MAX PLANCK INSTITUTE
FOR DEMOGRAPHIC RESEARCH

Konrad-Zuse-Strasse 1 · D-18057 Rostock · Germany · Tel +49 (0) 3 81 20 81 - 0 · Fax +49 (0) 3 81 20 81 - 202 · www.demogr.mpg.de

MPIDR Working Paper WP 2024-020 I July 2024
https://doi.org/10.4054/MPIDR-WP-2024-020

Do his or her economic characteristics matter? A couple-level perspective on the transition to living together in Germany

Valeria Ferraretto
Nicole Hiekel I hiekel@demogr.mpg.de
Agnese Vitali

Do his or her economic characteristics matter? A couple-level perspective on the transition to living together in Germany

Valeria Ferraretto [1], Nicole Hiekel [2], Agnese Vitali [3]

[1] Department of Sociology and Social Research, University of Trento, Trento, Italy. valeria.ferraretto@unitn.it

[2] Max Planck Institute for Demographic Research, Rostock, Germany. hiekel@demogr.mpg.de

[3] Department of Sociology and Social Research, University of Trento, Trento, Italy. agnese.vitali@unitn.it

Acknowledgments

The authors are grateful for the feedback received on previous versions of this paper from researchers at the Max Planck Institute for Demographic Research (June 2023) during a research stay hosted by the independent Max Planck Research Group "Gender Inequalities and Fertility" (PI: Nicole Hiekel), as well as from the participants of the conference "the Inequality of Uncertainty" (University of Bologna, October 2023). We wish to thank Angela Carollo for her support in designing the analytical strategy of this study.

Do his or her economic characteristics matter? A couple-level perspective on the transition to living together in Germany

Abstract

Living together is an important step in the development of intimate relationships. Previous literature shows that both partners' economic characteristics matter for moving in together. However, whether the economic characteristics of one partner matter more than those of the other partner, and whether this association differs by gender, remain unknown. For the first time, we examine the association between the economic characteristics of women and men in non-residential relationships and their transition to a co-residential union. Specifically, we use 13 waves (2008-2021) of the German Family Panel pairfam to observe 7,165 non-residential relationships from relationship start and to obtain dyadic data on the partners' economic characteristics (i.e., employment status, contract type, and income). Findings suggest that, in Germany, there are substantial economic prerequisites for living together. The hazards of transitioning to co-residence are highest among couples in which both partners are employed, whereas gender matters if only one partner works, with the chances being higher if only the man is employed than if only the woman is employed. Among employed individuals, higher income is associated with a greater risk of transitioning to co-residence for both men and women, while temporary employment increases the likelihood of co-residing more than permanent employment exclusively for women. In sum, results indicate that men's employment status is a decisive factor in the transition to co-residence. These substantial economic preconditions suggest that moving in together has acquired a new meaning among young adults, and is increasingly socially stratified.

Keywords: cohabitation; couples; employment; economic characteristics; gender inequalities; Germany

1. Introduction

Moving in with a partner is a significant demographic marker of the transition to adulthood, as well as a crucial transition in the union formation process. In addition to representing a form of institutionalisation of an established intimate relationship, it involves a residential relocation of one or both partners, which must be agreed upon (Wagner & Mulder, 2015).

Studying whether and when couples start to live together requires an understanding of the changing contexts in which individuals form their unions. Nowadays, a variety of options outside marriage (e.g., dating, non-marital cohabitation) are available to people living in Western countries, and individuals may engage in romantic relationships while maintaining separate households (e.g., living apart together), blurring the once neat distinction between being 'single' and 'partnered' (Levin, 2004; Sassler, 2010). According to the latest available estimates, around 9% of the adult population in Western Europe was in a non-residential relationship in 2006 (Liefbroer et al., 2015). Expanded participation in tertiary education and in the labour market, particularly among women, has affected attitudes and preferences, as well as living arrangements, and has ultimately altered assortative mating patterns. As a result, educational homogamy and hypogamy (i.e., couples in which the man is as educated or less educated than the woman, respectively) are now more common than hypergamy (couples in which the man is more educated than the woman) (Van Bavel et al., 2018). At the same time, securing a stable job has become increasingly difficult for young adults due to labour market deregulation and the economic downturns that have occurred in recent decades (Mills & Blossfeld, 2005). The prevalence of low-paid, precarious jobs affects not only the economic prospects of young adults, but also their attractiveness in the mating market and their decisions regarding whether and when to move in with a partner. Unemployment, low income, and temporary employment are associated with delayed marriage (Vignoli et al., 2016), lower fertility (Alderotti et al., 2024; van Wijk et al., 2022), and increased risks of union dissolution (Di Nallo et al., 2022; Jalovaara, 2013).

Prior research on union formation has, however, disregarded an important factor that affects the decision to move in together: the economic characteristics of non-residential partners. The existing studies have estimated the association between the economic characteristics of individuals and their likelihood of forming a co-residential partnership, whether marriage or non-marital cohabitation, while implicitly assuming that individuals are single before they move in with a partner (Bolano & Vignoli, 2021; Jalovaara, 2012; Kalmijn, 2011; Palumbo et al., 2022; Pelikh et al., 2022). Yet, obviously, the hazard of moving in together is higher among individuals who have a romantic partner than among those who do not. Moreover, just as an individual's own economic characteristics are associated with the likelihood of moving in together, the economic characteristics of the partner are as well.

The handful of studies that did rely on information on both partners convincingly showed that the economic characteristics of the partner do matter for the transition from cohabitation to marriage or to separation (Ishizuka, 2018; Jalovaara, 2013; Smock & Manning, 1997). Because of the limited availability of data on couples before they are observed in the same household, no previous study has examined the role of the partner's economic characteristics in union formation. Our study fills this gap by examining how the economic characteristics of both partners in different-sex relationships are associated with the transition from a non-residential to a co-residential union. Using this approach, we can identify how different couple types with different (gendered) economic resources vary in their likelihood of moving in together.

We analyse longitudinal data derived from the German Family Panel (pairfam) collected between 2008 and 2021 that prospectively follow couples from the start of their intimate relationships onwards – rather than from the start of co-residence – and contain information on the occurrence and timing of transitions such as cohabitation, marriage, and, eventually, separation. Pairfam includes information on the economic characteristics of both partners (e.g., level of education, employment status) and of the main respondent (e.g., type of employment contract, income). Germany constitutes

an interesting case study given the labour market changes outlined above. Although employment rates are relatively high for both men and women, low wages and temporary jobs are common when entering the labour market (Brady & Biegert, 2017; Goebel et al., 2015). Most young adults in non-cohabiting unions in Germany mention employment-related factors as reasons for not living with their partner (Liefbroer et al., 2015). Women's levels of full-time employment as well as patterns of union formation and progression continue to differ between eastern and western Germany (Fulda, 2016).

This study contributes both conceptually and empirically to the understanding of the link between partners' economic characteristics and the transition to co-residence. Conceptually, we advance previous research by adopting a dyadic perspective on union formation, considering how couple constellations (and not individuals) differ in their likelihood of moving in together depending on their employment status. The focus on different-sex couples' combined economic characteristics allows us to examine (i) how gender (in)equalities between partners affect the transition to co-residence, and (ii) the social stratification of union formation processes. Empirically, the use of a large sample of non-cohabiting partnerships reported by individuals born in different cohorts (1971/73, 1981/83, 1991/93, 2001/03) and the inclusion of higher-order unions allow us to provide a comprehensive view of the economic preconditions for co-residence among contemporary young adults in Germany. Focusing on the transition to a co-residential partnership as distinguished from partnership formation ultimately contributes to our understanding of ongoing change in family formation and fertility patterns (Bergström & Moulin, 2022; Esteve et al., 2020; Sassler, 2010).

2. Background

2.1 Grasping complexity in the transition to co-residential unions: insights from previous literature

While there are many potential reasons for wanting to move in with a partner – ranging from desiring more privacy and intimacy, to wanting to spend more time together, to planning to form a family – cohabitation may also be triggered by events such as job changes, housing needs, or a desire to pool financial resources and achieve economies of scale (Oppenheimer, 1988). In the last two decades, the high levels of economic uncertainty associated with globalisation, the Great Recession, and the COVID-19 pandemic have worsened the economic conditions of young adults more than those of other age groups (Aassve et al., 2013; Mills & Blossfeld, 2005). In the wake of these events, the economic determinants of union formation have been investigated by a number of studies conducted in Europe (Bolano & Vignoli, 2021; Jalovaara, 2012; Kalmijn, 2011; Palumbo et al., 2022; Pelikh et al., 2022; Vignoli et al., 2016) and in the United States (Bloome & Ang, 2020). Notably, this stream of literature has assessed the relevance of various economic determinants of co-residence, such as educational attainment, objective and subjective economic uncertainty, income, or parental social class, in different country contexts. Nevertheless, mainly due to data limitations, these studies have neglected the existence of non-residential partnerships by assuming that every respondent who lacks a residential partner is unpartnered. Thus, the number of people who are considered 'at risk' of cohabiting is overestimated, given that only individuals who are in an intimate relationship can move in together. As a result, previous research ignored the selection into non-residential partnerships, and studied the transition to co-residence as an outcome of individual – rather than couple – attributes.

