



**UNIVERSITY OF OXFORD
DEPARTMENT OF SOCIOLOGY**

**LABOUR MARKET INSECURITY AND FAMILY
RELATIONS IN THE UNITED KINGDOM**

**HANDE INANC
NUFFIELD COLLEGE**

Submitted for the degree of Doctor of Philosophy (DPhil)

Hilary Term 2012

To my family
–my mother, my father, Elif, Deniz, Aslı, Furkan, Melih, Aliye, Emel, Şöhret and Ali-
for their unconditional support.

LABOUR MARKET INSECURITY AND FAMILY RELATIONS IN THE UNITED KINGDOM

ABSTRACT

Hande INANC
Nuffield College

DPhil in Sociology
Hilary Term 2012

This thesis investigates how the experience of labour market insecurity affects individuals' life courses and family lives in the UK. It focusses on unemployment and temporary work as the two sources of insecurity and examines their consequences on partnership formation, transition into parenthood, the well-being within family, and partnership dissolution. It follows a longitudinal approach and uses a sample from the BHPS. The results showed that unemployment has serious negative consequences for individuals' family outcomes. Temporary work also has some negative outcomes, particularly for the vulnerable groups. Unemployment and temporary employment seem to discourage young adults to form marital unions, whereas especially for the young and non-married men unemployment increased the risk of fatherhood. Temporary work has a similar effect for those with no educational qualification, who are more likely to have their first child. Unemployed individuals and their spouses report a drop in their life-satisfaction, psychological well-being and are more likely to feel depressed, and they face a greater risk of marital separation. Male temporary work is associated with poorer well-being for the low-skilled employees and those who report subjective job insecurity. The wives of men working on temporary contracts also suffer from a decline in the well-being. The thesis also looked into the consequences of insecurity at the couple level. Contrary to our initial assumption, dual-insecurity - where both of the spouses are in insecure employment - does not have the strongest effect on the family. Rather, role-reversal between the spouses has the largest impact for family outcomes. When a male partner is unemployed and the female partner is employed, or when the male partner is working on temporary basis and the female partner is working on permanent basis, then the couple delays transition into parenthood, it suffers from a decline in the well-being, and it is more likely to separate.

Approximate word count: 87130 words

ACKNOWLEDGEMENTS

A great many people have contributed to the production of this thesis and it is my pleasure to have the opportunity to thank them for their immeasurable support. First and foremost I must offer my heartfelt gratitude to my supervisor Duncan Gallie, who encouraged me to undertake this study and supported me throughout with his patience and knowledge, whilst allowing me the room to work in my own way at the same time. I would never have been able to finish this thesis without his guidance and his generous time. I would like to thank my examiners J. Gershuny and Hans-Peter Blossfeld for their valuable comments and encouragement as well as to Takehiko Kariya and Tak Wing Chan who commented on earlier versions of my work during Transfer of Status and Confirmation of Status examinations. Special thanks to Evrim Altintas Moser and Berkay Ozcan for taking their time to go over my chapters. I am grateful for their constant support, feedback and contributions, as well as for their comforting friendship. I am indebted to John Lightfoot for his proof reading and grateful to Nuffield College, to the Sociology Department and Equalsoc for providing funding to present my chapters at international conferences and for participating in very useful workshops.

Many thanks must go to my family who has always supported me and felt proud of my achievements, no matter how insignificant they have been. My friends and colleagues at Nuffield College and my crew-mates at the Linacre College Boat Club have been an inseparable part of my doctoral life. They always boosted my energy without which I would not have been able to stay sane at the end of my doctoral journey. And finally, special thanks to dear Timothy Lightfoot who has always believed in me and stood by me, no matter where he was.

CONTENTS

<i>List of Tables</i>	<i>ix</i>
<i>List of Graphs, Figures and Appendices</i>	<i>xi</i>
CHAPTER ONE: INTRODUCTION	1
1.1 AN OVERVIEW OF UNEMPLOYMENT AND TEMPORARY WORK IN THE UK AND EUROPE	5
1.1a. Unemployment and Labour Market Insecurity	5
1.1.1a. Unemployment and Marginalization	6
1.1.1b. Unemployment and Future Career	9
1.1b. Temporary Work and Labour Market Insecurity	11
1.1.2a. Labour Market Flexibilization and Emergence of Temporary Work in Europe	11
1.1.2b. Theories on prospective career outcomes of temporary work	14
1.1.2c. Findings on the composition of temporary work and prospective career outcomes	15
1.2. HOW IS INSECURITY RELATED TO THE FAMILY?	22
1.2a. Partnership formation	22
1.2b. Transition into parenthood	25
1.2c. Wellbeing within family	27
1.2d. Partnership dissolution	29
1.3. INSECURITY HYPOTHESIS AND VULNERABILITY WITHIN THE INSECURE LABOUR FORCE	31
1.4. LONGITUDINAL APPROACH AND THE BHPS	33
1.5. EXPECTED CONTRIBUTIONS	37
1.6. THESIS STRUCTURE	40
References (1)	44
CHAPTER TWO: LABOUR MARKET INSECURITY AND PARTNERSHIP FORMATION - AN ANALYSIS OF EARLY WORK HISTORIES AND TRANSITION INTO MARRIAGE AND COHABITATION AS FIRST PARTNERSHIP	49
2.1 A REVIEW OF LITERATURE: HOW LABOUR MARKET INSECURITY AFFECTS PARTNERSHIP FORMATION?	52
2.1a. Sex-specialization theory	53
2.1b. Economic independence theory	55
2.1c. Uncertainty theory and assortative mating	55
2.1d. Cohabitation theory	58
2.1 RESEARCH QUESTIONS AND HYPOTHESES	60
2.3. DATA AND METHODS	66
2.3a. Constructing Event History Data with Work-life and Family Histories	66
2.3b. Descriptive Statistics	70

2.3c. Model specification	72
2.3d. Conceptualization and Variables	74
2.4 RESULTS	78
2.4a. Unemployment and Partnership Formation	78
2.4b. Vulnerability within the Unemployed: Interactions	82
2.4c. Temporary Work and Partnership Formation	87
2.4d. Vulnerability within Temporary Employees: Interactions	89
2.4e. Unobserved Heterogeneity: Individual Specific Factors in Partnership Formation?	93
2.5. CONCLUSION	94
References (2)	97

CHAPTER THREE: LABOUR MARKET INSECURITY AND TRANSITION INTO PARENTHOOD: AN ANALYSIS OF INDIVIDUAL AND COUPLE INSECURITY AS A DETERMINANT OF TIMING OF FIRST BIRTHS	101
3.1. THEORETICAL FRAMEWORK AND HYPOTHESES	106
3.1a. Neoclassical Models - Labour market supply and family formation	106
3.1b. Couple's Joint Insecurity and Fertility Decisions	109
3.1c. Insecurity and Theory of Out-of-Wedlock Childbearing	111
3.2. EMPLOYMENT REGIME, WELFARE AND FAMILY SYSTEMS IN THE UK	112
3.3. DATA AND METHODS	114
3.3a. An overview of the data and the sample	114
3.3b. A Descriptive Summary: Insecurity and Parenthood	118
3.3c. Model Specification	121
3.3d. Definitions and Variables	124
3.4. RESULTS	126
3.4a. Unemployment and parenthood	126
3.4b. Exploring early entry into fatherhood among unemployed men: marital status and age	136
3.4c. Temporary work and parenthood	141
3.4d. Gendered impact of insecurity on parenthood?	147
3.5. DISCUSSION AND CONCLUSION	148
References (3)	151

