht die Annahme, dass Konfessionslose eher individuell-rationalen Handlungsmotiven folgen und von religiösen Normen nicht beeinflusst werden. Daher werden sie Ehen auflösen, die von religiös gebundenen Personen aufgrund der christlichen Norm der lebenslangen Ehedauer aufrechterhalten werden. Zudem gründen Konfessionslose häufiger eine nichteheliche Familie; unverheiratete Lebensformen haben jedoch ein höheres Trennungsrisiko als Ehen. In Anlehnung an diese theoretischen Überlegungen sollten aufgrund des höheren Anteils an Konfessionslosen in der ostdeutschen Bevölkerung Beziehungen mit Kindern in Ostdeutschland ein größeres Trennungsrisiko besitzen als in Westdeutschland.

Bisherigen Untersuchungen zufolge unterscheidet sich jedoch das Trennungsrisiko von ost- und westdeutschen Eltern insgesamt nur gering; Ehen jüngerer Kohorten scheinen in Ostdeutschland instabiler zu sein. Dies deutet darauf hin, dass Religion in Ost- und Westdeutschland eine unterschiedliche Bedeutung für die Beziehungsstabilität besitzt. In Westdeutschland ist Konfessionslosigkeit stärker ein Ausdruck des individuellen postmaterialistischen Wertewandels als in Ostdeutschland. Zugleich sind religiöse Einstellungen unter konfessionslosen Westdeutschen weiter verbreitet als unter Ostdeutschen. Auch die Bedeutung von Religion als identitätsstiftendes bzw. kulturelles Merkmal unterscheidet sich regional. Die stärkere Abgrenzung von Konfessionsangehörigen und Konfessionslosen in Ostdeutschland lässt vermuten, dass in dieser Region der religiöse Hintergrund für die Beziehungsstabilität eine bedeutendere Rolle spielt als in Westdeutschland. Folglich können folgende Hypothesen bezüglich der Beziehungsstabilität von Paaren mit Kindern formuliert werden:

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[53] Anteil nichtehelicher erster Geburten nach Angabe des Statistischen Bundesamtes für das Jahr 2010. In Westdeutschland waren hingegen nur 37% der Familiengründungen nichtehelich.

Hypothese 1: Ehen von Konfessionslosen sind instabiler als Ehen von Konfessionsangehörigen.

Hypothese 2: Konfessionslose haben ein höheres Trennungsrisiko, da sie sich seltener durch eine Heirat binden.

Hypothese 3: Die Beziehungsstabilität von Ostdeutschen ist geringer als von Westdeutschen. Dies erklärt sich durch den hohen Anteil an Konfessionslosen.

Hypothese 4: Unterschiede in der Beziehungsstabilität zwischen Konfessionsangehörigen und Konfessionslosen sind in Ostdeutschland stärker als in Westdeutschland.

6 Daten und Methode

Die folgende Analyse basiert auf Daten des deutschen Familien- und Beziehungspanels pairfam (Panel of Intimate Relationships and Family Dynamics) und DemoDiff (Demographic Differences in Life-Course Dynamics in Eastern and Western Germany), einer Zusatzstichprobe für Ostdeutschland (Kreyenfeld et al. 2011b). Verwendet wurden die Daten der ersten Panelwelle, die im Jahre 2008/09 für pairfam und im Jahr 2009/10 für DemoDiff erhoben wurde. Ergänzt wurden die Daten durch Items, die nur in der zweiten Welle von pairfam (2009/10) erfragt wurden. Diese Items liegen für Daten der DemoDiff-Befragung nicht vor. Der Datensatz bietet vollständige Partnerschafts- und Fertilitätsbiografien für Männer und Frauen der Jahrgänge 1971-73, 1981-83 und 1991-93 (Huinink et al. 2011). Die Partnerschaftsinformation erlaubt, zwischen drei verschiedenen partnerschaftlichen Dimensionen zu unterscheiden, namentlich der Beziehungs-, Kohabitations- und Ehebiografie. Dies lässt eine Differenzierung von Trennung (= Partnerschaftsauflösung), Auszug (= Kohabitationsende) und Scheidung zu. Die vorliegende Untersuchung bezieht sich auf die erste Partnerschaftsauflösung nach der ersten Kindgeburt.

Die Analyse ist beschränkt auf Mütter der Geburtskohorten 1971-73 und 1981-83, die zum Zeitpunkt der Geburt ihres ersten Kindes eine Partnerschaft mit dem biologischen Vater des Kindes angeben. Zu beachten ist, dass die Geburtskohorte 1981-83 eine selektivere Population als die Kohorte der 1971-73 Geborenen darstellt, da der Anteil Kinderloser höher ist: Circa 9 von 10 der zwischen 1971 und 1973 geborenen Frauen sind zum Zeitpunkt des Interviews Mutter von mindestens einem Kind. Unter den Frauen der Geburtsjahrgänge 1981 bis 1983 haben 33% der westdeutschen und 51% der ostdeutschen Frauen bereits ein Kind geboren. In der jüngeren Geburtskohorte ist somit der Anteil an Müttern geringer als in der älteren Kohorte. Im regionalen Vergleich sind Anfang der 1980er Jahre geborene Frauen in Ostdeutschland häufiger Mütter als in Westdeutschland. Dies entspricht den Ergebnissen bisheriger Studien, die belegen, dass ostdeutsche Frauen den Übergang in die Elternschaft früher vollziehen (Kreyenfeld 2006;

Arránz Becker/ Lois/Nauck 2010). Dieser regionale Unterschied ist im frühen Erwachsenalter allerdings nicht besonders stark ausgeprägt. Erst ab einem Alter von 25 Jahren werden ostdeutsche Frauen häufiger Mütter als Westdeutsche (Arránz Becker/Lois/Nauck 2010). Das Alter von Frauen der Geburtskohorte 1981-83 lag zum Zeitpunkt des Interviews zwischen 25 und 29 Jahren. Befragte der Geburtsjahrgänge 1981-83 wurden trotz ihres jungen Alters zum Befragungszeitpunkt in die Analyse eingeschlossen, da der Ereignisanalyseansatz die Selektivität dieser Gruppe berücksichtigt: Die Schätzung ermöglicht die Kontrolle ihres Geburtsjahrganges, ihres Erstgeburtsalters und ihrer geringeren Risikozeit.

Ausgeschlossen wurden Fälle mit inkonsistenten Angaben in ihren Partnerschafts- bzw. Fertilitätsdaten ebenso wie Fälle, in denen der biologische Vater der Kinder von verheirateten Frauen nicht mit dem Ehepartner übereinstimmt. Des Weiteren beschränkt sich die Analyse auf Befragte, die sowohl ihre Geburtsregion als auch ihre Wohnregion zum Befragungszeitpunkt durchgängig mit westdeutsch bzw. ostdeutsch angeben. Innerdeutsche Migranten wurden ebenso wie Personen mit nicht-deutscher Herkunft aus der Untersuchung ausgeschlossen, um die Aussagekraft der regionalen Information zu erhöhen. Aufgrund ihrer heterogenen Zusammensetzung wurde die Gruppe der nicht-christlichen Glaubensangehörigen nicht einbezogen. Orthodoxe Christen wurden aufgrund ihrer geringen Fallzahl aus den Analysen ausgeschlossen. Alle betrachteten Ehen sind Erst-Ehen. Das Ausgangssample hat eine Größe von 13.891 Befragten, im analytischen Sample finden sich 1.075 Westdeutsche und 688 Ostdeutsche.

Die vorliegende Analyse folgt dem Ereignisdatenansatz und verwendet ein *piecewise constant* Modell (Blossfeld/Golsch/Rohwer 2007: 116ff.). Hierbei wird angenommen, dass sich das Risiko über die Prozesszeit hinweg stufenweise verändert. Die Prozesszeit des Modells ist der Zeitraum von der Geburt des ersten Kindes bis zum Ereignis (Trennung vom biologischen Vater des Kindes) oder der Zensierung (Interviewdatum bzw. Tod des Partners). Zusätzlich wird zehn Jahre nach Kindgeburt zensiert, da die Fallzahl nach dieser Zeitspanne zu gering wird. Die Prozesszeit stimmt somit mit dem Alter des ersten Kindes überein und ist kategorisiert in ein Säuglings/Kleinkindalter (0-1 Jahr), ein Kindergartenalter (2-5 Jahre) und ein Vorschul-/Schulalter (> 5 Jahre).

Die empirische Untersuchung unterscheidet sich in verschiedene Teilschritte. Zunächst wird die Zusammensetzung des Samples diskutiert, indem die Verteilung der Variablen nach Konfessionszugehörigkeit und Region unterteilt dargestellt wird. Der Vergleich des individuellen und partnerschaftlichen Hintergrundes der Frauen zeigt, ob konfessionell gebundene Frauen in beiden Regionen ähnliche Charakteristika aufweisen. Dies soll einen ersten Hinweis auf den determinierenden Einfluss des religiösen Hintergrundes liefern. Einen Überblick über den

Verlauf des Trennungsrisikos von Ost- und Westdeutschen im betrachteten Zeitraum gibt der Kaplan-Meier-Schätzer.

Im Grundmodell der multivariaten Analyse wird der Einfluss des Alters des ersten Kindes, des regionalen Hintergrundes, der Schulbildung, der Kohortenzugehörigkeit und des Alters bei Geburt auf das Trennungsrisiko geschätzt. Die Berücksichtigung der Geburtskohorten und des Erstgebärendenalters ist notwendig, da die west- und ostdeutschen Frauen der Jahrgänge 1971-73 und 1981-83 eine unterschiedliche Selektion in die Mutterschaft – und damit in den Datensatz – aufweisen.

Im stufenweisen Schätzungsverfahren liegt der Schwerpunkt darauf, wie sich regionale Unterschiede im Trennungsrisiko insbesondere im Hinblick auf den unterschiedlichen Säkularisierungsgrad erklären lassen. Daher wird in der zweiten Stufe der Einfluss der Konfessionszugehörigkeit berücksichtigt. Die Zugabe von weiterer Information soll klären, wie sich die Wirkung der Konfessionszugehörigkeit durch Drittvariablen – wie etwa den Familienstand zum Zeitpunkt der Kindgeburt – vermittelt. Solche Kompositionseffekte lassen sich in mediative, d.h. verringernde und suppressive, d.h. verstärkende Effekte unterscheiden (Arránz Becker/Lois/Nauck 2010). Die Information zur Konfessionszugehörigkeit und zum Familienstand wird interagiert um festzustellen, ob Ehen von konfessionslosen Frauen ein größeres Trennungsrisiko besitzen als von katholischen oder evangelischen Frauen. Eine Interaktion von konfessionellem und regionalem Hintergrund gibt Aufschluss über die möglicherweise unterschiedliche Wirkungsweise der Konfessionszugehörigkeit in West- und Ostdeutschland.

Familienstand und Konfessionszugehörigkeit können in West- und Ostdeutschland eine unterschiedliche Wirkung aufweisen. Explorativ wird die Interaktion von Konfessionszugehörigkeit, Region und Familienstand diskutiert, deren Ergebnis aufgrund der geringen Besetzung einzelner Kategorien vorrangig in ihrer Tendenz zu werten ist.

In das Modell gehen neben dem Alter des ersten Kindes folgende Kontrollvariablen ein:

– Religiöser Hintergrund: Die zentrale Variable ist hier die Konfessionszugehörigkeit, wobei zwischen Katholiken, Protestanten und Konfessionslosen unterschieden wird. Angaben zur Kirchgangshäufigkeit werden nicht verwendet, da die Information über die Kirchgangshäufigkeit – ebenso wie im Übrigen die Konfessionszugehörigkeit – nur zum Interviewzeitpunkt vorliegt. Die Kirchgangshäufigkeit schwankt jedoch über den Lebensverlauf, wie verschiedene Studien belegen (Thornton/Axinn/Hill 1992). Insbesondere Ereignisse wie die Familiengründung, Eheschließung und Scheidung wirken sich auf den Kirchgang aus (Lois 2008).

– Information zum regionalen Hintergrund: Unterschieden wird zwischen Ost- und Westdeutschen, wobei die Information eine Kombination aus Geburts- und Wohnregion darstellt.

– Geburtskohorte: Es werden die Geburtskohorten 1971-73 und 1981-83 unterschieden. Diese Unterscheidung ist aufgrund des Sample-Designs notwendig.

– Alter bei Erstgeburt: Das Alter bei Erstgeburt nach vollendeten Lebensjahren geht sowohl als einfache metrische Variable als auch quadriert in die Schätzung ein. Aus der Scheidungsliteratur geht hervor, dass ein junges Heiratsalter aufgrund von mangelnder Reife, geringer Zeit zur Partnersuche sowie guten Alternativen auf dem Partnerschaftsmarkt sich positiv auf das Scheidungsrisiko auswirkt (Becker/Landes/Michael 1977; South 1995; zusammenfassend: Lyngstad/Jalovaara 2010). Diese Argumentation lässt sich auf ein junges Erstgebärendenalter übertragen.

– Schulbildung: Der höchste allgemeinbildende Schulabschluss geht als Kontrollvariable in die Untersuchung ein. In die Kategorie „Niedrige Schulbildung" fallen Personen ohne Schulabschluss und Personen mit einem Hauptschulabschluss bzw. einem Abschluss der 8./9. Klasse an einer Polytechnischen Oberschule. Unter mittlerer Schulbildung wird der Abschluss der 10. Klasse an einer Realschule oder Polytechnischen Oberschule verstanden. Eine hohe Schulbildung haben Personen mit Fachhochschul- bzw. Hochschulreife. Eine fehlende Angabe zur Schulbildung wird in der Bildungsvariablen als separate Kategorie berücksichtigt.

– Familienstand bei Geburt: Aus der Partnerschafts- und Fertilitätsbiografie lässt sich der Familienstand bei Geburt ermitteln. In Kombination mit der Art der Eheschließung unterteilt sich die Variable in „Verheiratet, standesamtliche und kirchliche Eheschließung", „Verheiratet, standesamtliche Eheschließung" und „Unverheiratet". Eine Vielzahl an Untersuchungen belegt den negativen Effekt einer nichtehelichen Familiengründung auf die Beziehungsstabilität (Jensen/Clausen 2003; Andersson 2002; Kennedy/Thomson 2010; Manning/Smock/Majumdar 2004; Clarke/Jensen 2004). Darüber hinaus ist zu vermuten, dass insbesondere die kirchliche Eheschließung die Beziehungsstabilität positiv beeinflusst, da hier die Nähe zur normativ lebenslangen Dauer der Ehe sichtbar wird (Impicciatore/Billari 2012; Engelhardt/Trappe/Dronkers 2002; Lois 2009: 90f.; Schneider/Rüger 2007).

– Partnerschaftsordnung: Die Ordnung der Partnerschaft definiert sich als Anzahl der Beziehungen einschließlich des aktuellen Partners. Vorhergehende Partnerschaften sollten von der Befragungsperson angegeben werden, wenn eine Beziehungsdauer über ein halbes Jahr hinweg oder eine Kohabitation erfolgte oder wenn die (auch kürzere) Beziehung von

persönlicher Bedeutung für die Befragte gewesen ist. Die Ordnung der nichtehelichen Lebensgemeinschaft hat in bisherigen Studien keinen Effekt auf die Stabilität; Zweit-Ehen besitzen hingegen ein höheres Trennungsrisiko als Erst-Ehen (Poortman/Lyngstad 2007; Steele/Kalis/Joshi 2006). Ob dieser Effekt auch auf die Zahl der Partnerschaften zutrifft ist aus der bisherigen Forschung nicht klar.

– Beziehungsdauer bis erste Kindgeburt: Von Beziehungsbeginn bis zum Zeitpunkt der ersten Kindgeburt gemessen gibt die Beziehungsdauer die Länge der Beziehung vor der Familiengründung an. Die Beziehungsdauer ist ein wichtiger Kontrollfaktor, da Konfessionslose den Übergang in die Elternschaft schneller vollziehen als Konfessionsangehörige (Arránz Becker/Lois/Nauck 2010). Es ist davon auszugehen, dass die Dauer der Beziehung bis zur Familiengründung in positiver Relation zur Beziehungsstabilität nach der Kindgeburt steht. Hintergrund ist die unvollständige Information über den Partner zu Beziehungsbeginn, welche mit zunehmender Beziehungsdauer abgebaut wird und die positive Auslese, welche mit der Beziehungsdauer zunimmt (Oppenheimer 1988; Becker/Landes/Michael 1977).

– Weitere biologische Kinder: Als maximale Kinderzahl im betrachteten Zeitraum gilt die Anzahl der gemeinsamen biologischen Kinder innerhalb der ersten zehn Jahre nach der ersten Kindgeburt. Im Ereignisdatenmodell wird die Geburt weiterer biologischer Kinder berücksichtigt; die Kinderzahl geht als zeitveränderliche Information in die Untersuchung ein. Weitere biologische Kinder sollten das Trennungsrisiko reduzieren, da sie eine weitere Investition in die Beziehung darstellen und die gegenseitige Abhängigkeit des Paares zumindest temporär erhöhen (Becker/Landes/Michael 1977).

– Intergenerationale Transmission von Partnerschaftsinstabilität: Studien belegen den signifikant negativen Einfluss von elterlichen Trennungen auf die eigene Beziehungsstabilität (Wagner 1997; Diekmann/Engelhardt 2008). Dies wird mit dem erlernten Konfliktlösungsverhalten und der vermehrten Erfahrung von Stress erklärt. Aus der zweiten pairfam-Welle ergibt sich die Information des Zusammenlebens mit den eigenen biologischen Eltern bis zum 18. Lebensjahr. Demnach kann unterschieden werden, ob die Befragte durchgehend mit beiden Eltern gelebt hat oder ob es Instabilitäten im Zusammenleben mit den Eltern gab. Hierunter sind Phasen des Zusammenlebens mit nur einem Elternteil ebenso zusammengefasst wie Lebensperioden des Wohnens ohne Eltern z.B. bei Verwandten. Personen, die an der zweiten pairfam-Befragung nicht teilgenommen haben oder diese Frage nicht beantwortet haben, wurde eine eigene Kategorie zugeordnet. Für Befragte der DemoDiff-Erhebung liegt diese Information nicht vor, sie wurden in einer separaten Kategorie zusammengefasst.

7 Ergebnisse

7.1 Deskriptive Ergebnisse

Tabelle 1 zeigt die Komposition des analytischen Samples nach Region und Konfessionszugehörigkeit in Spaltenprozenten für die einzelnen Variablen. Dabei gilt zu beachten, dass personenspezifische Merkmale nur für die Mutter dargestellt werden. Die Tabelle zeigt eine unterschiedliche Verteilung der Konfessionszugehörigkeit unter West- und Ostdeutschen. Ca. 44% der Westdeutschen gehören der katholischen Konfession an (N=476), ebenso viele sind der evangelischen Kirche zugehörig (N=465). Nur etwa eine von zehn westdeutschen Frauen hat keine Konfession (N=134). Im Osten hingegen sind acht von zehn Frauen konfessionslos (N=537); jede fünfte Frau ist evangelisch (N=131). Dem katholischen Glauben gehören nur 3% der ostdeutschen Frauen an (N=20). Der im Vergleich zur amtlichen Statistik höhere Anteil an Konfessionszugehörigen in West- und Ostdeutschland geht auf die Auswahl des analytischen Datensatzes zurück.[54] Die geringe Fallzahl der ostdeutschen Katholikinnen im Sample gestattet keine vergleichende Interpretation ihrer Komposition. Für die ostdeutsche Region wird daher zusammenfassend von christlichen Konfessionszugehörigen im Vergleich zu Konfessionslosen gesprochen.

Die Verteilung der Geburtskohorten zeigt, dass im ostdeutschen Sample 1981 bis 1983 Geborene verhältnismäßig stärker repräsentiert sind als im westdeutschen Datensatz. Dies ist – wie in Kapitel 6 bereits erläutert – darauf zurückzuführen, dass in diesen Geburtskohorten der Anteil an Müttern in Ostdeutschland höher ist als in Westdeutschland. Das mittlere Alter bei Erstgeburt von Müttern dieser Geburtsjahrgänge liegt in Ostdeutschland etwas über Westdeutschland. Dies lässt sich damit erklären, dass ostdeutsche Frauen ab 25 Jahren eine stärkere Neigung zur Familiengründung aufweisen als westdeutsche Frauen. Frauen der Geburtskohorte 1971-73 haben in Ostdeutschland ein niedrigeres Erstgeburtsalter als in Westdeutschland. Dieser Befund deckt sich mit Ergebnissen aus Registerdaten (Kreyenfeld et al. 2010).

Im Vergleich der Schulbildung fällt auf, dass die Kategorie der niedrig Gebildeten in Ostdeutschland kaum besetzt ist. Dies ist auf das abweichende Schulsystem in der Vorwendezeit zurückzuführen. Im Sample zeigt sich, dass in Westdeutschland konfessionslose Frauen zu einem höheren Anteil eine hohe Schulbildung haben als konfessionell gebundene Frauen. Ein gegenläufiges Bild zeigt sich für Ostdeutschland.

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[54] Durch den Ausschluss anderer Glaubensrichtungen, der Beschränkung auf die nichtmobile deutsche Bevölkerung sowie auf Mütter sind Kirchenmitglieder im analytischen Datensatz häufiger vertreten. Im Ausgangsdatensatz (alle interviewten Personen der ersten Welle pairfam/DemoDiff) entsprechen die anteiligen Mitgliederzahlen der öffentlichen Statistik.

Aufgrund von Panelmortalität und fehlender Informationen aus der DemoDiff-Stichprobe ist die Information zur Instabilität im Zusammenleben mit den Eltern bis zum 18. Lebensjahr nur für einen Teil der Stichprobe verfügbar. Berücksichtigt man nur die bekannte Information (Werte in Klammern), so lebten in West- wie in Ostdeutschland unabhängig vom konfessionellen Hintergrund mehr als 70% der Befragten bis zum 18. Lebensjahr bei beiden Elternteilen.

Tabelle 1: Komposition der Stichprobe, Spaltenprozente

	Westdeutsch			**Ostdeutsch**		
	Katholisch	Evangelisch	Konfessionslos	Katholisch	Evangelisch	Konfessionslos
Geburtskohorte						
1971-73	79%	75%	74%	51%	67%	64%
1981-83	21%	25%	26%	49%	33%	36%
Alter bei Erstgeburt (Mittelwert, Lebensjahre)						
1971-73	27,8	27,6	27,9	27,4	26,2	25,4
1981-83	22,5	22,3	22,7	23,1	24,1	23,0
Schulbildung (höchster Abschluss)						
Niedrig	23%	22%	15%	–	<1%	8%
Mittel	38%	43%	39%	46%	51%	66%
Hoch	39%	35%	46%	54%	48%	26%
Keine Angabe	<1%	<1%	–	–	–	<1%
Familienstand bei Geburt und Art der Heirat						
Verheiratet *(Kirchl. und standesamtl. Heirat)*	51%	44%	16%	45%	31%	1%
Verheiratet *(Standesamtl. Heirat)*	19%	22%	40%	6%	16%	28%
Unverheiratet	30%	34%	45%	49%	52%	70%
Partnerschaftsordnung (Mittelwert)	2,0	1,9	2,3	1,3	1,6	1,7
Beziehungsdauer bis Geburt (Mittelwert, Jahre)	6,0	5,3	4,3	5,7	5,6	4,9
Maximale Kinderzahl im betrachteten Zeitraum (Mittelwert)	1,73	1,78	1,61	1,84	1,57	1,44
Instabilität im Zusammenleben mit Eltern bis 18. Lebensjahr						
Nein	60%	57%	61%	43%	22%	27%
	(80%)	(74%)	(77%)	(91%)	(71%)	(70%)
Ja	15%	19%	18%	4%	9%	11%
	(20%)	(26%)	(23%)	(9%)	(29%)	(30%)
Keine Angabe/ Panel-mortalität	25%	24%	21%	11%	10%	14%
DemoDiff	–	–	–	42%	59%	48%
N	476	465	134	20	131	537
Trennungen	74	91	26	3	12	136

Daten: pairfam (2008/09), DemoDiff (2009/10), eigene Berechnungen

Haben Konfessionslose einen anderen beziehungsbiografischen Hintergrund als katholische oder evangelische Frauen? Gleichen sich west- und ostdeutsche konfessionell gebundene Mütter in ihrer Beziehungsdauer oder der gewählten Lebensform zum Zeitpunkt der Geburt?

Die Verteilung des Familienstandes bei Erstgeburt zeigt, dass in beiden Regionen Konfessionslose häufiger ohne vorherige Eheschließung eine Familie gründen als konfessionell gebundene Frauen. Verheiratete und konfessionell gebundene Frauen haben in West- wie in Ostdeutschland mehrheitlich auch kirchlich geheiratet. Vorgeburtliche Ehen von konfessionslosen westdeutschen Frauen wurden zu 16% auch vor dem kirchlichen Traualtar geschlossen, während ostdeutsche Konfessionslose die Eheschließung fast ausschließlich standesamtlich vollziehen. Unabhängig von der Konfessionszugehörigkeit leben mehr westdeutsche als ostdeutsche Frauen zum Zeitpunkt der Geburt ihres ersten Kindes in einer ehelichen Lebensgemeinschaft.

In West- wie Ostdeutschland haben konfessionslose Frauen mehr Partnerschaften erlebt und eine kürzere Beziehungsdauer bis zur Geburt. Sie bekommen im Betrachtungsraum weniger Kinder als konfessionell gebundene Frauen. Konfessionslose haben somit einen anderen beziehungsbiografischen Hintergrund als konfessionell gebundene Frauen, der das Trennungsrisiko erhöhen sollte. Dieser konfessionelle Gradient ist jedoch geringer als die bestehenden Unterschiede zwischen West- und Ostdeutschen. Die geringere Neigung zur ehelichen Familiengründung und zu Folgegeburten sollte zu einem höheren Trennungsrisiko von Ostdeutschen führen.

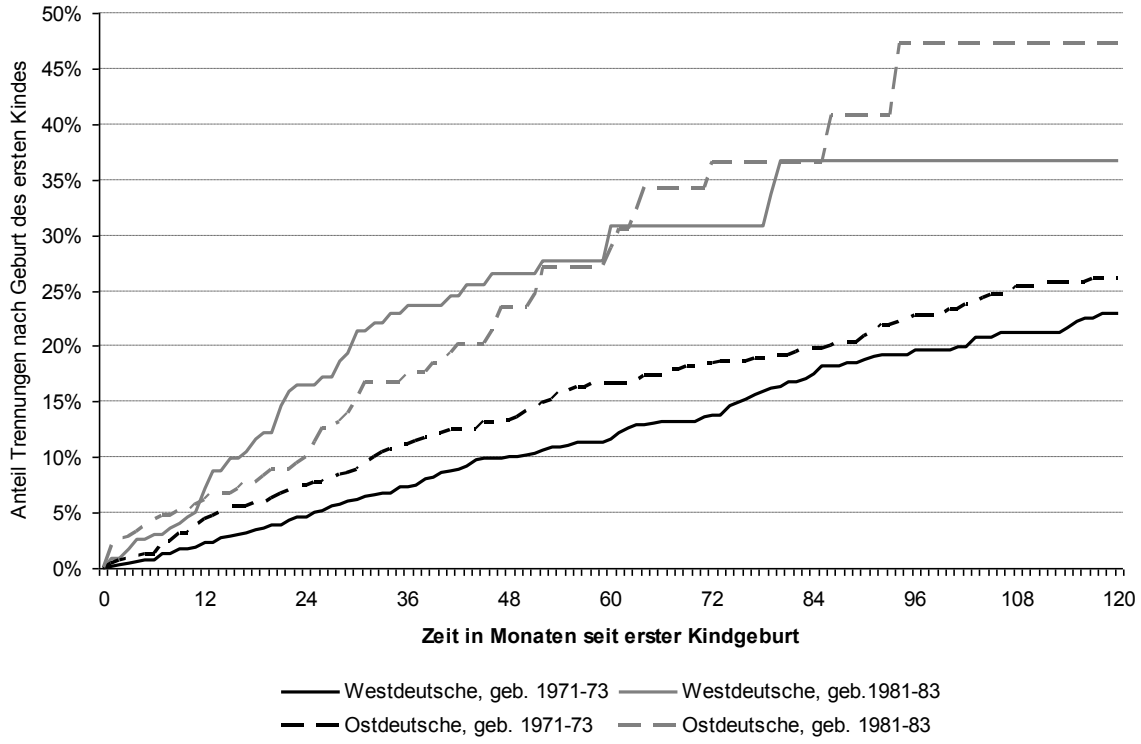

Abbildung 1: Anteil der Frauen, die eine Partnerschaftsauflösung innerhalb von zehn Jahren nach der ersten Kindgeburt erfahren, nach Region und Geburtskohorte; Kaplan-Meier-Failure-Schätzer
Daten: pairfam (2008/09), DemoDiff (2009/10), eigene Berechnungen

Abbildung 1 gibt mittels des Kaplan-Meier-Failure-Schätzers einen ersten Einblick in die Entwicklung der Trennungsrisiken von west- und ostdeutschen Frauen im Betrachtungszeitraum. Die Graphen verweisen auf eine durchgehend höhere Instabilität von Beziehungen der zwischen 1981 bis 1983 geborenen Frauen im Vergleich zu denen. die zwischen 1971 und 1973 geboren wurden. Unter den Frauen der älteren Kohorte trennen sich Ostdeutsche häufiger als Westdeutsche. Dies geht insbesondere auf Unterschiede im Trennungsverhalten in den ersten Familienjahren zurück, wie insbesondere der Wilcoxon Test[55] zeigt. So waren nach einem Jahr bereits 5% der ostdeutschen Frauen vom Vater ihres Kindes getrennt, westdeutsche Frauen erreichten diesen Anteil erst mit dem zweiten Geburtstag ihres Kindes. Die Steigung der Verlaufskurve schwächt sich in späteren Jahren etwas ab. Am Ende des Betrachtungszeitraums haben sich in der 1971-1973 Geburtskohorte 23% der westdeutschen Frauen und 26% der ostdeutschen Frauen getrennt.