Crucially, studying the transition to co-residence requires information about non-residential partners[1]. As such information is collected in the German Family Panel, it has been the empirical

[1] To avoid confusion in the use of terms, following reviews on the topic (Giraud, 2023; Régnier-Loilier, forthcoming) as well as empirical research (Castro-Martín et al., 2008; Régnier-Loilier et al., 2009; Wagner et al., 2019),

basis of a number of studies addressing the determinants of the transition to co-residence; i.e., relationship duration and quality (Ciritel, 2022); geographical distance between partners (Krapf, 2018; Krapf et al., 2022); socio-demographic characteristics; or a mix of these factors (Wagner et al., 2019). Other research has relied on national-level surveys (Meggiolaro, 2010; van der Wiel et al., 2020) or on register data (van der Wiel et al., 2023). In the United States, qualitative and quantitative research has shown that working-class couples tend to move in together faster than their middle-class counterparts (Sassler et al., 2018; Sassler & Miller, 2011).

Non-residential couples differ in their risk of transitioning to co-residence. A number of studies conducted in various European countries (Castro-Martín et al., 2008; Liefbroer et al., 2015; Régnier-Loilier et al., 2009) have identified the following reasons for choosing not to live with a partner: not feeling ready; a desire for independence; practical constraints related to the partners' financial, housing, or work situations; and the presence of children from previous unions. Findings from these studies indicate that most young couples do not live together because of external constraints in the domain of paid work, such as the lack of financial independence. Thus, during young adulthood, and especially while still enrolled in education, non-cohabiting unions tend to be temporary arrangements that do not represent an alternative to cohabitation or marriage. Due to increasing rates of union dissolution and repartnering, non-cohabiting unions can also be formed at later stages of the life course; however, these couples are more likely to choose this living arrangement for ideological reasons rather than out of necessity (Liefbroer et al., 2015; Régnier-Loilier et al., 2009). The presence of children from previous relationships also affects partners' living arrangements, even when the children are adults (de Jong Gierveld & Merz, 2013; van der Wiel et al., 2020). Because of the cross-sectional nature of most of the surveys discussed here, these studies

we refer to non-cohabiting partnerships in a broad sense: i.e., as partnerships between women and men who consider themselves to be in an intimate relationship and who do not live with their partner.

failed to investigate under what conditions non-residential couples are most likely to transition to co-residence.

2.2 The role of economic factors in the transition to co-residential unions: theoretical perspectives and hypotheses

In the following sections, we use existing theories on role incompatibility, uncertainty, and gendered specialisation to argue how the likelihood of transitioning from a non-residential to a co-residential union varies between different types of couple configurations based on their employment status. Next, we draw on similar arguments to formulate hypotheses regarding the differences between employed individuals, addressing the role of employment-related characteristics such as contract type and income.

Role incompatibility. There are different reasons why young adults are not active in the labour market. First, young adulthood tends to be a life stage characterised by enrolment in education, and hence by a lack of economic independence. Being a student is not considered normatively compatible with the role of partner or parent (Blossfeld & Huinink, 1991). Indeed, there is ample evidence that educational enrolment is associated with postponing union formation and childbearing (Billari et al., 2019; Mooyaart et al., 2022). A second reason for not being active in the labour market is unemployment or inactivity. Non-employment may impose structural barriers to starting to live with a partner, such as an inability to afford housing. Our first hypothesis (H1) is that *jobless couples in which neither of the partners is employed are less likely to move in together than all other couple configurations.*

Uncertainty theory. According to this theoretical framework, the postponement of union formation is driven by uncertainties regarding the individual's own economic prospects and those of the partner. According to Oppenheimer's theory of marriage timing (1988), also referred to as 'uncertainty theory', a dual-earner couple configuration is characterised by negligible uncertainty about whether a certain economic standard and an envisaged lifestyle can be achieved. A lack of

uncertainty about having sufficient economic resources may be expected to encourage the transition to co-residence. This translates into the following hypothesis (H2): *Dual-earner couples are more likely to move in together than other couple configurations.*

Gendered specialisation and uncertainty reduction. Following the hypotheses outlined above, not working signals poor future economic prospects and an insecure life situation, and may discourage those affected from making a commitment like moving in together. Nevertheless, the economic prospects of men and women may have a different weight in a gender-unequal society, including in the current context of women's increased labour market participation. The literature suggests that men's economic prospects may continue to affect union formation more than those of women. In the male breadwinner model, men are expected to be the economic provider for the family, and if they fail to do so, they may face social sanctions, feel that their identity is threatened, or report lower life satisfaction (e.g., Kowalewska & Vitali, 2023). If, in line with the specialisation hypothesis (Becker, 1981), one of the two partners is not employed, the transition to co-residence is solely a function of the other partner's economic characteristics, and will happen when he or she successfully integrates into the labour market (Oppenheimer, 1988). Given that the gendered division of labour implies that men engage in paid labour more than women, the male partner's employment status might be particularly relevant for the couple's transition to co-residence, because it functions as a signal of his ability to provide for the couple, and, potentially, for a future family. The importance of men's prospects is also compatible with the 'uncertainty reduction theory' (Friedman et al., 1994), which states that women with low job-related aspirations or with uncertain economic prospects tend to invest in family formation as a result of a compensatory mechanism. Empirical research providing support for these theories includes studies based on data from the United States (Sassler et al., 2018), Australia (Bolano & Vignoli, 2021), and Germany (Kurz et al., 2005; Wagner et al., 2019). In a European comparative framework, the importance of men's resources for union formation depends on the degree of gender equality at the country level (Kalmijn, 2011); accordingly, no differences in the

economic characteristics of women and men have been found in the relatively gender-equal context of Finland (Jalovaara, 2012). In the German context in which our study is situated, we expect to find that *male breadwinner couples have a higher probability of moving in together than jobless couples, but a lower probability than dual-earner couples* (H3). For the opposite couple configuration, which we label 'female breadwinner', we expect to observe that for women, employment does not increase their attractiveness as a potential cohabiting partner to the same extent as it does for men, because this would challenge the gendered specialisation of roles. Still, women's access to economic resources is relevant because it decreases uncertainty and fosters the establishment of a shared household in the absence of a second income. Indeed, among recent cohorts of young adults, women's participation in the labour market has increased, and women's and men's preferences for partners may have also changed, with men increasingly looking for partners with traits associated with labour market success (Oppenheimer, 1988; Van Bavel et al., 2018). Our expectation (H4) is that *female breadwinner couples have a lower probability of moving in together than dual-earner and male breadwinner couples, but a higher probability than jobless couples.*

Hypotheses 1-4 are summarised in the table below.

[TABLE 1 HERE]

Employment status may mask important heterogeneities in the economic determinants of cohabitation, especially within the group of employed individuals (see, e.g., Vignoli et al., 2016), who may differ widely according to their job characteristics. Unfortunately, data constraints do not allow us to examine these heterogeneities at the couple level. These differences are thus studied only for the main respondent (analyses stratified by gender). We therefore consider two additional characteristics of those individuals who are employed: namely, the nature of the employment contract and the level of income. Our main expectation is that the labour market uncertainty caused by having fixed-term or casual employment or low monetary returns has negative repercussions for partnership transitions, as individuals who experience difficulties making ends meet are less likely to transition

to co-residence because they cannot predict their economic and housing situations in the medium to long term.

While studies conducted in the United States and in Italy (Oppenheimer, 2003; Sassler et al., 2018; Vignoli et al., 2016) have shown that cohabitation is interpreted as an expression of a 'pattern of disadvantage' among older cohorts (Perelli-Harris & Gerber, 2011), evidence from the United Kingdom and Australia indicates that having temporary jobs inhibits both young women and young men from entering a union (Bolano & Vignoli, 2021; Palumbo et al., 2022). In Germany, women and men with temporary employment contracts in the early 2000s had a probability of transitioning to marriage similar to that of their counterparts with permanent employment contracts (Kurz et al., 2005). Because partners can form a couple while living apart, cohabitation may represent the first step towards the institutionalisation of a union (Bergström & Moulin, 2022); hence, holding a temporary job could be interpreted as a signal of economic uncertainty and precariousness in the labour market. Therefore, a person with a temporary job may be considered a less suitable candidate for cohabitation. Drawing on uncertainty theories and gendered specialisation, we expect the negative association between having a fixed-term contract and union formation to be weaker for women than for men, leading to the formulation of H5: *Having a temporary employment contract decreases the likelihood of moving in with a partner for both men and women, but the association is weaker for women.*

Lastly, while having a sufficient income has been traditionally interpreted as a prerequisite for union formation, little is known about the role played by both partners' income levels. Like their European peers, young adults in Germany are particularly exposed to the risk of poverty, not only because of their low work intensity, but also due to the lower monetary returns at the early stages of employment careers (Goebel et al., 2015). This may limit young adults' ability to commit to a co-residential relationship both financially and emotionally. In line with the literature discussed above and with gender pay gaps persisting in the German context (Schäper et al., 2023), it may be expected

that men's labour income is more decisive than that of women; while among younger cohorts, women's income might play a non-negligible role. The importance of labour income for union formation among women has been confirmed for the United Kingdom by Palumbo and colleagues (2022); for Finland by Jalovaara (2012); and for the United States with regard the transition to marriage (Ishizuka, 2018). Our final hypothesis H6 is as follows: *Higher labour income is positively associated with the transition to co-residence for both men and women, but the association is stronger for men*.