CHAPTER FOUR: LABOUR MARKET INSECURITY AND WELL-BEING WITHIN COUPLES - PANEL STUDY OF TRANSITIONS INTO INSECURITY AND CHANGE IN THE WELL-BEING	155
4.1. PREVIOUS LITERATURE	157
4.1a. Unemployment, temporary work and well-being	157
4.1b. Partnership satisfaction	161

4.1c. Partner's labour market insecurity and well-being	162
4.1d. Couple Insecurity and well-being	164
4.1e. Mediating factors: Are some individuals more vulnerability to insecurity?	165
4.1f. Other determinants of well-being	169
4.2. DATA AND METHODOLOGY	170
4.2a. The BHPS sample	170
4.2b. Panel data fixed effects models	171
4.2c. Measurement of the outcome variables: Partnership satisfaction, Life satisfaction, Subjective well-being and Depression	174
4.2d. Measurement of the main explanatory variables: Employment status	182
4.2e. Measurement of mediating factors: Vulnerability within the insecure workforce	185
4.2f. Measurement of the control variables	188
4.3 RESULTS	188
4.3a. Individuals' own insecurity and well-being in the family	190
4.3b. Partner's insecurity and well-being in the family	195
4.3c. Couple insecurity and well-being in the family	200
4.3d. Mediating factors	205
4.3e. Gendered insecurity?	213
4.3f. Control variables	215
4.4. DISCUSSION AND CONCLUSION	217
References (4):	220
CHAPTER 5: LABOUR MARKET INSECURITY AND PARTNERSHIP DISSOLUTION - A LONGITUDINAL ANALYSIS OF UNEMPLOYMENT, TEMPORARY WORK AND UNION DISSOLUTION IN THE UK	225
5.1. THEORETICAL DEBATE: HOW UNEMPLOYMENT TO PARTNERSHIP DISSOLUTION?	227
5.1a. Unemployment and Partnership Dissolution	228
5.1b. Temporary work and Partnership Dissolution	230
5.2. EMPIRICAL FINDINGS	231
5.2a. Unemployment and divorce in longitudinal studies	231
5.2b. Temporary work, job insecurity and partnership dissolution	234
5.2c. Gender differences and couple dynamics	236
5.2d. Temporal aspect of the relationship between insecurity and dissolution	237
5.2e. Other determinants of Partnership Dissolution: Who separates?	238
5.3. RESEARCH QUESTIONS	242
5.4. DATA AND METHODS	244
5.4a. Work and Family histories from the BHPS	244
5.4b. Model specification	252
5.4c. Explanatory and control variables	254

5.5. RESULTS	257
5.5a. Men’s and women’s labour market insecurity and partnership dissolution	257
5.5b. Gendered impact of insecurity?	267
5.5c. Other determinants of men’s and women’s partnership dissolution	269
5.5d. Couples’ labour market insecurity and partnership dissolution	271
5.5e. Other determinants of couples’ partnership dissolution	276
5.6. UNOBSERVED HETEROGENEITY AND RECURRENT EVENTS	278
5.7. CONCLUSION AND DISCUSSION	279
References (5):	283
CHAPTER SIX: CONCLUSION	291
6.1. MAIN FINDINGS	292
6.1a. Partnership Formation	292
6.1b. Transition into Parenthood	294
6.1c. Well-being within Family	295
6.1d. Partnership Dissolution	297
6.2. KEY ISSUES	298
6.2a. Insecure work paths: Unemployment vs Temporary Work?	298
6.2b. Men’s and Women’s Family Outcome’s: Is insecurity gendered?	301
6.2c. Insecurity within couples: Is individual level information sufficient?	303
6.2d. Is cohabitation equal to marriage?	307
6.3. LIMITATIONS OF THE THESIS AND FUTURE RESEARCH	310

LIST OF TABLES	page
Table 2.1. A Summary Of The Event History Data	68
Table 2.2. Unemployment And Temporary Work Experiences	69
Table 2.3. Premarital Cohabitation And Parenthood	70
Table 2.4a. Unemployment and Transition Into Partnership	79
Table 2.4b. Unemployment and Gender	83
Table 2.4c. Unemployment and Duration	84
Table 2.4d. Unemployment and Low Education	85
Table 2.4e. Unemployment and High Education	85
Table 2.4f. Unemployment and Having a Child	87
Table 2.5a. Temporary Work and Transition Into Partnership	88
Table 2.5b. Temporary Work and Gender	90
Table 2.5c. Temporary Work and Duration	91
Table 2.5d. Temporary Work and Low Education	91
Table 2.5e. Temporary Work and Low Skill	92
Table 2.5f. Temporary Work and Having a Child	92
Table 2.5g. Temporary Work and Part Time Working Hours	93
Table 3.1. A Snapshot of the BHPS Work Life-Family History Sample	115
Table 3.2. Distribution of the Sample by Employment Variables	117
Table 3.3. Distribution of the Sample by Couple Matched Employment Status	118
Table 3.4. Men's Unemployment and Hazard of Transition into Parenthood	128-129
Table 3.5. Women's Unemployment and Hazard of Transition into Parenthood	131-132
Table 3.6. Coupled Men and Women's Unemployment and Hazard Of Transition into Parenthood	135-136
Table 3.7. Men's Temporary Work and Hazard of Transition into Parenthood	142
Table 3.8. Women's Temporary Work and Hazard of Transition into Parenthood	144
Table 3.9. Coupled Men and Women's Temporary Work and Hazard of Transition into Parenthood	146
Table 3.10a. Gender Effect Of Unemployment On Hazard Of Transition Into Parenthood	147
Table 3.10b. Gender Effect of Temporary Work on Hazard of Transition Into Parenthood	148
Table 4.1. Distribution of the BHPS Sample by Employment Status-Waves 1-18	183
Table 4.2. Distribution of the BHPS Couples by Matched Employment Status- Waves 1-18	185
Table 4.3a. Individuals' Own Labour Market Status and Wellbeing Outcomes Among Men	191-192
Table 4.3b. Individuals' Own Labour Market Status and Wellbeing Outcomes among Women	193-194
Table 4.4a. Wives' Labour Market Status and Wellbeing Outcomes among Men	198
Table 4.4b. Husbands' Labour Market Status and Wellbeing Outcomes among Women	199