Unter den Frauen der jüngeren Geburtskohorte erfuhren Westdeutsche zwischen dem ersten und dem vierten Geburtstag ihres ersten Kindes häufiger eine Trennung als Ostdeutsche. Nach diesem Zeitraum ändert sich diese Relation, die weitere Aussagekraft des Kurvenverlaufs ist jedoch aufgrund der geringen verbleibenden Fallzahlen stark eingeschränkt.

In der deskriptiven Darstellung des Verlaufs des Trennungsrisikos ist keine kohorten-übergreifende höhere Instabilität von Beziehungen ostdeutscher Frauen festzustellen. Es erscheint daher wesentlich, das Verhältnis des Trennungsrisikos von west- und ostdeutschen Frauen im multivariaten Modell zu schätzen.

7.2 Multivariate Ergebnisse

7.2.1 Stufenweises Modell

Modell 1 bis 5 (Tabelle2) zeigt die Ergebnisse der multivariaten Analyse. Aufbauend auf dem Grundmodell (Modell 1) werden stufenweise Informationen über die Konfessionszugehörigkeit, den Familienstand bei Geburt und den partnerschaftlichen sowie familiären Hintergrund hinzugefügt. In Modell 1 unterscheidet sich das Trennungsrisiko ost- und westdeutscher Mütter nicht. Die Ergebnisse der Kontrollvariablen bestätigen das Bild der Kaplan-Meier-Schätzung: Das Alter des ersten Kindes hat einen tendenziell stabilisierenden Einfluss auf die Beziehung junger Mütter. 1981-1983 geborene Frauen haben – auch bei Kontrolle des Erstgeburtsalters –

[55] Als statistische Testverfahren wurden der Wilcoxon-Test sowie der Log-Rank-Test verwendet. Der Wilcoxon-Test legt besonderes Gewicht auf Unterschiede in den Überlebenskurven zu Beginn der Beobachtungszeit. Im Log-Rank-Testverfahren liegt hingegen der Fokus auf zunehmenden Unterschieden am Ende der Beobachtungszeit (Blossfeld/Golsch/Rohwer 2007: 81).

ein deutlich höheres Trennungsrisiko als Frauen der Jahrgänge 1971-1973. Das Erstgeburtsalter selbst hat einen signifikant positiven Effekt auf die Beziehungsstabilität. Die Schulbildung der Mütter hat keinen signifikanten Einfluss auf das Trennungsrisiko.

Modell 2 berücksichtigt den konfessionellen Hintergrund der Mütter. Katholische und evangelische Mütter unterscheiden sich in ihrem Trennungsrisiko nicht. Konfessionslose haben ein deutlich höheres Risiko der Partnerschaftsauflösung. Diese Ergebnisse verdeutlichen die Relevanz des konfessionellen Hintergrundes. Die Berücksichtigung der Konfession verändert den ostdeutschen Koeffizienten: Ostdeutsche haben nun ein niedrigeres Trennungsrisiko als Westdeutsche, die Unterschiede sind jedoch lediglich auf einem Signifikanzniveau von $p<0,15$ signifikant. Die Konfessionszugehörigkeit der Mütter beeinflusst somit regionale Unterschiede im Trennungsverhalten.

Tabelle 2: Modelle 1-5, Ergebnisse der multivariaten stufenweisen Schätzung eines *piecewise-constant*-Modells

	Modell 1	***Modell 2***	***Model 3***	***Modell 4***	***Modell 5***
Alter des ersten Kindes					
0-1 Jahr	1	1	1	1	1
2-5 Jahre	0,91	0,91	0,92	1,23^{+}	1,23^{+}
>5 Jahre	0,76*	0,76*	0,79^{+}	1,22	1,23
Region					
Westdeutsch	1	1	1	1	1
Ostdeutsch	1,06	0,80^{+}	0,64***	0,64***	0,65**
Geburtskohorte					
1971-73	1	1	1	1	1
1981-83	1,50***	1,50***	1,28*	1,19	1,20
Alter bei Erstgeburt	0,65***	0,67***	0,77*	0,83	0,85
Alter bei Erstgeburt²	1,01**	1,01**	1,00	1,00	1,00
Schulbildung					
Niedrig	1,14	1,14	1,04	1,09	1,07
Mittel	1	1	1	1	1
Hoch	0,90	0,91	0,88	0,89	0,91
Fehlende Angabe	3,09**	3,11**	2,76**	3,34***	3,38**
Konfessionszugehörigkeit					
Katholisch		1	1	1	1
Evangelisch		1,10	1,05	0,87	0,84
Konfessionslos		1,59***	1,37*	1,21	1,18
Familienstand bei Geburt und Art der Heirat					
Verheiratet (kirchl. und standesamtl. Heirat)			0,54***	0,63**	0,64**
Verheiratet (standesamtl. Heirat)			1	1	1
Unverheiratet			1,65***	1,57***	1,57***

Partnerschaftsordnung		0,98	0,97
Beziehungsdauer bis Geburt		0,92***	0,92***
Weitere biologische Kinder			
0		1	1
1		0,42***	0,43***
> 2		0,35***	0,36***
Instabilität im Zusammenleben mit Eltern bis 18. Lebensjahr			
Nein			1
Ja			1,48***
Keine Angabe/ Panelmortalität			1,03
DemoDiff			1,11

Daten: pairfam (2008/09), DemoDiff (2009/10), eigene Berechnungen

*** p < 0,01; ** p < 0,05; * p < 0,10; + p < 0,15.

In Modell 3 wird zusätzlich für den Familienstand zum Zeitpunkt der Geburt des ersten Kindes kontrolliert. Im Vergleich zu Müttern, die ausschließlich standesamtlich getraut wurden, ist das Trennungsrisiko von unverheirateten Müttern deutlich erhöht. Eine vorgeburtliche kirchliche Heirat reduziert das Trennungsrisiko hingegen um die Hälfte. Die geringere Beziehungsstabilität von unverheirateten Frauen vermittelt teilweise den Effekt der Konfessionslosigkeit. Dieses Ergebnis bestätigt bereits die *zweite Hypothese*: Konfessionslose Frauen haben ein höheres Trennungsrisiko, u.a. weil sie seltener bei Geburt ihres ersten Kindes verheiratet sind. Durch die Kontrolle des Familienstandes werden Ost-West-Unterschiede im Trennungsniveau weiter verstärkt: Berücksichtigt man sowohl die höhere Konfessionslosigkeit als auch die weitere Verbreitung nichtehelicher Familiengründungen in Ostdeutschland, haben Ostdeutsche ein deutlich niedrigeres Trennungsrisiko als Westdeutsche.

Dieser regionale Unterschied im Trennungsrisiko wird durch die Berücksichtigung des individuellen und partnerschaftsspezifischen Hintergrundes in Modell 4 nicht verändert. Während auch der eigenständige Effekt des Familienstandes erhalten bleibt, geht die Signifikanz der Trennungsunterschiede zwischen Konfessionsangehörigen und Konfessionslosen verloren. Auch die Kohortenunterschiede sowie das Alter bei Erstgeburt verlieren ihre Signifikanz. Das höhere Trennungsrisiko von Konfessionslosen wird vermittelt durch die kürzere Beziehungsdauer und die geringere Kinderzahl von konfessionslosen Frauen, welche jeweils mit einer geringeren Beziehungsstabilität einhergehen. Ein ähnlicher Mediationseffekt ist für die Beziehungsstabilität der jüngeren Geburtskohorte anzunehmen. Die Ordnung der Partnerschaft hat keinen signifikanten Einfluss auf die Stabilität. Werden nachfolgende Geburten berücksichtigt, ändert sich der Verlauf des Trennungsrisikos: Mit dem Alter des ersten Kindes steigt nun tendenziell das Risiko einer Partnerschaftsauflösung.

In Modell 5 wird zusätzlich für Phasen der Instabilität im Zusammenleben mit den eigenen Eltern bis zum 18. Geburtstag kontrolliert. Da diese Information nur für einen Teil der Population vorliegt, wurde sie separat in das Modell aufgenommen. Die Ergebnisse zeigen, dass die Erfahrung von instabilen Verhältnissen in der Kindheit das Trennungsrisiko erhöht. Diese Information hat einen eigenständigen Erklärungsgehalt und beeinflusst die Koeffizienten der restlichen Variablen nicht.

In der *dritten Hypothese* wurde angenommen, dass die Beziehungsstabilität von ostdeutschen Müttern aufgrund ihrer geringeren konfessionellen Bindung niedriger ist. Die empirischen Ergebnisse geben jedoch ein anderes Bild des Beziehungsverhaltens von Ost- und Westdeutschen. Beziehungen von ostdeutschen Müttern sind – unter Berücksichtigung der Geburtskohorte, des Erstgebärendenalters und des Bildungsgrades – nicht instabiler als von Westdeutschen, *trotz* der stärkeren Säkularisierung der ostdeutschen Region. Konfessionslose Mütter haben aufgrund ihrer kürzeren Beziehungsdauer und ihrer geringeren Neigung zu Folgegeburten ein höheres Trennungsrisiko. Dieses wirkt sich jedoch nicht vermittelnd auf regionale Unterschiede aus. Vielmehr zeigen die Ergebnisse, dass unter Berücksichtigung der konfessionellen Struktur und der Heiratsneigung Beziehungen ostdeutscher Mütter deutlich stabiler sind als die westdeutscher Mütter.

7.2.2 Interaktionsmodelle

Im Folgenden soll mit einer Interaktion von Konfessionszugehörigkeit und Familienstand getestet werden, ob gemäß der *ersten Hypothese* Ehen von konfessionslosen Müttern ein höheres Trennungsrisiko aufweisen als Ehen von konfessionell gebundenen Müttern. Der Familienstand zum Zeitpunkt der Kindgeburt wird nicht nach Art der Trauung unterschieden, um die Zahl der Interaktionskategorien einzugrenzen. Abbildung 2 zeigt neben den Koeffizienten der Interaktionen auch die 95%-Konfidenzintervalle. Die Referenzgruppe bilden katholische Frauen, die zum Geburtszeitpunkt verheiratet sind. Die Ergebnisse machen deutlich, dass Ehen von konfessionslosen Frauen instabiler sind als Ehen katholischer Frauen. Im Vergleich zu unverheirateten Frauen zeigt sich, dass die Ehe sowohl bei konfessionell gebundenen als auch bei konfessionslosen Frauen einen stabilisierenden Effekt auf die Partnerschaft hat. Dieser Effekt ist bei katholischen Frauen besonders stark.

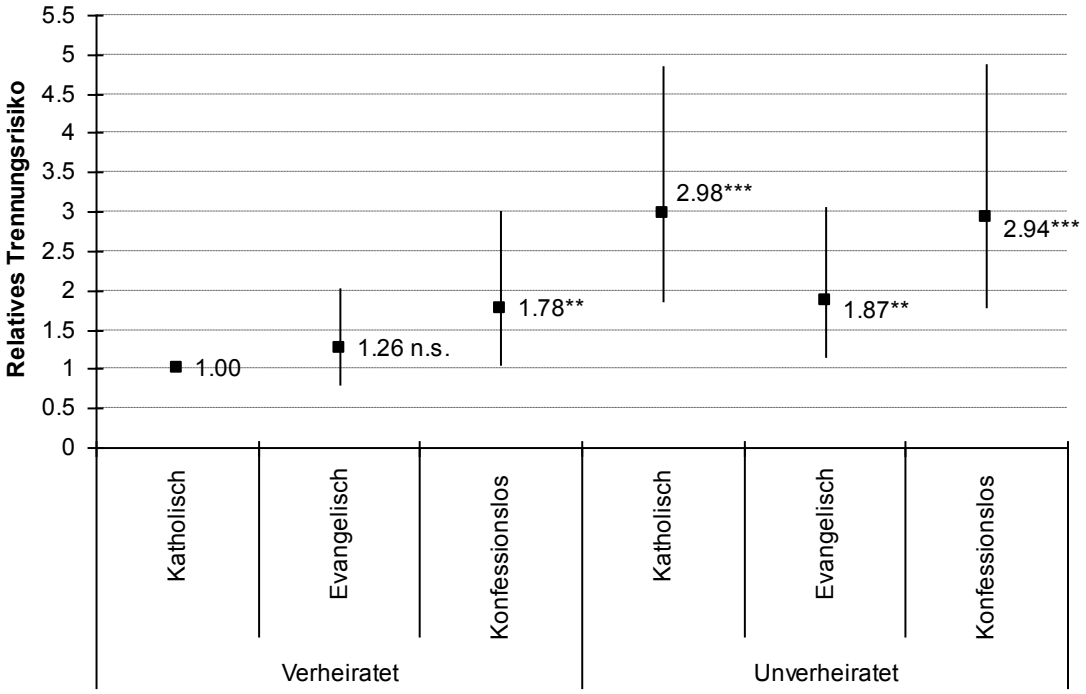

Abbildung 2: Interaktion von Konfessionszugehörigkeit und Familienstand bei Geburt, relative Risiken mit 95%-Konfidenzintervallen

Daten: pairfam (2008/09), DemoDiff (2009/10), eigene Berechnungen

Kontrolliert für Alter des ersten Kindes, Region, Geburtskohorte, Alter bei Erstgeburt, Alter bei Erstgeburt^2, Schulbildung, Instabilität im Zusammenleben mit Eltern, Partnerschaftsordnung, Beziehungsdauer bis Geburt und weitere biologische Kinder

*** $p < 0{,}01$; ** $p < 0{,}05$; * $p < 0{,}10$; $^+$ $p < 0{,}15$

In der *vierten Hypothese* wurde die Vermutung aufgestellt, dass aufgrund der stark vorangeschrittenen Säkularisierung Unterschiede zwischen Konfessionsangehörigen und Konfessionslosen in Ostdeutschland stärker sind als in Westdeutschland. Um differierende Einflüsse der Konfession feststellen zu können, wird eine Interaktion von Region und Konfessionszugehörigkeit durchgeführt, wobei aufgrund der Fallzahlen lediglich zwischen Konfessionslosen und konfessionell Gebundenen unterschieden wird. In Abb. 3 zeigen die Ergebnisse sehr deutlich, dass im Vergleich zu konfessionslosen Ostdeutschen konfessionell gebundene Ostdeutsche ein deutlich niedrigeres Trennungsrisiko besitzen. Das Trennungsrisiko von Westdeutschen unterscheidet sich nicht von konfessionslosen Ostdeutschen. Die Hypothese der regionalen Wirkungsunterschiede von Konfession kann somit bestätigt werden. Ein Vergleich des Trennungsrisikos konfessionell gebundener Frauen zeigt, dass die Mitgliedschaft in einer christlichen Kirche für ostdeutsche Frauen mit einer höheren Stabilität verbunden ist als für westdeutsche Frauen. Dies deutet darauf hin, dass die Zugehörigkeit zu einer Konfession in Ostdeutschland das Partnerschaftsverhalten stärker beeinflusst.

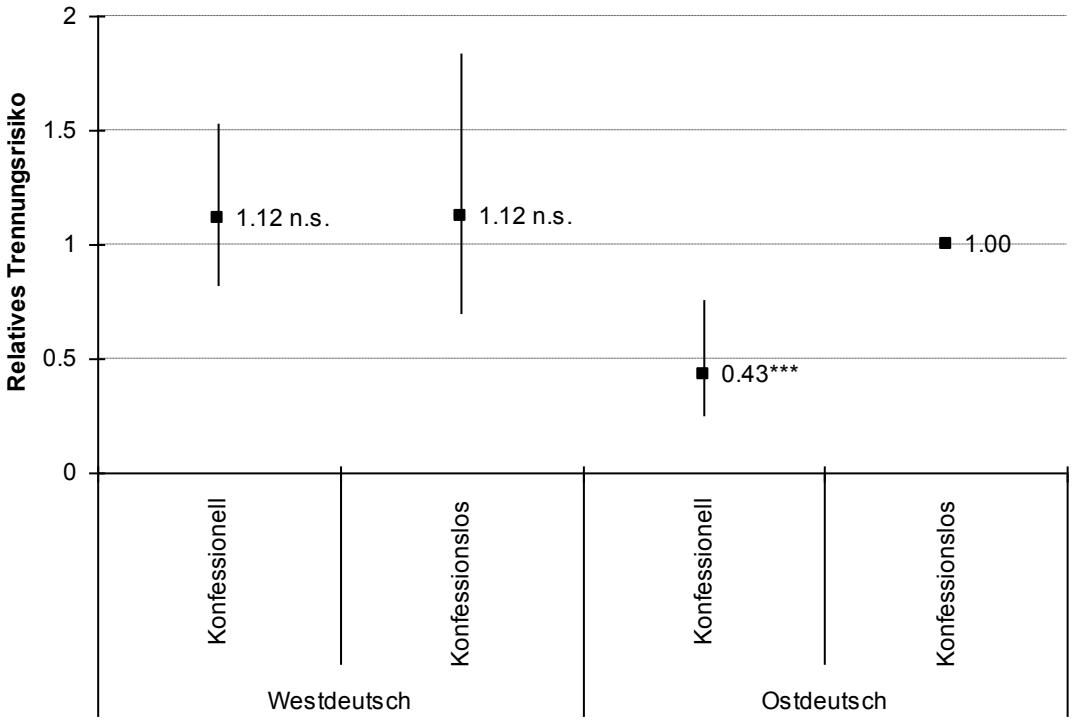

Abbildung 3: Interaktion von Konfessionszugehörigkeit und Region, relativeRisiken mit 95%-Konfidenzintervallen.

Daten: pairfam (2008/09), DemoDiff (2009/10), eigene Berechnungen.

Kontrolliert für Alter des ersten Kindes, Geburtskohorte, Alter bei Erstgeburt, Alter bei Erstgeburt², Schulbildung, Familienstand, Instabilität im Zusammenleben mit Eltern, Partnerschaftsordnung, Beziehungsdauer bis Geburt und weitere biologische Kinder

*** p < 0,01; ** p < 0,05; * p < 0,10; + p < 0,15

7.2.3 Exploration – Der Einfluss der Verbreitung von Religion

Die Interaktion von Konfessionszugehörigkeit und Region in Abbildung 3 weist darauf hin, dass von der Religionszugehörigkeit kein unabhängiger Effekt auf das Trennungsrisiko ausgeht. Im Folgenden soll getestet werden, ob sich das Ergebnis aus Abbildung 2 für beide Regionen replizieren lässt: Sind Ehen konfessionsloser Frauen in West- wie Ostdeutschland instabiler? Variiert die Bedeutung der ehelichen Familiengründung für die partnerschaftliche Stabilität nach Region?

Dies soll genauer untersucht werden, indem Region, Konfessionszugehörigkeit und Familienstand interagiert werden. Durch die Interaktion der drei Variablen entstehen mitunter Kategorien mit geringen Fallzahlen, dadurch erhält diese Analyse einen explorativen Charakter. Die Darstellung der Ergebnisse in 95%-Konfidenzintervallen berücksichtigt die unterschiedliche Kategoriengröße und erlaubt den Vergleich der Koeffizienten untereinander. In Abbildung 4

werden die Ergebnisse dieser Interaktion ohne bzw. mit Berücksichtigung der Kontrollvariablen dargestellt. Dies gibt Aufschluss über den Einfluss des individuellen und partnerschaftsspezifischen Hintergrundes auf das Trennungsrisiko von konfessionellen und konfessionslosen Frauen in West- und Ostdeutschland. Konfessionell gebundene westdeutsche Frauen, die zum Zeitpunkt der Geburt ihres ersten Kindes verheiratet sind, bilden in Abbildung 4 die Referenzkategorie.

Im Modell ohne Kontrollvariablen zeigt sich, dass das eheliche Trennungsverhalten von konfessionslosen Westdeutschen nicht vom Trennungsrisiko der Referenzgruppe abweicht. In Ostdeutschland haben konfessionslose Mütter allerdings ein signifikant höheres eheliches Trennungsrisiko. Konfessionell gebundene ostdeutsche Mütter, die bei der Geburt ihres Kindes verheiratet sind, trennen sich hingegen seltener als westdeutsche Mütter.

Für alle betrachteten Kategorien zeigt sich, dass Frauen, die zum Zeitpunkt der Geburt nicht verheiratet waren, ein höheres Trennungsrisiko als verheiratete Frauen haben. Mit Ausnahme von ostdeutschen Konfessionsangehörigen ist die Beziehung von unverheirateten Müttern im Vergleich zur Referenzkategorie signifikant instabiler. Beziehungen von bei Geburt unverheirateten ostdeutschen Konfessionsangehörigen sind hingegen ebenso stabil wie Ehen von westdeutschen Konfessionsangehörigen.

Die Berücksichtigung der Kontrollvariablen reduziert Trennungsunterschiede nach dem Familienstand bei Geburt. Das höhere Trennungsrisiko verheirateter ostdeutscher Konfessionsloser kann durch den individuellen und partnerschaftlichen Hintergrund erklärt werden. Die höhere Beziehungsstabilität von ostdeutschen Konfessionsangehörigen wird durch die zusätzliche Information nicht vermittelt.

Ein Vergleich der Ergebnisse mit ihren Konfidenzintervallen zeigt, dass der Familienstand bei Geburt einen stärkeren Einfluss auf westdeutsche Beziehungen hat: Die relativen Trennungsrisiken von westdeutschen Müttern zeigen keine Überschneidung der Intervalle von unverheirateten und verheirateten Frauen. Die Ergebnisse von bei Geburt unverheirateten Ostdeutschen liegen hingegen innerhalb der Konfidenzintervalle verheirateter Ostdeutscher.

Zusammenfassend ist daher festzustellen, dass sich in Westdeutschland die Trennungsrisiken von Frauen nicht signifikant nach ihrem konfessionellen Hintergrund unterscheiden. Vielmehr determiniert der Familienstand bei Geburt die Beziehungsstabilität westdeutscher Mütter. In Ostdeutschland hingegen ist der konfessionelle Hintergrund entscheidend. So haben konfessionell gebundene Frauen unabhängig vom Familienstand bei Kindgeburt eine höhere Beziehungsstabilität als konfessionslose Frauen.

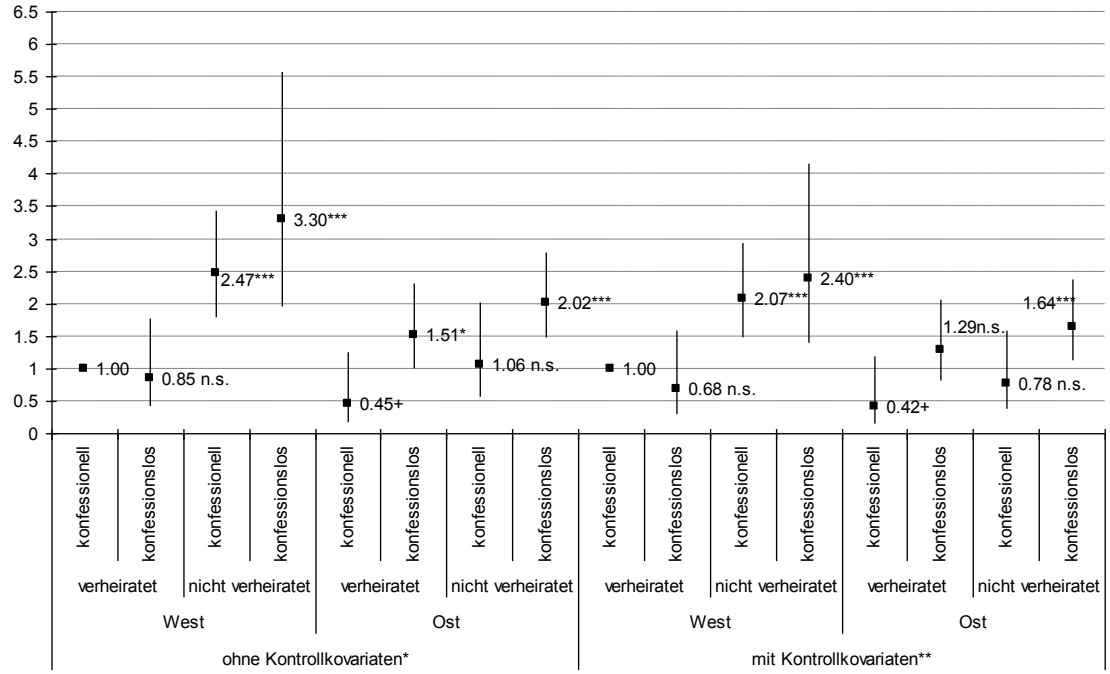

Abbildung 4*:* Interaktion von Konfessionszugehörigkeit, Familienstand und Region, relative Risiken mit 95%-Konfidenzintervallen.

Daten: pairfam (2008/09), DemoDiff (2009/10), eigene Berechnungen

* Lediglich kontrolliert für Alter des ersten Kindes, Geburtskohorte, Alter bei Erstgeburt, Alter bei Erstgeburt2, Schulbildung

** Kontrolliert für Alter des ersten Kindes, Geburtskohorte, Alter bei Erstgeburt, Alter bei Erstgeburt2, Schulbildung, Instabilität im Zusammenleben mit Eltern, Partnerschaftsordnung, Beziehungsdauer bis Geburt und weitere biologische Kinder

*** $p < 0{,}01$; ** $p < 0{,}05$; * $p < 0{,}10$; + $p < 0{,}15$

8 Fazit

Welche Bedeutung hat der unterschiedliche Säkularisierungsgrad von Ost- und Westdeutschland für das Trennungsverhalten von Frauen mit Kindern? Im Rahmen der Säkularisierungstheorie wurde davon ausgegangen, dass der soziale Bedeutungsverlust von Religion den Grad der Rationalität in der Partnerschaftsauflösung erhöht, während normkonformes Handeln abnimmt. Dies sollte das Trennungsrisiko von Müttern positiv beeinflussen. Tatsächlich haben konfessionslose Frauen, die bei Geburt ihres ersten Kindes verheiratet sind ein höheres Trennungsrisiko als katholische oder evangelische Frauen. Bei katholischen Müttern ist der Familienstand bei Geburt besonders entscheidend. Dies macht den Einfluss religiöser Normen wie der positiven Sanktionierung von Ehe und der negativen Bewertung der nichtehelichen Familiengründung im katholischen Glauben deutlich.

Die auf Basis der pairfam- und DemoDiff-Daten durchgeführten Analysen haben jedoch gezeigt, dass die weite Verbreitung der Konfessionslosigkeit in Ostdeutschland nicht zu einer höheren Beziehungsinstabilität von Anfang der 1970er bzw. 1980er geborenen Mütter führt. Konfessionslose Frauen haben ein höheres Trennungsrisiko als konfessionell gebundene Frauen, weil sie häufig bei der Geburt ihres ersten Kindes unverheiratet sind und selten kirchlich heiraten, schneller eine Familie gründen und weniger Kinder bekommen. Dies führt jedoch nicht zu einem *insgesamt* höheren Trennungsrisiko von Ostdeutschen, da ostdeutsche katholische und protestantische Frauen ein signifikant niedrigeres Trennungsrisiko als die übrigen Mütter haben. Bei einer ähnlichen konfessionellen Struktur und Heiratsneigung hätten Ostdeutsche daher sogar ein niedrigeres Trennungsrisiko als Westdeutsche.

Die hohe Beziehungsstabilität ostdeutscher Konfessionsangehöriger liegt vermutlich in der starken Identifizierung mit der Kirchengemeinschaft begründet, die in Abgrenzung zur säkularisierten Umwelt erfolgt. Der hohe Säkularisierungsgrad in Ostdeutschland führt somit nicht zu einer Verweltlichung der Kirchenmitglieder sondern zu einer Segregation der Bevölkerung, die sich im unterschiedlichen Trennungsverhalten von Müttern zeigt. Der Einfluss der ostdeutschen Umgebung zeigt sich jedoch in ihrer stärkeren Neigung zur nichtehelichen Familiengründung im Vergleich zu westdeutschen Konfessionsangehörigen. Möglicherweise hat die eheliche Geburt für die vorwiegend protestantischen Ostdeutschen eine geringere Bedeutung.

