

**NON-STANDARD JOBS, NON-STANDARD LIVES?
IMPACTS OF TEMPORARY EMPLOYMENT AND UNEMPLOYMENT
ON THE LIFE COURSE**

Hande INANC

Mathematica Policy Research

Abstract

It is well documented that unemployment has a strong impact on individuals' life courses, affecting the timing and sequencing of family transitions. Those with unemployment experience are more likely to postpone marriage, instead cohabit, become parents before getting married, and experience partnership dissolution. Temporary employment, is often regarded as a better alternative to being unemployed for it provides individuals with income and opportunities to connect with employers. In reality temporary jobs are associated with a large amount stress and insecurity, and thus could affect individuals' family lives. Applying discrete-time event history analysis to a representative sample of individuals from the British Household Panel Study, I show that temporary workers, like the unemployed, postpone marriage, become parents before getting married, and experience partnership dissolution, however, unlike the unemployed, they postpone cohabiting unions. Gender and educational level moderate the relationship. The findings underline the importance, not only of accessing a job, but a good quality job, for family outcomes.

1. INTRODUCTION

Work and family are two domains that are central to most people's lives and are also closely interconnected. The uncertainties that individuals experience in their working lives negatively affect their psychological and physical well-being (e.g. Lazarus and Folkman 1984), increase the risk of poverty and social exclusion (e.g. Gallie et al. 2003), and depress future wages (e.g. Arulampalam 2001; Gregory and Jukes 2001); all of these will, in turn, impact individuals' life courses and family outcomes. For example, young adults who are facing insecurity in the labor market might postpone building a family until they resolve the uncertainty in their work domain and have the economic resources; whereas coupled individuals going through periods of employment instability might experience partnership dissolution. Alternatively, in order to compensate for the insecurity they encounter in the work domain, individuals might turn to the family domain, forming and remaining in partnerships, and becoming parents.

In many industrial countries, recent decades have seen an increase in labor market insecurity. The spread of technological innovations has led unemployment to rise drastically, with an increase in competitive pressures, the globalization of international markets, and a decline in the power of labor unions. As a response to emerging mass unemployment, many countries have introduced a number of deregulatory employment policies that have made it easier for employers to shift market risks to workers by designating non-standard employment categories. As a consequence, non-standard forms of employment, temporary employment in particular, have become another important source of insecurity and uncertainty for workers.

A large proportion of the research on the relationship between labor market insecurity and family outcomes has focused on *one* type of employment instability, unemployment. Unemployment subjects individuals to serious financial penalties, such as the risk of poverty, subsequent periods of unemployment, and wage reduction when re-entering employment. It also carries non-financial penalties: the loss of social connections, of structured time, of collective purpose, and of status and identity (Jahoda 1982; Warr 1987). Consequently, the deleterious effects of unemployment spill over into the family domain. The experience of unemployment is a very strong predictor of (*i*) the timing of partnership formation, with a delaying effect for men in particular (see Mills et al. 2005

for a cross-national summary); (ii) the timing of transition to parenthood, with the direction and the strength of the impact dependent on the gender and the partnership status of the unemployed person, as well as the country context (e.g. Liefbroer and Corijn 1999 for the Netherlands and Flanders; Andersson 2000 and Hoem 2000 for Sweden; Adsera 2004 for 15 EU countries; Gonzalez and Jurado 2006 for Spain, Italy, Germany and France; Ozcan et al. 2010, Witte and Wagner 1995, and Hoffman et al. 2017 for Germany; Inanc 2015a for the UK); and (iii) the probability of partnership dissolution, by increasing the risk of dissolution particularly when experienced by men (e.g. Starkey 1996 for the US; Jensen and Smith 1990 for Denmark; Jalovaara 2003 for Finland; Hansen 2005 on Norway; Lampard 1994 and Blekesaune 2009 for the UK).

Compared with the unemployed, temporary workers—casual or seasonal workers, temporary agency workers, and those with fixed-term contracts—are often regarded as better positioned. They earn wages, accumulate human capital, and enjoy the many hidden benefits associated with having a job. In reality, however, temporary jobs are associated with a significant amount of perceived job insecurity (e.g. De Witte and Naswall 2003; Inanc 2015b; Scherer 2009), which has serious negative consequences for the workers' well-being (e.g. Burchell 2011; Burgard et al. 2009). Prolonged job insecurity generates a continual ambiguity about the future, which prevents individuals from taking action in their lives. Therefore, temporary employment could also have a strong impact on the family outcomes of those who hold those jobs.

Three factors can affect the relationship between employment instability and life course outcomes. First, the extent to which employment instability affects the life course depends on the individual's level of education. For those who are more highly educated, unemployment instability will probably exact a higher opportunity cost. Because these individuals will give priority to consolidating their labor market prospects before starting a family, they may postpone entering into a partnership and parenthood. For those highly educated individuals with a live-in partner, employment instability could cause a larger shock to household income when compared with those with lower levels of human capital; separation and divorce could result. Alternatively, however, individuals with higher educational attainment could be better placed to absorb the negative shock and strain caused by employment instability; their life courses might resemble those of individuals who enjoy employment stability.

Second, since many still see breadwinning as a sign of masculinity, and caregiving as a sign of femininity (e.g. Kimmel 2006; Townsend 2002), employment instability is likely to have a differential impact on men's and women's family outcomes. Moreover, the mediating role of human capital might also work in different directions for men and women. For example, if men who are less educated experience employment instability, their employment status could be perceived as a negative indicator of their partnering capabilities, leading to the postponement of establishing a family, and increased risk of partnership dissolution. On the other hand, women experiencing employment instability might concentrate on the role of motherhood because of lower expected returns in the employment domain. These women might enter into partnerships and parenthood at a faster rate compared to their counterparts with higher levels of education, and be less likely to leave partnerships.

Finally, in many industrial countries, the proportion of individuals whose first partnership is a non-marital cohabiting union, who never legally marry, or who have borne children within non-marital unions has increased sharply (e.g. Ermisch 2005; Kiernan 2002). Some have argued that the rise in non-marital cohabitation is largely a consequence of increased insecurity in the labor markets (e.g. Oppenheimer 1994). Since cohabitation is a less formal form of partnership, it is easier to meet social expectations regarding couples' financial status in starting a new household. Cohabitation also provides important benefits such as those that derive from the division of labor, or economies of scale for collective goods. Therefore, labor market insecurity could affect the *type* of partnerships that individuals form, as well as the stability of these partnerships.

Against this background, in this paper I systematically investigate the consequences of temporary work on individuals' life paths, and compare these consequences with those of unemployment. I focus on three family outcomes, which have often been studied separately: the timing of forming *partnerships*, the timing of *transition into parenthood*, and the probability of *partnership dissolution*. Adopting a holistic approach in this analysis, I examine the impact of each type of employment instability on these family transitions using a sample of approximately 8,500 individuals who participated in the British Household Panel Study. I conduct discrete-time event history analysis with monthly records combined from complete work and family histories.

More specifically, I address four main research questions in this paper:

- 1.) Are unemployment and temporary employment similar to one another with respect to their impact on individuals' life courses?
- 2.) For individuals who have experienced employment instability, does the level of their educational attainment mitigate the impact of that experience on family outcomes?
- 3.) Are these effects similar, in strength and in direction, for men and women?
- 4.) Does employment instability discourage individuals from marriage and encourage them to enter cohabiting unions as an adaptive strategy? If so, to what extent do non-marital cohabiting unions differ from legal marriages in terms of the probabilities of parenthood and the dissolution of a partnership?

I discuss my theoretical expectations in Section 2. Section 3 describes the data, methods, and variables used in the empirical analysis, Section 4 presents the empirical results, and Section 5 concludes with a discussion of implications for theory and policy.

2. THEORETICAL EXPECTATIONS

The factors that influence the timing and the probability of the partnership formation, parenthood, and partnership dissolution are distinct since the extent to which and how employment insecurity influences these distinct outcomes depend on the stage of the life course insecurity is experienced. Because of this the literature offers different theoretical mechanisms that helps explain the relationship between employment stability and each family event. Forming a partnership is often linked to the prerequisite of economic independence, decisions on transitioning into parenthood are conceptualized within the context of reducing uncertainty, and partnership dissolution is explained by a decline in the well-being and the expected utility from remaining in the partnership. Moreover, each of these relationships is mediated by the gender and the education level of the individual experiencing employment instability, as well as by the type of partnerships that individuals form. In this section, I review the main arguments from previous research and theory on how uncertainty shapes the relationship between each family event and employment instability,

and discuss how these relationships are expected to vary by level of education, by gender, and by partnership type.