Table 4.5a. Couple's Labour Market Status and Wellbeing Outcomes among Men	202
Table 4.5b. Couple's Labour Market Status and Wellbeing Outcomes among Women	203
Table 4.6a. Interaction of Duration and Unemployment among Men	207
Table 4.6b. Interaction of Duration and Unemployment among Women	208
Table 4.7a. Interaction of Unemployment and Low Education	209
Table 4.7b. Interaction of Temporary Work and Low Skill	210
Table 4.8. Interaction of Temporary Work and Subjective Job	211
Table 4.9. Interaction of Unemployment and Social Support	212
Table 4.10a. Interaction of Unemployment and Gender	214
Table 4.10b. Interaction of Temporary Work and Gender	215
Table 5.1. A Snapshot of the BHPS Partnership Dissolution Sample	247
Table 5.2a. Distribution of the Sample with Employment Status - Married Couples	248
Table 5.2b. Distribution of the Sample with Temporary Work Variables - Married Couples	248
Table 5.3a. Distribution of the Sample with Employment Status - Cohabiting Couples	249
Table 5.3b. Distribution of the Sample with Contract Type - Cohabiting Couples	249
Table 5.4. Distribution of Couples' Matched Employment Indicators	251
Table 5.5. Men And Women's Unemployment and Partnership Dissolution	258
Table 5.6a. Current Duration of Unemployment and Partnership Dissolution	260
Table 5.6b. Education Qualification and Partnership Dissolution	261
Table 5.7. Men and Women's Temporary Work and Partnership Dissolution	263
Table 5.8a. Current Duration of Temporary Work and Partnership Dissolution	265
Table 5.8b. Educational Qualification of Temporary Employee and Partnership Dissolution	266
Table 5.8c. Work Hours of Temporary Employee and Partnership Dissolution	267
Table 5.9a. Gender Effect of Unemployment on Partnership Dissolution	268
Table 5.9b. Gender Effect of Temporary Work on Partnership Dissolution	269
Table 5.10. Couples' Unemployment and Partnership Dissolution	273
Table 5.11. Couples' Temporary Work and Partnership Dissolution	276

LIST OF GRAPHS, FIGURES AND APPENDICES

Graph 2.1a. Entry into first marriage for men - Hazard contribution in the life course	71
Graph 2.1b. Entry into first marriage for women - Hazard contribution in the life course	71
Appendix A - Summary Of The Hypotheses Tested In Chapter 2	100
Graph 3.1a. Entry into parenthood - Duration after age 14	120
Graph 3.1b. Entry into parenthood - Duration after relationship	120
Graph 3.2a. Employment status by marital status (Men) - Unadjusted probabilities from interaction effects	138
Graph 3.2b. Unemployed men compared to employed men - Odds ratios from discrete frailty models	138
Graph 3.3a. Employment status and age (Men) - Predicted probabilities from interaction effects	140
Graph 3.3b. Employment status and age (Men) - Odds ratios from discrete frailty models	140
Graph 4.1a. Satisfaction with partner/spouse among coupled men - Overall distribution in individual years	175
Graph 4.1b. Satisfaction with partner/spouse among coupled women - Overall distribution in individual years	175
Graph 4.2a. Life satisfaction among coupled men - Overall distribution in individual years	176
Graph 4.2b. Life satisfaction among coupled women - Overall distribution in individual years	177
Graph 4.3. Distribution of subjective well-being among coupled individuals	179
Graph 4.4. Feeling depressed or unhappy among couples individuals	181
Figure 1. Well-Being And Partner's Labour Market Insecurity	196
Appendix B - Summery Results - Partnership Dissolution, Man And Women, Main Variables	287
Appendix C - Summery Results - Partnership Dissolution, Man And Women, Control Variables	288
Appendix D - Summery Results - Partnership Dissolution, Couples, Main Variables	289
Appendix E - Summery Results - Partnership Dissolution, Couples, Control Variables	290

1

INTRODUCTION

From the 1970s onwards, significant transformations took place in employment relationships in Britain with the spread of technological innovations, increasing competitive pressures, the globalization of international markets and the integration with Western European economies. The 1970s also mark the beginning of a period in Britain during which its workforce has become more insecure. Especially after the elections in 1979 which brought a new right wing government into power, the labour market went through a deregularization process during which employers increasingly switched to market principles and labour flexibility. New policies made it easier for employers to shift risk to employees by means of non-standard employment types in order to meet the requirements of a global and volatile market. The central concern of this thesis is with the implications of these changing patterns of insecurity for individuals' family lives.

Following the 1970's the unemployment rate increased as a result of a series of recessions. The level of unemployment had already begun to increase in the early 1970s; however, there was a steep rise after the second oil shock of 1978-79. Unemployment stayed over 10 per cent during most of the 1980s, and another sharp increase took place after the recession in the early 1990s. Progressive deregulation was adopted as a remedy to inflexibility and as a solution to the problem of high unemployment. This caused a decrease in the proportion of the workforce which was protected by employment rights. New policies also fostered a 'hire and fire' system in order to meet the volatile needs of

INTRODUCTION

the global economy. As a result, employees in Britain became relatively less secure, but on the other hand it became easier to enter or re-enter the labour market.

Another change has been the increase in the share of non-standard employment. Atkinson (1984) argued that a major consequence of the changes in employment relations was the growing polarization of the workforce after the 1970s: a dual-structured workforce, with a core and a periphery emerged. The core consisted of highly skilled employees who enjoyed higher pay, higher job security and better working conditions. Those in the periphery worked on non-standard employment contracts, in poor working conditions and were easily disposable in times of economic difficulty. Among the emerging non-standard contracts, temporary work has been especially regarded as a major threat to job security. After remaining stable at approximately 4.5 per cent, the share of temporary contracts rose to 6.5 per cent of total employment in 1991 (Casey *et al.*, 1997). During the 1980s, a main source of insecurity was unemployment, but with the sudden increase in non-standard employment in the 1990s temporary employment was considered as another major source of insecurity. One of the main purposes of this thesis is to evaluate this argument and compare how much family life among the unemployed and temporary workers is affected by labour market insecurity.

The changes that took place in British employment relations after the 1970s, namely industrial restructuring and progressive deregulation, also resulted in notable transformations for female employment; increased integration, differentiation and polarization reshaped the female workforce. Women became more integrated into the labour market with rising labour force participation. They were also increasingly concentrated in low-paid, sexed-typed, or atypical jobs (Purcell, 2000) as well as in

managerial and higher professional ones, intensifying the polarization of the female labour force.

These transformations in female employment have had important consequences for women's experience of labour market insecurity. However, there is no consensus on whether women's labour market experience became similar to that of men's in terms of insecurity. Marxist theory considers women as a reserve army of labour: women are relied upon in times of labour shortage, but discouraged from the workforce in times of over-supply. This situation poses greater insecurity for women. Yet, factors such as technological innovations, a decline in manufacturing and a growth in service sectors created a remarkable upsurge in demand for female workers, which resulted with a decrease in full-time permanent male employment and an increase in part-time jobs. For this reason, some argue that labour force insecurity has declined for women.

Studies show that, in contrast to other European countries, UK unemployment has been male dominated. Even though female unemployment increased in the mid 1990s climbing to 7.5 per cent, British men were still more exposed to unemployment (Gallie *et al.*, 1998). Additionally, the decrease in overall unemployment rates between the two peak years of 1984 and 1993 was found to be driven by a fall in female unemployment rates: during this period, male unemployment stayed much higher than female unemployment (Evans, 1998). Evans's study revealed that the fall in female unemployment resulted from a decrease in inflow rates, and it was skill-neutral, meaning that the fall was observed over all skill levels among women. What drove most of the fall in female unemployment was its concentration among women with young children. Evans argues that the increased workplace assistance that helped mothers of young children return to their previous firm in atypical work contributed to the fall in the inflow rate of unemployment among

INTRODUCTION

mothers with young children, which accounted for a major part of the fall in overall female unemployment. In terms of unemployment, it seems that women face less and less insecurity than men in the labour market.