In Westdeutschland unterscheidet sich die Beziehungsstabilität von Müttern nicht nach dem konfessionellen Hintergrund. Im regionalen Vergleich haben unter Berücksichtigung von individuellen und partnerschaftsspezifischen Merkmalen konfessionslose ostdeutsche Frauen das gleiche Trennungsverhalten wie Frauen in westdeutschen Beziehungen mit Kindern. Mit Ausnahme der selektiven Gruppe der konfessionellen Ostdeutschen scheint die Konfessionszugehörigkeit keinen Einfluss auf das Trennungsverhalten von Eltern zu haben. Dies

bedeutet jedoch nicht unbedingt, dass religiöse Normen das Trennungsverhalten in Deutschland nicht beeinflussen.

Möglicherweise zeigt sich im übereinstimmenden Trennungsverhalten der Einfluss des gemeinsamen gesellschaftlichen Kontextes: Die Nähe zwischen Religion und Politik in Deutschland, die sich beispielsweise im Schutz der Ehe zeigt, lässt darauf schließen, dass religiöse Normen von gesellschaftlichen Institutionen übernommen wurden und als soziale Normen fortbestehen. Religiöse Normen würden in diesem Fall losgelöst vom kirchlichen Kontext auf die gesamte Bevölkerung einwirken – einschließlich jener, die keinen direkten Kontakt zur Religion besitzen.

Die Prägung der Politik durch christliche Vorstellungen hat im alten Bundesgebiet eine längere Tradition als in den neuen Bundesländern. Dies zeigt sich in der höheren Neigung zur ehelichen Familiengründung und in dem stärker determinierenden Einfluss des Familienstandes bei Geburt des Kindes auf die Beziehungsstabilität von Westdeutschen.

Die ähnliche Beziehungsstabilität von konfessionsangehörigen und konfessionslosen Westdeutschen lässt vermuten, dass die Konfessionszugehörigkeit als Indikator religiöser Normen für Westdeutschland zu ungenau ist. Ein Teil der Konfessionsangehörigen könnte sich bereits innerlich von der Kirchengemeinschaft gelöst haben und so Unterschiede zwischen Konfessionslosen und -angehörigen verwischen. Die individuelle Religiosität – gemessen etwa an der Kirchgangshäufigkeit – würde religiös motivierte Trennungsunterschiede in Westdeutschland in diesem Fall angemessener abbilden. Aufgrund der Retrospektivität der verwendeten Partnerschaftsdaten und der Volatilität der Religiosität im Lebenslauf wurde die Kirchgangshäufigkeit von Müttern jedoch nicht verwendet, da diese Information nur zum Interviewzeitpunkt vorliegt. Ihre Verwendung würde zu einem Bias in den Ergebnissen führen.

Das Familien- und Beziehungspanel pairfam verfügt mit seiner Ergänzungsstichprobe *DemoDiff* über sehr detaillierte Partnerschaftsinformationen, die beispielsweise Auskunft über die Anzahl der Partnerschaften der befragten Person geben. Merkmale früherer Partner liegen jedoch nicht vor, so dass eine dyadische Analyse des Einflusses der Konfessionszugehörigkeit auf das Trennungsrisiko nicht möglich ist.

Trotz dieser Einschränkungen trägt die vorliegende Untersuchung zum besseren Verständnis des Zusammenhangs von Religion und familiärem Verhalten bei. Der Einbezug von Partnerschaften mit nichtehelicher Familiengründung in die Analyse ermöglicht einen direkten Vergleich des Einflusses von Familienstand und Konfessionszugehörigkeit. Die Unterschiede im Trennungsverhalten von west- und ostdeutschen konfessionsangehörigen Frauen zeigen, dass die Annahme eines unabhängigen Einflusses der Religionszugehörigkeit zu verzerrten Ergebnissen

führt. Die Bedeutung des konfessionellen Hintergrundes für die Beziehungsstabilität von Eltern scheint von der Verbreitung der Konfessionslosigkeit abzuhängen – dies belegen die vorliegenden Ergebnisse für West- und Ostdeutschland.

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Diese Arbeit nutzt Daten des Beziehungs- und Familienpanels pairfam, welches von Josef Brüderl, Johannes Huinink, Bernhard Nauck und Sabine Walper geleitet wird. Die Studie wird als Langfristvorhaben durch die Deutsche Forschungsgemeinschaft (DFG) gefördert.

10 Literatur

Abramson, Paul R./Inglehart, Ronald (1995): Value change in global perspective. Ann Arbor: University of Michigan Press.

Amato, Paul R. (2001): Children of divorce in the 1990s: An update of the Amato and Keith (1991) meta-analysis. In: *Journal of Family Psychology, 15*, S. 355-370.

Andersson, Gunnar (2002): Children's experience of family disruption and family formation: Evidence from 16 FFS countries. In: *Demographic Research, 7*, S. 343-364.

Arránz Becker, Oliver (2008): *Was hält Partnerschaften zusammen? Psychologische und soziologische Erklärungsansätze zum Erfolg von Paarbeziehungen*. Wiesbaden: VS Verlag für Sozialwissenschaften.

Arránz Becker, Oliver/Lois, Daniel (2010): Unterschiede im Heiratsverhalten westdeutscher, ostdeutscher und mobiler Frauen. In: *Soziale Welt, 61*, S. 5-26.

Arránz Becker, Oliver/Lois, Daniel/Nauck, Bernard (2010): Differences in fertility patterns between East and West German women. Disentangling the roles of cultural background and of the transformation process. In: *Comparative Population Studies, 35*, S.7-34.

Bastin, Sonja/Kreyenfeld, Michaela/Schnor, Christine (2012): Diversität von Familienformen in Ost- und Westdeutschland. In: Krüger, Dorothea/Herma, Holger/Schierbaum, Anja (Hrsg.): *Familie(n) heute: Entwicklungen, Kontroversen, Prognosen*. Weinheim: Juventa.

Becker, Gary S./Landes, Elisabeth M./Michael, Robert T. (1977): An economic analysis of marital stability. In: *The Journal of Political Economy, 85*, S. 1141-1187.

Blossfeld, Hans-Peter/Golsch, Karin/Rohwer, Götz (2007): *Event history analysis with Stata*. Mawah, NJ: Lawrence Erlbaum Associates.

Böttcher, Karin (2006): Scheidung in Ost- und Westdeutschland. Der Einfluss der Frauenerwerbstätigkeit auf die Ehestabilität. In: *Kölner Zeitschrift für Soziologie und Sozialpsychologie, 58*, S. 592-616.

Bruce, Steve (2002): *God is dead. Secularization in the West*. Oxford: Blackwell Publishing.

Brüderl, Josef/Diekmann, Andreas/Engelhardt, Henriette (1997): Erhöht eine Probeehe das Scheidungsrisiko? In: *Kölner Zeitschrift für Soziologie und Sozialpsychologie, 49*, S. 205-222.

Chan, Tak W./Halpin, Brendan (2008): *The instability of divorce risk factors in the UK*. Oxford: University of Oxford, Department of Sociology (Working Paper No. 2008-08).

Clarke, Lynda/Jensen, An-Magritt (2004): Children's risk of parental break-up: Norway and England/Wales compared. In: *Acta Sociologica, 45*, S. 51-69.

Diekmann, Andreas/Engelhardt, Henriette (2008): Alter der Kinder bei Scheidung der Eltern und soziale Vererbung des Scheidungsrisikos. In: Bien, Walter/Marbach, Jan H. (Hrsg.): *Familiale Beziehungen, Familienalltag und soziale Netzwerke*. Wiesbaden: VS Verlag für Sozialwissenschaften, S. 223-240.

Engelhardt, Henriette/Trappe, Heike/Dronkers, Jaap (2002): Differences in family policy and the intergenerational transmission of divorce: A comparison between the former East and West Germany. In: *Demographic Research, 6*, S. 295-324.

Evangelische Kirche in Deutschland (2011): *Traugottesdienst*. http://www.ekd.de/trauspruch/gottesdienst/ gottesdienst_katholisch.html [Stand: 2011-10-26].

Froese, Paul/Pfaff, Steven (2005): Explaining a religious anomaly: A historical analysis of secularization in eastern Germany. In: *Journal for the Scientific Study of Religion, 44*, S. 397-422.

Hill, Paul B./Kopp, Johannes (2006): *Familiensoziologie. Grundlagen und theoretische Perspektiven*. Wiesbaden: VS Verlag für Sozialwissenschaften (4. Auflage),

Huinink, Johannes/Brüderl, Josef/Nauck, Bernard/Walper, Sabine/Castiglioni, Laura/Feldhaus, Michael (2011): Panel Analysis of Intimate Relationships and Family Dynamics (pairfam): Conceptual framework and design. In: *Zeitschrift für Familienforschung/Journal of Family Research, 23*, *1*, S. 77-101.

Impicciatore, Roberto/Billari, Francesco, C. (2012): Secularization, union formation practices, and marital stability: Evidence from Italy. In: *European Journal of Population, 28*, S. 119-138.

Inglehart, Ronald/Basañez, Miguel/Moreno, A. (1998): *Human values and beliefs: A cross-cultural sourcebook. Political, religious, sexual, and economic norms in 43 societies: Findings from the 1990-1993 World Values Survey*. Ann Arbor: University of Michigan Press.

Inglehart, Ronald (1998): *Modernisierung und Postmodernisierung: kultureller, wirtschaftlicher und politischer Wandel in 43 Gesellschaften.* Frankfurt am Main/New York: Campus Verlag (Übersetzung: I. Fischer).

Inglehart, Ronald/Baker, Wayne E. (2000): Modernization, cultural change, and the persistence of traditional values. In: *American Sociological Review*, *65*, S. 19-51.

Jensen, An-Magritt/Clausen, Sten-Erik (2003): Children and family dissolution in Norway: The impact of consensual unions. In: *Childhood, 10*, S. 65-81.

Kalil, Ariel/Mogstad, Magne/Rege, Mari/Votruba, Mark (2011): Divorced fathers' proximity and childrens' long-run outcomes: Evidence from Norwegian registry data. In: *Demography, 48*, S. 1005-1027.

Kennedy, Sheela/Thomson, Elizabeth (2010): Children's experiences of family disruption in Sweden: Differentials by parent education over three decades. In: *Demographic Research, 23*, S. 479-508.

Kim, Hyun S. (2011): Consequences of parental divorce for child development. In: *American Sociological Review, 76*, S. 487-511.

Kirchenamt der Evangelische Kirche Deutschland (EKD) (Hrsg.) (2011): *Evangelische Kirche in Deutschland. Zahlen und Fakten zum kirchlichen Leben.* http://www.ekd.de/download/broschuere_2011_ mit_Links.pdf [Stand 2011-11-15].

Krack-Roberg, Elle (2009): Ehescheidungen 2008. In: *Wirtschaft und Statistik 12*, S. 1191-1203.

Kreyenfeld, Michaela (2006): Family formation in East and West Germany before and after unification. In: Gustafsson, Siv/Kalwij, Adrian S. (Hrsg.): *Education and postponement of maternity. Economic analyses for industrialized countries*. Dordrecht: Kluwer.

Kreyenfeld, Michaela/Konietzka, Dirk/Walke, Rainer (2011a): Dynamik und Determinanten nichehelicher Mutterschaft in Ost- und Westdeutschland. In: Brüderl, Josef/Castiglioni, Laura (Hrsg.): *Ergebnisse der ersten Welle des Beziehungs- und Familienentwicklungspanels*. Würzburg: Ergon Verlag.

Kreyenfeld, Michaela/Walke, Rainer/Salzburger, Veronika/Schnor, Christine/Bastin, Sonja/Kuhnt, Anne-Kristin (2011b): DemoDiff – Wave 1: Supplement to the pairfam data manual. Rostock: *MPIDR Technical Reports*, TR-2011-004.

Kreyenfeld, Michaela/Scholz, Rembrand/Peters, Frederik/Wlosnewski, Ines (2010): Order-specific fertility rates for Germany. Estimates from perinatal statistics for the period 2001-2008. In: *Comparative Population Studies, 35*, S. 207-224.

Lesthaeghe, Ron (2010): The unfolding story of the second demographic transition. In: *Population and Development Review, 36*, S. 211-251.

Lesthaeghe, Ron (1998): On theory development: Applications to the study of family formation. In: *Population and Development Review, 24*, S. 1-14.

Lesthaeghe, Ron/Meekers, Dominique (1986): Value changes and the dimensions of familialism in the European community. In: *European Journal of Population, 2*, S. 225-268.

Lois, Daniel (2008): Einflüsse von Lebensstilmerkmalen auf den Übergang in die erste Ehe. In: *Zeitschrift für Familienforschung/Journal of Family Research, 20*, S. 11-33.

Lois, Daniel (2009): *Lebensstile und Entwicklungspfade nichtehelicher Lebensgemeinschaften. Eine empirische Analyse mit dem Sozioökonomischen Panel.* Wiesbaden: VS Verlag für Sozialwissenschaften.

Lüke, Monika (2005): Die Stellung nichtehelicher Lebensgemeinschaften aus dem Blickwinkel der Evangelischen Kirche in Deutschland. In: Scherpe, Jens M./Yassari, Nadjma (Hrsg.): *Die Rechtsstellung nichtehelicher Lebensgemeinschaften*. Tübingen: Mohr Siebeck, S. 45-76.

Lyngstad, Torkhild H./Jalovaara, Marika (2010): A review of the antecendents of union dissolution. In: *Demographic Research, 23*, S. 257-292.

Manlove, Jennifer/Wildsmith, Elizabeth/Ikramullah, Erum/Ryan, Suzanne/Holcombe, Emily/Scott, Mindy/ Peterson, Kristen (2012): Union transitions following the birth of a child to cohabiting parents. In: *Population Research and Development Review, 31*, S. 361-386.

Manning, Wendy D./Smock, Pamela J./Majumdar, Debarun (2004): The relative stability of cohabiting and marital unions for children. In: *Population Research and Policy Review, 23*, S. 135-159.

Martin, David (1978): *A general theory of secularization*. Oxford: Basil Blackwell.

Meulemann, Heiner (2003): Erzwungene Säkularisierung in der DDR – Wiederaufleben des Glaubens in Ostdeutschland? Religiöser Glaube in ost- und westdeutschen Alterskohorten zwischen 1991 und 1998. In: Gärtner, Christel/Pollack, Detlef/Wohlrab-Sahr, Monika (Hrsg.): *Atheismus und religiöse Indifferenz*. Opladen: Leske + Budrich, S. 247-270.

Meulemann, Heiner (2009): Religiosity in Europe and in the two Germanies: The persistence of a special case – as revealed by the European Social Survey. In: Pickel, Gert/Müller, Olaf (Hrsg.): *Church and religion in contemporary Europe. Results from empirical and comparative research*. Wiesbaden: VS Verlag für Sozialwissenschaften, S. 35-88.

Mortelmans, Dimitri/Snoeckx, Laurent/Dronkers, Jaap (2009): Cross-regional divorce risks in Belgium: Culture or legislative system? In: *Journal of Divorce and Remarriage, 50*, S. 541-563.

Norris, Pippa/Inglehart, Ronald (2004*): Sacred and secular: Religion and politics worldwide.* New York: Cambridge University Press.

Oppenheimer, Valerie Kincade (1988): A theory of marriage timing. In: *American Journal of Sociology, 94,* S. 563-591.

Pickel, Gert (2011): *Religionssoziologie. Eine Einführung in zentrale Themenbereiche*. Wiesbaden: VS Verlag für Sozialwissenschaften (1. Auflage).

Pickel, Gert (2003): Areligiosität, Antireligiosität, Religiosität: Ostdeutschland als Sonderfall niedriger Religiosität im osteuropäischen Rahmen? In: Gärtner, Christel/Pollack,

Detlef/Wohlrab-Sahr, Monika (Hrsg.): *Atheismus und religiöse Indifferenz*. Opladen: Leske + Budrich, S. 247-270.

Pötzsch, Olga (2012): Geburtenfolge und Geburtenabstand – neue Daten und Befunde. In: Statistisches Bundesamt (Hrsg.): *Wirtschaft und Statistik, Februar 2012*. Wiesbaden: Statistisches Bundesamt.

Pollack, Detlef (2002): The change in religion and church in Eastern Germany after 1989: A research note. In: *Sociology of Religion, 63*, S.373-387.

Pollack, Detlef/Pickel, Gert (1999): Individualisierung und religiöser Wandel in der Bundesrepublik Deutschland. In: *Zeitschrift für Soziologie, 28*, S. 465-483.

Pollack, Detlef/Pickel, Gert (2003): Deinstitutionalisierung des Religiösen und religiöse Individualisierung in Ost- und Westdeutschland. In: *Kölner Zeitschrift für Soziologie und Sozialpsychologie, 55*, S. 447-474.

Pollack, Detlef/Pickel, Gert (2007): Religious individualization or secularization? Testing hypotheses of religious change – The case of Eastern and Western Germany. In: *The British Journal of Sociology, 58*, S. 603-632.

Poortman, Anne-Rigt/Lyngstad, Torkild H. (2007): Dissolution risks in first and higher order marital and cohabiting unions. In: *Social Science Research, 36*, S. 1431-1446.

Schmitt, Christian/Trappe, Heike (2010): Die Bedeutung von Geschlechterarrangements für Partnerschaftsdauer und Ehestabilität in Ost- und Westdeutschland. In: Krause, Peter/Ostner, Ilona (Hrsg.): *Leben in Ost- und Westdeutschland: Eine sozialwissenschaftliche Bilanz der deutschen Einheit 1990-2010*. Frankfurt/New York: Campus Verlag, S. 227-243.

Schneider, Norbert F./Rüger, Heiko (2007): Value of Marriage: Der subjektive Sinn der Ehe und die Entscheidung zur Heirat. In: *Zeitschrift für Soziologie*, *36*, S. 131-152.

Schockenhoff, Eberhard (2005): Die Schwierigkeiten des Rechts mit der Liebe – ein theologisch-ethischer Beitrag zum Verhältnis von Ehe und nichtehelichen Lebensgemeinschaften: Eine Stellungnahme der katholischen Kirche in Deutschland. In: Scherpe Jens M./Yassari, Nadjma (Hrsg.): *Die Rechtsstellung nichtehelicher Lebensgemeinschaften*. Tübingen: Mohr Siebeck, S. 45-76.

Sekretariat der Deutschen Bischofskonferenz (Hrsg) (2011): *Taufen, Geburten und Gestorbene innerhalb der katholischen Kirche in Deutschland, 1960-2010*. http://www.dbk.de/fileadmin/redaktion/Zahlen%20und%20Fakten/Kirchliche%20Statistik/Taufen,%20Geburten%20und%20gestorbene%20 Katholiken/Tauf-Geburt-Gestorbene.pdf [Stand: 2011-11-11].

South, Scott J. (1995): Do you need to shop around? Age at marriage, spousal alternatives, and marital dissolution. In: *Journal of Family Issues, 16*, S. 432-449.

Statistisches Bundesamt (2010): *20 Jahre Deutsche Einheit. Wunsch oder Wirklichkeit*. Wiesbaden: Statistisches Bundesamt.

Statistisches Bundesamt (2011): *Bevölkerungsstand 2008 nach Bundesländern*. Wiesbaden: Statistisches Bundesamt.

Steele, Fiona/Joshi, Heather/Kallis, Constantinos/Goldstein, Harvey (2006): Changing compatibility of cohabitation and childbearing between young British women born in 1958 and 1970. In: *Population Studies, 60*, S. 137-152.

Storch, Kerstin (2003): Konfessionslosigkeit in Ostdeutschland. In: Gärtner, Christel; Pollack, Detlef; Wohlrab-Sahr, Monika (Hrsg): *Atheismus und religiöse Indifferenz*. Opladen: Leske + Budrich, S. 231-246.

Thornton, Arland/Axinn, William G./Hill, Daniel H. (1992): Reciprocal effects of religiosity, cohabitation and marriage. In: *American Journal of Sociology 98*, S. 628-651.

Thornton, Arland/Axinn, William G./Xie, Yu (2007): *Marriage and cohabitation*. Chicago/London: University of Chicago Press.

van de Kaa, Dirk J. (1987): Europe's second demographic transition. In: *Population Bulletin, 42*, S.1-59.

Wagner, Michael (1997): *Scheidung in Ost- und Westdeutschland. Zum Verhältnis von Ehestabilität und Sozialstruktur seit den 30er Jahren*. Frankfurt am Main/New York: Campus Verlag.

Wilson, Bryan (1982): *Religion in sociological perspective*. Oxford: University Press.

Wohlrab-Sahr, Monika/Karstein, Ute/Schmidt-Lux, Thomas (2009): *Forcierte Säkularität. Religiöser Wandel und Generationendynamik im Osten Deutschlands*. Frankfurt am Main/New York: Campus Verlag.

Wu Lawrence L., Musick Kelly (2008): Stability of marital and cohabiting unions following a first birth. In: *Population Research and Policy Review, 27*, S. 713-727.

B.4 Paper IV: The effect of union status at first childbirth on union stability: Evidence from eastern and western Germany

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Abstract:

It is often assumed that cohabitation is much less stable than marriage. If cohabitation becomes more common among parents, children may be increasingly exposed to separation. However, little is known about how the proportion of cohabiting parents relates to their separation behavior. Higher shares of childbearing within cohabitation might reduce the proportion of negatively selected couples among cohabiting parents, which could in turn improve their union stability. This study focuses on parents who were cohabiting when they had their first child. It compares their union stability within a context in which they represent the majority or the minority. The German case is well-suited to this research goal because non-marital childbearing is common in eastern Germany (60 percent) but not in western Germany (27 percent). The data came from the German family panel (pairfam), and include 1,844 married and cohabiting mothers born in 1971-1973 and 1981-1983. The empirical results suggest that the union stability of cohabiting mothers is positively related to their prevalence: survival curves showed that eastern German cohabiting mothers had a greater degree of union stability than their western German counterparts. This difference increased in the event-history model, which accounted for the particular composition of eastern German society, including the relatively low level of religious affiliation among the population. Controlling for unobserved heterogeneity did not change this result. In sum, these findings indicate that context plays an important role in the union stability of cohabiting parents.

1 Introduction

In recent decades, non-marital births have increased dramatically (Heuveline and Timberlake 2004; Kiernan 2002, 2004; Perelli Harris et al. 2012; Sobotka and Toulemon 2008). Most of these births take place within cohabiting unions (Perelli-Harris et al. 2012; Sobotka and Toulemon 2008). In response to this increase, family demographers are devoting more attention to cohabitation as a family context. With regard to relationship stability, many studies have found consistent evidence that cohabiting parents are at higher risk of union dissolution than married parents (Britain: Steele et al. 2006; Germany: Bastin et al. 2012; Norway: Jensen and Clausen 2003; Sweden: Kennedy and Thomson 2010; Canada: Le Bourdais et al. 2000a, b; Le Bourdais and Lapierre-Adamcyk 2004; United States: Manning et al. 2004; Manning 2004; Raley and Wildsmith 2004; Wu and Musick 2008; cross-national studies: Kiernan 2002; Andersson 2002, 2003; Andersson and Philipov 2002; Heuveline et al. 2003; Clarke and Jensen 2004; summarized in Lyngstad and Jalovaara 2010). This higher dissolution rate is commonly attributed to the lack of commitment within cohabiting unions and the negative selection into non-marital family formation. Despite the recent increase in the number of non-marital births, a significant degree of variation in the share of births within cohabitation across western countries remains. To date, however, relatively little is known about how the prevalence of cohabiting births relates to the separation behavior of cohabiting parents.

The issue of union stability is particularly relevant for assessing the implications of the rise in cohabitation for the well-being of children. Changes in the family structure, and especially parental separation, can have negative effects on a child's future development (Amato 2001; Kim 2011; Kalil et al. 2011), and on a child's well-being (Osborne and McLanahan 2007). Lone-parent families also tend to have lower incomes than two-parent families (Thomas & Sawhill 2005). To ensure that children have equal opportunities, policymakers have the responsibility to develop measures that can offset the negative effects of separation on children (Mooney et al. 2009). It is often assumed that cohabitation is much less stable than marriage, which would mean that if cohabitation were to become more common among parents, children would be increasingly exposed to the risk of eventually living in single-parent families and step-family arrangements (Osborne and McLanahan 2007; Jensen and Clausen 2003). This may be expected to result in an increase in expenditures on social policies designed to reduce the levels of poverty and the risk of poor well-being among children in separated families. An expansion of cohabitation may also raise the issue of whether governments should support policies that promote marriage. Yet some scholars have taken a very different view of the meaning of this trend, arguing that the rise in childbearing within cohabitation may indicate that cohabitation functions as a stable environment for childrearing that is comparable to marriage (Heuveline and Timberlake 2004; Kiernan 2002; Raley 2001). According to this line of thinking, a further rise in the proportion of cohabiting

parents would not be linked to increased demands for governmental support, and policies that promote marriage would be ineffective in reducing child poverty. Thus, the prevalence of non-marital parenthood and the separation behavior of unwed mothers are matters of substantial policy interest.

In a number of recent studies, scholars have suggested that the risk of union dissolution depends on the prevalent union behavior within a specific setting (Le Bourdais et al. 2000a, b; Le Bourdais and Lapierre-Adamcyk 2004; Liefbroer and Dourleijn 2006; Steele et al. 2006; Reinhold 2010). The authors of some of these studies referred to the effect of premarital cohabitation on divorce risks (Liefbroer and Dourleijn 2006; Reinhold 2010). They argued that former cohabitants have a higher risk of divorce in societies in which the majority of couples marry directly, because these couples deviated from the standard path. This idea can be transferred to the context of cohabiting families: if the majority of parents in a given society are married, cohabiting parents should face a higher level of union instability than if cohabitants make up the majority (Heuveline and Timberlake 2004). So far, only a handful of comparative studies have focused on the impact of the share of non-marital childbearing on separation behavior, and have investigated differences across time (Jensen and Clausen 2003) and among cohorts (Steele et al. 2006), countries (Clarke and Jensen 2004), and regions (Le Bourdais et al. 2000a, b, Le Bourdais and Lapierre-Adamcyk 2004). The results of these studies suggest that the importance of commitment via marriage and the strength of negative selection mechanisms into cohabitation could decrease if cohabiting families were to become standard, which could in turn improve the union stability of cohabiting parents. In their empirical analyses, these authors were, however, unable to identify the factors that account for stability differences.

The present study seeks to contribute to this discussion by comparing the union stability of cohabiting parents in a context in which they represent the minority, to the union stability of cohabiting parents in a context in which they make up the majority. Areas or countries in which the majority of all children are born outside of marriage have not yet been studied in a comparative analysis of non-marital union stability. In only few countries, like Estonia and Iceland, are more than half of the children born to non-married parents. However, in the post-socialist eastern part of Germany, the share of non-marital childbearing is 60 percent. In western Germany, by contrast, the corresponding share is just 27 percent. Thus, the percentage of out-of-wedlock births in western Germany is not only much lower than it is in eastern Germany; it is also below the European Union average of 37 percent (Eurostat, Pötzsch 2012; data from 2010). Since 1990, eastern German mothers have been exposed to the same legal regime as western Germans. However, structural and attitudinal differences between the two parts of Germany have remained, and the gap in non-marital childbearing has actually widened. This persisting regional divide makes Germany an interesting and unique case for comparative analyses. Previous

east-west comparisons have been shown to be fruitful for demographic research (Arránz Becker et al. 2010; Konietzka and Kreyenfeld 2002; Rosenfeld et al. 2004).

The present study uses data from the German family panel (pairfam), which includes an eastern German oversample. An advantage of this dataset is that it provides information on the partnership history prior to household formation. The analysis investigates the union stability of couples during the 10 years after the birth of their first child. Event-history methods are applied to the retrospective histories on the partnership dynamics of mothers who were born in the 1970s and 1980s, and who started their families in post-unification Germany. The analyses cover 1,072 western German mothers (288 cohabiting at the first childbirth) and 627 eastern German mothers (384 cohabiting at the first childbirth). Union stability is modeled in a piecewise continuous hazard model in which the union context is considered as an exogenous variable. To analyze the impact of background factors on the risk of separation, a stepwise model procedure is applied. The union context at the first childbirth is brought into the picture with a detailed sample description and a multivariate probit model. The hazard model is then estimated jointly with the probit model (the probability of a first birth within cohabitation), which makes it possible to control for factors that affect the selection into the union status at childbirth.

2 Non-marital family formation in eastern and western Germany

According to the most recent statistics, more than 60 percent of all children in eastern Germany are born out of wedlock, compared to 27 percent of western German children (Kreyenfeld et al. 2011a; Pötzsch 2012). The differences between eastern and western Germany overshadow other geographical variations (Klüsener and Kreyenfeld 2009). In international comparisons, eastern and western Germany represent nearly opposite ends of the spectrum.

The high eastern German level of non-marital births is surprising in view of the fact that German law provides strong incentives for marital childbearing, like financial benefits (tax advantages, spouse insurance, and alimony rights after divorce) and legal advantages in the case of joint custody and in the recognition of paternity (Konietzka and Kreyenfeld 2002).