[TABLE 2 HERE]

2.3 The country context of our study

In Germany, cohabitation has become, over time, the normative way to start a union, with 79% of first unions among people born in the 1970s starting as unmarried cohabitation (Hiekel, 2014). Thus, marriage has not lost momentum, but it has been steadily postponed. Most individuals who marry do so with either their first or their second cohabiting partner (Hiekel & Fulda, 2018). Given the prevalence of non-marital cohabitation in Germany, empirical analyses will study the transition to cohabitation, but the same hypotheses could be applied to marriage as well. Young adults usually leave their parents' home in their early twenties, and leaving home tends to be disconnected from union formation, especially among tertiary educated individuals (Mulder et al., 2002). Patterns of participation in education and in the labour market have been shifting, with women starting to outnumber men in higher education around 2007 (Corti & Scherer, 2021). While the share of women in the labour market is comparatively high, about half of women are employed with part-time contracts; indeed, part-time is the most common schedule for women after their first childbirth. Despite unemployment rates being historically low (around 3% among the working-age population in 2022 according to Eurostat), low-wage work, temporary employment, and income inequality are on the rise in the German context (Brady & Biegert, 2017; Goebel et al., 2015; Kurz et al., 2005). Patterns of employment differ between eastern and western Germany. In eastern Germany,

nonmarital childbearing and marriage postponement are more common, women remain more attached to the labour market throughout their childbearing years, and the gender pay gap is relatively small (Schäper et al., 2023). In western Germany, the transition to parenthood commonly leads to a massive and prolonged reduction in paid labour among women, and norms around marriage are persistently stronger, with cohabitation being considered a prelude to marriage (Fulda, 2016; Hiekel et al., 2015). Owning a house cannot be considered a precondition for cohabitation in Germany, given the level of approval of long-term renting and the country's low homeownership rate (47% vs. a European average of 69% in 2022, Eurostat data).

3. Data and methods

3.1 Data

The Panel Analysis of Intimate Relationships and Family Dynamics (pairfam) is a survey established in Germany with the aim of studying partnership and family processes. The first wave of data collection, in which around 12,000 randomly selected individuals living in Germany were interviewed, was conducted in 2008/09. The respondents were from three age groups: 15-17 years, 25-27 years, and 35-37 years, and were thus born in 1991/93, 1981/83, and 1971/73, respectively (Huinink et al., 2011). Those individuals have been interviewed on an annual basis for a maximum of 14 waves; in this paper, we use data from wave 1 to 13 (collected in 2020/21)[2]. In wave 11, conducted in 2018/19, a refreshment sample of individuals born in 2001/03 was added.

A central feature of pairfam is that it collects detailed information on the union and fertility life courses of respondents. These data are reorganised into *biopart*, a dataset in 'long-long' format (one row for each partnership) containing retrospective and prospective monthly-level information about partnership, cohabitation, and marriage episodes, as well as the characteristics of the partners

[2] In this paper, we use data from the German Family Panel (pairfam), release 13.0 (Brüderl et al., 2022), coordinated by Josef Brüderl, Sonja Drobnič, Karsten Hank, Johannes Huinink, Bernhard Nauck, Franz J. Neyer, and Sabine Walper. The study was funded from 2004 to 2022 as a priority program and a long-term project by the German Research Foundation (DFG). A detailed description of the study is provided by Huinink et al. (2011).

(Brüderl et al., 2022). In addition, a wide variety of data on the main respondents as well as on their current partner are collected at every wave in which they participate in the survey; most relevant for the present study is information on employment status (for both main respondents and their partner), as well as on the nature of the employment contract and income of employed main respondents. These datasets can be merged into one dataset in long format, which we refer to as relationship-year (one row for each partnership-year, with monthly information on union duration and yearly information on all the other variables).

3.2 Sample selection

Since we are interested in gender differences within couples, different-sex relationships are our unit of analysis. The overall number of relationships reported in the *biopart* dataset, which constitutes the starting point of this analysis, is 37,550. Each respondent can report multiple relationships. Because detailed information on partners preceding the first interview is not provided, and to avoid selection on previous partnerships, we exploit prospective information only, i.e., non-residential relationships that are intact when the main respondent enters the panel or that are formed in the following years in which the main respondent participated in the survey. Relationships that ended or transitioned to cohabitation before the first interview have thus been excluded.

We select relationships that meet the following criteria: they start as non-cohabiting (in 95% of cases the start of the relationship does not coincide with the start of cohabitation) and have non-negative[3] and non-missing information on union duration (74%). We keep those relationships in which the start of cohabitation does not coincide with the start of a marriage (98%), and hence exclude direct marriages, which are extremely rare in our sample. In addition, the main respondent should be observed at least twice (87%), be above age 10 at the beginning of the relationship, and be above age 17 at the beginning of cohabitation (99%). We also exclude non-cohabiting relationships shorter than

[3] A negative union duration is recorded when the start of cohabitation precedes the start of the relationship.

three months (N = 721) and longer than 120 months (10 years) (N = 79), as the risk of these partnerships transitioning to cohabitation is low. After listwise deletion on missing observations, the data are restructured in relationship-year format and are merged with the dataset containing information about the main respondents (waves 1-13). We obtain a final sample of 14,184 partnership-years from 7,165 partnerships formed by 5,133 respondents.

In pairfam, information on the nature of the employment contract and income data are only available for main respondents, and not for their partner. For this reason, we also select subsamples of relationships reported by either employed women or employed men meeting the same criteria outlined above. These amount to 3,108 and 2,700 relationship-years, respectively.

3.3 Measurements

Our dependent variable is the hazard of transitioning from an intimate non-residential relationship to non-marital cohabitation; that is, to sharing a dwelling with a partner without being married. In pairfam, the presence of an intimate partner is identified through the question: 'In the following, I'll ask you about intimate relationships. Do you have a partner in this sense?' The start of cohabitation is measured by the following questions: 'Do you live together with (partner) in the same dwelling?' 'When did you and (partner) start living together?'

While the survey has in principle a 'multi-actor design', collecting information not only from main respondents, but also from their partner, the partner's data suffer from low response rates and selectivity (Schröder et al., 2012). Hence, similar to previous studies (Wagner et al., 2019), we use information provided by the main respondents on their partner's employment and educational attainment, as these are observable characteristics for which the bias derived from using proxy information should be negligible. The main independent variable is the employment status of both members of the couple: (i) both are not working (because of education or training, inactivity, or unemployment); (ii) the man is employed and the woman is not working ('male breadwinner'); (iii) the woman is employed and the man is not working ('female breadwinner'); and (iv) both are

employed (‘dual-earner’). In this first set of analyses, the employed category includes self-employed individuals and does not distinguish between full- and part-time employment. In a second set of analyses on the subsample of employed individuals, our main predictors are having a temporary vs. a permanent employment contract and the net labour income from the previous month. Income is recoded into quintiles based on the income distribution of the German employed population.

We take into account the educational pairing of the couple: (i) homogamy: both low/medium educated (including lower secondary education or less than lower secondary and upper secondary/post-secondary); (ii) hypergamy: the man has tertiary education and woman has less than tertiary education; (iii) hypogamy: the woman has tertiary education and the man has less than tertiary education; and (iv) homogamy: both are tertiary educated. In this setting, because couples are already formed when first observed and are selected in terms of educational level, it is not possible to study the transition to co-residence as a function of the partners’ education. Rather, we consider the educational pairing of the couple as a control variable to account for differences in the hazard of transitioning to cohabitation. If partnership duration exceeds one wave, given that information on the partner is occasionally missing in the successive waves (2% to 7% of answers), we use the nearest information available in the previous or next wave(s) for gender and education, while assuming it is constant over time, and from the previous wave for employment status only. Information about pregnancy status and age is also available for both partners. Because of the strong correlation between the partners’ ages (Pearson’s correlation = 0.84), the main respondent’s age is used; we include age in both linear and squared form.

The following variables are available for the main respondent only: type of work contract (temporary vs. permanent), monthly net income, number of previous cohabitations, number of children, living in eastern Germany, and age at the start of the relationship. The number of children refers to children currently co-residing with the main respondent, with no distinction between biological, adopted, or stepchildren, and is recoded into a categorical variable with three categories:

childless, one child, and two or more children. The number of previous cohabitations is measured on the previous wave to avoid collinearity with the outcome. All variables are time-varying at the yearly level, roughly corresponding to the between-wave interval of the panel.

3.4 Methods

To study the transition to cohabitation we use event-history analysis, which allows us to jointly model the likelihood of the event happening and the pace of the process. Couples start to be at risk of cohabiting when they are formed; that is, at the beginning of their relationship, as reported by the main respondent. Time to the event of cohabitation is measured in months and each couple can cohabit only once (single-failure data). Following related studies (van der Wiel et al., 2020; Wagner et al., 2019), we consider an episode to be censored if the relationship continues as non-cohabiting in the last wave when it is observed, or if the couple separates and therefore does not proceed to cohabitation.