On the other hand, both male and female temporary employment grew substantially, especially after the early 1990s. However, for men the rise was concentrated in fixed-term contracts whereas women took up more casual types of temporary employment (Purcell, 2000; Booth et al, 2002). LFS figures for 1996 show that the share of the female workforce in temporary employment was larger than that of the male workforce in temporary employment across all sectors, except for construction (Purcell, 2000, pp. 124). Temporary employment also seems to be gendered by occupation. For example, among professionals women were twice as likely as men to be in temporary work (Purcell, 2000). Even though a deregularization process enabled more women to be integrated into the labour market, in terms of temporary employment women face more insecurity than men in the workforce. Another major aim of this thesis is to compare men's and women's work histories in order to reveal how gendered the effect of insecurity is on family outcomes.

The increasing insecurity in the labour market leaves individuals with strain and uncertainty about the future, which in turn affects their other life domains. Family events usually take a long time to plan, and they are subject to how individuals fare in the labour market. Therefore, insecurity may have important effects on individuals' life course events and family outcomes. Indeed, there is a vast amount of literature on how unemployment experience impacts the timing of partnership formation, transition into parenthood, and risk of partnership dissolution, as well as the psychological well-being of individuals within partnerships. Most of the studies showed that the experience of

unemployment does have important consequences. There is also a growing literature on the relationship between temporary employment and family outcomes; however, the evidence is limited and inconsistent. In this thesis, I investigate individuals' work and family histories and intend to uncover the ways unemployment and temporary work experiences are related to family outcomes and well-being within family.

This chapter is structured as follows. Section 1.1 provides an overview of unemployment and temporary work in Europe and the United Kingdom, focussing most notably on the negative impacts of insecurity on marginalization and career prospects. Section 1.2 explains how insecurity may be related to the following four family outcomes: partnership formation, transition into parenthood, well-being within family, and partnership dissolution. Section 1.3 discusses the 'Insecurity hypothesis' and vulnerability within the insecure labour force. Section 1.4 overviews the longitudinal approach that this thesis adopts, and describes the properties of the sample data taken from the British Household Panel Study in the analyses. Expected contributions are reviewed in Section 1.5. The thesis plan is outlined in Section 1.6.

1.1. AN OVERVIEW OF UNEMPLOYMENT AND TEMPORARY WORK IN THE UK AND EUROPE

1.1a. Unemployment and Labour Market Insecurity

It is well documented that unemployment has serious negative impacts on social inclusion, future career prospects and job quality. In this subsection, I shall focus on the impact of unemployment on marginalization and career prospects, and review the findings from sociological research in the UK and Europe.

INTRODUCTION

1.1.1a. Unemployment and Marginalization

The risk of poverty is one of the most catastrophic consequences of unemployment, and there is a vast amount of research on it dating back to the early 1980s (Moylan *et al.*, 1984; Heady and Smith, 1989; Hauser and Nolan, 2000; Gallie *et al.*, 2003). The main findings across European countries are that unemployment is a major factor in poverty and that, for those countries where evidence exists, long-term unemployment is more likely to cause poverty than short-term unemployment. Moreover, unemployed individuals face a higher risk of poverty than those who have no work, such as those who are out of the labour market to care for the elderly or disabled. Therefore, it is the state of being unemployed rather than being inactive that carries these distinctive features that have a detrimental effect on economic well-being. For example, earlier case studies on unemployed families in the UK during the 1980s' recession showed that the standard of living fell substantially and continued to decline over the duration of unemployment (Ritchie, 1990). These families reported that debt was a major problem and that they used up all their savings, sold their goods and took loans in order to combat their deteriorating income resources.

The experience of unemployment and the extent of the risk of poverty naturally vary between countries, and the main factors behind this variation are the level of coverage and the degree of generosity of unemployment benefits. Gallie and Paugam (2000) classify European countries into four 'unemployment welfare regimes' by taking into account three criteria: coverage, level of compensation and expenditure on active employment policies. In the *sub-protective* system, such as is found in Italy, both the coverage and level of benefits are very limited and active employment policies are almost non-existent. In the *liberal* (or minimal) regimes of the UK and Ireland there is only a

minimum amount of coverage and the benefits are rather low: here there is only little commitment to active employment policies. The main difference between the sub-protective and the liberal regime is actually an economic-philosophical one. In the liberal regime, the unemployed are expected and encouraged to take care of themselves which is a result of the idea of non-intervention. In the *employment centred* regimes of Germany, the Netherlands and France there are substantial levels of benefit, but their duration and coverage are unevenly distributed among occupational groups. Eligibility depends on previous employment, hence the extent of available benefits varies according to who has built up the greatest rights. This produces an ‘insider-outsider’ division, and vulnerability to poverty is greater for the unemployed who are concentrated in the secondary labour market. Finally, in the *universalistic* regime of the Nordic countries, there is a comprehensive system of replacement benefits with generous financial support and wide coverage.

Following Gallie and Paugam’s typology, Hauser and Nolan examined the trends in unemployment and poverty in the 1980s and 1990s in Europe (2000). According to their findings, poverty has been greater among the unemployed than the working population, and the gap between poverty rates of the unemployed and the working population has become wider. Their findings, however, only provide limited support for the suggested unemployment welfare regime typology. Countries listed in the same type of unemployment regime yield considerably different outcomes in terms of the impact of unemployment on poverty. They observed that the Netherlands and Denmark fared best in poverty rates among the unemployed, whereas the position of the unemployed weakened in the UK during the 1980s and 1990s. In another comparative study, McGinnity (2004) used longitudinal data to compare the poverty risks of the unemployed

INTRODUCTION

in Germany and the UK, and found that the risk was greater for the unemployed in the UK than for those in Germany.

Social isolation is another significant consequence of unemployment which has been examined extensively in national and comparative studies (for example see Gallie *et al.*, 1994; Paugam, 1996; Gallie, 1999). Paugam and Russell (2000) compared the impact of unemployment on social networks in Europe using the longitudinal ECHP data. They defined three spheres of sociability. The primary sphere is defined by whether one lives alone or in a household; the secondary sphere by whether one meets friends, relatives and neighbours or not; and the tertiary sphere by one's membership in clubs and associations. The results regarding the primary sphere show that in Northern Europe the unemployed population is more likely to live alone than the same population in Southern European countries. They did not report a significant cross-country difference in terms of secondary sociability. In all countries, the unemployed are more isolated in terms of formal (tertiary) activities than those in secure employment. Specifically, the long-term unemployed (more than 1 year) are significantly less likely to be members of clubs and associations. Germany and France stand out as the countries with the sharpest effect of unemployment on social networks, where the unemployed are significantly more isolated in all three spheres of socialization. Another study compared the impact of long-term youth unemployment on social and material deprivation in Scotland and the Nordic countries. This study found that both types of deprivation were higher in Scotland, which represents the liberal model (Julkunen, 2002). Among the Nordic countries, Denmark was shown to be the most successful at including their unemployed youth in social life and preventing them from experiencing declining living standards.