Eastern Germany has traditionally had higher shares of non-marital childbearing as well as higher levels of female labor participation, both of which are more accepted in the Protestant than in the Catholic church (Arránz Becker et al. 2010; Klüsener and Goldstein 2012). Moreover, although the region had been dominated by the Protestant church, eastern Germany was strongly secularized in the socialist period, which further weakened the norm of marital childbearing. In addition, socialist East Germany had family policies, such as a special maternal leave program, that privileged non-married mothers (Klüsener et al. 2012; Konietzka and Kreyenfeld 2002). By

contrast, West German policies offered financial and legal advantages to married couples with children which were especially beneficial if the wife did not continue to work (Konietzka and Kreyenfeld 2002). In 1990, the legal system of East Germany was replaced by the West German system (Konietzka and Kreyenfeld 2002). However, the share of non-marital childbearing in eastern Germany did not converge to the western German share, but rather increased steadily. Similarly, the levels of secularization and female employment remained high, even though the political pressure of the socialist regime—which strongly discouraged church membership and strongly encouraged the full-time employment of women—no longer existed, and the employment conditions in the region worsened (Kreyenfeld and Geisler 2006). At the individual level, being non-religious and work-oriented have been shown to favor non-marital childbearing in eastern Germany (Kreyenfeld et al. 2011; Arránz-Becker et al. 2010).

Recent statistics have shown that in both western and eastern Germany, women who are not married are most often cohabiting when they have children: among western German women of the birth cohorts 1971 to 1973, 66 percent were married and 20 percent were cohabiting at the time their first child was born, while six percent had a non-coresiding partner and eight percent had no partner. Among their eastern German counterparts, 37 percent were married, 43 percent were cohabiting, eight percent had a non-coresiding partner and 12 percent had no partner (Bastin et al. 2012).

3 Theoretical considerations, previous empirical findings, and hypotheses

3.1 Cohabitation and union stability

Cohabitation is defined as a non-marital coresiding partnership (e.g., Heuveline et al. 2003). The legal equivalent of cohabitation is marriage. In modern societies, the couples themselves decide whether or not they get married (Cherlin 2004). Thus, the role of cohabitation in a population and its implications for stability have to be discussed relative to marriage. The alternative of having a partnership with separate households will not be considered in the following.

According to exchange theory, relationship stability is determined by the intensity of successful interactions. The more interwoven the interactions are, the more likely the partners are to continue to interact because of the highly specific rewards they can expect from this specific relationship (Thibaut and Kelley 1959: 100ff). This can be described as commitment. Compared to married couples, cohabitants are assumed to be less committed to the partnership, because they have not entered into a formal arrangement (Le Bourdais et al. 2000a). Meanwhile, the legal rights and duties of the cohabiting couples are not (or are to a lesser extent) regulated.

Cohabitation and marriage differ, for example, in terms of separation procedures, and in how the disadvantages of separation are balanced (Blossfeld et al. 1999; Perelli-Harris and Sánchez Gassen 2012; Steele et al. 2006). Cohabiting couples also tend to have lower fertility levels than married couples (Oláh and Bernhardt 2008), and a less specialized division of household labor (Brines and Joyner 1999), both of which may reduce the gains from interaction. Cohabitants may also feel less emotionally committed and less socially accepted than married couples (Perelli-Harris et al. 2012). Research has further suggested that cohabiting couples have attitudes that impede strong commitment and enhance separation risks: they are assumed to be more open to the idea of separation, and to be less family-oriented, less traditional, and more individualistic (e.g., Le Bourdais et al. 2000b; Lillard et al. 1995, see also Steele et al. 2006 and Wu and Musick 2008). Cohabitation can serve as a screening device for marriage, weeding out matches in which the partners are less compatible (Oppenheimer 1988). The longer the partnership endures, the more the couple learn about their degree of compatibility, which may eventually lead to either marriage or separation (Becker et al. 1977; Brien et al. 2006; Reinhold 2010). Consequently, cohabiting partners were found to be less compatible than married partners (Brien et al. 2006).

Several scholars have pointed out that these characteristics apply to a particular form of cohabitation: namely, that of living together as a testing stage for childless dual-earner couples prior to family and marriage formation. Jalovaara (2013: 172) stated that "cohabitors and married persons should be viewed as the same people at successive phases of their family-formation processes rather than as representatives of distinct groups." Thus, previous analyses of the stability differences between marriages and cohabitations often resembled a comparison of apples and oranges. Not surprisingly, a number of studies have found that cohabitations are shorter lived than marriages (Berrington 2001; Heuveline et al. 2003; Hoem and Hoem 1992; Bumpass and Lu 2008). Restricting the investigation to first-time parents improves the comparability of the stability levels of cohabitation and marriage, and it ensures that groups, rather than life course stages, are analyzed. In light of the growing share of children born within cohabitation, it seems reasonable to compare fertile cohabitations and marriages. In many respects, families formed by cohabiting parents resemble married families: they are at the same life course stage; and they are headed by two biological parents who presumably share income, housework, and childcare (Wu and Musick 2008).

3.2 Prevalence of cohabiting parents and union stability

The transition to parenthood increases the level of commitment within the partnership because children represent a union-specific investment (Becker et al. 1977). During this family formation period, many couples marry, while others remain in cohabitation. Because an unborn child can

motivate the parents to marry, it is important to focus on the time of the birth of the first child to examine the impact of non-marital parenthood on the risk of separation. In some societies, childbearing within cohabitation is rare, because cohabitation is usually a childless prelude to marriage that ends when the partners are ready to start a family. Being married at the time the first child is born may be important to the parents for normative reasons: i.e., forming a family out of wedlock may violate religious traditions or social norms. Moreover, the tax structure may favor married families, and the establishment of paternity and joint custody may depend on the legal status of the union at childbirth, as has been the case in Germany (Perelli-Harris and Sánchez Gassen 2012; Blossfeld et al. 1999; Ermisch 2005). In other societies, cohabitation is a common alternative to the marital family, and may be chosen by parents as a long-term union form (Heuveline and Timberlake 2004; Perelli-Harris et al. 2012). Parents may choose to remain in cohabitation because they do not expect a significant gain to the partnership from marital childbearing (Seltzer 2000).

Supporters of the idea that the union stability of cohabiting parents is likely to be positively related to the prevalence of such unions point out that the composition of fertile couples living in cohabitation changes as the prevalence of this union form increases. Detractors argue that no such relationship exists, as they assume that the characteristics of cohabiting parents remain similar. In the following, I discuss both lines of argumentation, and derive from them my hypotheses.

On the one hand, a higher share of childbearing within cohabitation can reduce the share of negatively selected couples among cohabiting parents, which in turn improves union stability (Heuveline and Timberlake 2004; Steele et al. 2006). If a couple remain non-married in a society in which cohabitation is not regarded as an appropriate setting for bearing and rearing children, this choice may be related to deficiencies in the partnership (Becker et al. 1977; Blossfeld et al. 1999; Brien et al. 2006; Ermisch 2005; Steele et al. 2006). The couple may be expected to have relatively low gains from their interactions, and their union will be at high risk of dissolution. By contrast, in a society in which non-marital childbearing is common, cohabiting parents will be more heterogeneous with respect to their selectivity. In this case, a couple with a solid partnership and good prospects for stability will continue to cohabit because they see no need to marry (Le Bourdais et al. 2000b; Liefbroer and Dourleijn 2006; Steele et al. 2006; Reinhold 2010). Thus, the union stability of cohabiting parents may be expected to be higher in the second scenario than in the first. There is some empirical evidence that cohabiting parents have worse partnership prospects if the prevalence of their union form is rather low. Several cross-national studies have suggested that the union stability of cohabiting parents is often lower in countries where marital childbearing is common (Andersson 2002; Clarke and Jensen 2004; Heuveline et al. 2003; Le Bourdais et al. 2000a, 2000b; Kiernan 2002; Le Bourdais and Lapierre-Adamcyk 2004).

A British study investigated the effect of childbearing within cohabitation across birth cohorts and found that cohabiting mothers born in more recent cohorts were experiencing a higher degree of union stability (Steele et al. 2006).

The high rate of cohabitation among eastern German parents suggests that these cohabitating couples might be less likely to have characteristics that make them prone to separation than their western German counterparts, and that these characteristics could be related to their higher degree of union stability. Recent descriptive research has indeed shown that, while cohabitation is less stable than marriage, eastern German women who cohabited at the time of family formation had better prospects of partnership success than their western German counterparts (Bastin et al. 2012; Perelli-Harris et al. 2012). Thus, the main research hypothesis is that an eastern German mother who was cohabiting when her first child was born will have a lower risk of separation than her western German counterpart.

On the other hand, there is also reason to assume that the union stability of cohabiting parents is fairly independent of the prevalence of childbearing within cohabitation across the society. First, by definition, cohabitation does not involve the formal arrangements associated with marriage. Marriage usually works as a protection of past and future union-specific investments, because it imposes high financial, legal, emotional, and social exit costs. As long as this formal difference between marriage and cohabitation exists even in societies in which non-marital childbearing is common, cohabiting parents may be exposed to the same risk of separation risk as in other settings. Second, cohabiting parents "may be selected on less traditional attitudes about the family, which in turn may be associated with union stability" (Wu and Musick 2008: 716). Within a population with high shares of childbearing within cohabitation, non-traditional attitudes—which may, for example, be expressed in high levels of secularization and employment among mothers—might simply be more widespread. Indeed, a Norwegian study (Jensen and Clausen 2003) found that among children born to cohabiting parents, the risk that they would experience a parental break-up remained high over time. Although childbearing within cohabitation was becoming increasingly common, cohabitation was not found to be related to stability for this cohort of children.

The formal differentiation of marriage and cohabitation made by the German state also applies to eastern Germany, which suggests that the separation risks might be similar. The high eastern German shares of non-marital childbearing might simply be a reflection of more liberal attitudes, which are also apparent in the high levels of secularization and maternal employment in eastern Germany. Thus, a competing hypothesis is that an eastern German mother who was cohabiting when her first child was born will have the same separation risk as her western German counterpart.

4 Data and methods

4.1 Selection of the sample

The analysis was based on data from the German Family Panel (pairfam Release 3.0).[56] The *Panel of Intimate Relationships and Family Dynamics* provides full fertility and partnership histories of men and women born in 1971-1973, 1981-1983, and 1991-1993 (Huinink et al. 2010; Nauck et al. 2012). These data were supplemented by DemoDiff (Release 2.0), an oversample of eastern German respondents born in the years 1971-1973 and 1981-1983 (Kreyenfeld et al. 2011b). The data were gathered between 2008 and 2011, approximately 20 years after reunification.

The present study used a ready-to-use event-history dataset that incorporates the retrospective partnership and fertility histories, which were compiled in the first wave and were updated in the two subsequent waves (Schnor and Bastin, forthcoming). While the partnership information gathered in the survey is very detailed, no information on the individual characteristics of former partners was collected.

The analysis was restricted to women of the birth cohorts 1971-1973 and 1981-1983. The cohorts 1981-1983 were still young at the interview dates, but the event-history approach used in this study took into account the different lengths of time at risk due to age differentials at the time of the interviews. However, mothers of the 1981-1983 birth cohorts represented a more selective population than mothers of the 1971-1973 cohorts, as can be seen from Table 1. The east-west differences found among the younger birth cohorts were in line with those found in other studies, which showed that eastern Germans transitioned to parenthood at younger ages than western Germans (e.g., Arránz Becker et al. 2010; Kreyenfeld et al. 2010).

		Wave 1 (2008/09)	*Wave 2 (2009/10)*	*Wave 3 (2010/11) (without DemoDiff)*
Western	1971-1973 birth cohort	81.2%	83.5%	83.6%
Germans	1981-1983 birth cohort	38.2%	43.4%	45.0%
Eastern	1971-1973 birth cohort	85.5%	87.2%	87.7%
Germans	1981-1983 birth cohort	52.0%	56.1%	55.7%

Table 1: Proportion of mothers relative to all women of the same birth cohorts who participated in the respective waves and reported having at least one biological child, in percentages
Sources: pairfam/DemoDiff (2008-2011)

[56] The German Family Panel is coordinated by Josef Brüderl, Johannes Huinink, Bernhard Nauck, and Sabine Walper. It is funded as a long-term project by the German Research Foundation (DFG).

We concentrated on women who were in a residential relationship with the biological father of their child when they became a mother. Single mothers were excluded from the analysis. None of the women studied was previously married. Married women whose spouse was not the biological father of the child were not considered. To enhance the explanatory power of the regional information, the analysis focused on respondents whose place of birth *and* place of residence at the time of the interview were in the same German region (eastern vs. western Germany)[57]. Internal migrants and foreign-born women were not considered in the analysis, because this would entail obtaining information about the date of migration, and having to make distinctions between the roles played by socialization and by the current environment. Only women who had their first child after reunification (that is, after October 1990) were considered, because the women who became mothers before that date were exposed to different legal regimes. Individuals with inconsistencies in their fertility or partnership histories were omitted from the analysis. The final size of the analytic sample was 1,200 western German and 644 eastern German women.

	Sample size (respondents)
Initial sample	13,891
After exclusion of	
- Men	7,129
- Birth cohort 1991-1993	4,990
- Migrants	3,872
- Childless persons	2,449
- Mothers without coresiding partner at 1st childbirth	2,018
- Inconsistencies/ unions ending with partner´s death/ homosexual unions	1,877
- Women who had a 1st birth prior to 10/1990	1,844

Table 2: Description of sample selection
Sources: pairfam/DemoDiff (2008-2011), own estimates

[57] As West Berlin was affected by West German policies, the proportion of non-marital births was much smaller than in East Berlin (Klüsener and Kreyenfeld 2009). To account for these historical differences, western Berlin is counted as western Germany, although it is situated in the eastern German region.

4.2 Method and analytical procedure

In this section, I present an empirical model of the risk of separation that incorporated the direct effect of having formed a family within cohabitation and the potential selectivity of separation-prone cohabiting parents. Hazard regressions were used to estimate the relative risks of separation after a couple had their first child. The first separation after family formation was considered to be the event. The observation was censored 10 years after the birth of the couple's first child, and with the time of the latest interview. The hazard function $h(t|X)$ consisted of the baseline hazard ($\beta_0(t)$)—defined as a piecewise linear spline with knots two and six years after the child was born—as well as sets of time-constant and time-variant covariates (X and $X(t)$) and its vectors of the corresponding parameters (β_1 and β_2). The direct effect of having cohabited with the partner at the time the first child was born on the hazard of dissolution was measured by β_3, the effect associated with COH, as illustrated in the following equation (without observation subscript i):

Hazard model (transition to separation after first childbirth):

$$\ln h(t|X) = \beta_0(t) + \beta_1 X + \beta_2 X(t) + \beta_3 COH \quad (1)$$

In order to investigate the role of selection, I applied in a first step a stepwise modeling strategy, which allowed me to observe compositional effects in the central covariates of interest. In a second step, I estimated a multi-process model, as suggested by Lillard et al. (1995) and explained in Lillard and Panis (2003), which allowed for the transition to separation after giving birth to be correlated with the selection into the union context when the couple had their first child. A probit function determined the probability of cohabitation at the time of the first childbirth.

The selection into childbearing within cohabitation was considered in a probit model, because this made it possible to compare the characteristics of married and cohabiting mothers in the sample. Among the advantages of using a multi-process model was that the determinants influencing the probability of giving birth while cohabitating could be compared with the determinants of separation, and that causal effects could be disentangled from selection effects.

The unit of observation was the partnership in which the family was formed. This approach enabled me to estimate the influence of unobserved partner-specific characteristics in the absence of available partner information. To identify the correlation structure, it was important to formulate exclusion restrictions; i.e., variables that entered one process but not the other, as there was only one spell per event (see section 0). In detail, the following equations (illustrated here without observation subscript i) were estimated:

Hazard model (transition to separation after first childbirth):

$$\ln h(t|X) = \beta_0(t) + \beta_1 X + \beta_2 X(t) + \beta_3 COH + \varepsilon \quad (2)$$

Probit model (probability of a first birth within cohabitation (vs. marriage):

$$COH^* = \alpha_0 + \alpha_1 Z + \delta \quad (3)$$

$$COH = \begin{cases} 1 \; if \; COH^* > 0 \\ 0 \; if \; COH^* \leq 0 \end{cases} \quad (4)$$

The hazard model was complemented by a residual term (ε). For the probit equation, α_0 represents the intercept, Z represents the independent variables that influenced the probability of having a first child within cohabitation rather than within marriage, with α_1 being the parameters, and δ being an unobserved factor. It was assumed that the residuals had a mean value of zero and followed a bivariate normal distribution, where σ_ε^2 and σ_δ^2 denoted the variances of the residuals and $\sigma_{\varepsilon\delta}$ was the covariance between the residuals. In line with other studies that relied on single-spell data (Impicciatore and Billari 2012; Baizán et al. 2003, 2004), the variances of the residuals were fixed to the unity (see also Rabe-Hesketh and Skrondal 2008: 110). The variance of ε was then allowed to vary in order to test the robustness of the results. A significant correlation between the residuals means that common unobserved factors influenced both decisions.

Heterogeneity components

$$\binom{\varepsilon}{\delta} \sim \left(\binom{0}{0}, \begin{pmatrix} \sigma_\varepsilon^2 & \sigma_{\varepsilon\delta} \\ \sigma_{\varepsilon\delta} & \sigma_\delta^2 \end{pmatrix} \right) \quad (5)$$

I used STATA 11.0 for data preparation and descriptive statistics (Blossfeld et al. 2007); the multivariate analyses were performed with the help of the statistical package aML 2.9 (Lillard and Panis 2003).

4.3 Background variables

The exogenous variables are presented in Table 3. The composition of the sample is shown separately for eastern and western Germans. Table 3 is further subdivided according to the marital status of the couple when they had their first child. Information on the significance levels of regional differences has been added. The number of cases shows that childbearing within cohabitation was more prevalent in the east than in the west. About 60 percent (N=385) of

eastern German mothers were cohabiting when they gave birth to their first child, compared to 27 percent (N=324) of western Germans.[58] [59]

Union form at first childbirth	**Sample composition**						***Variable selection***	
	Cohabiting			Married				
	Western Germans	Eastern Germans	t-test [a]	Western Germans	Eastern Germans	t-test [a]	*Cohabiting at childbirth* (probit)	*Separation* (hazard)
	Distribution of respondents, in column percent							
Educational level			**			***	X	X
Low educated	26%	7%		19%	3%			
Middle educated	35%	62%		42%	61%			
High educated	38%	29%		39%	36%			
Missing Information	<1%	<1%		<1%	-/-			
Religious affiliation			***			***	X	X
Catholic	35%	3%		43%	4%			
Protestant	44%	17%		39%	25%			
No church member	18%	79%		11%	69%			
Other affiliation	3%	<1%		7%	2%			
Missing information	-/-	<1%		<1%	-/-			
Living together with both parents until age 18 [b]			n.s.			n.s.	X	X
Yes	55%	57%		64%	62%			
No	21%	23%		13%	21%			
Missing information	24%	20%		23%	18%			
Family formed under			*			***	X	X
old legislation (prior 7/1998)	21%	25%		26%	36%			
new legislation (after 7/1998)	79%	75%		74%	64%			
Employment status 9 months prior to 1st childbirth [c]			***			***	X	
Non-employed	10%	15%		7%	11%			
Full-time employed	40%	34%		43%	47%			
Part-time employed	5%	10%		4%	9%			
Missing information	45%	41%		46%	35%			
Sex of first child			n.s.			n.s.		X

[58] It is a coincidence that these shares are identical to the overall shares of non-marital births given by the German Federal Statistical Office. The latter considers the share of non-marital births relative to *all* live births and includes cohabiting as well as single mothers in 2010. According to these official statistics, the share of non-marital *first* births in 2010 was 37 percent among western Germans and 74 percent among eastern Germans.

[59] Among the women who married in response to the arrival of their first child, 29 percent of western Germans and 24 percent of eastern Germans married between the third month of pregnancy and the child's birth.

Male	56%	53%		49%	54%			
Female	44%	48%		51%	46%			
Health status of first child			n.s.			***		X
Not handicapped	85%	89%		83%	92%			
Handicapped	15%	11%		17%	8%			
Season of birth of child			n.s.			n.s.		X
Non-winter	51%	48%		54%	55%			
Winter	49%	52%		46%	45%			
Number of siblings			**			***	X	
No Siblings	21%	25%		14%	30%			
1 sibling	42%	48%		42%	47%			
2 or more siblings	37%	27%		44%	23%			
Birth cohorts			***			n.s.	X	X
1971-1973	70%	53%		80%	78%			
1981-1983	30%	47%		20%	22%			

Table 3: Sample composition by region and union form at the time the first child was born
Sources: pairfam/DemoDiff (2008-2011), own estimates
[a] Two-sample t-tests with unequal variances; Significance levels: *** Pr(|T| > |t|) < .01; ** Pr(|T| > |t|) < .05; * Pr(|T| > |t|) < .10
[b] Evaluated in wave 2 (pairfam/DemoDiff)
[c] Evaluated in wave 3 (Pairfam), wave 2 (DemoDiff)
Weighted by sample design weight (including corrections for birth cohort and place of residence)

Age of the first child (baseline). Previous studies found that the risk of separation was reduced, especially in the years immediately following the birth of the first child (Andersson 2002; Hoem and Hoem 1992; Oláh 2001). In the sample, the majority of the exposure time refers to the period when the first child was of preschool age.

Birth cohort. The consideration of birth cohorts is important because of sample issues. Women of the younger birth cohorts (1981-1983) were more prevalent in the eastern German sample, but only among cohabiting mothers.

Education. Research suggests that the educational background is related to the union status at childbirth and to the separation behavior of parents (McLanahan 2004): less educated mothers may be less likely to marry because they see their romantic partners as economically or socially unsuitable marriage partners (Andersson 1990). They highly value marriage, but believe that their partnership does not meet the high standards they associate with a stable marriage (Edin and Reed 2005). The levels of school education were broken down into three categories: low (no certificate or lower secondary education), middle (secondary education), and high (high school diploma). Respondents with information on school education were assigned to a separate category. Mothers with low levels of school education are rather uncommon in eastern Germany: the vast majority of eastern German mothers have middle or high educational levels (Konietzka

and Kreyenfeld 2002). The composition further reveals that mothers who were cohabiting when they had their first child were somewhat less educated than married mothers in western as well as in eastern Germany.

Partnership duration. The partnership duration prior to giving birth is the length of the partnership from the time it was formed until the couple had their first child. It may capture the level of positive selectivity, or the weeding-out effect; and it may indicate the maturity of the couple (Manlove et al. 2012). Research has shown that couples who become parents rapidly have lower levels of union stability (Hoem and Hoem 1992; Oláh 2001). Among western German cohabiting couples, the mean partnership duration prior to having a first child was 3.6 years, which was significantly shorter than among eastern Germans, whose mean union duration prior to starting a family was about 4.5 years. Eastern and western German married mothers had a mean partnership duration of six years before their first child was born.

Age at first childbirth. Being young when the union or family was formed can result in a poor match: young people tend to be less mature and less future-oriented with regard to their partner choice (Becker et al. 1977). They may have also had insufficient time to search for the right partner, and they may have access to attractive alternative candidates on the partner market (Becker et al. 1977; South 1995; Lyngstad and Jalovaara 2010). In the table, the mean ages at which the women first gave birth are shown by birth cohorts. Irrespective of the union context, eastern German mothers born in 1971-1973 were about two years younger when they had their first child than western German mothers. Mothers born in 1981-1983 were slightly older in eastern than in western Germany. The age at which a couple had their first child was considered as a metric variable that entered the multivariate estimations linear and squared.

Religious affiliation. It has been shown that church members have higher rates of marital childbearing and more stable families (Brüderl et al. 1997; Hoem and Hoem 1992; Lehrer 2004; Oláh 2001). The respondent's religious affiliation was categorized as Catholic, Protestant, non-affiliated, and other affiliation. The share of non-affiliated women was much higher among eastern Germans, which is attributable to the secularization policy of the GDR. In addition, there were differences by marital status when giving birth: women with no religious affiliation were more likely to have been living in a cohabiting union when they became mothers.

Employment status. Female employment has been found to increase the risk of separation, at least among married couples, while the evidence with regard to cohabiting couples has been mixed (Jalovaara 2013; Lyngstad and Jalovaara 2010). The employment status was constructed based on the self-assessed employment history gathered in the third pairfam wave (and in the second DemoDiff wave, respectively). I distinguished between episodes of full-time employment, part-time employment, and non-employment. Episodes of full-time education, unemployment, and

home-making were included in the last category. The information was missing if the respondent did not reply or did not participate in the respective waves. Two variables provided information about the employment status: 1) a time-constant variable that showed the employment status nine months prior to the first childbirth, and 2) a time-variant variable that showed the current activity status after the first child was born. Most of the women for whom information was available had been in full-time employment before their entry into motherhood. After the women gave birth, most of the exposure time was still spent in full-time employment among eastern German mothers. Western German mothers spent most of their time in non-employment.

Partnership order. The partnership order was defined as the number of partners, including the partner at the time the child was born. Respondents were asked in the interview to provide information about partnerships that involved co-residence, that lasted longer than six months, or that were of personal importance for the respondent. Eastern Germans had a lower mean number of partnerships than western Germans, which held for both married and cohabiting unions. In both regions, cohabiting women reported having more partnerships prior to having their first child than married women. In previous studies, the cohabitation order was shown to have no effect on stability, while higher order marriages were found to be less stable than first marriages (Manlove et al. 2012; Poortman and Lyngstad 2007; Steele et al. 2006). So far, there has been no evidence on the effect of the order of partnerships.

Further children. The number of biological children born to a couple has been shown to reduce the risk of separation (Hoem and Hoem 1992; Oláh 2001). Eastern German mothers spent most of the observation time in one-child families. Higher order births were more common among western German mothers.

Living with both parents until age 18. People who have experienced parental separation have been shown to be more likely to separate themselves (Lyngstad and Jalovaara 2010). In the second pairfam wave (2009/2010), respondents were asked whether they had lived with both biological parents until they reached age 18. Respondents who did not continuously reside with both parents experienced episodes of living with only one parent or in alternatives arrangements. Respondents who did not participate in this wave or who did not answer the question were grouped into one category. The proportions of women who lived with both parents until their 18th birthday were comparable in western and eastern Germany; western German married women were the least likely to have experienced alternative living arrangements during their childhood and adolescence.

Policy period. The date of family formation provides information about how custody for non-married parents was regulated during the respective period. Fathers who were not married did not have the legal right to file for joint custody of their children unless the children were born

after July 1998. The legal regulations might have influenced the probability of having had a first birth within cohabitation: children who were born before the policy reform should been more likely to have been born into marriages because of the legal disadvantages associated with non-marital childbearing for fathers. It is also possible that the inability of non-married fathers to secure custody prior to 1998 increased the stability of their partnerships.

First child's characteristics. Having a daughter has been found to be associated with a higher risk of union disruption (Morgan et al. 1988), as is having a child with disabilities or cognitive delays (Hartley et al. 2010; Hatten et al. 2010; Sobsey 2004). A child was classified as handicapped if he or she had a chronic disease, developmental disabilities, or a physical handicap. Previous studies found a seasonality among wanted births driven by women who have a preference for a non-winter birth (Buckles 2011; Bobak and Gjonca 2001). The sample composition indicates the proportion of winter births (i.e., the first child was born in September to February). This should serve as an indicator of an unplanned pregnancy, which is related to a higher risk of union disruption (Manning et al. 2004).

Number of full siblings. The size of her family of origin can restrict the amount of resources that are available to a woman, and can therefore negatively influence her decision to marry, because marriage requires more resources than cohabitation. In eastern Germany, cohabiting women indeed had more siblings than married women, but the average size of the family of origin was smaller in eastern than in western Germany, where more women had two or more siblings.

The last column in the table shows whether the respective variables were included in both models. Most of the control variables are expected to influence the likelihood of a birth within cohabitation and union stability, and are therefore considered in the probit model as well as in the hazard model. The model specification has exclusion restrictions; i.e., variables that enter one process but not the other. As consecutive events were analyzed, the hazard model includes information that becomes relevant only after childbirth. Beyond time-varying information on the number and the age of the children and the economic activity, this also includes the first child's characteristics. According to Impicciatore & Billari (2012) and Lillard et al. (1993), the number of siblings may be assumed to affect only the probability of cohabitation and marriage, but not of dissolution risks. The probit model additionally accounts for the employment status prior to family formation.

In sum, is there any indication that eastern German cohabiting mothers had characteristics that made them less prone to separation than their western German counterparts? When we compare eastern to western German cohabiting mothers, we can see that, on average, the former had more education and a longer union duration prior to childbirth, both of which are factors known to increase union stability. On the other hand, the eastern Germans were younger at the birth of

their first child, and they had fewer subsequent children, which are factors associated with lower stability levels. Furthermore, eastern German cohabiting mothers were much less religious than their western German counterparts, and were more likely to have been in full-time employment after entering motherhood. As a consequence, the separation risk did not appear to differ based on the characteristics of mothers who cohabited in eastern and western Germany.