In a first step, we describe couples' transitions to cohabitation by their combined economic characteristics using Kaplan-Meier survival analysis, which does not account for confounding variables. In a second step, because our interest lies in the association between the covariates and the transition to cohabitation, we use Cox proportional hazards regression (Cox, 1972) with standard errors clustered by individual to correct for the fact that multiple relationships can be reported by the same respondent. The main feature of Cox models is that the baseline hazard is left unspecified and that the covariates are multiplicatively related to the hazard; the proportionality of the hazard functions is assumed to be constant over time (Cox, 1972). We estimate three regression models on our data in relationship-year format: Model 1, our baseline model, is run on the overall sample and allows us to jointly consider the employment status of both partners; Model 2 is restricted to the relationships reported by employed individuals and is performed separately on women and men. We also run a model on all employed individuals in Model 3, including interactions terms to check for gender differences. As robustness checks, we consider alternative model specifications, test the

assumption of proportional hazards for the main covariates of interest, and restrict the analyses to the relationships started after age 20 to check whether our results are driven by the relationships reported by younger respondents. We also run our main models with competing risks for cohabitation vs. separation to ensure that our predictors are related to the main event of interest (cohabitation) and not to its competing event (separation).

4. Results

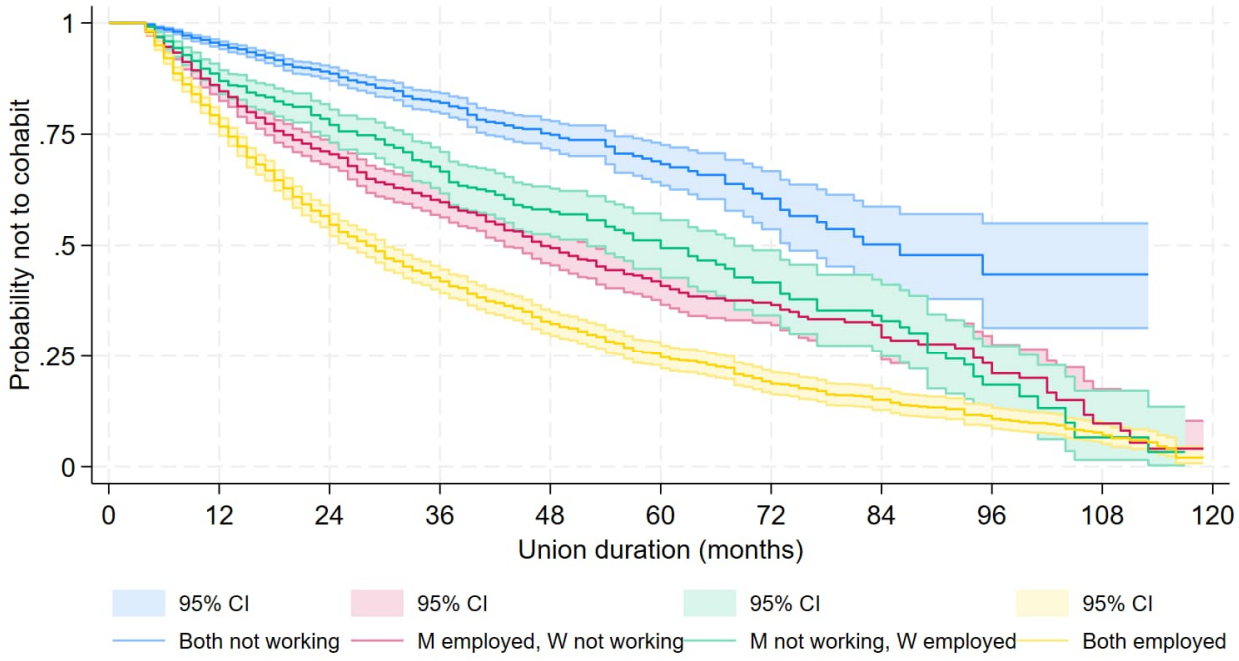
4.1 Descriptive results

Table 3 describes the composition of our analytical sample of relationships across all the years in which one relationship was reported. It shows that 60% of non-cohabiting relationships are reported by main respondents born in 1991-93, with a mean age of 23 at the start of the relationship and a mean age of 25 throughout the observation window; 55% of main respondents have never cohabited and 90% of them are childless. However, the proportion of main respondents in their late thirties is not negligible: 10% of them are aged 37 or older. The sample is slightly skewed towards female main respondents (55%). In terms of employment status, the composition of the couples is quite diverse: jobless couples are most prevalent (37%), primarily because of participation in education or training at younger ages, followed by dual earners (31%). Among the couples in which only one partner is employed, male breadwinners (21%) are more common than female breadwinners (11%). These results reflect common labour market participation patterns of German couples, among whom gendered specialisation is uncommon before the transition to parenthood. In terms of educational attainment, couples in which both partners have low or medium education are the largest group (58%), reflecting the young age and the prevalence of ongoing enrolment of our sample. Among employed main respondents, 25% of men and 26% of women have a temporary job. The median net monthly income reported is €1,585 for employed men and €1,230 for employed women, reflecting the average gender pay gap in Germany.

[TABLE 3 HERE]

Figure 1 shows Kaplan-Meier survival curves for couples with different employment configurations as a function of union duration, expressed in months since the start of the relationship. The slope of the survival curve is flat for jobless couples, indicating a lower rate of transitioning to cohabitation at any duration of the union. The slope of the survival curve is steepest for couples with two employed partners, who tend to move in together earlier than the other couple types, particularly at shorter union durations. If only the male partner is employed, the survival curves reveal a slower transition to cohabitation compared to dual earners that converges only at relatively long union durations, but a faster transition compared to inactive couples at any union duration. Female breadwinner couples have a slightly lower probability of transitioning to cohabitation than male breadwinner couples, but the shapes of the survival curves look remarkably similar, particularly at longer union durations.

Figure 1: Kaplan-Meier survival estimates, by couples' combined economic characteristics



Notes: 'Not working' refers to being a student, unemployed, or inactive. 'Employed' refers to having an employment contract, with no distinction between employment and self-employment, full-time and part-time employment.

4.2 Multivariate results

A Cox regression model (results reported in Table 4) that accounts for the compositional heterogeneity of non-residential couples by including a set of control variables confirms the patterns revealed by the Kaplan-Meier survival analysis. In line with the hypotheses on role compatibility and uncertainty, jobless couples display the lowest propensity to transition to cohabitation: their hazards are 48% lower than those of male breadwinner couples (i.e., the reference category). Dual-earner couples are 22% more likely to transition to cohabitation than male breadwinner couples. Contrary to the finding of the Kaplan-Meier survival analyses that male and female breadwinner couples have a similar hazard of transitioning to co-residence, the model shows that when the set of control variables is included, female breadwinner couples are 28% less likely to transition to cohabitation than male breadwinner couples. This indicates that in single breadwinner couples, the gender of the employed partner is differently associated with the transition to cohabitation. Switching the reference category reveals that all groups differ significantly from each other (results not shown).

Findings regarding the control variables are in line with prior research on non-economic determinants of the transition to cohabitation. Homogamous couples with high levels of education exhibit a 49% higher hazard of transitioning to cohabitation than homogamous couples with low or medium education (the reference group). Heterogamous couples do not differ from the reference group, or from homogamous highly educated couples (results not shown). Both older respondents and those with (more) previous cohabitations show an increased hazard of cohabiting. While expecting a child considerably increases the hazard of transitioning to cohabitation (by 88%), given that it is experienced by a minority of couples in our sample, the presence of two or more child(ren) residing with the main respondent (probably from a previous union) slightly deters the formation of a cohabiting union. The hazard of cohabiting does not differ between respondents living in eastern and western Germany.

[TABLE 4 HERE]

To address heterogeneity among employed respondents, we estimate two Cox regression models on the subset of couples in which the main respondent is employed, stratified by gender (results presented in Table 5). In this model, we introduce the nature of the employment contract (permanent vs. temporary) and income levels in quintiles, while controlling for the employment status and the educational attainment of both partners. Compared to women with a permanent employment contract, women with a temporary contract exhibit an increased hazard of cohabiting (by 35.5%). Results for men are in a similar direction but are not statistically significant. A higher income is positively associated with cohabitation: both women and men in the fifth income quintile exhibit a 66% higher hazard ratio of cohabitation compared to the reference category (first quintile). In order to compare women and men and to test our hypotheses, the same model is estimated on employed women and men together (Table 6), adding an interaction between gender and temporary contracts (Model 3a), and between gender and income (Model 3b). The coefficient of the interaction between gender and temporary contracts is statistically significant (H.R. = 1.308, p = 0.038), showing that women with temporary contracts are slightly more likely (by 4%) to cohabit than men with temporary contracts. This finding contradicts the hypothesis that having a temporary employment contract decreases the likelihood of cohabiting more for men than for women. No differences emerge between women and men in the association between each income quintile and the hazard of cohabiting. While this result is in line with the expected positive association between income and the transition to cohabitation, it does not confirm the hypothesis of a gendered role of labour income.

Concerning the model estimated on women and men separately, results regarding the control variables (age, previous cohabitation, eastern vs. western Germany) are in line with the previous model estimated on the full sample. Results do deviate from the full sample for educational attainment, employment status, and the presence of children. Tertiary educated and employed men have a slightly higher hazard of transitioning to cohabitation than men with lower educational attainment, but this is not the case for tertiary educated and employed women. Moreover, having a

tertiary educated partner (either male or female) is not associated with the hazard of cohabiting. Interestingly, the hazard of cohabiting is substantially lower (by around 40%) if the female or male partner is in education or training rather than being employed, while having an unemployed or inactive partner does not lower the chances of cohabiting among this subsample. The presence of children negatively affects the transition to cohabitation for women but not for men, with the latter being more likely to transition to cohabitation when they reside with children from previous unions.