1.1.1b. Unemployment and Future Career

Unemployment experience does not only lead to poverty and social isolation: it also has two important consequences on a person's future career. It increases the risk of subsequent unemployment and has a negative impact on future wages. These consequences are called the 'scarring effect', and these implications of unemployment have been examined extensively. To begin with, the extent to which past unemployment experience increases an individual's risk of unemployment may push some individuals into persistent poverty and social exclusion. There may be several reasons why previous unemployment may have a scarring effect. For example, as a result of job loss the firm-specific or general skills of the employee may deteriorate (i.e. human capital theory, Becker 1993 [1964]). Past unemployment may also have a signalling effect and future employers may be less likely to hire previously unemployed applicants, or similarly more likely to fire them (Spence, 1974). For Britain, studies using the British Household Panel Study produced findings that supported the scarring effect of past unemployment (Arulampalam et al., 2001, Gregory and Jukes, 2001; Arulampalam, 2002). To determine whether repeated unemployment spells are a consequence of unobserved heterogeneity or a true state dependence (when there is a causal link between past and future unemployment), it is important to disentangle the 'scarring effect' of unemployment. Arulampalam et al. (2001) controlled both the initial conditions and the unobserved heterogeneity, and found that there was a strong state dependence effect with respect to past unemployment. Layte et al. (2000) studied the cross-national differences between Britain, Italy, the Netherlands and Sweden on the impact of unemployment on labour market outcomes. These countries differ significantly in terms of active labour policies.

INTRODUCTION

The authors found that Sweden's and the Netherlands' system of active labour policies may be ameliorating the long-term effects of unemployment.

The second negative consequence of unemployment on future career is wage loss at labour market re-entry. Arulampalam (2001) studied the re-entry wages of British men between 1991 and 1997 using the first seven waves of the BHPS data. She found that job interruption results in a substantial wage loss effect. Her estimates suggest that an unemployed individual faces a wage penalty of 5.7 per cent during the first year of re-employment, and the risk increases to 13.5 per cent at the end of the third year. This suggests that the unemployed not only suffer a wage drop on return to employment, but also carry the scar for a long time. She also examined the different ways of entry into unemployment and how they affect wages. Those individuals who were made redundant were found to be less scarred than those who were dismissed or sacked. This may suggest that, since employment protection legislation requires a notice period and redundancy payments, individuals may start looking for a suitable job before their redundancy takes effect.

Other European studies focussing on displaced workers' re-employment wages find different outcomes. For example, Leonard and van Audenrode (1995) found that, among Belgian workers wage loss due to re-employment after displacement was nearly zero. In a Swedish study, Ackum (1991) found no significant impact of displacement on re-employment wages. Pichelmann and Riedel (1993) reported for Austria that there were wage losses, but only in the short term. Another study on German workers concluded that those who were displaced in 1986 and subsequently re-employed experienced significantly less wage-growth loss than similar workers in the US (Burda and Mertens, 2001). Their main finding was that wage-growth loss varied among different wage

quartiles. Growth for workers in the lowest quartile was actually higher than that for other low wage workers. In contrast, high wage workers in the upper three quartiles suffered from on average 17 per cent loss after re-employment. The differences between European countries in terms of wage losses due to unemployment can be attributed to their existing *unemployment welfare regimes* and active labour market policies.

1.1b. Temporary Work and Labour Market Insecurity

Temporary work could be regarded as a better employment status than being in unemployment, as it endows the individuals with a job, an income, the opportunity to develop job skills and contact with employers. However, in reality temporary workers are subject to significant job insecurity. Temporary employment is associated with lower pay, high risk of job loss, and subsequent spells of precarious employment. Temporary workers also receive less work-related training than permanent workers. In this section, I will first review how temporary employment developed from the 1980s in Europe, and what different forms it took in various institutional settings. Then, I will present the theories on economic outcomes of fixed-term contracts on temporary workers. Finally, I will overview the main findings from empirical studies on the financial and career outcomes of temporary employment from a comparative point of view.

1.1.2a Labour Market Flexibilization and Emergence of Temporary Work in Europe

As discussed above, from the beginning of the 1980s many European countries introduced policies of labour market flexibilization in order to combat mass unemployment, to foster economic growth and efficiency, and to provide labour market opportunities for groups who traditionally were considered weakly attached to the workforce, i.e. immigrants, women, the unskilled and the lower educated. The number of

INTRODUCTION

all types of temporary workers grew from 2,4 million to 3,5 million between 1980 and 2009 in the EU-15 countries¹. Labour market flexibilization was realized mainly through the erosion of employment protection legislation and introduction of non-standard jobs such as temporary contracts, fixed-term contracts, work-and-training contracts, agency work, and seasonal work. However, the form and overall impact of flexibilization has manifested itself differently across European countries depending on the existing welfare state structure.

Previous studies identified four main flexibilization processes in Europe. Countries such as Spain, Italy and France followed a ‘partial and targeted deregulation’ (Esping-Andersen and Regini, 2000) which was *age-targeted*, de-regulating working conditions for new entrants and/or young people. By contrast, Germany and other Central European countries followed a strategy called ‘partial reform strategy’ (OECD 2006) which focused on the *skill divide* in the workforce (skilled-protected vs. unskilled-deregulated workers)². The result of both of these strategies has been the creation of a dualistic and segmented workforce. Employees in the primary segment enjoy job protection and social benefits attached to their permanent job contracts, whilst employees in the secondary segment hold temporary contracts which offer lower wages, lower training and skill-investment opportunities as well as less social protection. In all these countries, labour market flexibilization came at the cost of increasing social inequality between permanent and temporary workers and social risks, economic exclusion, and marginalization of the secondary segment.

¹ Online OECD Employment Database

² For a detailed review of emergence and trends of non-standard employment in various EU countries see Barbieri, 2007.

A third type of labour market flexibilization can be called 'flexicurity' and refers to the Danish system. Denmark managed to combine high degrees of flexibility in the labour market with high levels of social protection. This nation has become as productive as the liberal Anglo-Saxon countries, yet has managed to minimize the social costs and negative externalities of flexibilization.

Finally, in the liberal United Kingdom, while labour market flexibilization further deregulated already weak employment protection, the share of temporary contracts increased only marginally and remained unchanged at around 4.6 per cent of all employment between 1984 and 1990³. In the mid 1990s, the share of temporary work grew to 6-7 per cent levels, and the increase was observed in all industries. Low skilled individuals working in temporary employment in Britain are generally regarded as disadvantaged since they are exposed to poorer working conditions and acute job insecurity. However, one puzzling aspect of British labour market flexibilization has been the expansion in the number of professional and managerial employees who enter the labour market via temporary or part-time jobs. This situation has raised the question of whether professionals and managers in temporary work also suffer from precarious work conditions such as lower wages, limited training opportunities or dissatisfaction. Some commentators argued that negative consequences of atypical work were not as prominent for high-skilled employees (Cam *et al.*, 2003; Tilly, 1992; Tregaskis, 1997). Moreover, others also argued that temporary contracts gave them the opportunity to better balance work and non-work commitments, as well as more flexible career prospects and increased remuneration.

³ Source: Labour Force Survey, spring edition in Robinson (2000), pp. 32.

INTRODUCTION

By contrast, other studies argued that even professionals and managerial employees in temporary contracts were disadvantaged compared to their permanent counterparts. It has been found that managerial and professional non-standard workers experience different treatment in their workplace to that of full-time permanent workers in terms of access to training and development opportunities, and being consulted about various matters in the workplace (Gallie *et al.*, 1998; Mallon and Duberley, 2000).