2.1. Economic independence and postponement of partnership formation

The expectation in modern society that individuals will set up an independent household when they marry requires holding stable jobs. However, young adults are disproportionately more likely to experience unemployment and work in temporary jobs (OECD 2017), and thus are not fully economically independent. Because of this economic dependence, young individuals experiencing employment instability are likely to delay entry into marriage and parenthood. Indeed, a comparative study in 14 European countries shows that young people in an uncertain position in the labor market are significantly more likely to postpone entering into partnerships (Mills et al. 2005).

Economic independence hypothesis (H₁): Individuals who experience employment instability postpone getting married.

However, individuals who experience employment instability can overcome the obstacles arising from such economic strain and uncertainty by cohabiting. Since non-marital cohabitation is a less formal form of partnership, it is easier to meet the social expectations for starting a new household regarding couples' financial status. Moreover, Oppenheimer (1994) suggests that "Cohabitation gets young people out of high-cost search activities during a period of social immaturity but without incurring the penalties of either heterosexual isolation or promiscuity, and it often offers many of the benefits of marriage, including the pooling of resources and the economies of scale that living together provides" (p. 308). Therefore, *cohabitation theory* suggests that, when facing employment instability, young individuals are more likely to form cohabiting unions rather than marrying legally. Employment instability thus is likely to increase the probability of young individuals' transition into cohabiting unions, while it delays their transition into marriages.

Cohabitation hypothesis (H₂): Individuals experiencing employment instability are more likely to cohabit instead of marry.

2.2. Uncertainty reduction and parenthood:

According to ‘uncertainty reduction theory’, individuals cope with uncertainty by using two behavioral mechanisms: they can either transform the problem of uncertainty into risk by gathering information, or they pursue ‘global strategies’ to reduce uncertainty in entire paths of future courses of action (Friedman et al. 1994). If individuals adopt the former strategy, that is, choosing to gather information, they delay parenthood until they gather sufficient information about their uncertain career paths.

However, because individuals in unstable employment situations have fewer career advancement opportunities, they might adopt ‘global strategies’ and pursue family life instead as a means to reduce uncertainty in their employment lives. When experiencing spells of employment instability, individuals, and particularly women with lower educational attainment, might try to gain social status through parenthood, since their chances of gaining self-esteem through occupational achievement are substantially lower (Tölke and Diewald 2003).

Employment instability also affects fertility behavior by reducing the pool of ‘marriageable’ men. If poor employment opportunities discourage young men from marriage, the population of young women at risk of giving birth outside of wedlock grows (Wilson 1987). In that situation, women might prefer to become parents without necessarily committing to legal marriage with the father of their child. Indeed, Autor et al. (2017) show that an adverse shock to the supply of ‘marriageable’ men in the United States reduces the prevalence of marriage and lowers fertility but raises the proportion of children born to young, unwed mothers and living in poor single-parent households. A similar pattern is also apparent in the United Kingdom: Poor employment opportunities encourage childbearing outside of marriage (Ermisch 2000, 2005), and unemployed men who cohabit have a higher probability of becoming fathers (Inanc 2015a). Employment instability, thus, increases the likelihood of becoming parents whilst cohabiting.

Uncertainty reduction hypothesis (H₃): Individuals who experience employment instability are more likely to become parents, particularly while unmarried.

2.3a. Psychological distress and partnership dissolution

The first mechanism that links uncertainty and partnership dissolution is the psychological distress caused by labor market insecurity. As Kanter (1977) observed long ago, ‘occupations contain an emotional climate as well that can be transferred to family life’ (p. 47). Research on this work/non-work interference identifies a number of work conditions that strongly predict interference from work to family; insecurity is one of the strongest of these work conditions (Bellavia and Frone 2005; Scheiman et al. 2009). Thus, anxiety, worry and other negative feelings generated by employment instability cross over and create similar feelings in the partner.

Indeed, the literature provides robust evidence that unemployment negatively affects partners’ well-being (Kim and Do 2013; Liem and Liem 1988; Marcus 2013; Winkleman and Winkleman 1995). Moreover, temporary jobs also cause a decline in the well-being of one’s husband or wife, a decline that is comparable to that caused by the experience of unemployment (Inanc 2016). Perhaps this is why family conflict is found to be one of the most negative consequences of unemployment (Gallie et al. 1994), while temporary workers report having less time to spend with their partners and more frequent disagreements when compared to permanent employees (Scherer 2009). Therefore, the psychological stress arising from unemployment and temporary work is likely to cause family conflict, and consequently damage partnership stability.

Hypothesis of psychological distress (H₄): Employment instability increases the risk of partnership dissolution.

2.3b. Change in expected utility and partnership stability

According to the neoclassical conception of family, individuals’ decisions about whether or not to stay in a partnership depends on the idea of *utility maximization* (Becker et al. 1977; Becker 1981). If the expected utility from remaining in a relationship exceeds the expected utility from becoming single, then individuals decide to stay in a partnership. If, on the contrary, the expected utility from remaining in a relationship falls short of the expected utility of becoming single, then individuals decide to separate from their partners. Employment instability can significantly alter the expected

utility from a partnership by, for example, generating a negative income shock, altering the household division of labor, and generating imperfect information about partner characteristics.

However, the utility one expects from a partnership is likely to depend on gender, level of education, and the type of partnership. Thus, for unemployed or temporarily employed individuals, the stability of a partnership varies according to these characteristics. For example, for women experiencing employment instability, the utility of staying in a relationship could be higher than for men. Similarly, unemployed or temporarily employed individuals with lower educational attainment could be perceived as less desirable partners; when compared to someone with higher educational attainment, their partners' expected utility from staying in a relationship with them could decrease more markedly.

Moreover, if individuals who experience economic uncertainty choose the coping strategy of cohabiting first instead of marrying, their expected utility from remaining in a relationship as opposed to being single is likely to be higher than the utility that a married individual expects from remaining married as opposed to separating. Cohabiting relationships therefore could be more resilient, and thus long-lasting, as compared to legal marriages. Due to differences in expected gains, the impact of employment stability on partnership instability is likely to be stronger among married individuals when compared to cohabiting couples.

Expected utility hypothesis (H₅): Women, the less-educated, and cohabiting individuals are less likely to separate from their partners.

3. DATA AND METHODS

I investigate the research questions outlined and test these theoretical expectations using a nationally representative sample from the British Household Panel Study (BHPS). The BHPS is a longitudinal survey which interviews households yearly; there are 18 waves of data available, compiled between 1991 and 2008. Each wave contains, among other variables, information on employment status and family events that occurred in the previous year; this information was recorded on a monthly basis. A retrospective survey was introduced in the second, third, tenth and eleventh waves to collect complete family and employment histories. Thus, reliable monthly work/life and family history information is available in the BHPS data. Based on this information,

Mare (2006) and Pronzato (2009) constructed the ‘Work-History File’ and the ‘Family File’, respectively. For my analysis, I synthesize the information from these two files. The resulting data file contains complete work and family histories for approximately 8,500 individuals (3,900 men and 4,600 women).

Depending on the family outcome I investigate, I define the analysis sample as those individuals who had not yet experienced a family transition. Thus, I work with three effective samples: the ‘partnership formation sample’, the ‘transition into parenthood sample’, and the ‘partnership dissolution sample’. Each of these samples was restricted to individuals who were born between 1940 and 1988 and whose ages range from 15 to 65.

[TABLE 1 - around here]

In social sciences, information is observed most often in time intervals and the data is in discrete form, although, in theory, an event can happen at any time point. Since the BHPS collects dates of the transitions, periods, and events on a monthly basis, the information is inherently discrete-time. In addition to the structure of the data, discrete-time models have important advantages in treating time-varying covariates. By splitting the data into person-months, the time-varying covariates can be incorporated into the data easily and so achieve a dynamic data configuration which makes it possible to control for the changes in the values of indicators until the event occurs (or until the case is censored). This aspect of discrete-time event history analysis is particularly helpful when analyzing previous work, partnership and parenthood histories in a time varying manner. Therefore, I use discrete-time event history models in order to predict the impact of employment instability on the timing of family outcomes.