[TABLES 5, 6 HERE]

In order to rule out possible confounding effects between the two considered employment-related characteristics, we also estimate separate Cox regression models including either contract type or income. The association between the type of employment contract and the hazard of cohabiting without controlling for income is consistent with the full model (not shown for brevity): temporary employment is not associated with the transition to cohabitation for men (H.R. = 0.963, p = 0.707), and is positively associated for women (H.R. = 1.231, p = 0.024).

4.3 Robustness checks

Our baseline model addressing the association between couples' configurations and the transition to cohabitation (Model 1) has been estimated with a control for age differences between the partners, which could explain differences in economic conditions or in educational attainment. The coefficient of the age difference is not statistically significant (not reported for brevity), signalling that the age of the partner does not confound the relationship we are interested in. To rule out the possibility that our results are driven by the relationship behaviour of younger respondents, we also estimate the baseline model (Model 1) on those relationships that started when the main respondent was aged 20 or older, and was thus above the median age at the start of the relationship in our sample (Table A1, Appendix). After this restriction is applied, the sample size drops to 7,546 relationship-years. Results remain consistent with those obtained for the full sample for all the independent and control variables,

although the effect of having children disappears, and age (in its linear specification) is no longer significant.

Furthermore, we test whether the assumption of proportional hazards is violated for the main covariates of interest, meaning that the implied association between such variables and the outcome is not constant over time, but rather depends on union duration. On the basis of log-log plots and Schoenfeld residuals it can be concluded that the assumption is not violated for couples' economic characteristics or for educational attainment. Violations of the proportional hazard assumption that could lead to biased estimations in the models presented above are observed among the control variables related to pregnancy and the number of co-resident children. While these results could hint at a composite role played by the child's age and union duration, they do not constitute the focus of the paper. Therefore, we do not conduct stratified analyses based on these variables.

To ensure that our covariates of interest are not associated with couples' risk of separation, an event that we are treating as censored, we furthermore run Model 1 with competing risks for cohabitation vs. separation (Table A2, Appendix). Results show that couples' composition in terms of employment status is associated with cohabitation, but not with separation. Educational attainment is instead related to separation: couples in which both partners are low/medium educated have higher separation hazards than others. When we replicate Model 2 with competing risks, neither temporary employment nor income is associated with separation (Table A3, Appendix).

5. Discussion

Over the last decades, partnering behaviours as well as patterns of educational and labour market participation have undergone profound transformations in the European context. These changes have occurred particularly among young adults, who are facing increasing difficulties in securing stable employment, and, at the same time, navigating romantic relationships. The existing literature has not fully grasped the complexity of the transition to a co-residential union among recent cohorts. In this

paper, we used unique dyadic data on different-sex non-cohabiting couples provided by pairfam, a longitudinal study conducted in Germany, to study couples' transitions to co-residence using event-history models. We advanced the previous literature by considering the role of multiple employment-related characteristics (i.e., employment status, type of employment contract, income) of partnered women and men in non-residential unions.

The likelihood of transitioning to living together varies considerably between different couple configurations based on employment status. As dual-earner couples in Germany have the lowest levels of economic insecurity and the lowest risk of poverty (Goebel et al., 2015), and are generally able to overcome the structural barriers associated with access to a rented dwelling, it is not surprising that they tend to transition to cohabitation faster than other couple constellations. In accordance with Oppenheimer's theory of marriage timing (1988), but also in line with the notion of role incompatibility (Blossfeld & Huinink, 1991), the completion of education is a prerequisite for cohabitation: analyses on employed individuals indicate that having a partner enrolled in education substantially reduces the hazard of moving in together compared to unemployment or inactivity. The finding that jobless couples exhibit the lowest transition probabilities suggests that these couples may postpone the decision to move in together until they reach a more stable life course stage (Régnier-Loilier et al., 2009). The inclusion of both partners' economic characteristics allowed us to address gendered associations between employment and union formation. We observed that the hazard of moving in together is always higher for couples in which the man is working (dual-earner or male breadwinner) than for couples in which neither partner or only the woman works (both jobless or female breadwinner). Hence, in line with previous findings (Kurz et al., 2005; Wagner et al., 2019), we found that the male breadwinner paradigm is persistently relevant for the decision to start cohabiting, including among younger cohorts. Nevertheless, the high propensity to move in together observed among dual earners signals that preferences are shifting towards homogamy in economic activity, at least in the early stages of union formation. Furthermore, the finding that couples with two

tertiary educated partners have the highest hazard of cohabiting suggests that the paradigm of cohabitation representing a 'pattern or disadvantage' (Perelli-Harris & Gerber, 2011) or a 'poor men's marriage' (Oppenheimer, 2003) does not hold in the German context.

When we analysed heterogeneity in the likelihood of transitioning to cohabitation among employed respondents, we found that, unlike in other countries (Bolano & Vignoli, 2021; Palumbo et al., 2022), having a temporary employment contract increases the likelihood of cohabiting among women, but not among men. Thus, it appears that having a temporary contract does not signal economic precariousness and does not discourage individuals from committing to cohabitation. This result can be interpreted in light of observation that, in Germany, temporary employment is common at the beginning of the work career, including among high-skilled individuals (Kurz et al., 2005). Among younger cohorts, any type of employment, rather than secure employment, is a prerequisite for the transition to non-marital cohabitation. The observed gender difference in the role of temporary employment is small, but can be explained by the uncertainty reduction theory (Friedman et al., 1994): women with a more uncertain contract type might be more willing to invest in union formation to safeguard their economic status through their partner, in line with gendered perceptions about economic dependence. The positive association found between income and cohabitation among both employed women and employed men confirms previous findings (Jalovaara, 2012; Palumbo et al., 2022), and highlights how the transition to co-residence is socially stratified in the German context as well. Earning a higher salary appears to be a prerequisite for union formation outside of marriage (as shown by, e.g., Ishizuka, 2018), and for women as well as men. Despite not being the focus of this paper, in line with existing literature (van der Wiel et al., 2020), we found that co-residence with children affects women's and men's re-partnering decisions differently. Living in eastern vs. western Germany does not determine differences in the likelihood of cohabiting, signalling that distinct partnership trajectories between East and West only emerge after the transition to cohabitation (Fulda, 2016; Hiekel et al., 2015).

We acknowledge the following limitations. Because information on contract type and income was available exclusively for the main respondents, we were unable to study these factors as relative employment characteristics of the two partners. This limitation was addressed by stratifying our analyses by gender, which allowed us to evaluate how employment-related characteristics are differently associated with the transition to a co-residential union among women and men. One last note concerns the use of event-history models: while recognising antecedent variables, these models adopt a 'static' approach, and thus did not allow us to study whether within-couple transitions in the explanatory variables are related to the transition to cohabitation. Given that monthly-level information about partners' employment status is not available in pairfam, couple configurations at the yearly level represent the maximum level of granularity available in the data, and allowed us to grasp how partnerships evolve according to the partners' economic characteristics.

Our findings have important implications. First, if young people struggle to enter the labour market, they will delay cohabitation, and hence the following steps in relationship progression as well (Esteve et al., 2020). Being unemployed or earning a low salary may affect specific segments of the population more than others; in this context, young men with low educational attainment are particularly vulnerable, given that their chances of entering a co-residential union are lower than those of women (Corti & Scherer, 2021). Even if the present study could not assess whether there is a general preference for postponing union formation until labour market entry, thereby privileging single living or co-residence with parents, results suggest the existence of structural barriers to the establishment of a joint household, reinforced by normative beliefs about the role of the man as the family's economic provider. Second, in a context in which cohabitation has become normative as a step on the road to marriage, it may now be associated not only with a higher degree of commitment than in the past, but also with having more substantial economic resources, which was formerly required exclusively for marriage formation (Jalovaara, 2012). Considering the changed circumstances in which young adults form their unions, it is evident that previous theories attempting

to explain the transition to cohabitation reach their explanatory limits, and that the study of partnership processes cannot ignore non-residential relationships and the steps that precede the establishment of a joint household (Bergström & Moulin, 2022; Manning, 2020; Sassler, 2010). Being single, living apart together, cohabiting, and getting married represent distinct states of partnership progression that are repeatable over the life course, and whose meaning can vary substantially over time and across different contexts. To conduct empirical analyses of complex partnership trajectories, longitudinal data for additional European countries are needed, including detailed information about both partners in non-residential relationships. Data on unpartnered individuals are also necessary to understand contemporary trends of (permanent) singlehood and the inequalities therein as a potential driver of postponing or foregoing family formation.

References

Aassve, A., Cottini, E., & Vitali, A. (2013). Youth prospects in a time of economic recession. *Demographic Research*, *29*, 949–962. https://doi.org/10.4054/DemRes.2013.29.36

Alderotti, G., Guetto, R., Barbieri, P., Scherer, S., & Vignoli, D. (2024). Unstable employment careers and (quasi-)completed fertility: Evidence from the labour market deregulation in Italy. *European Sociological Review*, jcae027. https://doi.org/10.1093/esr/jcae027

Becker, G. S. (1981). *A Treatise on the Family*. Harvard University Press.