In short, in contrast to most continental European countries, temporary work in the UK has not necessarily been regarded as a major source of job insecurity. Indeed, it has been argued that some occupational groups actually fare better thanks to temporary work contracts.

1.1.2b. Theories on the prospective career outcomes of temporary work:

The issue of the prospective career outcomes of temporary work has been discussed and studied widely among scholars, and competing predictions have been made regarding how temporary work affects one's future career outcomes. The theories focusing on the positive impact of temporary work are called the 'springboard hypothesis' or 'integration hypothesis', and refer to the idea that temporary jobs serve as entry ports to the labour market and enable employees to then get a stable and secure job in the primary market. This line of argument suggests that stepping into the labour market with non-standard types of employment is better than not working because it provides the opportunity to acquire specific human capital and to build work-related social capital. From the employer's point of view, temporary contracts may serve as a screening process. Even though these workers receive low initial wages, once the employer decides that the temporary workers' skills match the job the wages increase rapidly. In contrast, the 'segmentation hypothesis' or 'entrapment hypothesis' underlines the negative effects of

temporary work on future career outcomes. Temporary contract holders may send a stigma message to employers because they are occupied in b-series types of jobs. Similarly, as a consequence of higher turnover rates in atypical employment, employers may find fewer incentives to invest in the training of their temporary employees. As they would not be able to accumulate high levels of human capital, temporary workers would have worse career prospects. This would also deepen the stigma effect. This theory predicts that the majority of workers who enter the labour market via temporary jobs would be trapped in further temporary work spells and more likely to be subsequently unemployed.

1.1.2c. Findings on the composition of temporary work and prospective career outcomes:

In most European countries, the risk of entering the labour market via temporary jobs or having temporary contracts in consecutive job spells is unevenly distributed, and certain groups are more prone to temporary employment than others. Below, I shall present a summary of the findings on the composition of temporary workers in Europe. I will also discuss the negative and positive career outcomes of temporary work and support this with empirical findings from the literature. I will begin with the segmented labour markets, namely Italy, France, Spain and Germany, where temporary employment is associated with significant negative outcomes for future career. Then I will briefly cover the Danish system, where the negative externalities of deregulation were kept at a minimum for temporary workers. Finally, I will go over the mixed findings on temporary work in Britain, where there is empirical evidence that temporary employment is disadvantageous but for some groups can equally be a stepping stone.

INTRODUCTION

To begin with, in contexts of segmented labour markets, workers in the primary labour force enjoy job security, higher wages and better career outcomes, whereas workers in the secondary labour market and those who enter the labour market via atypical jobs lack all of these privileges. In Italy, for example, there is a very clear age divide in the entry into the labour market via temporary work. It has been shown that recent cohorts have become increasingly more likely to start their careers with temporary contracts. The risk of consecutive temporary work or unemployment spells for the entrants via temporary work has also become more prevalent among younger cohorts. Among the young entrants, tertiary graduates seem to be more exposed to atypical jobs than lower educated entrants. However, the chances of getting into the primary labour market are much higher among university graduates. The lower educated tend to be trapped in atypical jobs for the long term (Barbieri and Scherer, 2009). It has also been found that temporary jobs are underpaid when compared to equivalent permanent positions, given the characteristics of workers. Moreover, the wage gap is found to be far from narrowing because of the diffusion of temporary jobs. These differences between the primary and secondary labour market workforces still exist even when individual micro characteristics are included. This suggests that the explanation lies in the institutional setting of the Italian labour market.

In France, the share of temporary work grew very rapidly after 1979 when some flexibility with the rules of permanent contracts was introduced in the Labour Code. Not only did the share of temporary work increase, but so did the level of employment protection for permanent workers. This became one of the highest employment protection systems in Europe (Jamet, 2006), exceeding Germany and even Denmark (OECD, 1999). It has been shown that in 2006 12 per cent of all employees were in temporary jobs, and

52 per cent of those under the age of 25 were temporary workers. Women, younger workers and those with less than lower tertiary degrees are more at risk of atypical employment (di Paola et al., 2010). The same authors also found that there was a negative duration effect of temporary work on the transition into stable employment. Those who were quick enough could leave the secondary labour market; however, those who were not ran the risk of becoming trapped in atypical employment.

Spain is an interesting case as it represents the highest share of temporary workers, and temporary employment is widespread across all occupational groups. Spanish uniqueness for having the largest share of temporary contracts among wage-earners has been explained by an interaction of two institutional factors. Polavieja (2006) argued and showed that both the coincidence of high levels of employment protection in standard employment and severe unemployment shocks are the reasons behind the Spanish ‘anomaly’. No other industrial country experienced rigid employment protection levels and unemployment shocks at the same time. In such a context, he argues, employers will have greater incentives to introduce temporary work when the perceived risk of unemployment is high and when the protection offered by permanent jobs is also high. The effects of age and cohort were also observed for Spain. Younger individuals and more recent labour market entrants have been found to be more exposed to temporary work (Golsch, 2003). The same study found that temporary work increased the risk of unemployment, but was also still a route to stable employment. Better educated temporary workers were found to be better protected from the risk of unemployment.

Germany is another case of a segmented labour market, and its composition of temporary workers and outcomes is similar to those countries discussed above. To begin with, in a recent paper Gebel and Giesecke (2009) found that, during the period between 1989 and

INTRODUCTION

2005, the overall proportion of temporary employment increased only slightly, even though there had been a significant relaxation of regulations controlling the use of temporary employment. However, for certain groups there had been a clear shift in the risk of holding a temporary contract. In particular, young people experienced increased risk. There have also been changes in education-related inequality patterns. Those with an elementary education as well as those with an intermediate/full secondary education with vocational training faced an increasing risk of holding a temporary contract, becoming increasingly disadvantaged compared to individuals with a university education. In short, individuals who belong to groups already in weak labour market positions, namely the young and low-educated, were increasingly allocated to inferior employment relations. In an earlier study, Giesecke and Groß (2003) had demonstrated that those with unemployment experience in the past, highly educated and unskilled workers, as well as young and old employees starting a new job were all more likely to be found in the temporary work category. Using the German Socio-Economic Panel, the same study also found that workers with fixed-term contracts were at a higher risk of having a subsequent spell of temporary work and more likely to be unemployed compared with permanent contract holders.

With respect to job quality in Germany, Gebel (2009) found that there was a wage penalty for labour market entrants with temporary contracts. Comparing labour market entrants with similar individuals and jobs, he suggests that labour market entrants earn significantly less in fixed-term jobs than in permanent employment. Another finding is that tertiary education graduates in particular suffer from high initial wage losses in fixed-term contracts. In a comparison of the risks attached to part-time and temporary work, Giesecke (2009) showed that both the actual and perceived risks of temporary work were

more severe than those of part-time work. Temporary workers were not only disadvantaged in terms of pay and employment security, but were also more inclined to higher levels of perceived insecurity.

Denmark, with a combination of high flexibility and high social protection, seems to have managed to keep the negative externalities of labour market flexibilization to a minimum. Temporary work in the Danish system takes the form of replacing those employees who are on leave with unemployed individuals. Thanks to this job rotation system, when employees leave their jobs for training, further education, or parental leave, their places are taken by unemployed workers who are hired on temporary contracts. This scheme provides flexibility for employees, and provides unemployed workers with training opportunities which in turn increase their employability.