5 Empirical findings

5.1 Descriptive results

Figure 1 displays the Kaplan-Meier survival estimates (Blossfeld et al. 2007). It provides some initial insights into the transition to separation among eastern and western German mothers, by the age of the first child. It is obvious that in both regions women had higher separation probabilities at all ages of the first child if they were cohabiting rather than married when they gave birth to the child. The Kaplan-Meier survival curves suggest that union stability was somewhat higher for cohabiting couples in eastern Germany than in western Germany. However, the difference was not shown to be significant in the Cox test (specified log-rank test; see StataCorp 2011: 447).

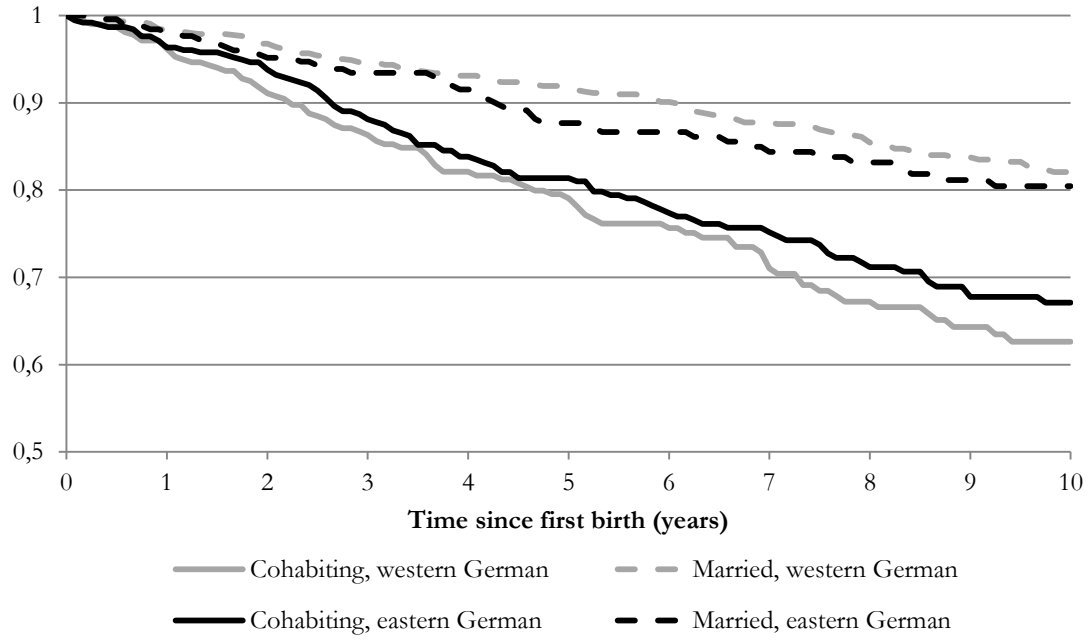

Figure 1: Results of Kaplan-Meier estimates (Proportion of women who remained partnered with the child's father 10 years after having their first child, by union form at the time they had their first child and region

Sources: pairfam/DemoDiff (2008-2011), own estimates
Weighted by sample design weight (including corrections for birth cohort and place of residence)
Results of the Cox test (modified log-rank test) for equality of the survival curves of eastern and western German women: no statistically significant differences between cohabiting women (Pr>chi2 = 0.30); no statistically significant differences between married women (Pr>chi2 = 0.40)

Stepwise multivariate models

The multivariate analysis first followed a stepwise modeling strategy that relied on the hazard model. Model 0 focused on the differences in the separation risks of eastern and western German mothers in general. In Model 1, information on the union form at the time the first child was born was added. Model 2 further considered observed factors that may be related to the match quality of the partnership: the level of school education, the age when the first child was born, and the duration of the union prior to having a child. In Model 3, control covariates were added that account for non-traditional attitudes, including religious affiliation and economic activity. In Model 4, the probit and the hazard model were estimated as separate processes. The hazard model included further variables: the partnership order, the family size (in terms of the number of biological children), the experience of parental separation (expressed in a failure to live with both biological parents until age 18), the first child's characteristics (sex, health status, season of birth), and a dummy variable indicating whether the child was born before the custody reform in 1998. Finally, the influence of unobserved heterogeneity was estimated in Model 5. Table 4 shows the results of the stepwise models without interaction (Models 0 to 5a).

The multivariate results of Models 1a to 4a in Table 4 demonstrated that women who were cohabiting when they had their first child had a significantly higher risk of union disruption. None of the observed characteristics could explain this finding. However, when a correlation between the union context at the time of the first childbirth and subsequent union stability was allowed for in Model 5a, the effect of marital status turned out to be insignificant. The increased risk of union disruption for women who cohabited at the time their first child was born could be entirely attributed to the selection of the most separation-prone into cohabitation.[60]

The multivariate results shed more light on the question of whether the high rate of cohabitation in eastern Germany was related to a higher degree of union instability among eastern German mothers. Model 0 showed that western and eastern German women did not differ in their levels of union stability after they had their first child. This result did not change when the union context at the time the first child was born was taken into account in Model 1a, and control

[60] We assumed a standard normal distribution of ε. Allowing for changes in the pre-fixed level of the variance of ε (from 0.6 to 1.8) did not change this result. Within this range, selection effects explain the higher risk of separation of women who cohabited at first childbirth. Complete results are available upon request from the author.

covariates for school education, age at first childbirth, and union duration were added in Model 2a. When the higher risks of separation among religious non-affiliated and full-time employed women were taken into account in Model 2-a, western German mothers were shown to have had significantly lower levels of partnership stability than eastern German mothers. Separate estimations indicated that this change was attributable to the significant influence of the mother's religious background (results not shown). This result was not changed by controlling for the number of children, parental separation, or partnership order in Model 4a, or by accounting for unobserved heterogeneity in Model 5a. In sum, these results revealed that in eastern Germany mothers did not have lower levels of union stability, even though the prevalence of births within cohabitation was much higher than in western Germany. If the religious composition had been the same in the two regions, eastern German mothers would even had a higher degree of union stability than their western German counterparts.

The results from the probit model in Model 4a revealed that women had higher probabilities of giving birth to their first child within cohabitation if they belonged to the younger birth cohorts (1981-1983), were living in eastern Germany, and had a low level of school education; and also if they started their family at a young age or after the policy reform in July 1998. Having no religious affiliation or a short union duration prior to the birth of the first child increased the probability of cohabiting at the time the first child was born, and the risk of separation after family formation. The higher separation risks of cohabiting women could not be explained by these determinants. The mother's age when she gave birth, her educational level, and the number of her partnerships seemed to have had no significant influence on the stability of her partnership. Having lived apart from a parent during childhood or adolescence and having a one-child family increased the risk of separation among the mothers. Mothers in full-time employment had a lower degree of union stability in Model 3a, but this could be fully explained by controlling for family size in Model 4a.

	Model 0	Model 1a	Model 2a	Model 3a	Model 4a		Model 5a	
	Hazard e^{β}	*Hazard* e^{β}	*Hazard* e^{β}	*Hazard* e^{β}	*Probit* β	*Hazard* e^{β}	*Probit* β	*Hazard* e^{β}
Baseline (ß)								
Intercept	-6.73***	-6.43***	-4.11**	-4.18**	5.4001***	-3.8878**	7.0179***	-3.6483*
1st child 0-1 yrs (slope)	0.032***	0.032***	0.030***	0.030***		0.0400***		0.0461***
1st child 2-5 yrs (slope)	-0.002	-0.002	-0.004	-0.004		0.0020		0.0058
1st child 6 years and older (slope)	-0.000	-0.000	-0.004	-0.004*		-0.0025		-0.001
Birth cohorts (ref = 1971-1973)								
1981-1983	2.10***	1.77***	1.15	1.19	0.22**	0.90	0.24**	0.90
Region (ref = Eastern Germany)								
Western Germany	0.85	1.06	1.02	1.50**	-0.75***	1.71***	-1.01***	1.64**
Union form at 1st childbirth (ref = Cohabiting)								
Married		0.49***	0.61***	0.64***		0.67***		0.91
Educational level (ref = Middle)								
Low			1.08	1.12	0.23**	1.06	0.29**	1.14
High			0.79	0.81	0.01	0.87	0.07	0.88
Missing information			2.52*	2.62*	1.26	2.99**	1.26	2.62*
Union duration prior to 1st childbirth			0.90***	0.90***	-0.04***	0.90***	-0.05***	0.88***
Age at 1st childbirth			0.93	0.91	-0.38***	0.92	-0.48***	0.87
Age at 1st childbirth²			1.00	1.00	0.01***	1.00	0.01***	1.00
Religious affiliation (ref = Protestant)								
Catholic				0.90	-0.10	0.94	-0.10	0.87
No church member				1.59***	0.19**	1.63***	0.27**	1.73***
Other affiliation				0.63	-0.74***	0.65	-0.96***	0.55*
Partnership order					0.10***	0.97	0.12***	0.99
Living together with both parents until 18th birthday (ref = Yes)								
No					0.14	1.34**	0.21**	1.48***
Missing information					0.11	0.98	0.19*	1.03
Family formed (ref = After 7/1998)								
Prior to 7/1998					-0.36***	0.74	-0.53***	0.71
conomic activity after 1st childbirth (ref = Full-time employed)								

Non-employed		0.68***		0.83	0.91
Part-time employed		0.73*		0.79	0.81
Missing information		0.86		1.02	1.09
Economic activity 9 months prior to 1st childbirth (ref = Full-time employed)					
Non-employed			0.18		0.24
Part-time employed			0.06		0.13
Missing information			0.05		0.09
Sex of first child (ref =Male)					
Female				0.96	0.98
Health status of first child (ref = Not handicapped)					
Handicapped				1.03	0.99
Season of birth of child (ref = Winter)					
Non-winter				0.85	0.83
Number of siblings (ref = No Siblings)					
1 sibling			0.02		0.06
2 or more siblings			-0.04		-0.05
covariance $\sigma_{\varepsilon\delta}$ (ß)					0.48***

Table 4: Transition to the first separation after the first child was born, results from a piecewise linear model

Sources: pairfam/DemoDiff (2008-2011), own estimates

Significance levels: ***p < .01; **p < .05; *p < .10

5.2 Interaction results

The interaction results of the region and the union context at the birth of the first child are shown in Figure 2. Control covariates were again added stepwise to the models to find the mediating effects (Models 1b to 5b). Eastern German women who cohabited when their first child was born formed the reference category. The interaction terms revealed differences in the separation risks of eastern and western German women who were cohabiting, with the latter having an elevated risk of union disruption. In Model 1b, this difference was only weakly significant ($p<.10$). After the lower level of school education, the shorter union duration prior to family formation, and the older age at childbirth of the average western German cohabiting woman were accounted for in Model 2b, the difference became insignificant. This result suggests that western German cohabiting women were indeed more negatively selected than their eastern German counterparts. However, adding information on religion and economic activity in Model 3b increased the stability difference again to a significance level of $p<.01$. The regional risk differential became even more pronounced in Model 4b, which accounted for the protective effect of further children and parental stability, while considering unobserved heterogeneity in Model 5b did not change the model results.

With regard to marriage, Model 1b replicated the prior finding of Model 1a by showing that there was a significantly higher degree of union stability among women who were married when they had their first child. Eastern German married women were no longer shown to have had a higher degree of union stability than cohabiting women in Model 2b, which might indicate that selection into marriage explains the risk differentials. Conditional on the higher level of secularization in eastern Germany, the risk of separation among eastern German cohabiting women was no longer found to have differed from that of western German married women (Model 3b). Hence, the lower separation risk among western German married women can be explained by their lower level of secularity. The interaction of region and marital status information demonstrated that the determining influence of the union context at the birth of the first child could be attributed to the observed characteristics in the case of eastern German mothers. This was clearly not the case for western German mothers, who showed marked stability differences by marital status at the birth of their first child throughout Model 1b to Model 4b. Only by accounting for unobserved characteristics was it possible to explain the separation risk differentials by marital status.[61]

Several checks were conducted to test the robustness of the results. First, I excluded in separate estimations the control for religious affiliation (check #1) and union duration prior to childbirth

[61] As a significance test, the reference category was changed to western German married women. In Model 4b, western German cohabiting women had arisk of separation that was 74 percent higher ($p<0.01$). In Model 5b, no significant differences in the risk of separation compared to married western German women were found.

(check #2). Second, I removed independent variables from the equations that did not significantly influence the outcome, referring to the results in Model 4a (check #3). Third, the variance of ε was fixed to 0.8 (check #4) and 1.2 (check #5). The results are shown in Figure 3. In no cases did the omission influence the sign of the correlation coefficient. Western German cohabiting mothers were shown to have had significantly elevated risks of separation in all of the models, except in the model that did not account for religion. This demonstrates that religion is an important factor in the union stability of first-time parents.

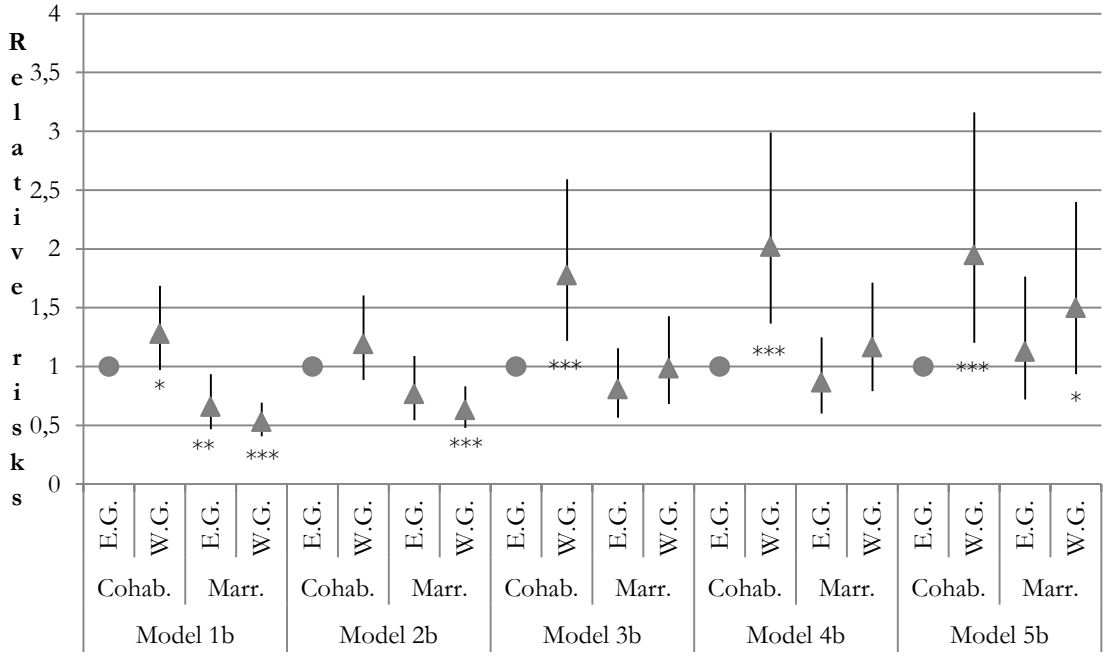

Figure 2: Results of an interaction of region and union form at the time the first child was born within the hazard Models 1b to 5b, shown in relative risks with 95%-confidence intervals and significance levels
Sources: pairfam/DemoDiff (2008-2011), own estimates
Significance levels: *** p < .01; **p < .05; *p < .10;
Abbreviations: E.G. Eastern German women, W.G. Western German women,
Cohab. Cohabiting at first childbirth, Marr. Married at first childbirth

Model 1b controlled for the region and union form at the time the first child was born (interaction), the piecewise continuous baseline (the age of the first child) and birth cohorts. *Model 2b* controlled for the region and the union form at the time the first child was born (interaction), the piecewise continuous baseline (the age of the first child), birth cohorts, school education, the union duration prior to the first childbirth, and the age when the first child was born (linear and squared). *Model 3b* controlled for the region and the union form at the time the first child was born (interaction), the piecewise continuous baseline (the age of the first child), birth cohorts, school education, the union duration prior to the first childbirth, the age when the first child was born (linear and squared), religious affiliation, and economic activity. *Model 4b* controlled for the region and union form at the time the first child was born (interaction), the piecewise continuous baseline (the age of the first child), birth cohorts, school education, union duration prior to the first childbirth, the age when the first child was born (linear and squared), religious affiliation, economic activity, parental separation, the number of biological children, the partnership order, whether the child was born before the custody reform in 1998, the first child's characteristics (sex, health, season of birth). Model *5b* controlled for the region and the union form at the time the first child was born (interaction), the

piecewise continuous baseline (the age of the first child), birth cohorts, school education, union duration prior to the first childbirth, the age when the first child was born (linear and squared), religious affiliation, economic activity, parental separation, the number of biological children, the partnership order, whether the child was born before the custody reform in 1998, the first child's characteristics (sex, health, season of birth), and the unobserved selection into childbearing within cohabitation.

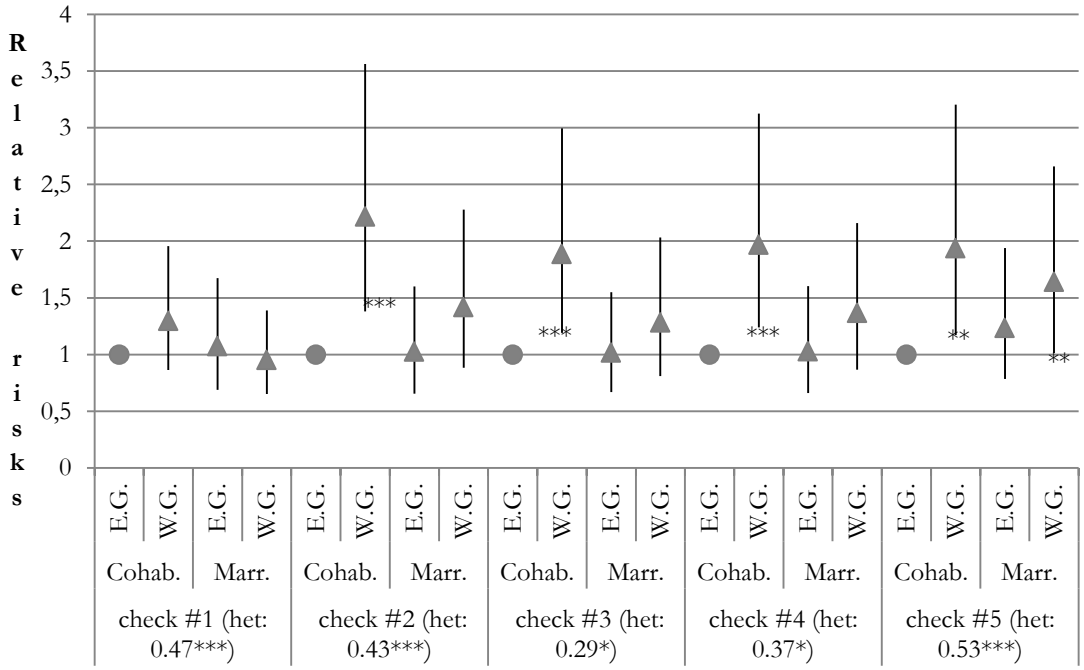

Figure 3: Robustness checks; results of the interaction of the region and the union form at the time the first child was born, shown in relative risks with 95%-confidence intervals and significance levels, the results of residual terms are shown in beta coefficients
Sources: pairfam/DemoDiff (2008-2011), own estimates
Significance levels: ***p < .01; **p < .05; *p < .10
Abreviations: E.G. Eastern German women, W.G. Western German women,
Cohab. Cohabiting at first childbirth, Marr. Married at first childbirth

All models based on model 5b. Robustness check #1: Model 5b without controlling for religious affiliation; Robustness check #2: Model 5b without controlling for union duration prior to childbirth; Robustness check #3: Model 5b, without coefficients that were insignificant; Robustness check #4: Model 5b, residual variance of hazard model fixed to 0.8; Robustness check #5: Model 5b, residual variance of hazard model fixed to 1.2

6 Conclusion

In the past, most of the research on the determinants of union stability has concentrated on the dissolution rates of cohabitations in comparison to marriages. Relatively little is known about how the union stability of cohabitations differs in different contexts, and little attention has been paid to the relationship between the prevalence of births among cohabiting couples and the separation behavior of the parents. If childbearing within cohabitation increases and the separation rates of cohabitations remain stable, this would lead to higher overall separation levels of unions with children involved, and consequently, to a higher prevalence of lone-parenthood and step-families.

This study investigated the impact of cohabitation on the union stability of young parents in a comparative perspective; namely, in eastern and in western Germany. Childbearing within cohabitation has traditionally been higher in eastern than in western Germany. The study showed that even among mothers who started their reproductive careers in reunified Germany, childbearing within cohabitation was much more common among eastern than among western Germans: among mothers of the birth cohorts 1971-1973 and 1981-1983, 60 percent of eastern German partnered women had their first child while cohabiting, compared with only 27 percent of western Germans.

The study opened with two opposing hypotheses with regard to the relative union stability of cohabiting mothers in eastern and western Germany. On the one hand, the higher share of childbearing within cohabitation in eastern Germany may have reduced the share of negatively selected couples among cohabiting parents, which should in turn have improved union stability. On the other hand, both eastern and western German cohabiting mothers were assumed to have relatively liberal attitudes, which may be reflected in, for example, their high levels of secularization and full-time employment, and, consequently, in their levels union stability.

The study showed that eastern German cohabiting women had better prospects of partnership success than western German cohabiting women. Indeed, the former group had, on average, more education and a longer union duration prior to giving birth than the latter group, and these characteristics are generally assumed to reduce negative selectivity. However, among mothers of the birth cohorts 1971-1973, eastern Germans were younger at the time their first child was born, which should be negatively related to match quality, and consequently, to union stability. The results demonstrated that the shorter union duration in particular helps to explain the higher risk of separation among western German cohabiting mothers. This suggests that western German couples may have had insufficient time to screen their partners. Less compatible partners were "weeded out" to a lesser extent before family formation took place, which increased the risk of separation afterwards.

Eastern and western German mothers differed in other respects as well. Eastern German cohabiting mothers were found to have more non-traditional values, because they were less religious and were more likely to have been in full-time employment after having a child than western Germans. This also applied to their married counterparts. A comparison of the probit and the hazard model results revealed that, in addition to a short union duration, the lack of a religious background was the main selective factor that promoted childbearing within cohabitation and increased the risk of separation. When religious affiliation was controlled for, the risk of separation among western German cohabiting mothers was shown to have been almost twice as high as among eastern Germans. This decomposition effect seems to be related to the separation risks associated with the religious background, the marriage timing, and the prevalence of secularization: the results showed that, in general, the lack of church affiliation increased the risk of separation. The Christian church promotes the marital family and life-long marriage, and views non-marital living arrangements as inferior or even unacceptable. This explains why traditional values are related to a lower risk of separation among marital unions, while they do not protect non-marital unions (Schnor 2012). However, the union context at the time the first child was born represents only a snapshot in the partnership biography of the parents. If the couple decided to marry after the child's birth, the religious norms might have become relevant with regard to marital stability. It has been shown that western German women have higher marriage rates than eastern Germans, even after childbirth (Bastin et al. 2012).[62] As a consequence, accounting for the women's religious affiliation leads to substantial changes in the estimation coefficients. This suggests that cohabitation is a fragile arrangement that ends either in marriage or in separation among western German parents, while it is a more stable arrangement in eastern Germany (see the categorization of cohabitation by Heuveline and Timberlake (2004) and Perelli-Harris et al. (2012)).

Comparing cohabitation to marriage, the study found that selection appears to be the main explanation for the higher separation rates among women who cohabited at the time of their first childbirth. However, selection mechanisms worked differently among eastern and western German mothers. In the eastern German case, the shorter union duration of cohabiting mothers was the main explanation for why they had a higher degree of union instability than married mothers. In western Germany, women who cohabited were in less stable unions than women who were married, as long as unobserved factors were not considered. Unmeasured partnership characteristics may have influenced these processes. These findings suggest that cohabitation and marriage differ in many more respects in western Germany than in eastern Germany. The results

[62] In the sample of this study, this difference was most pronounced in the first year after childbirth: among those mothers who were not married but who were cohabiting at the time of the first childbirth, 22 percent of western Germans and 12 percent of eastern Germans married within a year of the first childbirth. Another 32 percent in western Germany and 30 percent in eastern Germany married at a later point in time.

further indicate that childbearing within cohabitation may be perceived differently, and that the perception of cohabitation as an equivalent to marriage is restricted to eastern Germany.

Overall, no significant differences were found in the levels of union stability of eastern German and western German first-time parents (see again Model 0-2a), despite the large difference in cohabitation levels. This signals that policymakers should not be concerned about the increase in non-traditional family forms, as this development does not necessarily mean a decline in the nuclear family. Thus, policies that seek to prevent families from breaking up by promoting marriage are likely to be inefficient. The duration of a couple's union before they start a family has a much greater influence on the stability of their partnership than their marital status.

"The selection argument is used mainly to explain the lower marital stability of people who cohabited prior to marriage but it can also be applied to explain the high union instability of current cohabitors," Liefbroer and Dourleijn have observed (2006). The present study followed this statement, and tried to adapt the methodological approach to the context of childbearing within cohabitation. Assuming a standard normal distribution in the variances of the probit and hazard residuals, the increased risk of union disruption among women who cohabited at the time their first child was born could be entirely attributed to the selection of the most separation-prone into cohabitation. As the models were based on single-spell data, the variances had to be fixed. However, the identification would be improved if multiple spells were used. Standard multi-process estimations, as presented by Lillard and colleagues (1995), refer to multi-spell data, and include, for example, higher order marriages to identify the correlation structure. This strategy cannot be easily transferred to the context of non-marital family formation, as this event only occurs once in the individual biography. Including the marital status at the time of higher order births or the union stability of step-families do not seem to be appropriate solutions to this problem, because these events differ substantially from that of first-time parenthood. To test the robustness of the model results in the present study, different fixed values were assigned to the variance.

A drawback of the study is that the data did not include information on the characteristics of her partner or her family of origin. Also of importance for the present investigation is the differing selection of eastern and western Germans into the sample used. The eastern German women were more likely than the western German women to have become mothers and to have had their first child at a young age. The analysis did not completely capture the differences in these characteristics.

What can we learn from this cross-regional comparison? A large number of studies have helped to solidify the view that cohabitation is a very fragile form of partnership. The present investigation has provided new insights into the issue of union stability of cohabiting parents.

The study has systematically compared the characteristics of cohabiting mothers living in a context with low shares of childbearing within cohabitation to those of cohabiting mothers living in a context in which the majority of parents have their first child outside of marriage. The German example has shown that the context plays a central role for the union stability of parents. The results have demonstrated that in a context in which cohabitation represents the most common type of union for family formation, the union stability of cohabiting mothers can be high. The study has further shown that unobserved heterogeneity mechanisms, which are usually found to explain the destabilizing influence of premarital cohabitation on marital stability, can be applied to the stability of the unions of parents who started their family while cohabiting. However, the unobserved characteristics of the women who decided not to marry could not explain why cohabiting women had better union prospects in a setting in which their union type was more prevalent. The findings for Germany suggest that the prevalence of childbearing within cohabitation does not drive family instability in general. Further comparative studies are needed to clarify the influence of childbearing patterns on union stability. Recent studies (Liefbroer and Dourleijn 2006; Reinhold 2010; Svarer 2004) have suggested that premarital cohabitation ceases to increase divorce rates when about one-half of the population cohabit. Future comparative research may determine whether this critical mass level is also relevant for the stability of couples who were cohabiting when they had their first child.

7 References

Amato, P. R. (2001). Children of divorce in the 1990s: An update of the Amato and Keith (1991) meta-analysis. Journal of Family Psychology, 15(3), 355-370.

Andersson, G. (2002). Children's experience of family disruption and family formation: Evidence from 16 FFS countries. Demographic Research, 7(7), 343-364.

Andersson, G. (2003). Dissolution of unions in Europe: A comparative overview. MPIDR Working Paper 2003-004, Rostock: Max Planck Institute for Demographic Research.

Andersson, G., & Philipov, D. (2002). Life-table representations of family dynamics in Sweden, Hungary, and 14 other FFS countries: A project of descriptions of demographic behavior. Demographic Research, 7(4), 67-144.

Arránz Becker, O., Lois, D., & Nauck, B. (2010). Differences in Fertility Patterns between East and West German women. Disentangling the Roles of Cultural Background and of the Transformation Process. Comparative Population Studies, 35(1), 7-34.

Baizán, P., Aassve, A., & Billari, F. C. (2003). Cohabitation, marriage, and first birth: The interrelationship of family formation events in Spain. European Journal of Population, 19(2), 147-169.

Baizán, P., Aassve, A., & Billari, F. C. (2004). The interrelations between cohabitation, marriage and first birth in Germany and Sweden. Population and Environment, 25(6), 531-561.