Suppose that each individual j is observed in i distinct episodes for t number of months until the event k occurs, where $k=0,1,\dots,K$. The general hazard function predicting the timing of an event with a logit link can be written as:

$$h_{jit}(k) = \Pr(y_{jit}(k) = 1 \mid y_{ji(t-1)}(k) = 0) \quad (1)$$

where $h_{jit}(k)$ refers to the probability of the event k occurring by the end of episode i , for the individual j , during the interval t , on the condition that it did not occur before. y_j represents the binary response corresponding to the occurrence of the event k in each (t) . This general formal model can be used to predict single or multiple event types, as well as single episode or multiple episodes.

I define ‘partnership formation’ as a multiple outcome event, where it takes the value ‘0’ if the individual remains single until the end of the observation period (i.e. censored cases), or the value ‘1’ if the first partnership the individual forms is a cohabiting union, or the value ‘2’ if the first partnership formed is a marriage. I model transition into partnership as competing risks using a multinomial logit function written as:

$$\text{logit}[h_{jt}^{(k)}] = \log \left[\frac{h_{jt}^{(k)}}{1 - h_{jt}^{(k)}} \right] = \alpha_t^{(k)} + \beta(x_{jt}^k) \quad (2)$$

Here $\left[\frac{h_{jt}^{(k)}}{1 - h_{jt}^{(k)}} \right]$ refers to the conditional probability of event k , say entering into cohabitation, occurring in period t for individual j . The hazard of ‘success’ of an event (cohabitation) for individual j in period t is denoted by $h_{jt}^{(k)}$, and the ‘failure’ (cohabitation not occurring) by $1 - h_{jt}^{(k)}$. $\alpha_t^{(k)}$ is the baseline hazard function for event k , and $\beta(x_{jt}^k)$ is a vector of individual time-variant and time-constant covariates.

I treat transition to parenthood as a single episode-single event outcome, following individuals until the birth of a *first* child. I define the event as the month the first child is conceived, by subtracting nine month from the birth, in order to avoid the problem of reverse causation. Individuals are likely to change their employment status and/or occupational commitments upon expecting a baby. The period around conception carries more information about individuals’ rational decisions on family formation¹. The equations for single episode-single event discrete-time models take the following form:

¹ Going backwards from the date of the child’s birth to conception is not unproblematic. By using this method, I am not able to capture the conceptions that resulted in still births or abortion. Between 1998 and 2008 in England and Wales, only 91–93 per cent of conceptions led to maternities (ONS Conception

$$\text{logit}[h_{jt}] = \log \left[\frac{h_{jt}}{1-h_{jt}} \right] = \alpha_{jt} + \beta(x_{jt}) \quad (3)$$

Here $\left[\frac{h_{jt}}{1-h_{jt}} \right]$ refers to the conditional probability of the conception occurring in period t for individual j . The hazard of ‘success’ of an event (conception) for individual j in period t is denoted by h_{jt} , and the ‘failure’ by $1-h_{jt}$. α_{jt} is a vector of functions of the cumulative duration by interval t with coefficients α . The individual-specific covariates are captured by $\beta(x_{jt})$.

Transition into parenthood and partnership formation are interrelated in a complicated way, with individuals forming multiple partnerships, and moving on from cohabitation to marriage with the same partner. Modeling conceptions that occur within cohabiting unions and those that occur within legal marriages separately would distort the continuity of the observation period until the conception of the first child. I therefore introduce the interaction between partnership status and labor market status.

Finally, I define the event of partnership formation as the month in which the individual is separated from his or her partner, and estimate separation outcomes for cohabitations and legal marriages separately. For legal marriages, I use the date of separation (where possible²), instead of the official date of divorce, in order to avoid reverse causation—that is, individuals who expect a divorce becoming unemployed—as much as possible. I follow individuals over their life course and allow multiple partnership episodes by using multi-level discrete-time event history analysis, where observation months are nested in partnership episodes, and partnership episodes are nested in individuals.

The multi-level discrete-time dataset for partnership dissolution is structured in the person-episode-period format, where the duration (t) within each partnership (i) is recorded for each individual (j). The response variable is the partnership outcome for each observable month (t). It is a binary indicator that takes the value ‘0’ when the partnership is intact and ‘1’ when dissolution

Statistics, 2008). Maternity rates after conception among women over 40 are the lowest (ranging between 66 per cent and 76 per cent).

² Date of separation was unavailable for only 5 per cent of marriages. For these marriages, I subtracted six months from the divorce date as an estimate for the separation date.

occurs. The equation of multilevel discrete-time logit model can be written as below:

$$\text{logit}[h_{jit}] = \log \left[\frac{h_{jit}}{1 - h_{jit}} \right] = \alpha_{jit} + \beta(x_{jit}) \quad (4)$$

where $\left[\frac{h_{jit}}{1 - h_{jit}} \right]$ refers to the conditional probability of the event (here, partnership dissolution) in period t (here, person-period-month) for individual j in partnership i . The hazard of success of the event (dissolution) is shown by h_{jit} , and the failure (no dissolution) by $1 - h_{jit}$. Again, α_{jit} is a vector of functions of the cumulative duration by interval t with coefficients α . The changes in the probability of an event within a specific partnership during interval t are captured in the model by this baseline hazard function. $\beta(x_{jit})$ refers to the individual covariates recorded for each partnership i and month t .

For all models discussed above, I cluster the standard errors within individuals to account for individual-specific variation in the dataset.

Independent variables:

Employment instability: The main explanatory variables are the periods of unemployment and temporary employment. I constructed the variable representing employment instability by combining data on employment status and contract type, generating an indicator with four categories: (i) permanent employee; (ii) unemployed; (iii) temporary employee; and (iv) out of labor force. ‘Temporary employment’ refers to all workers with non-permanent contracts and includes fixed-term contracts, agency temping, and seasonal and casual work. ‘Unemployment’ is based on self-reported employment status, in which respondents were asked to choose from a list what best describes their current situation. Permanent employment is set as the reference category. I lag the employment instability variable by one month in order to better capture the order of events. Since self-employed individuals represent a highly heterogeneous group, they are excluded from the analysis.

Baseline hazard function: I specify the baseline hazard function as age and age squared, as recorded monthly. Age 16, the earliest age that respondents in the sample formed a partnership, is when the clock for partnership formation analysis starts. For transition into parenthood, the clock

starts at age 14, the youngest age at which conception occurred in the sample. The observation period for partnership dissolution models begins with the first month of partnership; thus, the baseline hazard function is time-varying age and age squared throughout the months in which individuals are in partnership.

Level of education: The level of human capital is defined as the highest educational qualification possible, which is then divided into two categories: those who obtained an Advanced Level certificate (A-levels), and those who did not. A-levels are a secondary education certificate that is required for admission to higher education throughout the United Kingdom.

Aggregate unemployment rate: In order to control for the country's business cycle, I control for the yearly unemployment rate, which is a time-varying variable that runs throughout each individual's observation period.

Birth cohort: Four birth cohort dummies are introduced in the models: the 1940–1949 cohort (reference category), the 1950–1959 cohort, the 1960–1969 cohort, and the 1970–1988 cohort.

Has or expects a child: A dummy variable measuring whether individuals have a child or expect a baby is introduced in the partnership formation models.

Type of partnership: Dummy variables for being single and being in a cohabiting partnership, and an interaction term for each of these dummies and labor market status are introduced in the models predicting transition into parenthood.

Dummy variables for *presence of a young child*, *being a teenager at the start of partnership* and *pre-marital conception/childbirth* are also introduced into all partnership dissolution models. Additionally, a dummy variable representing previous divorce is introduced as a control in the marital dissolution models.

4. RESULTS

4.1. Unemployment, temporary work, and men's life course

Table 2 presents family outcomes for men as a function of their employment instability, where the reference category represents the months in which individuals were on a permanent contract. For each outcome, the table shows basic models, denoted with the suffix 'a', that contain the main independent variable and the baseline hazard function 'a' (i.e. as age and age squared), and the models that include all of the control variables, denoted with suffix 'b'.

Starting with men's unemployment experience, event history models show that unemployment is strongly associated with the timing of first marriages, and a negative impact on the stability of marital unions. When men are unemployed, they are 52% less likely to form a marital union (the probability falls to 31% when the control variables are introduced in Model m2b), and are more than twice as likely to separate from their spouses; when other predictors of divorce are held constant, they became 80% more likely to do so (Model m5b). These results indicate a strong negative effect of unemployed men on married lives.