As discussed above, even though employment protection in the UK has never been as extensive as in Continental European countries, the growth of temporary employment can be considered marginal. Nevertheless, this growth has been quite uneven across occupational groups: it was among professionals and managers for whom the growth of temporary work in absolute terms had been the greatest (Robinson, 2000; Milward *et al.*, 2000; Heery and Salmon, 2000). What is striking is that, by the mid 1990s there was a perception that the British workforce was feeling particularly insecure, despite declining unemployment rates. There are various reasons that may explain the increased perception of insecurity. First of all, in the 1980s unemployment was concentrated in certain regions, industries and occupation groups. By the 1990s, however, unemployment had become more evenly distributed with the Greater London area having higher unemployment rates than Scotland. Felstead *et al.* (1998) found that job insecurity had decreased among workers in manufacturing, but had risen among those in finance and construction. The

INTRODUCTION

second factor is that job loss became more costly by the mid 1990s as a result of the unemployment system becoming less generous and the provided safety net becoming less adequate. The spread of unemployment among previously non-risk groups as well as the increasing cost of job loss put temporary workers in a more precarious position. Thirdly, the increase in the number of temporary jobs, especially among professionals due to structural changes, contributed to the increased sense of insecurity felt by temporary employees. Dex and McCulloch (1997) showed that in 1994 more than half of men and almost half of women in full-time temporary contracts stated that the reason they held temporary jobs was because they could not find permanent ones. The mostly unchosen nature of temporary employment also indicates that labour market flexibilization led to precarious employment relationships in the UK.

The empirical results concerning the impact of temporary employment in Britain on future careers are mixed. Booth *et al.* (2002) examined a sub-sample of white men and women from the first seven waves of the BHPS (1991-1997) and reported that, on average, temporary workers stated lower levels of job satisfaction, and received less work-related training compared to those in permanent employment as well as lower wages. Those working in seasonal/casual jobs suffered a larger wage growth penalty compared to those working with fixed-term contracts. On the other hand, the same study found some evidence for fixed-term temporary jobs acting as a stepping stone to permanent ones. Women who start their career with fixed-term contracts fully catch up with women who began on permanent contracts. The authors argue that entering the labour market via temporary employment for men may signal their low abilities, given that they did not immediately secure a permanent job. However, for women, who have

the option to decide between paid work and home production, entry via temporary work does not appear to have a signalling effect regarding their abilities.

A more recent study focused on the chances of entry into temporary employment and early career outcomes in the UK. Gebel (2010) compares the UK and Germany and reports that tertiary graduates in both countries were most likely to enter the labour market via temporary contracts, and that vocational school graduates were least likely to do so. While the propensity to work in temporary jobs decreased over time, employees in large firms are found to be more likely to hold temporary contracts than those in smaller firms. In terms of initial wages, in the UK temporary workers initially receive 10 percentage points less than permanent contract holders (this is much lower than initial wages in Germany), but the wage gap closes over time. In the UK, unemployment rates for labour market entrants via temporary contracts are much higher. Additionally, those entrants are more likely to leave the job market and re-enter further education in order to develop additional skills. All these findings, he argues, suggest that in the UK temporary workers are less sharply differentiated from the primary segment; however, this does not apply to all. Also, since the British education system is not highly stratified, the signalling value of education degrees is rather weak. For this reason, labour market entrants in temporary work tend to choose further education options to accumulate job specific human capital. In short, temporary employment in the UK seems to be a very heterogeneous category which may imply a 'dead end' for some while acting as a stepping stone to permanent employment for others.

The empirical evidence suggests that non-permanent employment in Continental Europe has substantial negative externalities for future career and earnings. The low-skilled, the lower-educated and the young seem to be particularly vulnerable in these countries.

INTRODUCTION

Temporary employment in the UK is not as wide-spread as in Central and Southern Europe, even though there was an increase in the share of temporary jobs in the mid 1990s. Moreover, temporary workers seem to be suffering negative career outcomes for shorter periods, mostly concentrated in the initial stages of labour market entry.

1.2. HOW IS INSECURITY RELATED TO THE FAMILY?

1.2a. Partnership formation

Early adult years are very crucial for young individuals because it is during this period that they leave the education system, integrate into the labour market and form long-lasting partnerships. The relationship between partnership formation and labour market integration has become more complicated with the increasing uncertainty of the economy. Most notably those who face insecure employment conditions are forced to make long-term binding life course decisions under uncertainty. Individuals are unable to make rational decisions under uncertainty because they cannot assign probabilities to the potential outcomes of their actions. Friedman *et al.*'s (1994) 'uncertainty reduction theory' can be used to understand decision-making processes under conditions of uncertainty. Young adults can cope with uncertainty by using two behavioural 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. If young individuals adopt the former strategy they delay partnership formation until they gather sufficient information about their uncertain career paths. If they use the latter strategy they form partnerships rather quickly because of their inability to use stable careers as an uncertainty reduction strategy. Mills (2000, 2005) applies this framework to relate uncertainty to partnership formation, which can also be used for labour market insecurity.

Three partnership outcomes may be expected as a result of increasing insecurity in the labour market based on uncertainty reduction theory. First, young adults may delay transition into married life until they consolidate their labour market activity. Individuals are expected to guarantee financial means in order to establish a married household with a suitable partner. Under increased uncertainty, young adults are no longer able to establish the financial means for forming independent households as much as their fathers' generation did. Moreover, since on average they take more time to shape their careers, their partnership search is also spread into across a longer period. Most notably those with higher human capital, i.e. with higher educational qualifications or occupational standing, may focus on their careers during times of insecurity and postpone marriage. All of these mechanisms lead to a delay in marriages in young adults' life course. Official statistics are consistent with this proposition. The average age at marriage for single men in the UK increased from 24 in 1980 to 30,1 in 2008, and for single women from 21,8 to 28,8 during the same period⁴.

Conversely, young individuals who have lower prospects in the labour market may use entry into partnership, especially into marriages, as a means of reducing insecurity. This may be expected especially from women with lower human capital. Finally, during a period of insecurity young individuals may prefer forming more flexible partnerships instead of marriages. Mills calls this *the flexible partnership hypothesis* (2005, pp. 285). Cohabitation provides young individuals with various benefits of married life, such as economies of scale and sexual companionship, without putting themselves under the strain which marriage would otherwise generate (Oppenheimer, 1994). We can observe

⁴ Office for National Statistics, Marriages in England and Wales, 2009, Age at marriage and previous marital status, Table 5.
<http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-210946>

INTRODUCTION

that in the UK there has been an increase in the proportion of individuals who cohabit before, if ever, marrying. The percentage of men ever cohabiting prior to marriage was 31,7 in the 1980-1984 period, and jumped to 78.8 between 2004-2007. A similar increase is observed among women cohabitation before marriage: from 30 per cent to 80.1 per cent over the course of the same period (Beaujouan and Ní Bhrolcháin, 2011). Individual's decisions regarding when to form partnerships and what type of unions to prefer are closely related to their work trajectories in their early adult years. They can adopt different strategies to cope with the insecurity they face in the labour market.