Bastin, S., Kreyenfeld, M., & Schnor, C. (2012). Diversität von Familien in Ost- und Westdeutschland. In D. Krüger, H. Herma, A. Schierbaum (eds.), Familie(n) heute: Entwicklungen, Kontroversen, Prognosen (pp. 126-145). Weinheim: Juventa.

Becker, G.S., Landes, E.M., & Michael, R.T. (1977). An economic analysis of marital stability. The Journal of Political Economy, 85, 1141-1187.

Berrington, A. (2001). Transitions to adulthood in Britain. In M. Corijn, & E. Klijzing (eds.), Transitions to Adulthood in Europe (pp. 67-102). Dordrecht: Kluwer Academic Publishers (European Studies of Population 10).

Blossfeld, H.P., Golsch, K., & Rohwer, G. (2007). Event history analysis with Stata. New York/ London: Psychology Press.

Blossfeld, H.-P., Klijzing, E., Pohl, K, & Rohwer, G. (1999). Why do cohabiting couples marry? An example of a causal event history approach to interdependent systems. Quality and Quantity, 33(3), 229-242.

Bobak, M., & Gjonca, A. (2001). The seasonality of live birth is strongly influenced by socio-demographic factors. Human Reproduction, 16(7), 1512-1517.

Brien, M.J., Lillard, L.A., & Stern, S. (2006). Cohabitation, Marriage, and Divorce in a Model of Match Quality. International Economic Review, 47(2), 451-494.

Brines, J., & Joyner, K. (1999). The ties that bind: Principles of cohesion in cohabitation and marriage. American Sociological Review, 64(3), 333-355.

Brüderl, J., Diekmann, A., & Engelhardt, H. (1997). Erhöht eine Probeehe das Scheidungsrisiko? Kölner Zeitschrift für Soziologie und Sozialpsychologie, 49, 205-222.

Kennedy, S., & Bumpass, L. (2008). Cohabitation and children's living arrangements: New estimates from the United States. Demographic Research, 19, 1663-1692.

Cherlin, A. J. (2004). The Deinstitutionalization of American Marriage. Journal of Marriage and Family, 66(4), 848-861.

Clarke, L., & Jensen, A.-M. (2004). Children's risk of parental break-up: Norway and England/Wales compared. Acta Sociologica, 47(1), 51-69.

Ermisch, J. (2005). The puzzling rise of childbearing outside marriage. In A. Health, J. Ermisch, D. Callie (eds.), Understanding Social Change (pp. 22-53). Oxford: Oxford University Press for the British Academy.

Hall, D. R., & Zhao J. Z. (1995). Cohabitation and divorce in Canada: Testing the selectivity hypothesis. Journal of Marriage and the Family, 57(2), 421-427.

Hank, K. (2010): Childbearing history, later-life health, and mortality in Germany. Population Studies, 64(3), 275-291.

Hartley, S. L., Barker, E. T., Seltzer, M. M., Floyd, F., Greenberg, J., Orsmond, G., & Bolt, D. (2010). The relative risk and timing of divorce in families of children with an autism spectrum disorder. Journal of Family Psychology, 24(4), 449-457.

Hatton, C., Emerson, E., Graham, H., Blacher, J., & Llewellyn, G. (2010). Changes in family composition and marital status in families with a young child with cognitive delay. Journal of Applied Research in Intellectual Disabilities, 23(1), 14-26.

Heuveline, H., Timberlake, J. M., & Furstenberg, F. F. (2003). Shifting Childrearing to Single Mothers: Results from 17 Western Countries. Population and Development Review, 24(1), 47-71.

Heuveline, P., & Timberlake, J. M. (2004). The role of cohabitation in family formation: The United States in comparative perspective. Journal of Marriage and Family, 66(5), 1214-1230.

Hoem, B., & Hoem, J. (1992). The disruption of marital and non-marital unions in contemporary Sweden. In J. Trussel, R. Hankinson, J. Tilton (eds.), Demographic applications of event history analysis (pp. 61-93). Oxford: Clarendon Press.

Huinink, J., Brüderl, J., Nauck, B., Walper, S., Castiglioni, L., & Feldhaus, M. (2010). Panel Analysis of intimate relationships and family dynamics (pairfam): Conceptual framework and design. Arbeitspapier des Beziehungs- und Familienpanels, No.17.

Huinink, J. (1999). Die Entscheidung zur Nichtehelichen Lebensgemeinschaft als Lebensform—Ein Vergleich zwischen Ost-und Westdeutschland. In Nichteheliche Lebensgemeinschaften, Verlag für Sozialwissenschaften, 113-138.

Impicciatore, R., & Billari, F. C. (2012). Secularization, Union Formation Practices, and Marital Stability: Evidence from Italy. European Journal of Population, 28(2), 119-138.

Jalovaara, M. (2013). Socioeconomic resources and the dissolution of cohabitations and marriages. European Journal of Population, 29(2), 167-193.

Jensen, A.-M., & Clausen, S.-E. (2003). Children and family dissolution in Norway: The impact of consensual unions. Childhood, 10(1), 65-81.

Kalil, A.,Mogstad, M., Rege, M., & Votruba, M. (2011). Divorced father's proximity and childrens' long run outcomes: Evidence from Norwegian register data. Demography, 48(3), 1005-1027.

Kennedy, S., & Thomson, E. (2010). Children's experiences of family disruption in Sweden: Differentials by parent education over three decades. Demographic Research, 23: 479-508.

Kiernan, K. (2002). Cohabitation in Western Europe: Trends, issues, and implications. In A. C. Crouter, A. B. Crouter (eds.), Just Living Together: Implication of cohabitation on families, children, and social policy (pp. 3-32). Mahwah: Lawrence Erlbaum.

Kiernan, K. (2004). Unmarried Cohabitation and Parenthood in Britain and Europe. Law & Policy, 26(1), 33-55.

Kim, H.S. (2011): Consequences of parental divorce for child development. American Sociological Review, 76(3), 487-511.

Klüsener, S., & Kreyenfeld, K. (2009). Nichteheliche Geburten im regionalen Vergleich. Nationalatlas aktuell 10(10/2009), Leipzig: Leibniz-Institut für Länderkunde (IfL).

Klüsener, S., & Goldstein, J.R. (2012). The long-standing demographic East-West-divide in Germany. MPIDR Working Paper 2012-007, Rostock: Max Planck Institute for Demographic Research.

Klüsener, S., Perelli-Harris, B., & Sánchez Gassen, N.E. (2012). Spatial aspects of the rise of nonmarital fertility across Europe since 1960: the role of states and regions in shaping patterns of change. MPIDR Working Paper 2012-005, Rostock: Max Planck Institute for Demographic Research.

Kreyenfeld, M., & Geisler, E. (2006). Müttererwerbstätigkeit in Ost- und Westdeutschland. Journal of Family Research, 18(3), 333-360.

Konietzka, D., & Kreyenfeld, M. (2002). Women's Employment and Non-Marital Childbearing: A Comparison between East and West Germany in the 1990's. Population, 57(2), 331-358.

Kreyenfeld, M., Konietzka, D., & Walke, R. (2011a). Dynamik und Determinanten nichehelicher Mutterschaft in Ost- und Westdeutschland. In J. Brüderl, L. Castiglioni (eds.), Ergebnisse der ersten Welle des Beziehungs- und Familienentwicklungspanels. Würzburg: Ergon Verlag.

Kreyenfeld, M., Walke, R., Salzburger, V., Schnor. C., Bastin, S., & Kuhnt, A.-K (2011b). DemoDiff – Wave 1: Supplement to the pairfam Data Manual. MPIDR Technical Report 2011-004, Rostock: Max Planck Institute for Demographic Research.

Kulu H., & Boyle P.J. (2009). Premarital cohabitation and divorce: support for the 'trial marriage' theory? Demographic Research, 23(31), 879-904.

Le Bourdais, C., Neill, G., & Vachon, N. (2000a). Family disruption in Canada: Impact of the changing patterns of family formation and of female employment. Canadian Studies in Population, 27(1), 85-105.

Le Bourdais, C., Neill, G., & Marcil-Gratton, N. (2000b). L'effet du type d'union sur la stabilité des familles dites "intactes". Recherches sociographiques, 41(1), 53-74.

Le Bourdais, C., & Lapierre-Adamcyk, E. (2004). Changes in conjugal life in Canada: Is cohabitation progressively replacing marriage? Journal of Marriage and the Family, 66(4), 929-942.

Lehrer, E.L. (2004). Religion as a Determinant of Economic and Demographic Behavior in the United States. Population and Development Review, 30(4), 707-726.

Lillard, L. A., & Waite, L. J. (1993). A joint model of marital childbearing and marital disruption. Demography, 30(4), 653-681.

Lillard, L. A., Brien M. J., Waite L. J. (1995). Premarital cohabitation and subsequent marital dissolution: a matter of self-selection? Demography, 32(3), 437-457.

Lillard, L. A., & Panis, C.W. A. (2003). aML multilevel multiprocess statistical software. Version 2.0. Los Angeles, California: Econ Ware.

Liefbroer, A.C., & Dourleijn, E. (2006). Unmarried cohabitation and union stability: Testing the role of diffusion using data from 16 European countries. Demography, 43(2), 203-221.

Lyngstad, T.H., & Jalovaara, M. (2010). A review of antecendents of union dissolution. Demographic Research, 23(10), 257-292.

Manlove, J., Wildsmith, E., Ikramullah, E., Ryan, S., Holcombe, E., Scott, M., & Peterson, K. (2012). Union Transitions Following the Birth of a Child to Cohabiting Parents. Population Research and Policy Review, 31(3), 361-386.

Manning, W.D. (2004). Children and the stability of cohabiting couples. Journal of Marriage and Family, 66(3), 674-689.

Manning, W.D., Smock, P.J., & Majumdar, D. (2004). The relative stability of cohabiting and marital unions for children. Population Research and Policy Review, 23(2), 135-159.

McLanahan, S. (2004). Diverging Destinies: How Children are Faring under the Second Demographic Transition. Demography, 41(4), 607-627.

Mooney, A., Oliver, C., & Smith, M. (2009). Impact of family breakdown on children's well-being. Evidence review. Thomas Coram Research Unit Institute of Education, University of London.

Morgan, S. P., Lye, D. N., & Condran, G. A. (1988). Sons, daughters, and the risk of marital disruption. American Journal of Sociology, 94(1), 110-129.

Nauck, B., Brüderl, J., Huinink, J., & Walper, S. (2012). Beziehungs- und Familienpanel (pairfam). GESIS Datenarchiv, Köln. ZA5678 Datenfile Version 3.0.0, doi:10.4232/pairfam.5678.3.0.0.

Oláh, L. Sz. (2001). Gender and family stability: Dissolution of the first parental union in Sweden and Hungary. Demographic Research, 4(2), 29-96.

Oláh, L. Sz., & Bernhardt, E. (2008). Sweden: Combining childbearing and gender equality. Demographic Research, 19(28), 1105-1144.

Oppenheimer, V.K. (1988). A Theory of Marriage Timing. American Journal of Sociology, 94(3), 563-591.

Osborne, C., & McLanahan, S. (2007). Partnership Instability and Child Well-Being. Journal of Marriage and Family, 69(4), 1065-1083.

Perelli-Harris, B., Sigle-Rushton, Kreyenfeld, M., W., Lappegard, T., Keizer, R., & Berghammer, C. (2010). The educational gradient of childbearing within cohabitation in Europe. Population and Development Review, 36(4), 775-801.

Perelli-Harris, B., Kreyenfeld, M., Sigle-Rushton, W., Keizer, R., Lappegard, T., Jasilioniene, A., Berghammer, C., & Di Giulio, P. (2012). Changes in union status during the transition to parenthood in eleven European countries. Population studies, 66(2), 167-182.

Perelli-Harris, B., & Sánchez Gassen, N.E. (2012). How similar are cohabitation and marriage? The spectrum of legal approaches to cohabitation across Western Europe. Population and Development Review, 38(3), 435-467.

Pötzsch, O. (2012). Geburtenfolge und Geburtenabstand – neue Daten und Befunde. In Statistisches Bundesamt (ed.), Wirtschaft und Statistik, February 2012.

Poortman, A.-R., & Lyngstad, T. H. (2007). Dissolution risks in first and higher order marital and cohabiting unions. Social Science Research, 36(4), 1431-1446.

Rabe-Hesketh, S., & Skrondal, A. (2008). Multilevel and longitudinal modelling using Stata. STATA press.

Raley, R. K. (2001). Increasing fertility in cohabiting unions: Evidence for the second demographic transition in the United States? Demography, 38(1), 59-66.

Raley, R. K., & Wildsmith, E. (2004). Cohabitation and Children's Family Instability. Journal of Marriage and the Family, 66(1), 210-219.

Reinhold, S. (2010). Reassessing the link between premarital cohabitation and marital instability. Demography, 47(3), 719-733.

Rosenfeld, R. A., Trappe, H., & Gornick, J. C. (2004). Gender and work in Germany: Before and after reunification. Annual Review of Sociology: 103-124.

Schnor, C. (2012). Trennungsrisiko von Paaren mit Kindern: Der Einfluss der Religion in West- und Ostdeutschland. Journal of Family Research, Special Issue 9, 229-256.

Schnor, C., & Bastin, S. (forthcoming). Partners and Babies. Partnership and Fertility Histories of the German Family Panel (pairfam/DemoDiff, waves 1-3) as an Event History Data Set. Forthcoming as a pairfam Technical Report.

Sobsey, D. (2004). Marital Stability and Marital Satisfaction in Families of Children with Disabilities: Chicken or Egg? Developmental Disabilities Bulletin, 32(1), 62-83.

Sobotka, T., & Toulemon, L. (2008). Overview Chapter 4: Changing family and partnership behaviour: Common trends and persistent diversity across Europe. Demographic Research, Special Collection, 19(6), 85-138.

South, S. J. (1995). Do you need to shop around? Age at marriage, spousal alternatives, and marital dissolution. Journal of Family Issues, 16(4), 432-449.

StataCorp (2011). Stata Quick Reference and Index. Release 12. College Station, Texas: StataCorp LP.

Steele, F., Joshi, H., Kallis, C., Goldstein, H. (2006). Changing compatibility of cohabitation and childbearing between young British women born in 1958 and 1970. Population Studies, 60(2), 137-152.

Svarer, M (2004). Is your love in vain? Another look at premarital cohabitation and divorce. Journal of Human Ressources, 39(2), 523-535.

Thibaut, J. W., & Kelley, H. H. (1959). The social psychology of groups. New York: John Wiley & Sons, Inc.

Thomas, A., & Sawhill, I. V. (2005). For love and money? The impact of family structure on family income. The Future of Children, 15(2), 57-74.

Wu L.L., & Musick K. (2008). Stability of Marital and Cohabiting Unions Following a First Birth. Population Research and Policy Review, 27(6), 713-727.

Appendix C

Supplementary material: Documentation of the event history data set

Partners and Babies. Partnership and Fertility Histories of the German Family Panel (pairfam/DemoDiff, waves 1-3) as an Event History Data Set

Authors: Christine Schnor[63] and Sonja Bastin[64]

Published on the pairfam website: Pairfam Technical Paper No.03 (January 2014).

http://www.pairfam.de/fileadmin/user_upload/redakteur/publis/technical_papers/TP03_Event-History_Schnor_Bastin.pdf

Abstract

The German Family Panel (pairfam and DemoDiff, waves 1-3, Release 3.1) provides two generated biographical data sets (*biochild.dta* and *biopart.dta*) that contain information on fertility and partnership histories. Before these data can be used for event history or sequence analyses, they must be transferred into a spell format. In this report, we explain how this transfer is made. We provide a STATA code (*Eventhistory.do)* that generates an event history data set that can be used for various kinds of event history and sequence analyses in the realm of fertility and partnership dynamics. With the generated *Eventhistory.dta*, it is easy to identify the timing of family-related events, like the formation, dissolution, and interruption of marriages and other types of partnerships; as well as the birth of children. In addition, further episode-specific information on the family arrangement is included. Transferring the data into a spell format involves two major tasks: bringing the partnership and fertility histories into convergent and compatible formats, and dealing with missing date information. Moreover, *Eventhistory.dta* includes indicator variables for imputed date information in *biopart.dta* and *biochild.dta,* as well as for individuals who did not experience any events in their partnership or fertility biographies. This technical report is accompanied by the STATA codes that generate the spell data, as well as two examples of analyses. In addition, an Excel file exemplifies the structure of the data set.

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Index of Annex

Within *Eventhistory* package:

Eventhistory.do

Eventhistory_ReadMe.txt

Eventhistory_Example_id.xlsx

- Table I: *biopart.dta*
- Table II: *biochild.dta*
- Table III: *Eventhistory.dta*

Eventhistory _Example_analysis1.do

Eventhistory _Example_analysis2.do

biopart_PF.do

biopart_PF_IMP.do

biopart_DD.do

biopart_DD_IMP.do

At the end of this document:

Introduction

Note to the user: Feel free to start immediately, or to read this report for more detailed information.

Please note that it is possible to start your own event analysis with STATA immediately by using *Eventhistory.dta*, which is generated by our *Eventhistory.do* file. [65] The delivered *Eventhistory_ReadMe.txt* document lists the steps you need to conduct to run *Eventhistory.do*. We further explain this procedure in the following paragraph ("How to retrieve *Eventhistory.dta*"). To learn more about our procedures or about how to perform individual modifications or to get an idea how to implement further waves (waves 4, 5 etc.), continue reading this report. Please note that we use STATA as software to construct *Eventhistory.dta*. The version STATA SE is needed to process the required number of variables.

How to retrieve *Eventhistory.dta* [66]

In order to run the *Eventhistory.do* file described here—which in turn generates *Eventhistory.dta*—small adjustments need to be made. Firstly, you need to gather several data sets and syntax files (see Table 1). Secondly, you need to rename some data file labels as we did (see *Eventhistory_ReadMe.txt*). Thirdly, small changes within the syntax of *biopart.do (*pairfam as well as DemoDiff*)* are necessary and recommendable. You need to enter your personal data path into the syntax. Further, for your convenience, we recommend that you introduce the command "set more off" at the beginning of the do file. *Biopart.do* uses variable name abbreviations in its commands. Thus, if you wanted to stop STATA from recognizing abbreviations, you would need to type >set varabbrev on< at the beginning of the *biopart.do* file and at the beginning of the *biochild.do* file. After making these adjustments, you can run the *Eventhistory.do* file.

[65] The use of data generated by *Eventhistory.do* should be indicated in your work by citing this report.

[66] To generate an event history data set, we split the data if an event occurs. These splits can consume a great deal of memory. We generally choose a memory setting of one gigabyte (g), which is enough to conduct all splits. The final *Eventhistory.dta* has a size of 113 megabytes (m). If the memory demand exceeds the user's capacities, we recommend commenting out the variable AGEANC (age of the respondent in years). This variable splits the data for each respondent by year. As the respondent's age is a central control covariate in most analyses, we decided to include the variable in the data. If you drop the generation of this variable, you will get a final data size of 55 megabytes.

Short description of the German Family Panel

The here described data base on the German Family Panel pairfam and its supplement DemoDiff. In the following we always refer to pairfam and DemoDiff jointly, when we mention the "German Family Panel". Pairfam (Panel Analysis of Intimate Relationships and Family Dynamics) is a, multidisciplinary, longitudinal study for researching partner and family dynamics in Germany. It is coordinated by Josef Brüderl, Johannes Huinink, Bernhard Nauck, and Sabine Walper. The survey is funded as a long-term project by the German Research Foundation (DFG) (Huinink et al. 2011; Nauck et al. 2012). Pairfam had its first wave in 2008/2009, and is being conducted annually over the subsequent 14 years. The interview data are gathered from a nationwide random sample of anchor persons of the three birth cohorts 1971-73, 1981-83, and 1991-93. For the full data documentation, see Brüderl et al. (2013) and Huinink et al. (2011). Pairfam gathered information from respondents living in western and eastern Germany. DemoDiff (Demographic Differences in Life Course Dynamics in Eastern and Western Germany) is a supplementary study to pairfam. It only samples respondents of the birth cohorts 1971-1973 and 1981-1983 who lived in eastern Germany (excluding West Berlin) at time of first interview (2009/2010). Like pairfam, annual standardized personal interviews are conducted. The vast majority of the German population lives in the western part of the country. However, the German history raises the question whether family life in the former socialistic eastern part of Germany differs from the rest of the country. The oversampling of eastern Germans allows solid comparisons between the two regions with the German Family Panel. For detailed information on the conception of DemoDiff and the main differences to pairfam please see Kreyenfeld et al. 2011.

In its first wave (conducted 2008/2009 (pairfam) and 2009/2010 (DemoDiff), respectively), the German Family Panel collected retrospective data on the partnership and fertility biographies of the respondents, which are updated with each consecutive wave. These data include detailed information not only on episodes of co-residence with a spouse or partner, but also on partnership episodes that do not involve living together. Furthermore, retrospective information on biological children, as well as on non-biological children and the respondent's co-residential history with these children is available. Former partners can be identified as the second biological parent of children in the retrospective data. It is these partnership and fertility biographies – the partners and the babies - we focus on in this report.

The German Family Panel as an event history data set

This report describes how data on the partnership and fertility biographies of individuals can be brought together to form a single, coherent event history data set.

This data set may be matched to further information on the anchor person, his or her children, and his or her parents, as well as prospective partners using the respective person identifiers (pid, cid, mid, fid, smid, sfid). *Eventhistory.dta* is based on the third release of data of the *pairfam* group, and therefore includes the pairfam waves 1 to 3 (Release 3.1) and the DemoDiff waves 1 and 2/3 (Release 2.0).[67] We base our code on files provided by the pairfam and DemoDiff group which are listed in Table 1. All files are either available as Scientific Use Files from the GESIS Data Archive or are provided in the Eventhistory package delivered by the DemoDiff group. For any questions please refer to the pairfam user service (support@pairfam.de).

Table 1: Files provided by the German Family Panel

Pairfam	*DemoDiff*	
anchor1.dta	*anchor1_DD.dta*	Provided by pairfam user service
anchor2.dta	*anchor2_DD.dta*	
anchor3.dta		
biopart.dta	*biopart.dta*	
biochild.dta	*biochild.dta*	
biopart_PF.do	*biopart_DD.do*	Provided by DemoDiff group within the *Eventhistory* package
biopart_PF_IMP.do	*biopart_DD_IMP.do*	

We validate our work in three steps. First, we illustrate the structure of the data sets *biopart.dta, biochild.dta*, and *Eventhistory.dta* with an example id (see *Eventhistory_Example_id.xlsx*). This allows the user to compare easily the information in *biopart.dta* and *biochild.dta* with our generated *Eventhistory.dta*. Second, we provide two examples of how the data may be used (see *Eventhistory_Example_analysis1.do* and *Eventhistory_Example_analysis2.do*. Third, we provide the STATA syntax file *Eventhistory.do*, which creates the *Eventhistory.dta*, which in turn makes our work completely comprehensible. The files *Eventhistory.do* and *Eventhistory.dta* may be used by other

[67] As the first wave of DemoDiff started one year after the first pairfam waves, the DemoDiff coordinators decided to merge the questionnaires of the second and third wave to allow the synchronization with pairfam.

users by citing this document. However, we accept no responsibility for errors that may have arisen during the coding procedures.

The original data sets (*biopart.dta* and *biochild.dta*) contain a wide range of date variables. This guarantees that the user has access to the data that have been manipulated the least and that have a variety of potential uses. However, because the data structure is complex, the data need to be edited extensively before analyses like event history or sequence analyses can be conducted. Our aim is to create a data set that allows users to conduct duration analyses immediately, without a major restructuring of the data. We improve the manageability of the data by transforming all of the available date information into time-varying variables. When appropriate, further information on partnership and fertility is also included in this time-varying manner by linking it to the date information. This data set thus offers users the opportunity to analyze easily a variety of research topics, including fertility behavior, union formation and dissolution, and the process by which partnerships are established.

We very carefully clean the fertility and partnership information to provide detailed and consistent biographies, and to flag any imputed date information in *biopart.dta* and *biochild.dta*. In order to generate a single, coherent event history data set, we bring the partnership and fertility histories into compatible formats and add the population at risk (persons without partnership or children information). However, transferring the data into spell format requires us to simplify the data in some instances. We aim to generate clean and consistent fertility careers, which is why we focus on the *biological* children of the anchor person.[68] Thus, for researchers who are particularly interested in non-biological children, these data might be of limited value.

Structure of the Report

Chapter 1 defines our concept of partnership and fertility. We then give an overview of how fertility and partnership histories are provided in the German Family Panel, and the factors we consider when we generate *Eventhistory.dta*. In Chapter 2, we illustrate how we generate the spell data and describe in more detail the variables included. In Chapter 3, we summarize the benefits of *Eventhistory.dta* and offer advice on how users should handle the provided flag variables. Finally, we provide two examples of analyses in Chapter 4.

[68] For non-biological children more limited information like episodes of co-residence with the anchor person is considered.

1 General notes

2.1 Definition of partnership and fertility

The German Family Panel includes different partnership dimensions. First, it provides information on whether the respondent has a partner. We define this dimension as a "union." Second, it provides information on the partner with whom the respondent co-resides. This living arrangement is called "cohabitation." Third, information about marriage is included in the data. These three dimensions of union, cohabitation, and marriage are included in the concept of "partnership." Thus, when we refer to issues that are relevant to any of these three dimensions, we use the term "partnership."

In the interviews, the respondents are asked about the length of their union, cohabitation, or marriage. This date information leads to different combinations of the partnership dimensions, as we illustrate in Figure 1; namely,

1: having a relationship outside of marriage and cohabitation (a so-called "living apart together relationship");

2: having a co-residing non-marital relationship;

3: having a co-residing marital relationship;

4: being married to the partner and living in separate households;

5: "still" cohabiting, without having a relationship with the (former) partner;

6: "still" cohabiting with the spouse, without being in a union with the spouse; and

7: "still" being married, but living apart from the former partner.

These are the main partnership categories that concentrate on the relationship to a single partner. However, over the life course, most people enter into relationships with various partners. This leads to different combinations of the partnership categories. For example, a person can still be married to a former partner (Category 7), but already have a new non-marital relationship with a separate household (Category 1). Another possibility is that a person is engaged in two simultaneous partnerships (both category 1). These multiple partnership statuses are identified by the German Family Panel and are also considered in *Eventhistory.dta*.

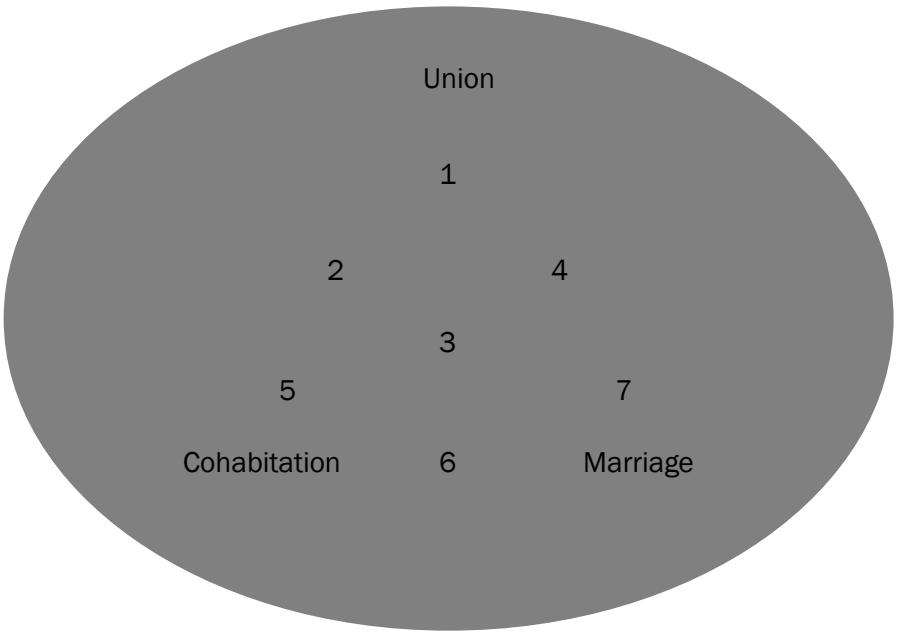

Figure 1: Partnership dimensions

The German Family Panel collects a range of information on the biological children, stepchildren, foster children, and adoptive children of the respondent[69]. In *Eventhistory.dta*, we provide information on the date of birth, the sex, the identity of the second biological parent, and the residence of each *biological* child of the respondent. For all other children (step-, foster, and adoptive children), we provide information on their co-residence with the respondent.

2.2 From biochild and biopart to an event history data set

In order to facilitate analyses with the partnership and fertility biographies, the German Family Panel data group offers two files that provide fertility and partnership histories (*biopart.dta* and *biochild.dta*), as well as the Stata codes that generate these files from the original data (*biopart.do* and *biochild.do*[70]). This means that the fertility and partnership histories are already cleaned to some extent, as the data have already been checked for major inconsistencies (such as cases in which the end of a partnership was dated before the start, or in which the partners' first meeting is dated after they started their relationship). The data are provided in long format, which means that all of the information is stored in one row per partnership or per child. The partners (rows) are ordered according to the stated start date of the relationship, with the last row being the most

[69] Information on non-biological children is only available for children who have ever lived in the respondent's household.