Bergström, M., & Moulin, L. (2022). Couple Formation is Prolonged not Postponed. New Paths to Union Formation in Contemporary France. *European Journal of Population*, *38*(5), 975–1008. https://doi.org/10.1007/s10680-022-09629-0

Billari, F. C., Hiekel, N., & Liefbroer, A. C. (2019). The Social Stratification of Choice in the Transition to Adulthood. *European Sociological Review*, *35*(5), 599–615.

Bloome, D., & Ang, S. (2020). Marriage and Union Formation in the United States: Recent Trends Across Racial Groups and Economic Backgrounds. *Demography*, *57*(5), 1753–1786. https://doi.org/10.1007/s13524-020-00910-7

Blossfeld, H.-P., & Huinink, J. (1991). Human Capital Investments or Norms of Role Transition? How Women's Schooling and Career Affect the Process of Family Formation. *American Journal of Sociology*, *97*(1), 143–168. https://doi.org/10.1086/229743

Bolano, D., & Vignoli, D. (2021). Union formation under conditions of uncertainty: The objective and subjective sides of employment uncertainty. *Demographic Research*, *45*(5), 141–186. https://doi.org/10.4054/DemRes.2021.45.5

Brady, D., & Biegert, T. (2017). *The Rise of Precarious Employment in Germany* (936; SOEPpapers on Multidisciplinary Panel Data Research). Deutsches Institut für Wirtschaftsforschung (DIW). https://www.diw.de/documents/publikationen/73/diw_01.c.567683.de/diw_sp0936.pdf

Brüderl, J., Drobnič, S., Hank, K., Neyer, Franz. J., Walper, S., Alt, P., Borschel, E., Bozoyan, C., Garrett, M., Geissler, S., Gonzalez Avilés, T., Gröpler, N., Hajek, K., Herzig, M., Lenke, R., Lorenz, R., Lutz, K., Peter, T., Preetz, R., … Wetzel, M. (2022). *The German Family Panel (pairfam)*. GESIS Data Archive. https://doi.org/10.4232/PAIRFAM.5678.13.0.0

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*, 443–468.

Ciritel, A.-A. (2022). Does Sex Matter? The Role of Sexual and Relationship Satisfaction on Living Apart Together Relationship Transitions. *Comparative Population Studies*, *47*. https://doi.org/10.12765/CPoS-2022-18

Corti, G., & Scherer, S. (2021). Mating Market and Dynamics of Union Formation. *European Journal of Population*, *37*(4), 851–876. https://doi.org/10.1007/s10680-021-09592-2

Cox, D. (1972). Regression Models and Life-Tables. *Journal of the Royal Statistical Society. Series B (Methodological)*, *34*(2), 187–220.

de Jong Gierveld, J., & Merz, E.-M. (2013). Parents' Partnership Decision Making After Divorce or Widowhood: The Role of (Step)Children. *Journal of Marriage and Family*, *75*(5), 1098–1113. https://doi.org/10.1111/jomf.12061

Di Nallo, A., Lipps, O., Oesch, D., & Voorpostel, M. (2022). The effect of unemployment on couples separating in Germany and the UK. *Journal of Marriage and Family*, *84*(1), 310–329. https://doi.org/10.1111/jomf.12803

Esteve, A., Boertien, D., Mogi, R., & Lozano, M. (2020). *Moving out the parental home and partnership formation as social determinants of low fertility*. Verlag der Österreichischen Akademie der Wissenschaften. https://doi.org/10.1553/populationyearbook2020.deb02

Friedman, D., Hechter, M., & Kanazawa, S. (1994). A Theory of the Value of Children. *Demography*, *31*(3), 375–401. https://doi.org/10.2307/2061749

Fulda, B. E. (2016). The diversity in longitudinal partnership trajectories during the transition to adulthood: How is it related to individual characteristics and regional living conditions? *Demographic Research, 35*, 1101–1134. https://doi.org/10.4054/DemRes.2016.35.37

Goebel, J., Grabka, M., & Schröder, C. (2015). *Income inequality remains high in Germany: Young singles and career entrants increasingly at risk of poverty* (DIW Economic Bulletin). Deutsches Institut für Wirtschaftsforschung (DIW). https://www.econstor.eu/bitstream/10419/111169/1/827918402.pdf

Hiekel, N. (2014). *The different meanings of cohabitation across Europe. How cohabiters view their unions and differ in their plans and behaviors.* Amsterdam University Press. https://research.vu.nl/en/publications/the-different-meanings-of-cohabitation-across-europe-how-cohabite

Hiekel, N., & Fulda, B. E. (2018). Love. Break up. Repeat: The prevalence and stability of serial cohabitation among West German women and men born in the early 1970s. *Demographic Research*, *39*(30), 855–870. https://doi.org/10.4054/DemRes.2018.39.30

Hiekel, N., Liefbroer, A. C., & Poortman, A.-R. (2015). Marriage and separation risks among German cohabiters: Differences between types of cohabiter. *Population Studies*, *69*(2), 237–251.

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. *Journal of Family Research*, *23*(1), 77–101. https://doi.org/10.20377/jfr-235

Ishizuka, P. (2018). The Economic Foundations of Cohabiting Couples' Union Transitions. *Demography*, *55*(2), 535–557. https://doi.org/10.1007/s13524-018-0651-1

Jalovaara, M. (2012). Socio-economic resources and first-union formation in Finland, cohorts born 1969–81. *Population Studies*, *66*(1), 69–85. https://doi.org/10.1080/00324728.2011.641720

Jalovaara, M. (2013). Socioeconomic Resources and the Dissolution of Cohabitations and Marriages. *European Journal of Population / Revue Européenne de Démographie*, *29*(2), 167–193. https://doi.org/10.1007/s10680-012-9280-3

Kalmijn, M. (2011). The Influence of Men's Income and Employment on Marriage and Cohabitation: Testing Oppenheimer's Theory in Europe. *European Journal of Population / Revue Européenne de Démographie*, *27*(3), 269–293. https://doi.org/10.1007/s10680-011-9238-x

Kowalewska, H., & Vitali, A. (2023). The female-breadwinner well-being 'penalty': Differences by men's (un)employment and country. *European Sociological Review*, jcad034. https://doi.org/10.1093/esr/jcad034

Krapf, S. (2018). Moving in or Breaking Up? The Role of Distance in the Development of Romantic Relationships. *European Journal of Population*, *34*(3), 313–336. https://doi.org/10.1007/s10680-017-9428-2

Krapf, S., Mulder, C. H., & Wagner, M. (2022). The Transition to a Coresidential Partnership: Who Moves and Who Has the Partner Move In? *Population Research and Policy Review*, *41*(2), 757–779. https://doi.org/10.1007/s11113-021-09665-4

Kurz, K., Steinhage, N., & Golsch, K. (2005). Case study Germany. Global competition, uncertainty and the transition to adulthood. In H.-P. Blossfeld, E. Klijzing, M. Mills, & K. Kurz (Eds.), *Globalization, Uncertainty and Youth in Society*. Routledge.

Levin, I. (2004). Living Apart Together: A New Family Form. *Current Sociology*, *52*(2), 223–240. https://doi.org/10.1177/0011392104041809

Liefbroer, A. C., Poortman, A.-R., & Seltzer, J. (2015). Why do intimate partners live apart? Evidence on LAT relationships across Europe. *Demographic Research*, *32*, 251–286. https://doi.org/10.4054/DemRes.2015.32.8

Manning, W. D. (2020). Young Adulthood Relationships in an Era of Uncertainty: A Case for Cohabitation. *Demography*, *57*(3), 799–819. https://doi.org/10.1007/s13524-020-00881-9

Meggiolaro, S. (2010). The importance of sexuality in the outcomes of a dating partnership among young adults. *Advances in Life Course Research*, *15*(1), 41–52. https://doi.org/10.1016/j.alcr.2010.07.001

Mills, M., & Blossfeld, H.-P. (2005). Globalization, uncertainty and the early life course. In H.-P. Blossfeld, M. Mills, K. Kurz, & E. Klijzing (Eds.), *Globalization, Uncertainty and Youth in Society* (p. 23). Routledge.

Mooyaart, J. E., Liefbroer, A. C., & Billari, F. C. (2022). The changing relationship between socio-economic background and family formation in four European countries. *Population Studies*, *76*(2), 235–251. https://doi.org/10.1080/00324728.2021.1901969

Mulder, C. H., Clark, W. A. V., & Wagner, M. (2002). A comparative analysis of leaving home in the United States, the Netherlands and West Germany. *Demographic Research*, *7*, 565–592.

Oppenheimer, V. K. (1988). A Theory of Marriage Timing. *American Journal of Sociology*, *94*(3), 563–591.