Male unemployment has an impact on cohabitations as well. The basic model for transition into cohabitation shows that unemployed men are 43% more likely to enter into cohabitation as a first co-residential relationship (Model m1a). However, this effect seems to be mediated by the socio-demographic covariates: After introducing the control variables, the odds ratio approaches 1 (Model m1b). Moreover, cohabitation also plays a moderating role in the relationship between unemployment and the timing of parenthood. While there is no direct effect of unemployment on men's fatherhood timing in the basic model, the odds ratio for 'Unemp##Cohab' (Model m3b) is statistically significant at the .01 level. This result reflects the odds ratio for unemployment for cohabiting men divided by the odds ratio for unemployment for married men, which equals 2.28. In other words, unemployed men are about two-and-a-half times more likely to become fathers when they are cohabiting compared to when they are married. This is consistent with the findings from similar studies on British men (e.g. Inanc 2015a).

[TABLE 2 – around here]

Temporary work is strongly associated with men's life course, as well. Like unemployment, temporary work is associated with the postponement of men's first marriages. When they are in temporary jobs, men are 51% less likely to get married (Model m2a), an effect that drops to 26% less likely once the socio-demographic controls are held constant (Model m2b). Male temporary employees, on average, also delay fatherhood by 24% when compared to permanent employees. However, partnership status does not moderate this relationship, as reflected by the statistically insignificant odds ratios for 'Temp ## Cohab' in Model m3b. Finally, while temporary work is not associated with forming cohabiting unions, it has a strong impact on the stability of these types of unions. Male temporary workers are about 80% more likely to separate from their partners compared to men with permanent jobs.

4.2. Unemployment, temporary work and women's life course

Table 3 shows that women's experiences of employment instability has important repercussions on their life courses as well. Women experiencing unemployment enter into cohabiting unions and motherhood at a faster rate compared to those who have permanent jobs; they also delay marriage, and are more likely to separate from their partners. More specifically, compared to those in permanent jobs, unemployed women are about two-and-a-half times more likely to cohabit as a first union, 30% less likely to marry, four times more likely to become mothers, 50% more likely to separate from their cohabiting partners, and 80% more likely to separate from their husbands (models with suffix 'a'). Socio-demographic factors account for the difference between the two groups in their likelihood of entering into cohabitation and motherhood, and the likelihood of exit from marriages lessen once the set of controls were introduced (Models w1a, w3a and w5a). However, once these factors were held constant, the odds ratio for transition into marriage for unemployed versus permanently employed women is no longer statistically significant. On the contrary, controlling for socio-demographic factors exacerbates the impact of unemployment on the stability of cohabiting partnerships. In short, unemployment experience is a crucial determinant in women's family transitions.

[TABLE 3 – around here]

Temporary contracts do not seem to exert much influence on when women become mothers or whether or not they separate from their cohabiting partners. However, they have a robust negative

impact on the timing of transition into marriage: When they are on a temporary contract, women are 77% less likely to get married as compared to being on a permanent contract (Model w2a). Even after holding the control variables constant, the odds ratio indicates a significant delay in marriage for female temporary employees, who are more than 50% less likely to marry. When socio-demographic factors were included as controls, women are also 28% less likely to start their first cohabiting partnerships. The impact of temporary work on partnership formation is thus quite different from the impact of unemployment. However, temporary work and unemployment both increase the risk of marital separations. In the full model (Model w5b), the odds ratio for temporary work versus permanent work is 1.35, indicating a 35% higher risk of separation for married women in temporary jobs.

4.3. Differential effects of education

The analysis above indicates that socio-demographic factors moderates the relationship between employment instability and family outcomes for both men and women. In this section, I report on how the effects of unemployment and temporary work differ by individuals' level of education. In particular, I note whether the impact of employment instability is stronger on the life courses of men and women whose level of educational attainment was lower, as measured by the completion of Advanced Levels.

Table 4 presents the models with interaction effects for men's education and employment instability. It shows that level of education plays a significant role in the extent to which employment instability influences men's life courses. Educational attainment moderates the degree to which unemployment affects men's timing of transition into cohabiting unions, transition into fatherhood, and the probability of marital separations. More specifically, unemployed men who have not completed their A-levels are about 75%-80% more likely to start cohabiting when compared to unemployed men who have an A-levels certificate (Models m6-a and b). Unemployed men with lower educational attainment are also more than twice as likely to become fathers (Models m8a and 8mb), but they are around 60% less likely to separate from their wives (Models m10a and m10b) when compared to their counterparts with higher educational attainment.

Among men with temporary contracts, the level of education plays a moderating role for only one family outcome. Male temporary workers without A-levels are almost two-and-a-half times more

likely to separate from their cohabiting partners. This is the only family outcome for which level of education does not have a differential effect for unemployed men.

[TABLE 4 – around here]

The level of education also has some differential impact on the family transitions of unemployed and temporarily employed women (Table 5). Unemployed women with lower educational attainment are more than three times as likely to become mothers when compared to unemployed women who have at least an A-levels certificate. Similarly, female temporary workers with lower educational attainment are about 2.5 times more likely to form cohabiting unions compared to similar women with A-levels at least (Models w6a and w6b). Not holding A-levels also increases unemployed women's likelihood of starting their first cohabiting relationship by almost 90% (Model w6a); however, the socio-demographic controls largely account for this impact.

[TABLE 5 – around here]

4.4. Other predictors of partnership formation, transition into parenthood, and partnership dissolution

As mentioned, most of the effects of employment instability on family outcomes discussed above (that is, models denoted with letter 'b') are net of a set of socio-demographic factors that the literature identifies as predictors of the specific family outcome predicted. This section briefly summarizes the effects of these controls.

Coefficients for age and age squared indicate an inversed U-shaped relationship between age and outcomes of partnership formation and parenthood transition. Education level is negatively associated with the timing of entry into parenthood, and positively associated with women's probability of exiting from cohabiting unions. Younger cohorts are more likely to form cohabiting unions as opposed to legal marriages as their first partnership, and to delay marriages as opposed to forming cohabiting unions. Each consecutive cohort of women entered into motherhood at a slower rate as compared to the 1940–1949 cohort. The youngest two cohorts of men also postpone fatherhood. The risk of marital separation increases by cohort, with the youngest cohort of men and women having the highest probability of separating from their spouses. After controlling for individual factors, the yearly unemployment rate has a positive impact on the probability of

forming cohabiting unions; at the same time, a higher aggregate unemployment rate is associated with a smaller likelihood that individuals would marry and start having children.

Expecting or already having a child increases one's likelihood of forming a partnership; individuals are also more likely to become parents after getting married. Having a child younger than age 3 decreases the risk of partnership dissolution. Among men, being a teenager at the start of a relationship increases the probability that a cohabitation would dissolve. Being previously divorced, and having had a pre-marital child increases their risk of divorce. Among women, being a teenaged bride, being previously divorced, and having had a pre-marital child are all associated with a higher probability of separation from their husbands.

5. CONCLUSIONS AND DISCUSSION

5.1. Conclusions

This paper investigates four specific questions regarding the relationship between employment instability and these five family outcomes: transition into cohabitation, transition into marriage, transition into parenthood, dissolution of cohabitation, and marital dissolution. The first question the paper addressed was whether unemployment and temporary employment, a relatively recent form of employment instability, had an impact on individuals' various family transitions, and if so, whether the impacts of these two employment conditions were similar. The analyses showed that temporary employment, similar to unemployment, is a serious source of uncertainty with strong effects on the life courses. This empirical finding has particular weight because it flags the importance, not only of acquiring *a* job, but also of acquiring a *stable* job, to the permanence in individuals' family lives.

The second question was whether educational attainment mediated the impact of labor market insecurity on family outcomes. The analysis showed that human capital plays a significant role, indicated by the fact that the timing of family events for those unemployed and the temporarily employed with lower educational attainment was different from their counterparts with higher educational attainment. Individuals with higher human capital seemed to resolve the strain arising from employment instability by postponing family formation, while those with lower educational

attainment resolved it by prioritizing family formation. Level of education moderated the impact of insecurity on men's partnership outcomes; however, no such impact was found for women. The educational findings point to the differences between the 'haves' and 'have-nots' in their experience of labor market insecurity, and suggest that the relationship between employment and family domains is a complicated one.