[70] The exact file labels vary depending on wave, release and whether it refers to pairfam or DemoDiff data.

current partnership. For the fertility history, there is one row for each child ordered according to the birth dates, with the youngest child in the last row.[71] For each child, there is also an additional row for each wave. This format of *biochild.dta* is referred to as the "long-long" format (Brüderl et al. 2013: 51).

These formats have some drawbacks when they are used for joint analyses of fertility and partnership events. In *Eventhistory.dta*, we address these difficulties.

1. With their wide range of date variables, *biopart.dta* and *biochild.dta* are rather complex data sets. Thus, they have to be brought into a spell format before any kind of duration analyses can be conducted.[72] In contrast, *Eventhistory.dta* features several rows per respondent, with each referring to a specific point in time in the life of the respondent, and showing whether he or she was in a union, cohabitation, or marriage, or was a parent at the respective point in time. One advantage of this format is that it is easy to identify the start and end of partnerships, as well as to consider information on union or cohabitation interruptions (so-called "breaks") and overlapping partnership episodes. This information might otherwise be neglected.

2. *Biochild.dta* and *biopart.dta* are stored separately and differently. The long-long format of *biochild.dta* cannot be used directly for event history analysis. We therefore bring the fertility data from long-long into a long-wide format.[73] The advantage of using this format is that the fertility data are in the same format as the partnership data (*biopart.dta)*. This enables us to merge the fertility with the partnership histories. This step is important, as most fertility analysis is directly connected to the partnership dimension.

3. Respondents without partnership experience and childless persons are not included in *biochild.dta* or *biopart.dta*. This is a disadvantage for event history analyses because these estimations refer to a population at risk. If not the entire population is included, censored episodes cannot be taken into account appropriately. One example is the transition to the first birth. Neglecting childless people would lead to an underestimation of the amount of time that elapses until the first birth for the whole population, as censored episodes are not included in the

[71] Note that respondents were asked to report all the children the respondent ever had. These are defined as all biological children, regardless of whether the respondent ever lived with them or not, and all other children, like adoptive, foster, or stepchildren, provided the respondent has ever lived with them.

[72] Spell data sets include a separate episode (row) for each event that occurs in the respondent's biography. These "one row per event" data show all of the specific information for each defined episode in the life course of the respondent.

[73] After this procedure, we have only one line for each child, and the information from different interview times is stored in separate variables.

sample. Hence, we include all of the respondents in *Eventhistory.dta*, not just the ones who have experienced an event.[74]

4. *Biochild.dta* and *biopart.dta* include imputed date information if the monthly dates are missing, but information on the year is given. These imputations cannot be identified. However, the identification of imputations is important for any kind of analysis, as the results may depend on the imputation mechanism. This appears to be especially important in the context of family dynamics, as events are closely related and often occur within a narrow time frame. We therefore flag cases in which the dates have been imputed in *biopart.dta* and *biochild.dta*. These flag variables are denoted with the prefix "IMP" and are coded as (1) in cases in which only information on the year is available, and (2) in cases in which information on the season is available.[75] The structure of *biopart.do* implies that these variables had to be introduced for both pairfam and DemoDiff with a modified *biopart.do* named *biopart_*_IMP.do*[76] (see page 6). Imputed date information regarding children is flagged separately for each biological child,[77] and aggregately for non-biological children (i.e., without referring to specific non-biological children).[78]

5. In *biopart.dta* and *biochild.dta*, no imputation is carried out if the year of the date is missing. These missing dates present difficulties in the event history data, which are based on date information. For example, a missing separation date or interruption date would lead us to assume that the partnership continues, because the data cannot be split at the (unknown) time of separation. We have therefore decided to recode the whole episode to missing if either the start or the end date is missing. Partnership episodes with nonexistent year information are flagged. The time-varying partnership flag variables are denoted with the prefix "FLAG" and are coded as (1) if the start or end date information is missing and (2) if the information on breaks is missing.[79]

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[74] Technically, we access the original data set *anchor1.dta* and extract several variables (e.g., the dates of birth and interviews), which otherwise are available only for individuals who had ever reported having children or partnerships.

[75] *Biopart.dta* offers several flag variables that mark inconsistencies in the partnership history. These variables may tag inconsistencies that caused the imputation procedure because they are generated after the random imputation process. We therefore checked the relevant dates if an imputation took place and recoded the respective dates.

[76] Missing month information only occurs in wave 1. Starting with wave 2, respondents could provide only concrete dates. This difference is due to the different interview methods in waves 1 and 2.

[77] Specific variables indicate imputations of the date of birth (IMP_dobbiok{1-10}) and death (IMP_dodbiok{1-10}) of a biological child, as well as imputations of the beginning and the end of co-residence (IMP_beglivbiok{1-10}, IMP_endlivbiok{1-10}).

[78] IMP_beglivnonbiok, IMP_endlivnonbiok.

[79] The time-varying flag variable FLAG_M_UNION marks the episode in which the partnership might have taken place. If the start or end of a union is missing, we flag the period between the known dates with (1) if the missing partnership episode is of a higher order, and from birth onwards if information on the first union is missing. If a union interruption is missing, we flag the respective union with (2). A missing cohabitation episode is flagged for the respective union episode, if it is known (FLAG_M_COHAB).

If at least one year of the birth information for the biological children is missing, the complete ids are tagged. To indicate that year of birth information on children is missing no flag variables are introduced, but the respective variables are coded as (-7) "incomplete information." We consequently set these variables for the whole id, and not just for specific episodes, to (-7). For a full list of the respective variables, see Table in Chapter 4.

Note to the user: Comparing the datasets by an example id

An example id in the appended Excel document "Eventhistory_Example_id.xlsx" shows in what form the biography information is available in *biopart.dta* and *biochild.dta* (Table I and Table II) and how it is available in *Eventhistory.dta* (Table III). The variables are shaded in different colors, which facilitates a comparison of the data structures.

2 Generation of the event history data

In the following, we describe in detail how we generate *Eventhistory.dta* using several data files provided by the German Family Panel data group (see Table 1). Basically this data bases on release 3.1 (pairfam) and release 2.0 (DemoDiff).

The essential feature of an event history data set is the time-varying information, which is generated by episode splitting. This "one row per event" format is also known as the "spell data" format. We set the start of the processing time at the birth of the anchor person. As events can only be identified in episodes after the event actually occurred, events that happened in the month of the interview would not be able to be identified if we were to end the processing time in the month of the interview. Thus, we censor episodes one month *after* the date of the last available interview, which allows us to account for events that happened in the month of the interview. The disadvantage of this procedure is that censored episodes may be overestimated by up to one month each.

We describe the editing separately for general information, (3.1) information on the partnership (3.2.), and information on the fertility (3.3) history, as specific strategies apply in each case.

Otherwise, we flag the missing cohabitation for the same episode as the missing union episode. The same strategy is also applied to missing marriage episodes (FLAG_M_MARR).

3.1 General time-varying variables

We include in the data two general time-varying variables: one that marks the age of the person, and one that marks the timing of the interviews in the histories.

Age of anchor

The age variable (AGEANC) shows the age (in single years) of the respondent starting from age 14.

Timing of interviews

The second general time-varying variable marks the timing of the interviews within the individual biographies (INT). INT splits the episode before and after an interview, showing the month of each interview as a separate episode. This makes it easy to match prospective, wave-specific information of the German Family Panel to the relevant episodes. For example, responses from the questionnaires of the anchor, partner, child, or parents can be matched with the information of the respondent to provide a dyadic perspective. Also, it is important to note that all panels, including the German Family Panel, suffer from panel attrition. For several reasons (for example selectivity issues), it might be useful to only include information from specific waves in the analysis. This can be easily done with the variable INT.

3.2 Partnership biography

In this section, we describe the union, cohabitation, and marriage information in *Eventhistory.dta*. First, we explain the structure of the partnership episodes (3.2.1). Second, we focus on the order variables implemented in *Eventhistory.dta* (3.2.2). Third, we present any additional information that is given on partnership episodes in *Eventhistory.dta* (3.2.3).

3.2.1 Partnership episodes

Pairfam includes information on the partnership episodes of the anchor, and considers eventual temporary disruptions and later reunions with the same partner. *Biopart.dta* draws on this information by defining the earliest start, most recent ending, and possible interruption dates of the relationships with each partner of the anchor person. Within this concept, the focus is on the earliest start and the most recent ending of a partnership. The information on interruptions (start date and end date of the first break, the second break, the third break, etc.) is stored in separate variables, and is therefore likely to be neglected in analyses. We have decided not to distinguish

between temporal and final disruptions in the *central* partnership variables in *Eventhistory.dta*, as this means that partnership durations are less likely to be overestimated than with the *biopart.dta* structure. Referring to the different partnership dimensions in pairfam, we include time-varying partnership variables that indicate whether the respondent was in a union, a cohabitation, or a marriage at the respective points in time.[80] Because we are using the event history approach, we consider only episodes in which both the start *and* the end date are available. Episodes with missing information are flagged (FLAG*) (see Section 2.2). The information on whether and how long the respondent was in a union is stored in a single variable (UNION), which distinguishes between (0) "no union" and (1) "in union." This variable takes the earliest start date and the latest end date of each union, *as well as* episodes of union interruptions into account. The existence of a union break is indicated by the variable UBREAKORDER. The variable COHAB distinguishes between (0) "not in cohabitation" and (1) "cohabiting". Episodes in which the cohabitation is temporarily disrupted are indicated by CBREAKORDER. The variable MARR has the values (0) "single," (1) "married," or (2) "divorced." There is no information on repeated marriage episodes with the same partner in the retrospective data. The structure is visualized in the Example id (*Eventhistory_Example_id.xlsx*).

Inconsistent partnership episodes

Biopart.dta offers four flag variables that mark inconsistencies in the partnership biography. As these consistencies never occur simultaneously in a single episode, we aggregated them in one time-varying variable (BIOPARTFLAG). Inconsistencies are coded to (1) if the marriage starts earlier than the partnership, which refers to the flag variable *biopartflag1* in *biopart.dta*. In *biopart.dta*, the flag variable *biopartflag2* identifies overlapping cohabitation episodes with different partners. In *Eventhistory.dta*, we do not consider such episodes as inconsistent per se, but include variables that indicate the union or cohabitation order of the simultaneous partner in case of overlapping episodes (UNIONORDER_SIM and COHABORDER_SIM, see Section 3.2.2). With these variables in place, the flag variable *biopartflag2* is no longer needed. We have therefore decided to drop this information. Corresponding to the variables *biopartflag3* and *biopartflag4* in *biopart.dta*, the time-varying flag variable BIOPARTFLAG in *Eventhistory.dta* has the value (3) if the current marriage started before the previous marriage had been terminated, and the value (4) if the age of the partner had been misreported (being less than 10 years old). We further sought to ensure that inconsistencies are not artificially created in the imputation process of missing month information. With the help of our generated flag variables (IMP*), which mark random imputations in the date variables, we identified these episodes and recoded the respective start

[80] Please note that we first had to split each partnership episode, with reference to the duration variables, to generate time-varying partnership variables for each episode. The information of the respective partnership episodes is then concentrated into a few central variables.

and end dates in a manner that eliminated overlapping episodes.[81] Consequently, these episodes are not marked as inconsistent.

3.2.2 Order variables

Biopart.dta includes a variable that gives information about the ordering of the different partners according to the start date of the partnerships ("index"). If the start date of a partnership is missing, this variable relies upon the order in which the partnerships were listed during the interview, and assumes this to be the chronologically correct ordering of partnerships. This "index" variable refers to the union dimension. We rely upon this index variable and generate a variable that indicates in a time-varying manner the order of the union partner. UNIONORDER shows the respective order number or has the value (0) "no partner" if no union is ongoing in the respective episode. Additionally, we provide information about the order number of the union partner with whom the respondent cohabited or was married to by the variables UNIONORDER_COHAB and UNIONORDER_MARR. The example id (see Table III in the appended Excel document *Eventhistory_Example_id.xlsx*) illustrates what the variables look like.

As further order variables, we include information about the order of cohabitations and marriages. This information is, for example, essential to an analysis that is restricted to first cohabitations or first marriages. Therefore, we construct indexes for cohabitation and marriage by ordering the data according to the cohabitation and the marriage histories, respectively.[82] In *Eventhistory.dta* these index variables are time-varying and labeled COHABORDER and MARRORDER. They refer to the order of domestic partners and spouses (as can be seen from the Example id in *Eventhistory_Example_id.xlsx*.).

Some of the respondents reported having overlapping union and cohabitation episodes. Overlaps can occur during the transition to a new partnership (a partnership starts before the previous one has ended), but can also take place within a partnership (a partnership starts and ends while the previous one lasts). Thus, the variables UNIONORDER_SIM and COHABORDER_SIM

[81] We assume that this is more likely. In any case, all of the episodes based on imputed dates can be identified with our provided flag variables.

[82] While episodes with start dates can be sorted correctly, episodes with missing start dates are problematic because they cannot be taken into account easily. If, for example, the date of the formation of the first household is missing, but the date of the formation of the second household exists, it is possible to assume that the second formation is the first unless effort is applied to sorting out the episodes with the missing dates. If the start dates are missing, we assume that the order in which the cohabitations or marriages were reported in the interview is correct. To consider this order, we ascribed an imputed start date to episodes with missing start dates. Note that the sole purpose of the imputed values is to make the respective episode count, and that it will be recoded to missing afterwards. We imputed the start of the cohabitation or marriage using the date of union formation, if it was not missing as well. Otherwise, we recoded the missing cohabitation start date to the cohabitation end date. If the required information was missing, we ordered the missing dates according to the "index" category.

indicate overlapping partnership episodes. The main order variables (UNIONORDER, COHABORDER) show the order number of the new partner, while the order number of the previous partner is shown in the UNIONORDER_SIM/ COHABORDER_SIM variable. To ensure that these overlaps are not produced by the random imputation procedure, we checked cases with overlaps and imputations. Episodes are recoded if they have overlaps of less than four months and only information about the season is available, or if they have overlaps of up to 12 months and only yearly information is given.

3.2.3 Further partnership information

Homosexuality – a partnership dimension

We define homosexuality as a partnership dimension that may vary across different partnerships. The respective variable HOMOSEX indicates for each episode whether the respondent lives in an opposite-sex union (1), in a same-sex union (2), or in no union at all (0).

Biopart.dta offers a variable that indicates homosexuality as a time-constant trait.[83] In contrast, we assume homosexuality to be an individual characteristic that may vary across time.[84]

In order to exemplify the benefits of the variable HOMOSEX, we show the union trajectories of two example ids (Table 2). The original variable "homosex" in *biopart.dta* categorizes the first example id constantly as homosexual because she is living in a same-sex partnership at the time of interview, even though in the past she had a heterosexual relationship. The second example id has no partnership at the time of interview, but had same-sex as well as opposite-sex unions in the past. As the question about sexual orientation was not answered in the questionnaire by this respondent, the original variable "homosex" in *biopart.dta* is marked as missing, in contrast to the new variable HOMOSEX. Thus, HOMOSEX emphasizes the sexual *practice* of a person.

[83] The syntax used to compute the variable is contained in the Stata do file *homosex.do*. The information on homosexuality is taken from the anchor interview, combining information from waves 1 and 2. The anchor is defined as being homosexual if he or she had a same-sex partner in wave 2. If the anchor person did not have a same-sex partner in wave 2, information from wave 1 (anchor's reported homosexual preference or a same-sex partnership) was added (Brüderl et al. 2011).

[84] We therefore decided to drop the "homosex" variable offered in *biopart.dta*.

Id	*Start (_t0)*	*End (_t)*	*UNION-ORDER*	*HOMOSEX*	***For comparison: homosex (by pairfam group)***
715391000	*0*	*221*	*0*	*"no relationship"*	*"homosexual"*
	221	*238*	*1st partner*	*"heterosexual relationship"*	*"homosexual"*
	238	*280*	*0*	*"no relationship"*	*"homosexual"*
	280	*320*	*2nd partner*	*"homosexual relationship"*	*"homosexual"*
616520000	*0*	*173*	*0*	*"no relationship"*	*"incomplete data"*
	173	*213*	*1st partner*	*"heterosexual relationship"*	*"incomplete data"*
	213	*219*	*0*	*"no relationship"*	*"incomplete data"*
	219	*241*	*2nd partner*	*"homosexual relationship"*	*"incomplete data"*
	241	*280*	*0*	*"no relationship"*	*"incomplete data"*
	280	*336*	*3rd partner*	*"heterosexual relationship"*	*"incomplete data"*
	336	*337*	*0*	*"no relationship"*	*"incomplete data"*

Table 2: Definition of homosexual and heterosexual partnerships in *Eventhistory.dta*

Marriage ceremony

MARCER shows the type of wedding ceremony for each marriage while it lasts. During unmarried episodes, this variable has the value (-3) "does not apply". Analogous to *biopart.dta*, we distinguish between having had a civil ceremony (1), a religious and a civil ceremony (2), or only a religious ceremony (3). Please note that the data include the date of marriage formation, but we do not know whether this information refers to the religious or the civil ceremony.

Death of a partner

DEADPARTNER shows in each time period whether the respondent experienced a partnership that ended through the death of a partner. The variable is either zero for "no death of partner," or shows the order number of the partner who died. If the respondent did not remember the year of death of one partner, the variable has the value (-7) "incomplete information" for the whole id.

Matching prospective partner information

There is no information on the characteristics of previous partners in the German Family Panel[85]. However, pairfam offers rich information on the partnerships that are ongoing at the time of an interview. Some information is collected through the anchor person and some through the

[85] The only information provided is the sex and the relationship of the partner to the children of the anchor person.

partner questionnaire. We decided to include the partner id in *Eventhistory.dta* to simplify the matching with the partner data. We included this information in a time-varying way: whenever the anchor person shows an episode in which he or she is in a relationship with a partner who is the current partner in wave 1 or 2, this episode is assigned the partner id of this partner (PID). This is illustrated in the example id's history (Table III in the appended Excel document *Eventhistory_Example_id.xlsx*). Thus, it is easy to identify for which relationship episodes dyadic analyses can be conducted.

3.3 Fertility biography

In this section, we first provide details on the ordering of children in *Eventhistory.dta*. Second, we explain the generation and content of the variables on the actual fertility history (3.3.2), on episodes of co-residence with children (3.3.3), and on further variables regarding the children of the anchor person (3.3.4).

3.3.1 Ordering of children

We order all biological children according to their dates of birth. The birth dates of non-biological children are not considered in the ordering procedure, as we concentrate on the fertility behavior of the respondents.[86] Thus, order-specific information is available for all biological children. The respective variables carry the letters "**BIOK**" for "**bio**logical **k**id" in their name.

Thus, the order of children in *Eventhistory.dta* deviates from the ordering in *biochild.dta*, in which non-biological children are also taken into account when ordering the children. The reordering of children makes it necessary to include a variable that indicates the original number of each biological child, as it is stated in the anchor data set (NUMBERBIOK{1-10}). This time-varying variable works as an identifier and allows to match further child-specific information from other pairfam data sets.

Second, if respondents have children with missing year-of-birth information, these children cannot be ordered. The denoting of childless episodes and the correct ordering of biological children are therefore not possible in these cases[87]. Thus, if at least one of the biological children

[86] For practical reasons, we have assigned non-biological children imputed birth dates that order them after all of the biological children. These dates are later recoded to -3.

[87] In contrast, in *biochild.dta* children with missing information on their year of birth are placed after all of the children with known dates of birth. The advantage of this procedure is that other child-specific information still is available, even though the year of birth is not.

has a missing year of birth, the whole fertility biography of the respondent is flagged as incomplete (see section 2.2). These respondents should not be considered in family-related analyses. The respective temporary variable "FLAG_M_bio_dobk" indicates incomplete fertility biographies. In the final *Eventhistory.dta*, several variables have the value (-7) "incomplete information" whenever the fertility biography of the person is incomplete (see Table 3).

3.3.2 Fertility episodes

Fertility episodes refer to the timing of the births of biological children. Thus, our central fertility variable is the age of the biological children of the respondent. AGEBIOK{1-10} shows the age of the respective child in each episode, starting nine months prior to the date of birth (pregnant (1))[88]. Thereafter, the episodes are split at each birthday of the child (zero years old (2), one year old (3), and so on). Childless episodes are coded as (0). Respondents with missing birth year information in any of the children's years of birth are coded as (-7) "incomplete information." We provide a further variable that indicates the age of the youngest child of the respondent for each episode (AGEBIOK_YNG).

3.3.3 Episodes of living with children

Information on the episodes during which the anchor person lived or did not live with children is surveyed differently in waves 1 and 2. In wave 1, respondents were asked to list all previous episodes of co-residence if they were not living with the respective child at the time of interview. If the respondent and his/her child co-resided at the time of interview, only the starting date of co-residence was surveyed. That means that interruption dates were not reported. This results in disparate retrospective data on co-residence with children.

Starting with wave 2, no information on the dates when children move in or out is being collected. Instead, the survey only shows whether children are *currently* living in the anchor's household. Apart from that, no information on cohabitation episodes of dead children is

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Fertility analysis is usually strongly dependent on the reliable ordering of children. This is why we have decided that it would not be appropriate to randomly choose an adapted ordering or to rely on the order in which the children were reported during the interview, as we did in the case of missing dates in the partnership biography.

[88] The duration of pregnancy is a proxy (nine months prior to date of birth) and does not rely on any stated date of conception by the respondent. As pregnancies sometimes end earlier than after nine months, the duration is overestimated in this data set. The lack of exact information of conceptions further leads to the fact that we only consider terminated pregnancies. If respondents state that they are pregnant during the latest interview this is not considered in *Eventhistory.dta*.

included in *biochild.dta*. Due to these restrictions, we had to make several assumptions about the cohabitation history of the anchor with biological and non-biological children.[89]

Based on these assumptions (and reported dates), LIVBIOK{1-10} shows for each episode whether the respondent is living with a specific biological child (1) or not (0). Respondents with missing information on the year of the beginning or ending of co-residence are coded as "incomplete information" (-7).

LIVKIDS is the only variable that contains information on non-biological children. It shows for each episode, independent of the order of the children, whether the respondent shares a household with biological children only (1), with non-biological children only (2), with both biological and non-biological children (3), or with no children at all (0). This variable also shows whether there is missing information on co-residence with children (-7). The example id (see Table III in the appended Excel document *Eventhistory_Example_id.xlsx*) illustrates what the variables on co-residence with biological and non-biological children look like.

3.3.4 Further information

Death of a child

DEADBIOK shows in each time period whether the respondent experienced a death of a biological child. The variable is either (0) "no child died" or shows the order number of the biological child who died. If the respondent does not remember the year of the death of a child, the variable has the value (-7) "incomplete information" for the whole id.

Sex of a child

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1. Cohabitation breaks with children are only available for a selective group of respondents, which is why we only consider the first reported episode of living together with each child of all of the respondents.
2. Deceased children were living with the anchor person from the date of birth until the date of death.
3. Children who were living with the anchor person in wave 1 had not moved out between the date when they first moved in and the date of the first interview.
4. Children who were not living with the anchor person in wave 1 had lived with the anchor person only once before the first interview. After wave 1, prospective data provide information about further episodes of co-residing with children.
5. Respondents with children born after wave 1 who were living with these children at the time of the second interview had been living with these children since birth.
6. Respondents with children born after wave 1 who were not co-residing with these children in wave 2 had never co-resided with these children.
7. Non-biological children who were first reported in the second interview and who were living with the respondent at the time of the second interview had moved in with the respondent in the month of second interview.
8. Children who had moved out after the first interview moved out in the month of the second interview.

BIOSEXK{1-10} shows the sex of each biological child from the time the child was conceived (nine months prior to birth).

Order of surveyed child

As described, the ordering of children in *Eventhistory.dta* deviates from the ordering in *biochild.dta* (see Section 3.2.2). This means that we have to adapt the categories of the variable that shows the order number of the surveyed child (named *surveykid* in *biochild.dta*). CAPIBIOK shows the *Eventhistory.dta* order of the biological child, which was surveyed via the children's questionnaire. The variable has the value (-3) "does not apply" in pre-conception episodes, and the value (-7) "incomplete data" if the fertility biography is incomplete.

Partner order of second biological parent

The variable pno in *biochild.dta* is recoded because the categories deviate from the partner ordering in *Eventhistory.dta.*[90] The variable indicates the partner who is the second biological parent. In *Eventhistory.dta*, the variable UNIONORDER_BIOK{1-10} shows for each biological child the partner order number of the second biological parent. If the second biological parent is not reported in the partnership history, this is marked as (97) "another person." Again the variable has the value (-3) "does not apply" in episodes in which the child has not yet been conceived, and the value (-7) "incomplete data" if the fertility biography is incomplete. For the example id (Table III in the appended Excel document *Eventhistory_Example_id.xlsx*), we see that UNIONORDER_BIOK1 shows that the third partner is the second biological parent of the first biological child.[91]

[90] In pairfam has the value zero when the current partner of wave 1 is the second biological parent of a respective child. Starting with wave 2, the current partner who had also been the current partner in the previous wave is assigned the number one; the current new partner, the number two; and partners who had been partners between two interviews are assigned the numbers three, four, five, etc. (Brüderl et al. 2013). These differences in coding between waves 1 and 2 also appear to suggest that a lot of respondents reported in wave 2 that none of the stated partners, but rather "another person," is the second biological parent of the child. In fact, the response of "another person" in wave 2 means that no current partner or partner from a relationship that took place between waves 1 and 2 is the second biological parent. In *Eventhistory.dta*, we show one consistent variable that has the running partner number for the second parent. However, for children born before wave 1, we only account for the information given in wave 1. Information on the second biological parent given in wave 2 is only used for children born after wave 1. Thus, we do not consider revisions of the respondents regarding this information.

[91] Incidentally, the example id (see Excel table *Eventhistory_Example_id_xlsx* in the appendix) is one of the rare cases that involve a revision of the respondent between the two waves (see Footnote 24). For wave 1, it is reported that "the current partner in wave 1" is the second biological parent of the first child. In contrast, it is reported for wave 2 that "another person" is the second parent, even though the respondent's current partner in wave 1 was still the current partner of the respondent (see Table II). In order to limit the coding complexity, we accept this kind of potential misreporting and assume that the third partner is the second biological parent, as was stated in wave 1 (see Table III).

3 Recommendations and summary

4.1 Recommendations

In Table 3 we list the generated flag variables, and provide recommendations about whether to drop or to keep flagged individuals or episodes. An episode or respondent is either flagged by a separate flag variable or by a separate category in a respective event variable. In the latter case, we follow the flagging strategy of *biopart.dta* and *biochild.dta* and use (-7) as the flag category for missing information. We distinguish three different kinds of flagged information:

First, variables can mark missing information. We distinguish between completely missing dates and missing dates that have been imputed in *biochild.dta* or *biopart.dta*. If the information on the date of birth is completely missing, not only are selected episodes flagged, but all of the parity-specific information is marked as (-7) "incomplete information," as in these cases no correct ordering of children is possible. If the year of co-residence with a specific child is missing, the co-residential biography with the respective child is coded as (-7). If the date of death of any child or any partner is missing, the respective variables (DEADBIOK and DEADPARTNER) are set to (-7) for the whole id. If at least the year of an event is available, the date is imputed. Variables that mark such imputed missing information have the prefix "IMP" and distinguish between whether (1) "only season information" or (2) "only year information" was given in the interview.

Second, we flag inconsistencies in the data. BIOPARTFLAG refers to different inconsistency flags of *biopart.dta*. It marks episodes that are probably misstated. *Biopart.dta* also defines cohabitation episode overlaps as inconsistent. We mark these episodes with the variable COHABORDER_SIM. The variable shows not only whether an overlap exists, but also with whom the respondent reported cohabiting simultaneously. As it is not clear whether these overlaps are due to a misstatement of the dates, we do not define them as inconsistent per se. Similarly, partnership episodes may overlap, which is indicated in the variable UNIONORDER_SIM.

Third, the flag variables mark episodes that can contradict general assumptions about fertility and partnership behavior. Same-sex unions should be dropped if theoretical assumptions rely on opposite-sex unions. The death of a partner can be mistakenly interpreted as a separation if the respective flag variable DEADPARTNER is not taken into account. The variables that show the age and co-residence of a child do not mark the child's death. Thus, we would have assumed the child was getting older if we had not considered the flag variable DEADBIOK. Similarly, we might have incorrectly assumed that co-residence with a child ended with the child moving out, instead of with his or her death. Thus, DEADBIOK needs to be taken into account in the respective analyses.

Table is constructed in the following way. In the first column, the variable's label or the relevant category is listed. The second column defines what is flagged by the respective variables or categories. The third column contains an explanation of the consequences if the flag variable is ignored. In the fourth column, a recommendation is provided for cases in which the flagged information is sensitive for the analysis.