Oppenheimer, V. K. (2003). Cohabiting and marriage during young men's career-development process. *Demography*, *40*(1), 127–149. https://doi.org/10.1353/dem.2003.0006

Palumbo, L., Berrington, A., Eibich, P., & Vitali, A. (2022). Uncertain steps into adulthood: Does economic precariousness hinder entry into the first co-residential partnership in the UK? *Population Studies*, *0*(0), 1–27. https://doi.org/10.1080/00324728.2022.2102672

Pelikh, A., Mikolai, J., & Kulu, H. (2022). Make up or break up? Partnership transitions among young adults in England and Wales. *Advances in Life Course Research*, *52*, 100475. https://doi.org/10.1016/j.alcr.2022.100475

Perelli-Harris, B., & Gerber, T. P. (2011). Nonmarital Childbearing in Russia: Second Demographic Transition or Pattern of Disadvantage? *Demography*, *48*(1), 317–342. https://doi.org/10.1007/s13524-010-0001-4

Régnier-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*, 75–108.

Régnier-Loilier, A. (forthcoming). Living Apart Together. In D. Mortelmans, L. Bernardi & B. Perelli-Harris (Eds), *Research Handbook on Partnering across the Life Course*. Edward Elgar.

Sassler, S. (2010). Partnering Across the Life Course: Sex, Relationships, and Mate Selection. *Journal of Marriage and Family*, *72*(3), 557–575. https://doi.org/10.1111/j.1741-3737.2010.00718.x

Sassler, S., Michelmore, K., & Qian, Z. (2018). Transitions From Sexual Relationships Into Cohabitation and Beyond. *Demography*, *55*(2), 511–534. https://doi.org/10.1007/s13524-018-0649-8

Sassler, S., & Miller, A. J. (2011). Class Differences in Cohabitation Processes. *Family Relations*, *60*(2), 163–177. https://doi.org/10.1111/j.1741-3729.2010.00640.x

Schäper, D. I. W., Schrenker, A., & Wrohlich, K. (2023). *Gender Care Gap and Gender Pay Gap Increase Substantially until Middle Age* (DIW Weekly Report). Deutsches Institut für Wirtschaftsforschung (DIW). https://doi.org/10.18723/diw_dwr:2023-9-1

Schröder, J., Castiglioni, L., Brüderl, J., & Krieger, U. (2012). The Influence of Relationship Quality on the Participation of Secondary Respondents: Results from the German Family Panel. *Comparative Population Studies*, *37*(3–4), Article 3–4. https://doi.org/10.12765/CPoS-2012-07

Smock, P. J., & Manning, W. D. (1997). Cohabiting Partners' Economic Circumstances and Marriage. *Demography*, *34*(3), 331–341. https://doi.org/10.2307/3038287

Van Bavel, J., Schwartz, C. R., & Esteve, A. (2018). The Reversal of the Gender Gap in Education and Its Consequences for Family Life. *Annual Review of Sociology*, *44*(1), 341–360. https://doi.org/10.1146/annurev-soc-073117-041215

van der Wiel, R., Gillespie, B. J., & Tølbøll, L. (2023). Migration for co-residence among long-distance couples: The role of local family ties and gender. *Population, Space and Place*, *29*(2), e2631. https://doi.org/10.1002/psp.2631

van der Wiel, R., Mulder, C. H., & Valk, H. A. G. de. (2020). From Living Apart to Living Together: Do Children Born before the Current Partnership Matter? *Comparative Population Studies*, *45*. https://doi.org/10.12765/CPoS-2020-07

van Wijk, D. C., de Valk, H. A. G., & Liefbroer, A. C. (2022). Economic Precariousness and the Transition to Parenthood: A Dynamic and Multidimensional Approach. *European Journal of Population*, *38*(3), 457–483. https://doi.org/10.1007/s10680-022-09617-4

Vignoli, D., Tocchioni, V., & Salvini, S. (2016). Uncertain lives: Insights into the role of job precariousness in union formation in Italy. *Demographic Research*, *35*, 253–282. https://doi.org/10.4054/DemRes.2016.35.10

Wagner, M., & Mulder, C. H. (2015). Spatial Mobility, Family Dynamics, and Housing Transitions. *KZfSS Kölner Zeitschrift Für Soziologie Und Sozialpsychologie*, *67*(1), 111–135. https://doi.org/10.1007/s11577-015-0327-4

Wagner, M., Mulder, C. H., Weiß, B., & Krapf, S. (2019). The transition from living apart together to a coresidential partnership. *Advances in Life Course Research*, *39*, 77–86. https://doi.org/10.1016/j.alcr.2018.12.002

Tables

Table 1: Proposed framework for the association between economic characteristics and the transition to co-residence across configurations of non-cohabiting couples

Hyp. N.	Woman's employment status	Man's employment status	Association with the transition to co-residence	Reasons
1	Not working	Not working	Negative	Role incompatibility, high structural constraints
2	Employed	Employed	Positive	Uncertainty theory, low structural constraints
3	Not working	Employed	Positive (ref. category)	Gendered specialisation, uncertainty theory, uncertainty reduction theory
4	Employed	Not working	Negative	Gendered specialisation, uncertainty theory

Table 2: Proposed framework for the association between employment-related characteristics and the transition to co-residence for employed women and men in non-cohabiting couples

Hyp. N.	Gender	Employment-related characteristic	Association with the transition to co-residence	Reasons
5	Men	Temporary employment (ref: permanent)	Negative (stronger than for women)	Gendered specialisation, uncertainty theory
	Women	Temporary employment (ref: permanent)	Negative	Gendered specialisation, uncertainty theory, increased labour market participation
6	Men	Income	Positive (stronger than for women)	Gendered specialisation
	Women	Income	Positive	Gendered specialisation, increased labour market participation

Table 3: Descriptive statistics (unweighted)

	Summary statistics
Birth cohort of main respondent	
1971-1973	1,347 (9.5%)
1981-83	2,880 (20.3%)
1991-93	8,521 (60.1%)
2001-2003	1,436 (10.1%)
Sex of main respondent	
Male	6,456 (45.5%)
Female	7,728 (54.5%)
No. of waves in which main respondent participated	9.148 (3.977)
Age of main respondent at the beginning of the relationship	23.041 (7.386)
Age of main respondent (time-varying)	24.945 (7.513)
Number of previous cohabitations of main respondent	0.604 (0.789)
Child(ren) co-resident with main respondent	
Childless	12,803 (90.3%)
One child	803 (5.7%)
Two or more children	578 (4.1%)
Main respondent currently living in eastern Germany	
No	11,531 (81.3%)
Yes	2,653 (18.7%)
Couples' combined economic characteristics	
Both not working	5,307 (37.4%)
M employed, W not working	3,008 (21.2%)
M not working, W employed	1,515 (10.7%)
Both employed	4,354 (30.7%)
Couples' educational pairing	
Both low/medium educated	8,167 (57.6%)
M tertiary educated, W less than tertiary educated	1,904 (13.4%)
W tertiary educated, M less than tertiary educated	1,695 (12.0%)
Both tertiary educated	2,418 (17.0%)
Couple is expecting a child	
No	13,961 (98.4%)
Yes	223 (1.6%)
N (Relationship-years)	14,184

Table 4: Cox proportional hazard model on the transition to cohabitation. Model 1, hazard ratios

	Hazard ratios
Couples' economic characteristics (ref: M employed, W not working)	
Both not working	0.520***
	(0.0400)
M not working, W employed	0.723***
	(0.0640)
Both employed	1.216**
	(0.0741)
Couples' educational attainment (ref: Both low/medium educated)	
M tertiary educated, W less than tertiary educated	1.089
	(0.0826)
W tertiary educated, M less than tertiary educated	1.054
	(0.0725)
Both tertiary educated	1.492***
	(0.0825)
Couple expecting a child	1.887***
	(0.252)
Number of child(ren) living with main respondent (ref: childless)	
One child	1.056
	(0.130)
Two or more children	0.724*
	(0.113)
Number of main respondent's previous cohabitations	2.432***
	(0.115)
Main respondent living in eastern Germany	1.028
	(0.0601)
Main respondent's age (linear)	1.284***
	(0.0359)
Main respondent's age (squared)	0.995***
	(0.000468)
N (relationship-years)	14,184

Exponentiated coefficients; robust standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5: Cox proportional hazard model on the transition to cohabitation, employed men and women. Model 2, hazard ratios

	Hazard ratios – Men	Hazard ratios – Women
Temporary job (ref: permanent)	1.054	1.355**
	(0.107)	(0.127)
Partner's employment status (ref: employed)		
In education/training	0.601***	0.670***
	(0.0688)	(0.0782)
Inactive/unemployed	1.271	1.254
	(0.168)	(0.239)
Main respondent's educational attainment (ref: upper secondary/post-secondary)		
Lower secondary or less	1.047	0.884
	(0.190)	(0.164)
Tertiary	1.228*	1.010
	(0.111)	(0.0921)
Partner's educational attainment (ref: upper secondary/post-secondary)		
Lower secondary or less	1.202	1.074
	(0.176)	(0.222)
Tertiary	1.039	1.015
	(0.0961)	(0.0878)
Income quintiles (net from prev. month), ref: first quintile		
Second quintile	1.145	1.363*
	(0.206)	(0.187)
Third quintile	1.740***	1.576***
	(0.285)	(0.211)
Fourth quintile	1.601**	1.504**
	(0.257)	(0.221)
Fifth quintile	1.666**	1.659**
	(0.264)	(0.255)
Couple expecting a child	1.689*	1.484
	(0.357)	(0.414)
Number of child(ren) living with main respondent (ref: childless)		
One child	2.405***	0.302***
	(0.435)	(0.0500)
Two or more children	1.715*	0.343***
	(0.408)	(0.0775)