The third question explored the extent to which there are gender differences in the way labor market insecurity shapes life courses. Recent changes in women's labor force participation patterns has raised speculation over how insecurity is distributed between the sexes. Some have suggested that, as a result of a significant increase in female labor force participation, male and female careers have converged. Hence, men and women have become equally vulnerable to insecurity that they face in the labor market. However, since women mostly occupy non-standard jobs, some have argued that women are more prone to negative externalities of employment instability. This paper engages in this debate by focusing on the family outcomes of each type of employment instability over both male and female life courses. The systematic analysis of the five family outcomes shows that temporary employment has a statistically significant effect on three out of five family outcomes for both men and women. Unemployment has an impact on all five of women's family outcomes while it affects four outcomes for men. Moreover, these effects are in the same direction for men and women, although there are differences in their magnitude. Thus, the analyses show that there is a level of convergence in male and female work careers, with the impact of employment instability being broadly similar for both genders. Although employment is often perceived as a sign of masculinity, labor market insecurity affects both genders.

The fourth and the last question addressed the role of non-marital cohabitations in the context of uncertainty. The analyses showed that individuals are more likely to form partnerships and become parents within cohabiting unions when they experience labor market insecurity. However, these cohabiting partnerships are also more likely to dissolve compared to marriages (see Table 6 for a summary of results). These results suggest that cohabitation is an adaptive type of relationship that serves individuals by buffering the consequences of unemployment and temporary work. However, perhaps because some individuals choose to cohabit as a response to insecurity in the first place, cohabiting partnerships are not always more resilient in times of uncertainty.

[TABLE 6 – around here]

These findings also provide insight into the relevance of the hypotheses drawn from the theoretical literature. The analyses showed that partnership formation process is heavily influenced by young adults' employment stability. In accordance with the economic independence hypothesis (H₁), individuals—both men and women—with an experience of unemployment or temporary employment delay marriage. In contrast, as predicted by the cohabitation hypothesis (H₂), unemployed individuals are more likely to cohabit instead of marrying legally. For men, temporary employment status does not predict the likelihood of cohabitation. For women, on average, temporary work (like unemployment) is associated with a delay in cohabitation; yet, among less educated female temporary employees, the probability of entering into non-marital cohabitation is higher. These results indicate that young individuals use adaptive strategies when forming their first partnerships as they navigate various employment transitions to stable employment. Cohabitation—a form of partnership that does not require financial stability while providing many of the advantages of marriage such as pooling of resources and the economies of scale that living together provides—becomes an attractive solution for individuals with an experience of unemployment or temporary employment.

Fertility decisions are heavily influenced by the interrelation between the time available for childcare versus the availability of resources (Becker 1981). Labor market status is, thus, a strong determinant of individuals' decisions about family formation as it generates or constrains the time and the economic resources that are available to individuals. This paper shows that, for both men and women, unemployment leads to earlier entries into parenthood. Moreover, entry rates into parenthood are higher among unemployed individuals with lower levels of educational attainment. This finding aligns with the prediction of the unemployment reduction hypothesis (H₃), which postulates that individuals with poor career advancement opportunities pursue family life, as a strategy to reduce uncertainty in their employment lives, and become parents.

Finally, the paper showed that the experience of labor market insecurity takes a toll on relationships by increasing the likelihood of separations, which is likely to result from the psychological distress that insecurity creates. The findings, thus, provide support for the psychological distress hypothesis

(H₄). However, the ways that temporary work and unemployment affect partnership stability differs by the *type* of partnership. Among men, temporary work is associated with an increase in the risk of dissolving cohabitations while unemployment is associated with an increased risk of dissolving marriages. Among women, unemployment increases the risk of separation for both types of partnerships, while temporary work is associated with an increased probability of marital separations, but not with cohabiting separations. These results indicate that cohabiting partnerships are not always more resilient in times of uncertainty.

Furthermore, broken by education level, the risk of marital separations is relatively lower among unemployed men with lower educational attainment. Following the expected utility hypothesis (H₅), this differential could be explained by the larger opportunity cost of unemployment among individuals with higher educational attainment. The decline in the expected utility gained from staying married to an unemployed man with higher educational attainment is likely to be greater than the decline in the expected utility gained from staying married to an unemployed man with lower educational attainment. However, the expected utility framework does not explain why less educated men in temporary jobs have a higher risk of separating from their cohabiting partners. This is an area for future theoretical research.

5.2. Discussion

The analyses presented in this paper have a number of limitations to be addressed by future research. Most importantly, because of data limitations, the paper has focused on temporary contracts as one broad category, without distinguishing between types of the temporary contracts, which can vary significantly in terms of perceived job insecurity and intrinsic quality (e.g. Inanc 2015b). For example, in the United Kingdom, fixed-term contracts are more secure than casual and seasonal contracts or temp agency work, which are shorter-term arrangements. Similarly, the intrinsic job quality of fixed-term contracts is better when compared to other temporary contract types. By grouping various contract types together, this paper does not shed light on the specific mechanisms (e.g. the peripheral location of temporary workers in the job market, the inferior quality of these jobs, the employment strain arising from the demands of performing well in the

current job while looking for a different one) linking temporary work and spousal well-being. This is an important avenue for further research.

The degree to which employment instability has an impact on family outcomes is likely to vary depending on the labor market status of one's partner, at least for parenthood that takes place within a partnership, and for partnership dissolution. The direction and the strength of this relationship is also likely to depend on the gender of the spouse who experiences employment instability (e.g. Blekesaune 2009; Inanc 2015b). For purposes of parsimony and data quality, this paper focused on the employment status of the individual experiencing labor market insecurity, rather than investigating employment status at the couple level.

Another limitation is that the analyses rely heavily on retrospective information. This raises the issue of potential recall errors regarding labor market and family transitions that occurred in the past. Respondents are more likely to misreport or omit particularly brief periods and unpleasant experiences, such as unemployment. This creates the problem of underrepresentation of such experiences. Although it is far from a perfect remedy, the data here were restricted to a relatively young sample, thereby using retrospective data covering a maximum period of 36 years.

Finally, this paper uses full work and family histories of respondents in order to assess the impact of work careers starting from very early ages, as well as to avoid the issue of left-censoring. As a result, important time varying variables that were provided only in the panel waves, such as income, receipt of welfare benefits, house tenure, happiness or gender attitudes, had to be excluded from many of the analyses.

Despite these limitations, the paper has important contributions. The existing literature has often analysed family outcomes in isolation, looking into one family event at a time. For example, studies that focus on the determinants of partnership behavior processes seldom consider the consequences of these determinants for the dissolution of relationships. This paper synthesizes specific theoretical expectations for each family outcome from the lens of labor market insecurity. It provides a systematic review of three major family events and develops a comprehensive

theoretical framework for better understanding the relationship between employment instability and the life course.

More importantly, the impact of temporary employment on family events has not received much attention, despite the extensive literature on the family consequences of unemployment. This paper fills this gap by systematically comparing and contrasting these two forms of employment instability over a sample of individuals whose complete work and family histories were combined, using a nationally representative longitudinal study. The results offer substantial evidence on the similarities between these two types of insecurity. This has important policy implications. Even though temporary employment might prevent individuals from being unemployed, provide them with an income, and help them gain labor market experience, findings of this paper suggest that it is associated with disparities in families' lives when compared to individuals with permanent contracts. Therefore, policies that relax hiring and firing processes in order to facilitate employers' use of temporary contracts have a spillover effect on individuals' lives. The cost and benefit analysis to changes in employment regulations need to take into consideration the family consequences of non-standard employment. These findings in the context of the UK are of particular importance, because the labor market in this country is not as segmented as in some other countries where the impact of temporary jobs on family outcomes is potentially larger. These findings, thus, provide a lower-bound estimate.