Variable name	***What they mark***	***Consequence***	Recommendation
FLAG_M_UNION, FLAG_M_COHAB, FLAG_M_MARR	A missing partnership episode in the data	A partnership episode is mistakenly reported as partnerless/not cohabiting/not married.	Drop episodes/ids in analyses that refer to the partnership status at a single point in time, e.g., at childbearing.
AGEBIOK{1-10}==-7 AGEBIOK_YNG{1-10}==-7	Fertility history is missing because the year of birth of at least one biological child is not known.	The fertility history of the respective id cannot be used.	Drop id for fertility analyses.
SEXBIOK{1-10}==-7, NUMBERBIOK{1-10}==-7, UNIONORDER_BIOK{1-10}==-7 CAPIBIOK==-7	Information on the child is missing because the fertility history is missing	Information on the child cannot be used.	Drop id for child-related analyses.
DEADBIOK==-7	Information on the year of death for any biological child is not known.	It is not possible to determine whether all of the children are alive.	Drop ids for analyses in which it is relevant to know whether the children are alive.
DEADPARTNER==-7	Information on the year of death of the partner is not known.	It is not possible to determine whether the dissolution was due to separation or to the death of one of the partners.	Drop episodes for the separation analyses.
LIVBIOK{1-10}==-7	Information on the year of co-residence with a specific biological child is not known.	The co-residence history of specific biological child and anchor is not clear.	Drop ids in analyses that refer to co-residence with specific biological child.

LIVKIDS==-7	Information on the year of co-residence with at least one child (biological or not) is not known.	The co-residence history with children is not clear.	Drop ids in analyses that refer to the co-residence with children.
IMP_UNION, IMP_SEP, IMP_COHAB, IMP_COHABend, IMP_MARR, IMP_DIV IMP_dobbiok{1-10} IMP_dodbiok{1-10} IMP_beglivbiok{1-10} IMP_endlivbiok{1-10} IMP_beglivnonbiok IMP_endlivnonbiok	An imputed month in the date	The date is imprecise because it refers to information on the season or year.	Drop episodes/ids in analyses that refer to precise dates, e.g., the timing of marriage relative to childbearing.
BIOPARTFLAG==1 | BIOPARTFLAG==3	Inconsistencies in the marriage history	The duration of marriage is probably misstated.	Drop episodes in analyses that refer to marriage.
BIOPARTFLAG==4	Inconsistencies in the birth date the of partner	Wrong age of the partner	Drop the episode in analyses that refer to the partner's birth date.
UNIONORDER_SIM	Union overlap	The union duration of the previous partnership is underestimated.	Decide which partnership should be followed.
COHABORDER_SIM	Cohabitation overlap	The cohabitation duration of the previous cohabitation is underestimated.	Decide which cohabitation should be followed.
HOMOSEX==2	Same-sex unions	A partnership may be mistakenly assumed to be opposite-sex.	Drop episodes in analyses that refer to opposite-sex assumptions.
DEADPARTNER=={1-?}	Respective partner died	It is mistakenly assumed that the partnership ended by separation.	Drop episodes for separation analyses.
DEADBIOK=={1-10}	Respective child died	It is mistakenly assumed that all of the biological children are alive.	Drop ids for analyses in which it is relevant that the children are alive.

Table 3: Overview of flag variables and possible applications

The fourth column further mentions whether the respective episode or the whole individual should be dropped.[92]

The problematic episode can be excluded from the analysis by dropping the flagged episode. For variables that mark imputed dates in the union or cohabitation biography, it is important to consider the break information because imputations are not flagged during union or cohabitation breaks.

For more information, please see the do files of the example analyses (especially *Eventhistory_Example_analysis2.do*).

4.2 Summary

With *Eventhistory.do*, we provide a syntax that facilitates the use of the rich biographic information in pairfam. The attached STATA do file *Eventhistory.do* enables the pairfam user to generate the event history data set *Eventhistory.dta*, which contains the fertility and partnership biographies of the first three waves of the German Family Panel pairfam (release 3.1) and the first two waves of DemoDiff (release 2.0). Referring to the original data sets and the syntaxes, the do file *Eventhistory.do* transforms the fertility and partnership information into spell data. The structure of *Eventhistory.dta* is "one row per event." All of the relevant information is considered in time-varying variables. *Eventhistory.dta* also includes individuals without children or partnership experience in the data - the so-called "risk population". Furthermore, *Eventhistory.dta* enables the pairfam user to identify date information that was imputed in *biochild.dta* or *biopart.dta*.

Thus, the data are very flexible and ready to be used. The pairfam user can easily conduct empirical analyses on a wide range of research topics. With *Eventhistory.dta* fertility and partnership behavior can be easily explored by applying empirical methods like event history or sequence analyses. *Eventhistory.dta* might not be appropriate for every research question concerning fertility and partnership behavior because information on specific children is only available for biological children of the anchor person.

[92] The problematic individual can be excluded from analysis by using the following command:
. Sort id
. by id: egen NewVariable=max(FlagVariable)
. drop if NewVariable=*[problematic value]*

Eventhistory.dta can be matched to further information on the anchor person, his or her children, his or her parents, and his or her partners by their respective personal identifiers.

Eventhistory.dta was developed as part of the authors' dissertation. We plan to include in a future version information on the employment biographies of the respondents. The use of data generated by *Eventhistory.do* should be indicated in your work by citing this report. We accept no responsibility for errors that may have arisen during the coding procedures.

Please contact the authors if you have any questions.

4 Examples of analyses

In order to illustrate how *Eventhistory.dta* may be used, we provide two examples of event history analyses.[93] The first example (see *Eventhistory_Example_analysis1.do*) describes the transition to the first union. The process of first union formation is a central event during adolescence for young men and women. We show in Kaplan-Meier survival estimates the percentage of males and females who experience a first union between the ages of 14 and 24. In this example, we draw special attention to the use of flag variables.

The second example (see *Eventhistory_Example_analysis2.do*) focuses on the transition to a partnership separation after the first child is born. The stability of couples with children is of central concern because it has a strong impact on the living conditions of parents and children. The subject of the analyses requires that the population at risk is restricted to parents; childless episodes are excluded. We consider only individuals who were in a union at the time they had their first child, because they make up the population who are at direct risk of separation after childbirth. In addition to these basic and necessary restrictions, we can apply more rigorous restrictions. The usefulness of such restrictions depends on the specific research question and its theoretical framing. In this example, we want to emphasize different levels of analysis restrictions. Again, Kaplan-Meier survival estimates are shown, and time-varying effects are also visualized. In this example, we also show the options offered by *Eventhistory.dta* for selecting specific populations for analyses.

The STATA do files of both examples are appended to the technical report.

[93] We cannot provide a full explanation of applied event history methods here. For an introduction to event history techniques, please see Blossfeld/Golsch/Rohwer (2007).

5.1 Transition to the first union

To model the transition to the first union (see the appended file *Eventhistory_Example_analysis1.do*) we use *Eventhistory.dta*. As a first step, we define the start of the process time. We want to start the modeling with age 14, but we also want to consider union experience before age 14. We therefore assign a very short process time to respondents who had already had a union before age 14. Afterwards, the episodes prior to age 14 are dropped. This allows us to distinguish sex differences at the initial level from those that occur after age 14 in the observation period.

We then adjust the survival time variables START and END to the observation start (age 14). The event is defined as the date of the formation of the first union. We drop episodes after the transition to the first union, because the respective persons are then no longer at risk. Additionally, we drop episodes of higher order unions. The episode is censored if the person has not formed a union by age 24. Further, it is censored at the time of the second interview (or at the time of the first interview if the person did not participate in wave 2).

Figure 2 shows the results of the Kaplan-Meier survival estimates for males and females. The results of the dashed lines include persons with a missing union formation date. These are considered as censored episodes. Individuals with a missing first union are included in the data until either the time of the interview, age 24, or the formation of a subsequent union. As a consequence, the survival curve may be overestimated. The continuous lines show the transition to the first union only for persons with known dates; that is, after the individuals with missing first union formation dates have been dropped. We see that the omission of these individuals leads to a slightly lower survival curve.

Women and men show similar shares of first unions before age 14. However, women between the ages of 16 and 19 are more likely than men to transition into a first union. Men catch up later, but still lag behind slightly at age 24.

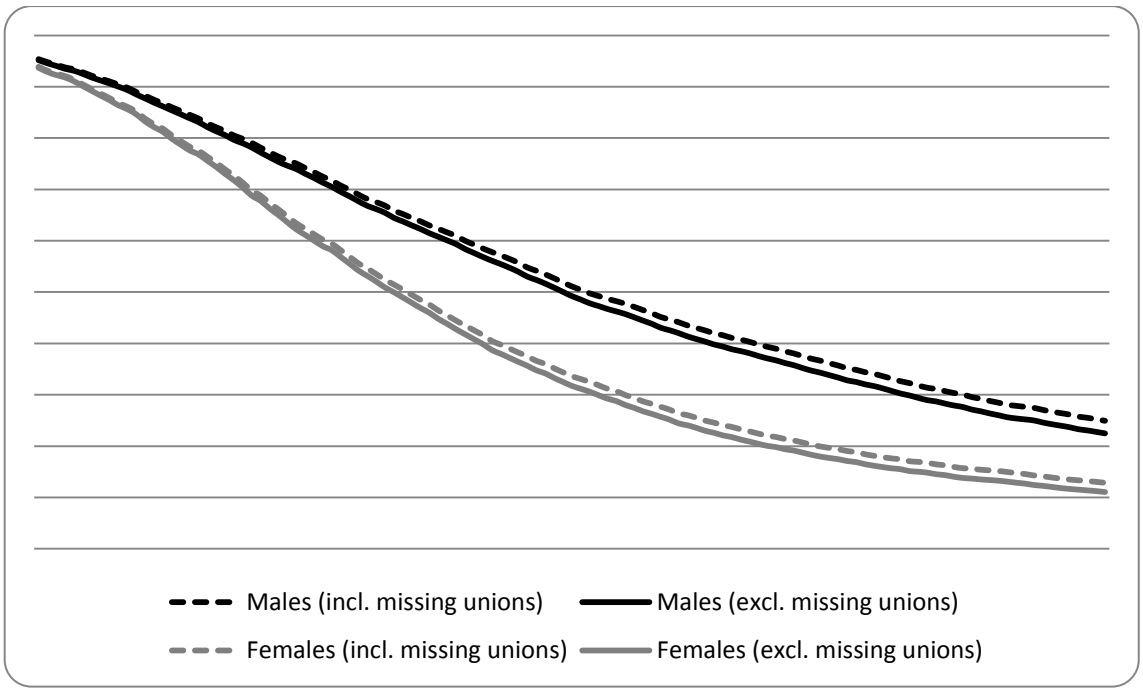

Figure 2: Transition to the first union, age 14 to age 24, Kaplan-Meier survival estimates

5.2 Transition to a separation after the first childbirth

In this example (see *Eventhistory_Example_analysis2.do*), we again use *Eventhistory.dta*. We generate a variable that indicates whether a person has a partner at the time his or her first child is born. We keep only persons who are at risk of experiencing the event in question (basic restrictions).

In the second step, we seek to clean our sample of potential inconsistencies due to the random imputation of missing months. A missing month is imputed if the date information is restricted to the season or the year of the event. Imputations have been flagged. These imputed dates can influence our results because the union status at the first birth may be unclear. A very rigorous option would be to drop all persons with imputed months from the observation. But this strategy could lead to a bias in the results, as it is possible that separated people, in particular, did not give exact monthly information about their former partner. We would then have overestimated the stability of the partnership. Alternatively, we can check whether the imputed birth date of the first child and the union formation and separation dates occurred in a time range that makes it likely that the union status at birth is not clear. We have chosen this option because it minimizes the possibility of a bias arising in the results. To check the time range, we generate flag variables that indicate the union duration *until* the first birth and the union duration *after* the first birth. Individuals should be dropped from analysis if the time range is less than 12 months in imputed cases in which only information on the year is available, and if the time range is less than four

months in cases in which information on the season is also available (Please see the attached file *Eventhistory_Example_analysis2.do* for more detailed information).

In the third step, we outline some of the restrictions that might be necessary, depending on the research question.

1. SEX: Fertility analyses are usually concentrated on women because their fertility history is assumed to be more reliable. If you wish to restrict the analysis to females, males can be dropped.
2. AGE AT FIRST BIRTH: A very young age at first birth can refer to a selective life course. Furthermore, outliers can bias the model results. It might therefore be useful to restrict the population at risk to a defined time frame. We have decided to drop individuals who were under age 18 when they had their first child.
3. HOUSEHOLD COMPOSITION: Some theoretical frameworks rely on the household dimension when defining the family, while other focus on the "classical" family, which consists of a co-residing biological family. With our data set, it is possible to identify individuals who
   - do not co-reside with their child or their partner,
   - also live with non-biological children in the household, and
   - have a partner who is not the second biological parent of the child.
4. HOMOSEXUAL PARTNERSHIPS: The family formation patterns of people with a same-sex partner differ from those of opposite-sex couples. It can be assumed that their family life is selected, which might affect partnership stability.
5. MULTIPLE PARTNERSHIPS: Some people have simultaneous partnership episodes with different partners. These multiple partnerships should be considered for analysis. Selected individuals reported having more than one partner when they had their first child. We have decided to drop these persons from the sample.

   These aspects represent only a selection of possible forms of information that may be considered for sample restriction. They rely on *Eventhistory.dta*, but it is possible to take into account information from the anchor, partner, or child data by merging the data sets through the respective id variables. We demonstrate the merging strategy by adding the anchor data to the event history data set. We have decided to keep just the information on the birth cohorts in the data, but in general it is possible to include other time-constant determinants in the manner presented. Members of the youngest cohort were born between 1991 and 1993. We have decided to drop this cohort because of their young ages. In the final sample, we have 2,031 mothers and 304 separations. The total analysis time at risk amounts to 133,776.

After the restriction procedure, we adjust the survival time variables START and END to the observation start (date of birth of the first child). The event is defined as the date of the first union dissolution after childbirth. We drop episodes after the transition to a separation because the respective persons are then no longer at risk. The event is censored if the person does not

experience a union dissolution by the time the child reaches age eight. Further, it is censored at the time of the second interview (or at the time of the first interview if the person did not participate in wave 2) or in case of the partner's death.

Figure 3 shows the transition to a separation after the first childbirth for the period from the birth of the first child until age eight in the Kaplan-Meier survival estimates. These estimates show the proportion of the women who remain partnered during the observation period. We distinguish between women who were married when they had their first child and those who were not. The results show that women who were married when they had their first child were less likely to have experienced a separation: 14 percent of the married women separated from their partners in the first eight years after they gave birth, compared to 35 percent of unmarried women.

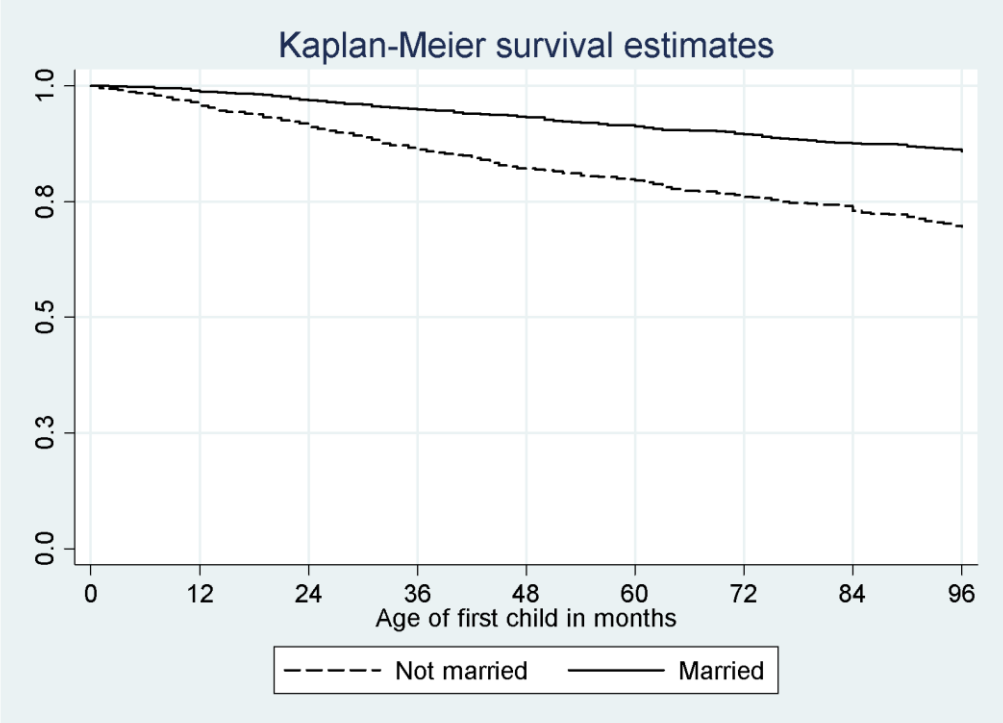

Figure 3: Transition to separation after first childbirth, from birth to age 8 (first child), Kaplan-Meier-Survival estimates, by marital status (time of first birth).

The illustration with Kaplan-Meier estimates is restricted to time-constant covariates. Figure 3 therefore refers to the marital status at a single time point: the time of the first childbirth. But it is possible to question how marital status affects the risk of separation by also considering marriages that took place after a couple's first child was born. We illustrate the effect of marital

status if it is considered time-varyingly in a piecewise constant exponential model (further information is available from the file Eventhistory_Example_analysis2.do).

Figure 4 shows that, when marriages after the birth of the first child are also considered, being married has a positive effect on union stability compared to being unmarried. The risk of separation remains stable for married women in the observation period. Being unmarried is related to a considerable decrease in stability, except in the fourth to fifth year after family formation. Thus, as differences in the level of union stability by marital status increase after childbirth, a time-constant consideration of the marital status at childbirth would underestimate the impact of marriage within the regarded period.

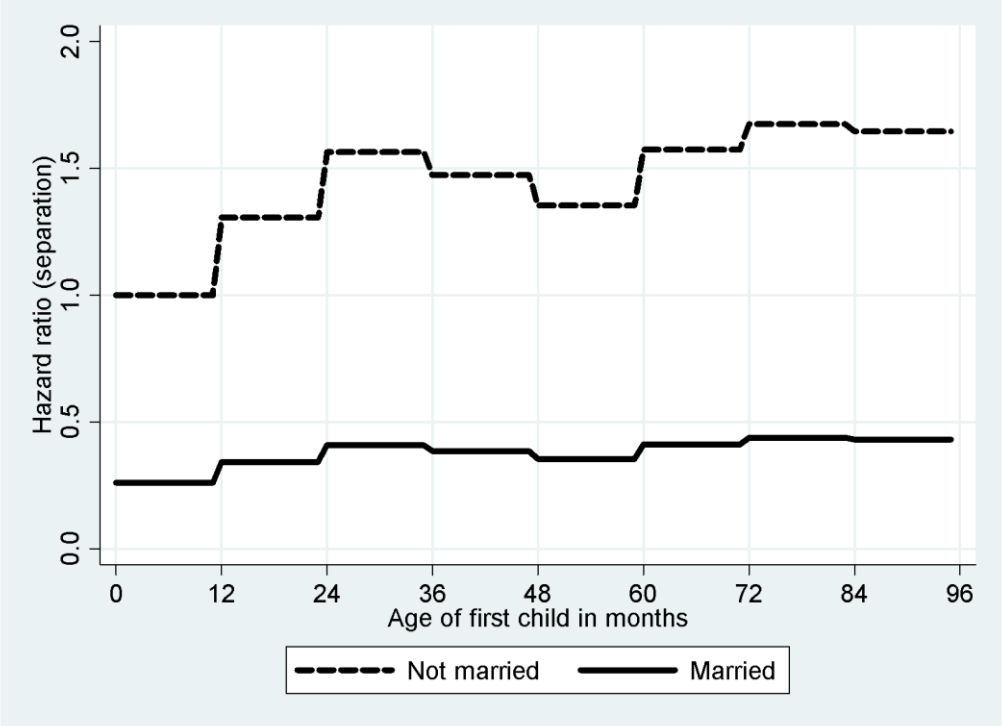

Figure 4: Piecewise constant exponential model, controlled for marital status (time-varying), from birth to age 8 of the first child, hazard ratios.

5 Acknowledgements

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6 References

Blossfeld, Hans-Peter/Golsch, Katrin/Rohwer; Götz (2007): *Event History Analysis with Stata*. Mahwah (NJ): Erlbaum.

Brüderl, Josef/Hajek, Kristin/Huyer-May, Bernadette/Ludwig, Volker/Müller, Bettina/Müller, Ulrike/Passet, Jasmin/Pforr, Klaus/Scholten, Mirte/ Schütze, Philipp/Schumann, Nina (2013): *pairfam Data Manual. Release 4.0*. University of Munich.

Huinink, Johannes/Brüderl, Josef/Nauck, Bernhard/Walper, Sabine/Castiglioni, Lau-ra/Feldhaus, Michael (2011): Panel Analysis of Intimate Relationships and Family Dynamics (pairfam): Conceptual framework and design. In: *Zeitschrift für Familienforschung/Journal of Family Research, 23, 1*, S. 77-101.

Kreyenfeld, Michaela/Walke, Rainer/Salzburger, Veronika/Schnor, Christine/Bastin, Sonja/Kuhnt, Anne-Kristin (2011): *DemoDiff – Wave 1. Supplement to the pairfam data manual*. Rostock: MPIDR (MPIDR Technical Report 2011-014).

Nauck, Bernhard/Brüderl, Josef/Huinink, Johannes/Walper, Sabine (2012): *Beziehungs- und Familienpanel (pairfam)*. GESIS Datenarchiv, Köln. ZA5678 Datenfile Version 3.0.0, doi:10.4232/pairfam.5678.3.0.0.

StataCorp. (2009): *Stata Statistical Software: Release 11*. College Station, TX: StataCorp LP.

7 Annex

- *Eventhistory.do* (STATA file)
- *Eventhistory_ReadMe.txt*
- *Eventhistory _Example id.xlsx* (Excel file)
- *Eventhistory _Example_analysis_1.do* (STATA file)
- *Eventhistory _Example_analysis_2.do* (STATA file)
- *biopart_PF.do* (STATA file)
- *biopart_PF_IMP.do* (STATA file)
- *biopart_DD.do* (STATA file)
- *biopart_DD_IMP.do* (STATA file)
- List of variables included in *Eventhistory.dta* (see table IV below)

Table IV: List of variables included in *Eventhistory.dta*

Variable	Variable label	Values	Value labels
General information			
id	Person number anchor	*Person number*	--
START	Beginning of episode in months since birth of anchor	--	--
END	End of episode in months since birth of anchor	--	--
sex	Sex anchor	1 2	Male Female
dob	Date of birth anchor *(in months since January 1900)*	*date*	--
AGEANC	Age of anchor *(in years)*	0 14 15 …	Below 14 years old 14 years old 15 years old …
INT	Before/at/after respective interview	0 1 2 3	Before 1st interview Month of 1st interview Between waves 1 and 2 Month of 2nd interview
Information on partnerships			
UNION	Union status	0 1	No partner In union
UNIONORDER	Order of unions (shows order of later partners in simultaneous cases)	0 1 2 …	No partner 1st partner 2nd partner …
UNIONORDER_SIM	Union order for simultaneous unions: shows order of 'previous' partner	0 1 2 …	No *(simultaneous)* partner 1st partner 2nd partner …
UBREAKORDER	Order of union breaks within one union	0 1 2 …	No break 1st union break 2nd union break …
pid	Person number partner; if he/she was a partner at interview	. *Person number*	No person number available --
HOMOSEX	Sexual orientation within	0	No union

	union	1	Heterosexual union
		2	Homosexual union
DEADPARTNER	Death of partner	0	No death of partner
		1	1st partner died
		2	2nd partner died
		…	…
COHAB	Cohabitation status	0	No domestic partner
		1	Domestic partner
COHABORDER	Order of cohabitations (shows additional/'later' cohabitation partners in simultaneous cases)	0	No domestic partner
		1	1st domestic partner
		2	2nd domestic partner
		…	…
COHABORDER_SIM	Cohabitation order for simultaneous cohabitations: shows order of 'previous' cohabiting partner	0	No *(simultaneous)* domestic partner
		1	1st domestic partner
		2	2nd domestic partner
		…	…
CBREAKORDER	Order of cohabitation breaks within one cohabitation	0	No break
		1	1st cohab break
		2	2nd cohab break
		…	…
UNIONORDER_COHAB	Union order number of cohabiting partner	0	No domestic partner
		1	1st partner is domestic partner
		2	2nd partner is domestic partner
		…	…
MARR	Marriage status	0	Single
		1	Married
		2	Divorced
MARRORDER	Order of marriages	0	No spouse
		1	1st spouse
		2	2nd spouse
		…	…
UNIONORDER_MARR	Union order number of married partner	0	Not married
		1	1st partner is spouse
		2	2nd partner is spouse
		…	…
MARCER	Type of wedding ceremony	-7	Incomplete data
		-3	Does not apply
		1	Only a civil ceremony
		2	A civil and a religious ceremony
		3	Only a religious ceremony

Information on children

AGEBIOK{1-10}	Age of 1st (2nd, 3rd etc.) biological child	-7	Incomplete information
		0	Childless
		1	Pregnant
		2	0 years old
		3	1 year old
		…	…
AGEBIOK_YNG	Age of youngest biological child	-7	Incomplete information
		0	Childless
		1	Pregnant
		2	0 years old
		3	1 year old
		…	…
LIVBIOK{1-10}	Co-residence with 1st (2nd, 3rd etc.) bio. child	-7	Incomplete information
		0	Not living with child
		1	Living with child
LIVKIDS	Co-residence with biological and/or non-biological children	-7	Incomplete information
		0	Living without children
		1	Living only with biological children
		2	Living only with non-biological children
		3	Living with biological and non-biological children
UNIONORDER_BIOK {1-10}	Partner number of 2nd bio. parent of 1st (2nd, 3rd etc.) child	-7	Incomplete information
		-3	Does not apply
		1	1st partner
		2	2nd partner
		…	…
		97	Another person
CAPIBIOK	Parity of surveyed bio. child	-7	Incomplete information
		-3	Does not apply
		1	1st bio. child
		2	2nd bio. child
		…	…
SEXBIOK{1-10}	Sex of 1st (2nd, 3rd etc.) bio. child	-7	Incomplete information
		-3	Does not apply
		1	Male
		2	Female
NUMBERBIOK{1-10}	Original order number of 1st (2nd, 3rd etc.) bio. child	-7	Incomplete information
		-3	Does not apply
		1	1st reported child
		2	2nd reported child
		…	…
DEADBIOK	Death of which child	-7	Incomplete information
		0	No child died
		1	1st child died
		2	2nd child died

		…	…
cid	Person number CAPI-kid	. *Person number*	*No person number available* --
Information on inconsistent, missing and imputed data			
BIOPARTFLAG	Flag inconsistencies in the partnership biographies (biopart)	0 1 3 4	No inconsistencies Marriage earlier than beginning of relationship Beginning current and end previous marriage Year of birth partner
FLAG_M_UNION	Missing union episode	0 1 2	No missing Missing union episode Missing union break episode
FLAG_M_COHAB	Missing cohabitation episode	0 1 2	No missing Missing cohabitation episode Missing cohabitation break episode
FLAG_M_MARR	Missing marriage episode	0 1	No missing Missing marriage episode
IMP_UNION	Imputed union start date	0 1 2	No imputation Only year information Only season information
IMP_SEP	Imputed union end date	0 1 2	No imputation Only year information Only season information
IMP_COHAB	Imputed cohabitation start date	0 1 2	No imputation Only year information Only season information
IMP_COHABend	Imputed cohabitation end date	0 1 2	No imputation Only year information Only season information
IMP_MARR	Imputed wedding date	0 1 2	No imputation Only year information Only season information
IMP_DIV	Imputed divorce date	0 1 2	No imputation Only year information Only season information
IMP_dobbiok{1-10}	Imputed month in the date of birth of 1st (2nd, 3rd etc.) bio. child	0 1 2	No imputation Only year information Only season information
IMP_dodbiok{1-10}	Imputed month in the date of death of 1st (2nd, 3rd etc.)	0 1	No imputation Only year information

	bio. child	2	Only season information
IMP_beglivbiok{1-10}	Imputed month in the start date of co-residence with 1st (2nd, 3rd etc.) bio. child	0 1 2	No imputation Only year information Only season information
IMP_endlivbiok{1-10}	Imputed month in the end date of co-residence with 1st (2nd, 3rd etc.) bio. child	0 1 2	No imputation Only year information Only season information
IMP_BEGLIVnonbiok	Imputed month at the start of co-residence with non-biological children	0 1	No imputation Only year information
IMP_ENDLIVnonbiok	Imputed month at the end of co-residence with non-biological children	0 1	No imputation Only year information
Person identifiers of anchor's parents			
mid	Person number mother	. *Person number*	*No person number available* --
fid	Person number father	. *Person number*	*No person number available* --
smid	Person number stepmother	. *Person number*	*No person number available* --
sfid	Person number stepfather	. *Person number*	*No person number available* --