Number of main respondent's previous cohabitations	2.225***	1.964***
	(0.132)	(0.0967)
Main respondent living in eastern Germany	0.969	1.098
	(0.0986)	(0.111)
Main respondent's age (linear)	1.213**	1.138*
	(0.0738)	(0.0586)
Main respondent's age (squared)	0.996***	0.9969***
	(0.000969)	(0.000811)
N (relationship-years)	2,700	3,108

Exponentiated coefficients; robust standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6: Cox proportional hazard model on the transition to cohabitation, employed men and women, combined. Model 3, hazard ratios

	Model without interactions, Hazard ratios	Model 3a, Hazard ratios	Model 3b, Hazard ratios
Women	0.851**	0.799***	0.858
	(0.0507)	(0.0543)	(0.148)
Temporary job (ref: permanent)	1.149*	0.991	1.151*
	(0.0788)	(0.0957)	(0.0793)
Partner's employment status (ref: employed)			
In education/training	0.591***	0.596***	0.590***
	(0.0487)	(0.0490)	(0.0487)
Inactive/unemployed	1.510***	1.510***	1.509***
	(0.153)	(0.153)	(0.153)
Main respondent's educational attainment (ref: upper secondary/post-secondary)			
Lower secondary or less	0.865	0.850	0.857
	(0.122)	(0.122)	(0.122)
Tertiary	1.147*	1.141*	1.141*
	(0.0738)	(0.0736)	(0.0736)
Partner's educational attainment (ref: upper secondary/post-secondary)			
Lower secondary or less	1.212	1.220	1.208
	(0.146)	(0.147)	(0.144)
Tertiary	1.024	1.026	1.026
	(0.0644)	(0.0646)	(0.0647)
Income quintiles (net from prev. month), ref: First quintile			
Second quintile	1.261*	1.264*	1.141
	(0.145)	(0.145)	(0.200)
Third quintile	1.722***	1.725***	1.846***
	(0.185)	(0.185)	(0.290)
Fourth quintile	1.707***	1.708***	1.747***
	(0.190)	(0.191)	(0.272)
Fifth quintile	2.003***	1.988***	1.946***
	(0.225)	(0.224)	(0.298)
Main respondent or partner expecting a child	1.540**	1.567**	1.553**
	(0.243)	(0.245)	(0.247)
Number of child(ren) living			

with main respondent (ref: childless)			
One child	0.940	0.933	0.940
	(0.124)	(0.123)	(0.124)
Two or more children	0.868	0.873	0.854
	(0.149)	(0.151)	(0.148)
Number of main respondent's previous cohabitations	2.227***	2.226***	2.232***
	(0.0844)	(0.0846)	(0.0845)
Main respondent living in eastern Germany	0.997	0.999	0.998
	(0.0734)	(0.0731)	(0.0733)
Main respondent's age (linear)	1.140***	1.143***	1.142***
	(0.0441)	(0.0445)	(0.0444)
Main respondent's age (squared)	0.997***	0.997***	0.997***
	(0.000609)	(0.000613)	(0.000612)
Woman # temporary job		1.308*	
		(0.170)	
Woman # 2nd income quintile			1.157
			(0.261)
Woman # 3rd income quintile			0.877
			(0.178)
Woman # 4th income quintile			0.946
			(0.198)
Woman # 5th income quintile			1.086
			(0.222)
N (relationship-years)	5,808	5,808	5,808

Exponentiated coefficients; Robust standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix

Table A1: Cox proportional hazard model on the transition to cohabitation, main respondent aged 20+ at the start of the relationship. Model 1, hazard ratios

	Hazard ratios
Couples' economic characteristics (ref: M employed, W not working)	
Both not working	0.605***
	(0.0634)
M not working, W employed	0.714***
	(0.0731)
Both employed	1.269***
	(0.0846)
Couples' educational attainment (ref: Both low/medium educated)	
M tertiary educated, W less than tertiary educated	1.080
	(0.0841)
W tertiary educated, M less than tertiary educated	1.084
	(0.0789)
Both tertiary educated	1.405***
	(0.0848)
Main respondent or partner expecting a child	1.807***
	(0.252)
Number of child(ren) living with main respondent (ref: childless)	
One child	0.994
	(0.113)
Two or more children	0.760
	(0.109)
Number of main respondent's previous cohabitations	2.116***
	(0.0867)
Main respondent living in eastern Germany	0.956
	(0.0599)
Main respondent's age (linear)	1.040
	(0.0443)
Main respondent's age (squared)	0.998*
	(0.000651)
N (relationship-years)	7,546

Exponentiated coefficients; robust standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A2: Cohabitation and separation analyses from Cox proportional hazards model. Model 1, hazard ratios

	Hazard ratios for cohabitation	Hazard ratios for separation
Couples' economic characteristics (ref: M employed, W not working)		
Both not working	0.511***	1.072
	(0.0388)	(0.0513)
M not working, W employed	0.700***	1.115
	(0.0615)	(0.0698)
Both employed	1.192**	0.902
	(0.0718)	(0.0571)
Couples' educational attainment (ref: Both low/medium educated)		
M tertiary educated, W less than tertiary educated	1.095	0.884*
	(0.0799)	(0.0509)
W tertiary educated, M less than tertiary educated	1.041	0.806**
	(0.0707)	(0.0532)
Both tertiary educated	1.471***	0.777***
	(0.0809)	(0.0488)
Main respondent or partner expecting a child	1.802***	0.478**
	(0.243)	(0.119)
Number of child(ren) living with main respondent (ref: childless)		
One child	1.060	1.700***
	(0.129)	(0.183)
Two or more children	0.758	1.017
	(0.113)	(0.173)
Number of main respondent's previous cohabitations	2.394***	0.399***
	(0.109)	(0.0250)
Main respondent living in eastern Germany	1.043	1.120*
	(0.0600)	(0.0514)
Main respondent's age (linear)	1.286***	0.880***
	(0.0345)	(0.0185)
Main respondent's age (squared)	0.995***	1.002***
	(0.000449)	(0.000353)
N (relationship-years)	14,526	14,526

Exponentiated coefficients; robust standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A3: Cohabitation and separation analyses from Cox proportional hazards model. Model 2, hazard ratios

	Model 2 – Men		Model 2 – Women	
	Hazard ratios for cohabitation	Hazard ratios for separation	Hazard ratios for cohabitation	Hazard ratios for separation
Temporary job (ref: permanent)	1.095	1.043	1.304**	1.158
	(0.109)	(0.113)	(0.121)	(0.111)
Partner's employment status (ref: employed)				
In education/training	0.602***	1.228	0.593***	1.189
	(0.0681)	(0.143)	(0.0702)	(0.129)
Inactive/unemployed	1.254	1.044	1.223	1.024
	(0.161)	(0.224)	(0.234)	(0.197)
Main respondent's educational attainment (ref: upper secondary/post-secondary)				
Lower secondary or less	1.061	1.311	0.790	0.933
	(0.191)	(0.204)	(0.150)	(0.182)
Tertiary	1.218*	1.021	0.939	0.918
	(0.108)	(0.124)	(0.0837)	(0.113)
Partner's educational attainment (ref: upper secondary/post-secondary)				
Lower secondary or less	1.170	1.003	1.209	1.231
	(0.169)	(0.164)	(0.245)	(0.193)
Tertiary	1.043	0.815	1.037	0.887
	(0.0952)	(0.103)	(0.0857)	(0.0897)
Income quintiles (net from prev. month), ref: First quintile				
Second quintile	1.145	0.916	1.366*	1.195
	(0.203)	(0.133)	(0.195)	(0.158)
Third quintile	1.780***	0.845	1.611***	1.157
	(0.287)	(0.123)	(0.224)	(0.176)
Fourth quintile	1.574**	0.750	1.715***	1.047
	(0.251)	(0.130)	(0.261)	(0.189)
Fifth quintile	1.712***	0.688*	2.236***	0.953
	(0.269)	(0.116)	(0.354)	(0.216)
Main respondent or	1.374	0.371	1.456	0.245

partner expecting a child				
	(0.329)	(0.226)	(0.383)	(0.236)
Number of child(ren) living with main respondent (ref: childless)				
One child	2.473***	1.410	0.509***	2.210***
	(0.433)	(0.494)	(0.0885)	(0.423)
Two or more children	1.709*	0.909	0.602*	1.015
	(0.388)	(0.343)	(0.127)	(0.284)
Number of main respondent's previous cohabitations	2.189***	0.470***	2.258***	0.452***
	(0.124)	(0.0771)	(0.108)	(0.0456)
Main respondent living in eastern Germany	0.999	1.147	1.022	1.048
	(0.100)	(0.152)	(0.102)	(0.141)
Main respondent's age (linear)	1.239***	0.827***	1.126*	0.996
	(0.0746)	(0.0468)	(0.0560)	(0.0544)
Main respondent's age (squared)	0.996***	1.003***	0.997***	1.000
	(0.000956)	(0.000893)	(0.000782)	(0.000843)
N (relationship-years)	2,764	2,764	3,171	3,171

Exponentiated coefficients; standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$