References:

- Adsera, A. (2004). Changing Fertility Rates in Developed Countries. The Impact of Labour Market Institutions. *Journal of Population Economics*, 17(1):17-43.
- Andersson, G. (2000). The Impact of Labour-Force Participation on Childbearing Behaviour: Pro-cyclical Fertility in Sweden during the 1980s and 1990s. *European Journal of Population*, 16(4):292-333.
- Aronsson, G, Gustafsson, K., & Dallner, M. (2002). Work Environment and Health in Different Types of Temporary Jobs. *European Journal of Work and Organisational Psychology*, 11(2):151-175.
- Arulampalam, W. (2001). Is unemployment really scarring? Effects of unemployment experiences on wages. *Economic Journal*, 111:585-606.
- Autor, D, Dorn, D. & Hanson, G. (2017) When Work Disappears: Manufacturing Decline and the Falling Marriage-Market Value of Men. NBER Working Paper, No: 23173.
- Becker, G., Landes, M. & Michael, R. (1977). An Economic Analysis of Marital Instability. Pp. 1141 in *Journal of political economy*: University of Chicago Press.
- Becker, G. 1981. *A treatise on the family*. Cambridge: Harvard University Press.
- Bellavia, G. & Frone, M. (2005). Work-Family Conflict. Pp. 113–48 in *Handbook of Work Stress*, edited by J. Barling, E. K. Kelloway, and M. R. Frone. Thousand Oaks, CA: Sage.
- Blekesaune, M. (2009). Unemployment and partnership dissolution. In M. Brynin and J. Ermisch (Eds.), *Changing relationships* (pp.202-216).New York: Routledge.
- Burgard, S, Brand, J. & House, J. (2009) Perceived job insecurity and worker health in the United States. *Social Science & Medicine*, 69:777-785.
- Burchell, B. (2011). A temporal comparison of the effects of unemployment and job insecurity on well-being. *Sociological Research Online*, 16(9): 1-20.
- De Witte, H. & Näswall, K. (2003). ‘Objective’ versus ‘Subjective’ Job Insecurity: Consequences of Temporary Work for Job Satisfaction and Organisational Commitment in Four European Countries. *Economic and Industrial Democracy*, 24(2):149-188.
- Ermisch, J. (2000). *Employment Opportunities and Pre-marital Births in Britain*. Colchester: ISER Working Papers, 2000-26. Institute for Social and Economic Research.
- Ermisch, J. (2005). The Puzzling Rise in Childbearing outside Marriage. Pp. 23-53 in *Understanding Social Change*, edited by A. Heath, J. Ermisch, and D. Gallie. Oxford: Oxford University Press.
- Friedman, D, Hechter, M. & Kanazawa, S. (1994). A Theory of the Value of Children. *Demography*, 31:375-401.

- Gallie, D, Gershuny, J. & Volger, M. (1994). Unemployment, the Household, and Networks. in *Social change and the experience of unemployment*, edited by D. Gallie, C. Marsh, and C. Vogler. Oxford: Oxford University Press.
- Gallie, D, Paugam, S. & Jacobs, S. (2003). Unemployment, Poverty and Social Isolation - Is There a Vicious Circle of Social Exclusion? *European Societies*, 5(1):1-32.
- Gonzalez, M.J., & Jurado-Guerro, T. (2006). Remaining Childless in Affluent Economies. A Comparison of France, West Germany, Italy and Spain, 1994-2001. *European Journal of Population*, 22:317-52.
- Gregory, M. & Jukes, R. (2001). Unemployment and subsequent earnings: Estimating scarring among British men 1984-1994. *Economic Journal*, 111:F607-625.
- Hall, R. (2006). Temporary Agency Work and HRM in Australia: Cooperation, Specialisation and Satisfaction for the Good of All. *Personnel Review*, 35(2):158-174.
- Hansen, H.T. (2005). Unemployment and Marital Dissolution: A Panel Data Study of Norway. *European Sociological Review*, 21(2):135-48.
- Hijzen, A., Saint-Martin, A., Inanc, H., Falco, P., & Menyhert, B. (2014). How good is your job? Measuring and assessing job quality. in *OECD Employment Outlook 2014*, OECD Publishing.
- Hoem, B. (2000). Entry into motherhood in Sweden: the influence of economic factors on the rise and fall in fertility, 1986-1997. *Demographic Research* 2(4). doi:10.4054/DemRes.2000.2.4
- Hofmann, B., Kreyenfeld, M. & Uhlendorff, A. (2017) Job Displacement and First Birth over the Business Cycle. *Demography*, 54: 933. doi:10.1007/s13524-017-0580-4
- Inanc, H. (2016) Unemployment, Temporary Work and Subjective Well-Being: Gendered Effect of Spousal Labour Market Insecurity in the United Kingdom. OECD Working Paper Series, STD/DOC(2016)4.
- Inanc, H. (2015a). Unemployment and the timing of parenthood: The implications of partnership status and partners' employment. *Demographic Research*. 32(7):219-250. DOI:10.4054/DemRes.2015.32.7
- Inanc, H. (2015b) Temporary work and job quality. in *Unequal Britain at Work*, eds. Francis Green, Duncan Gallie and Alan Felstead. Oxford: Oxford University Press.
- Inanc, H, Zhou, Y. Gallie, D. Felstead, A. & Green. F. (2015). Direct Participation and Employee Learning at Work. *Work and Occupations* 42(4):447-75.
- Jahoda, M. (1982). *Employment and Unemployment. A Social-Psychological Analysis*. Cambridge: Cambridge University Press.
- Jalovaara, M. (2003). The Joint Effects of Marriage Partners' Socioeconomic Positions on the Risk

- of Divorce. *Demography*, 40(1):67-81.
- Jensen, P. & Nina Smith, N. (1990). Unemployment and marital dissolution. *Journal of Population Economics*, 3:215-29.
- Kanter, R. (1977). *Work and family in the United States: A critical review, and agenda for research and policy*. New York: Russell Sage Foundation.
- Kiernan, K. (2002). Cohabitation in Western Europe: Trends, Issues and Implications. in *Just Living Together: Implications of Cohabitation on Families, Children and Social Policy*, edited by A. Booth and A. Crouter. Hillsdale, NJ: Erlbaum.
- Kim, M.H. & Do, Y.K. (2013). Effect of Husbands' Employment Status on Their Wives' Subjective Well-being in Korea. *Journal of Marriage and Family*, 75(2):288-299.
- Kimmel, M. (2006). *Manhood in America: A Cultural History* (2nd ed.). New York: Oxford University Press.
- Lazarus, R. & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer.
- Lewchuk, Wayne, Marlea Clarke, & Wolff, A. (2008). "Working without Commitments: Precarious Employment and Health." *Work, Employment and Society* 22(3):387-406.
- Liefbroer, A. & Corijn, M. (1999). Who, What, Where, and When? Specifying the Impact of Educational Attainment and Labour Force Participation on Family Formation. *European Journal of Population*, 15:45-75.
- Liem, R. & Liem, J. (1988). Psychological Effects of Unemployment on Workers and Their Families. *Journal of Social Issues*, 44(4):87-105.
- Marcus, J. (2013). The effect of unemployment on the mental health of spouses—Evidence from plant closures in Germany. *Journal of Health Economics*, 32(3): 546-558.
- Maré, D. (2006). Constructing Consistent Work-life Histories: A guide for users of the British Household Panel Study. Colchester: ISER Working Paper Series: 2006-39.
- Mills, M., Blossfeld, H.P., & Klijzing, E. (2005). Becoming an adult in uncertain times: a 14-country comparison of the losers of globalization. In Eds. H.P. Blossfeld, E. Klijzing, M. Mills and K. Kurz. *Globalization, Uncertainty and Youth in Society*. Routledge, London, pp 423-441.
- OECD. (2017). *Labour Force Statistics Dataset. (LFS - Employment by Permanency (Dataset Level Metadata TEMP_I)*, extracted from OECD.Stat on 10/19/2017.
- Office for National Statistics. (2008). Conception statistics: Conceptions for women resident in England and Wales.
- Oppenheimer, V. (1994). Women's Rising Employment and the Future of the Family in Industrial Societies. *Population and Development Review*, 20:293-342.

- Ozcan, B, Mayer, U. & Luedicke, J. (2010). The Impact of Unemployment on the Transition to Parenthood. *Demographic Research*, 23(29):807-46.
- Pronzato, C. (2008). BHPs Family File. edited by University of Essex Institute for Social and Economic Research; distributed by The Data Archive, Colchester.
- Schieman, S., Glavin, P. & Milkie, M. (2009). When Work Interferes with Life: Work-Nonwork Interference and the Influence of Work-Related Demands and Resources. *American Sociological Review*, 24(6):967-988.
- Scherer, S. (2009). The Social Consequences of Insecure Jobs. *Social Indicators Research*, 93:527:47.
- Starkey, J. (1996). Race Differences in the Effect of Unemployment on Marital Instability: A Socioeconomic Analysis. *Journal of Socio-Economics*, 25(6):683.
- Townsend, N. (2002). *The Package Deal: Marriage, Work and Fatherhood in Men's Lives*. Philadelphia: Temple University Press.
- Tölke, A. & Diewald, M. (2003). Insecurities in Employment and Occupational Careers and their Impact on the Transition to Fatherhood in Western Germany. *Demographic Research*, 9:41-67.
- Warr, P. (1987). *Work, Unemployment, and Mental Health*. Oxford: Clarendon Press.
- Wilson, W. (1987). *The Truly Disadvantaged*. Chicago: University of Chicago Press.
- Winkelmann, L. & Winkelmann, R. (1995). Happiness and Unemployment: A Panel Data Analysis for Germany. *Economics Quarterly*, 41(4):293-307.
- Witte, J. & Wagner, G. (1995). Declining Fertility in East Germany after Unification: A Demographic Response to Socioeconomic Change. *Population and Development Review*, 21(2):387-97.

Tables

TABLE 1. A Snapshot of the BHPS Work-Life History Sample

Event:	Transition into cohabitation		Transition into marriage		Transition into parenthood		Cohabitation dissolution		Marital dissolution	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
# of person-months	281,823	242,538	335,924	308,275	469,573	462,135	407,59	544,41	345,326	497,945
# of partnerships	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	1,287	1,730	1,992	2,728
# of individuals	3,904	4,600	3,904	4,600	3,038	3,461	1,001	1,319	1,746	2,318
# of events	1,037	1,128	2,022	2,782	1,678	2,291	304	415	407	713
Prevalence of event	26.6	24.5	51.8	60.5	55.2%	66.2%	30.4%	31.5%	23.3%	30.8%
Mean duration in months	117.1	87.3	138.9	109.2	154.6	133.5	51.1	44.9	147.4	146

**TABLE 2. MEN'S EMPLOYMENT INSTABILITY INSECURITY AND LIFE-COURSE EVENTS
(ODDS RATIOS)**

	Transition into cohabitation		Transition into marriage		Transition into parenthood		Dissolution of cohabitation		Marital dissolution	
	model m1a	model m1b	model m2a	model m2b	model m3a	model m3b	model m4a	model m4b	model m5a	model m5b
Unemp vs perm	1.432*** (0.195)	1.029 (0.141)	0.472*** (0.089)	0.688* (0.133)	1.008 (0.136)	1.437** (0.234)	1.255 (0.274)	1.292 (0.292)	2.157*** (0.461)	1.796*** (0.405)
Temp vs perm	0.943 (0.153)	0.834 (0.137)	0.487*** (0.088)	0.741* (0.135)	0.759** (0.100)	1.389** (0.190)	1.804*** (0.408)	1.860*** (0.430)	1.336 (0.340)	1.273 (0.325)
Inactive vs perm	0.675** (0.115)	0.558*** (0.097)	0.150** (0.044)	0.288*** (0.084)	0.303*** (0.067)	1.004 (0.281)	1.761** (0.392)	1.764** (0.393)	1.544* (0.365)	1.305 (0.312)
Age	2.285*** (0.139)	2.158*** (0.133)	3.279*** (0.246)	3.301*** (0.250)	2.457*** (0.103)	1.321*** (0.048)	0.882** (0.047)	0.947 (0.059)	1.081* (0.045)	1.044 (0.045)
Age squared	0.986*** (0.001)	0.987*** (0.001)	0.978*** (0.001)	0.978*** (0.001)	0.985*** (0.001)	0.995*** (0.001)	1.001 (0.001)	1.000 (0.001)	0.998*** (0.001)	0.999** (0.001)
Educ: No A-levels		0.930 (0.071)		1.083 (0.074)		1.352*** (0.071)		0.968 (0.141)		1.002 (0.104)
1950-1959 cohort		1.970*** (0.327)		0.865 (0.083)		0.986 (0.081)		0.675 (0.178)		1.159 (0.144)
1960-1969 cohort		3.906*** (0.675)		0.449*** (0.066)		1.176* (0.107)		0.906 (0.228)		1.490*** (0.208)
1970-1988 cohort		3.694*** (0.593)		0.112*** (0.022)		1.212* (0.130)		0.587** (0.159)		1.663* (0.465)
Yearly unemp rate		1.033** (0.017)		0.969* (0.016)		0.968*** (0.011)		1.023 (0.028)		1.007 (0.020)
Has/expects a child		5.766*** (0.702)		10.209*** (0.874)						
Single vs married						0.022*** (0.003)				
Cohab vs married						0.237*** (0.026)				
Unemp ## single						1.115 (0.436)				
Unemp ## cohab						2.381*** (0.655)				
Temp ## single						0.609 (0.273)				
Temp ## cohab						0.627 (0.275)				
Inact ## single						0.265* (0.204)				
Inact ## cohab						1.162 (0.634)				
Has child < 5 yrs								0.681** (0.132)		0.358*** (0.051)
Teen at n=1								1.581** (0.312)		1.247 (0.241)
Prev. divorced								0.771 (0.165)		1.808*** (0.289)
Pre-marital child										1.728*** (0.209)
n (person-months)	281,823		335,924		469,573		40,759		345,326	
N of partnerships	(n.a.)		(n.a.)		(n.a.)		1,287		1,992	
N (individuals)	3,904		3,904		3,038		1,001		1,746	
N of events	1,037		2,022		1,678		304		407	
Mean t in months	117.1		138.9		154.6		51.1		147.4	

Notes: Odds ratios from discrete-time event history models. Standard errors in parentheses. Hazard function is specified as age and age squared that are time-varying on a monthly basis. Legend: * p<0.05; ** p<0.01; *** p<0.001. n.a.: Not applicable.

TABLE 3. WOMEN'S EMPLOYMENT INSTABILITY AND LIFE-COURSE EVENTS (ODDS RATIOS)

	Transition into cohabitation		Transition into marriage		Transition into parenthood		Dissolution of cohabitation		Marital dissolution	
	model w1a	model w1b	model w2a	model w2b	model w3a	model w3b	model w4a	model w4b	model w5a	model w5b
Unemp vs perm	2.402*** (0.323)	1.404** (0.194)	0.691** (0.119)	1.152 (0.205)	4.025*** (0.587)	3.520*** (0.772)	1.491* (0.309)	1.549** (0.330)	1.812** (0.480)	1.733** (0.452)
Temp vs perm	0.972 (0.146)	0.719** (0.111)	0.232*** (0.050)	0.482*** (0.105)	0.700 (0.163)	1.515 (0.396)	1.251 (0.267)	1.225 (0.262)	1.284 (0.224)	1.346* (0.233)
Inactive vs perm	1.453*** (0.132)	0.829* (0.086)	1.217*** (0.087)	1.166* (0.101)	30.340*** (1.979)	26.206*** (1.944)	1.442*** (0.170)	1.679*** (0.220)	0.810** (0.068)	0.948 (0.084)
Age	2.214*** (0.147)	1.981*** (0.134)	3.079*** (0.240)	3.296*** (0.267)	2.238*** (0.086)	1.505*** (0.057)	0.970 (0.039)	0.949 (0.045)	1.048 (0.033)	1.034 (0.034)
Age squared	0.985*** (0.001)	0.987*** (0.001)	0.977*** (0.002)	0.975*** (0.002)	0.986*** (0.001)	0.992*** (0.001)	1.000 (0.001)	1.000 (0.001)	0.999*** (0.000)	0.999*** (0.000)
Educ: No A-levels		0.945 (0.070)		1.032 (0.064)		1.399*** (0.092)		0.753*** (0.081)		0.919 (0.078)
1950-1959 cohort		2.934*** (0.491)		1.019 (0.075)		1.474*** (0.146)		1.083 (0.230)		1.439*** (0.140)
1960-1969 cohort		4.783*** (0.873)		0.558*** (0.073)		2.326*** (0.284)		1.042 (0.226)		1.819*** (0.190)
1970-1988 cohort		4.935*** (0.831)		0.087*** (0.015)		1.840*** (0.231)		1.106 (0.263)		1.867*** (0.394)
Yearly unemp rate		1.039** (0.016)		0.960*** (0.015)		0.942*** (0.013)		1.023 (0.023)		1.011 (0.015)
Has/expects a child		2.502*** (0.279)		3.996*** (0.328)						
Single vs married						0.057*** (0.010)				
Cohab vs married						0.371*** (0.058)				
Unemp ## single						3.049*** (1.079)				
Unemp ## cohab						0.976 (0.407)				
Temp ## single						0.183 (0.192)				
Temp ## cohab						0.403 (0.307)				
Inact ## single						1.321 (0.264)				
Inact ## cohab						1.125 (0.215)				
Has child < 5 yrs							0.757* (0.110)		0.524*** (0.051)	
Teen at n=1							0.957 (0.153)		1.521*** (0.136)	
Prev. divorced							1.147 (0.174)		1.967*** (0.242)	
Pre-marital child									1.611*** (0.139)	
n (person-months)	242,538		308,275		462,135		54,441		497,945	
N of partnerships	(n.a.)		(n.a.)		(n.a.)		1,730		2,728	
N (individuals)	4,600		4,600		3461		1,319		2,318	
N of events	1128		2,782		2291		415		713	
Mean t in months	87.3		109.2		133.5		44.9		146	

Notes: Odds ratios from discrete-time event history models. Standard errors in parentheses. Hazard function is specified as age and age squared that are time-varying on a monthly basis. Legend: * p<0.05; ** p<0.01; *** p<0.001. n.a.: Not applicable.

TABLE 4. INTERACTIONS BETWEEN LOW EDUCATION LEVEL AND EMPLOYMENT INSTABILITY ON MEN'S LIFE-COURSE (ODDS RATIOS)

	Transition into cohabitation		Transition into marriage		Transition into parenthood		Dissolution of cohabitation		Marital dissolution	
	model m6a	model m6b	model m7a	model m7b	model m8a	model m8b	model 9a	model m9b	model m10a	model m10b
Unemp vs perm	1.021 (0.226)	0.751 (0.167)	0.322*** (0.115)	0.500* (0.180)	0.582** (0.152)	0.868 (0.228)	1.155 (0.424)	1.171 (0.437)	3.973*** (1.272)	3.507*** (1.100)
Temp vs perm	0.987 (0.187)	0.852 (0.162)	0.467*** (0.116)	0.707 (0.176)	0.753* (0.129)	1.267 (0.214)	1.246 (0.349)	1.312 (0.363)	1.686 (0.575)	1.584 (0.542)
Inactive vs perm	0.540*** (0.115)	0.484*** (0.104)	0.192*** (0.062)	0.306*** (0.098)	0.316*** (0.089)	0.880 (0.278)	1.834** (0.518)	1.873** (0.535)	1.861* (0.669)	1.636 (0.571)
Education: No A-levels	0.798*** (0.066)	0.876 (0.073)	1.312*** (0.090)	1.139* (0.079)	1.384*** (0.080)	1.321*** (0.080)	0.858 (0.134)	0.884 (0.139)	1.119 (0.129)	1.072 (0.122)
Unemp ## no a-levels	1.848** (0.520)	1.752** (0.494)	1.766 (0.745)	1.924 (0.812)	2.231*** (0.686)	2.188*** (0.619)	1.226 (0.555)	1.239 (0.565)	0.421** (0.179)	0.394** (0.167)
Temp ## no a-levels	0.735 (0.274)	0.886 (0.331)	1.224 (0.442)	0.878 (0.318)	1.209 (0.328)	1.250 (0.320)	2.333* (1.056)	2.244* (0.994)	0.807 (0.389)	0.829 (0.399)
Inactive ## no a-levels	1.784 (0.636)	1.557 (0.555)	0.488 (0.380)	0.530 (0.413)	1.087 (0.505)	1.562 (0.744)	0.923 (0.413)	0.886 (0.391)	0.948 (0.417)	0.899 (0.396)
Hazard function set of controls	YES		YES		YES		YES		YES	
	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
n (person-months)	281,823		335,924		469,573		40,759		345,326	
N of partnerships	(n.a.)		(n.a.)		(n.a.)		1,287		1,992	
N (individuals)	3,904		3,904		3,038		1,001		1,746	
N of events	1037		2,022		1,678		304		407	
Mean duration per person (in months)	117.1		138.9		154.6		51.1		147.4	

Notes: Odds ratios from discrete-time event history models. Standard errors in parentheses. Hazard function is specified as age and age squared that are time-varying on a monthly basis. Set of controls include aggregate unemployment rate, birth cohort, and a dummy for has/expects child (only in m1a, m1b, m2a, and m2b), relationship status, and interaction terms for relationship status and labor market status (only in m3a and m3b), dummy for has child < 5 years old (only in m4a, m4b, m5a and m5b), dummy for teen at the start of relationship (only in m4a, m4b, m5a and m5b), dummy for Previously divorced (only in m4a, m4b, m5a and m5b), and dummy for pre-marital child (only in m5a and m5b).

Legend: * p<0.05; ** p<0.01; *** p<0.001. n.a.: Not applicable.

TABLE 5. INTERACTIONS BETWEEN LOW EDUCATION LEVEL AND EMPLOYMENT INSTABILITY ON WOMEN'S LIFE-COURSE (ODDS RATIOS)

	Transition into cohabitation		Transition into marriage		Transition into parenthood		Dissolution of cohabitation		Marital dissolution	
	model w6a	model w6b	model w7a	model w7b	model w8a	model w8b	model w9a	model w9b	model w10a	model w10b
Unemp vs perm	1.658** (0.361)	1.234 (0.270)	0.604 (0.195)	0.932 (0.302)	1.719* (0.514)	1.587 (0.588)	0.906 (0.347)	0.904 (0.346)	2.650** (1.179)	2.716** (1.178)
Temp vs perm	0.616** (0.120)	0.523*** (0.103)	0.220*** (0.065)	0.391*** (0.115)	0.651 (0.184)	1.433 (0.446)	0.993 (0.281)	1.004 (0.282)	1.090 (0.328)	1.222 (0.365)
Inactive vs perm	0.822 (0.116)	0.626*** (0.091)	0.620*** (0.091)	0.855 (0.129)	15.658*** (1.457)	18.977*** (2.078)	1.253 (0.236)	1.344 (0.261)	0.736** (0.115)	0.904 (0.144)
Education: No A-levels	0.639*** (0.053)	0.812** (0.069)	1.449*** (0.097)	0.948 (0.064)	0.942 (0.086)	0.940 (0.088)	0.644*** (0.087)	0.637*** (0.087)	0.946 (0.102)	0.907 (0.098)
Unemp ## no a-levels	1.873** (0.519)	1.291 (0.359)	1.246 (0.475)	1.380 (0.529)	3.568*** (1.235)	3.177*** (1.127)	2.017 (0.918)	2.094 (0.954)	0.641 (0.347)	0.583 (0.307)
Temp ## no a-levels	2.855*** (0.877)	2.468*** (0.758)	1.660 (0.720)	1.560 (0.679)	1.230 (0.622)	0.913 (0.469)	1.721 (0.730)	1.730 (0.735)	1.310 (0.487)	1.174 (0.432)
Inactive ## no a-levels	2.859*** (0.532)	1.778*** (0.343)	3.128*** (0.530)	1.586*** (0.275)	3.054*** (0.388)	1.660*** (0.218)	1.343 (0.323)	1.424 (0.344)	1.137 (0.210)	1.055 (0.194)
Hazard function set of controls	YES		YES		YES		YES		YES	
	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
n (person-months)	242,538		308,275		462,135		54,441		497,945	
N of partnerships	(n.a.)		(n.a.)		(n.a.)		1,730		2,728	
N (individuals)	4,600		4,600		3,461		1,319		2,318	
N of events	1128		2,782		2,291		415		713	
Mean duration per person (in months)	87.3		109.2		133.5		44.9		146	

Notes: Odds ratios from discrete-time event history models. Standard errors in parentheses. Hazard function is specified as age and age squared that are time-varying on a monthly basis. Set of controls include aggregate unemployment rate, birth cohort, and a dummy for has/expects child (only in m1a, m1b, m2a, and m2b), relationship status, and interaction terms for relationship status and labor market status (only in m3a and m3b), dummy for has child < 5 years old (only in m4a, m4b, m5a and m5b), dummy for teen at the start of relationship (only in m4a, m4b, m5a and m5b), dummy for Previously divorced (only in m4a, m4b, m5a and m5b), and dummy for pre-marital child (only in m5a and m5b).

Legend: * p<0.05; ** p<0.01; *** p<0.001. n.a.: Not applicable.

TABLE 6. SUMMARY OF RESULTS

		Transition into cohabitation	Transition into marriage	Transition into parenthood	Dissolution of cohabitation	Marital dissolution
Men	Unemployment	↑	↓	↑		↑
	Temporary work		↓	↓	↑	
	Unemployment ## Low educ	↑		↑		↓
	Temporary work ## Low educ				↑	
Women	Unemployment	↑	↓	↑	↑	↑
	Temporary work	↓	↓			↑
	Unemployment ## Low educ	↑		↑		
	Temporary work ## Low educ	↑				