Current literature has empirically shown that early adulthood careers and experience of unemployment and temporary employment were related to the process of partnership formation. However, most of these studies focussed on a limited period of time in young individual's careers, thereby lacking complete work histories. This leads to underestimating the effect of insecurity spells which were experienced prior to the scope of the studies in question. Moreover, the issue of whether or not particularly vulnerable groups within the insecure labour force differ in transition into partnerships has not been extensively addressed. Chapter 2 aims at disentangling the relationship between the processes of labour market insecurity and partnership formation with a micro-level analysis of work and family histories. It uses the complete work and family histories of individuals starting from the age of 15 and follows them throughout their early life course. A detailed analysis of the unemployed and temporary employees with respect to their level of human capital is carried out in order to enlighten the issue of vulnerability within insecurity.

1.2b. Transition into parenthood

When individuals experience labour market insecurity their parenthood decisions are also affected by uncertainty, and they may use similar mechanisms to reduce uncertainty with respect to their fertility plans. Becoming a parent has long-term consequences for an individual's life. The addition of a baby to the family requires the allocation of financial resources and time over an extended period to the care of a new family member. For that reason, young individuals may postpone their transition into parenthood until they consolidate a stable career. On the contrary, for those who are unable to reduce uncertainty by focusing on their careers, namely individuals who are disadvantaged in the labour market due to a lack of human capital, having a child may be an effective means of handling insecurity.

In addition to the desire of reducing uncertainty, individuals' fertility decisions are argued to be shaped by two other mechanisms which are interrelated with one another: namely the 'income effect' and the 'price-of-time effect'. It is worth noting that these mechanisms originate from neoclassical fertility models which are based on traditional gender roles, and consider fertility only within partnerships. Men are assumed to be the main bread-winners and women the primary care-givers. Within this framework, the 'income effect' predicts that, when men experience labour market insecurity, they delay transition into fatherhood because there is a potential reduction of household income which raises the problem of providing for the child. Women's fertility decisions, in contrast, are determined by the 'price-of-time effect'. There is an opportunity cost attached to child-rearing. Since women are expected to be the main care-givers, they would need to reduce the hours of paid work to look after the baby. The opportunity cost of reduced hours spent for wage earning is lower for women who are in insecure labour

INTRODUCTION

market conditions than it is for women with stable career prospects, because the wage prospect they would give up is potentially lower. The ‘price-of-time effect’ predicts that unemployed women and those working in temporary employment are more likely to become mothers compared to women in permanent employment because of the lower opportunity cost of withdrawing from the labour market.

However, while individuals are increasingly facing more insecurity in their work careers, traditional gender roles are being eroded and the sequence of family events is also being modified. Many more individuals are conceiving or having their first child in cohabiting partnerships, and some of them marry upon the birth of the baby. Single-parent households are also becoming more common. Official statistics show the changing trend in parenthood in the UK. For example, between 1988 and 2007 in England and Wales the average age of motherhood for first births rose from 25.1 to 27.6⁵. In England and Wales, the proportion of children born outside marriages has increased tremendously in the last three decades, mostly as a result of births in cohabiting couples. In the late 1970s, around 10 per cent of all live births were outside marriages, whereas this same proportion reached 45 per cent in 2008 (Goodman and Greaves 2010, pp.7)⁶.

Transition into parenthood under increasing labour market insecurity has become more and more complicated in the last quarter of a century due to the changes in family demographics and employment relations. A vast number of empirical articles addressed the relationship between unemployment and parenthood, and the results seem to be inconclusive. Moreover, the issue of temporary work is almost completely ignored in

⁵ ONS birth statistics 1998, and 2008. FHM1 series no: 27 and no.36. Tables 1.7 and 1.7a, respectively.

⁶Their figures are based on Office for National Statistics, Birth Statistics PBH11 Live Births, 1838–2004, occurrence within/outside marriage and sex. Office for National Statistics, Series FM1, editions 30 and 36, tables 1.1, 3.9 and 3.10; edition 37, tables 1.1b (corrected), 3.9 and 3.10.

fertility analysis. Chapter Three focuses on timing of transition into parenthood based on the work histories of men and women, and aims at shedding more light on the mechanisms between insecurity and child-bearing behaviour. The chapter aims at providing a detailed analysis on male and female labour market insecurity as well as unbiased estimates on the impact of insecurity on the timing of parenthood.

1.2c. Well-being within family

It is well documented that labour market insecurity, especially unemployment, has a significant adverse impact on the well-being of individuals and their partners. Insecurity usually comes with financial constraint and socioeconomic deprivation, and these are among the strongest mediators between insecurity and poor well-being. Family members are jointly responsible for the economic welfare of the household. In times of labour market insecurity, families have to adapt to the changes and lower their living standards. They may be unable to make ends meet and are more likely to borrow money. The more debt they carry, the more likely they are to suffer from poorer mental and psychological health (WHO, 2011, p.7).

Insecurity also affects well-being via non-materialistic mechanisms. Organizational psychology literature suggested two models to explain the relationship between unemployment and stress (Fryer, 1991). First, according to the agency-restriction model (Fryer, 1986, 1992), labour market insecurity puts individuals in a situation where they are not able to plan their future as they wish. Insecurity leads to a perceived lack of control, which in turn results in feeling worried and anxious. Second, the latent deprivation model suggests that employment has numerous latent functions such as time structuring, social contacts, participation in collective purposes, status and identity as well

INTRODUCTION

as regular activity (Jahoda, 1982). Labour market insecurity is associated with actual or perceived loss of employment, and by consequence loss of the latent functions that employment provides. Studies showed that both unemployment and the anticipation of job loss are strong psychological stressors (for a review of empirical studies see Ferrie *et al.*, 1999). Consequently, both unemployment and temporary work are expected to cause poor well-being.

Insecurity also has consequences for spouses' well-being. Kanter (1977, p.47) hypothesized that 'Occupations contain an emotional climate as well that can be transferred to family life'. Based on this hypothesis, 'spillover theory' proposed that individuals' experiences in the labour market carry over into their non-work experiences such as family life and marriage (*inter alia* Piotrkowski, 1979; Pleck *et al.*, 1980; Staines, 1980). Insecurity in the labour market is expected to spill over into partnership relations, and anxiety, worry and other negative feelings generated by insecurity to create similar feelings in the partner. Moreover, it is argued that people and events share mutual influence and mutual interaction (Constantine, 1986). Within a family, a stressor first affects the member experiencing the change, then influences the other family members, which in turn affects the first member in circular loops or recurring chains of influence (Goldenberg & Goldenberg, 1991). In short, the negative effects of labour market insecurity are predicted to influence the person's partner, irrespective of the partner's gender. Most of the empirical studies demonstrated that there was a spillover effect from husbands' unemployment towards wives' well-being. Some studies found evidence for a symmetrical process for both partners' well-being (for a summary see Ström, 2003). However, research on how temporary work influences partners is almost non-existent.

The relationship between insecurity and well-being is analysed within the context of partnerships in Chapter Four. The negative consequences of unemployment on individuals' well-being are well documented in the literature. By contrast, the effect of temporary work on the well-being in the context of partnership has not been widely explored. Moreover, there are no longitudinal studies which have examined the well-being of spouses while focussing particularly on the transitions in couples' joint labour market status. Chapter Four seeks to fill in these gaps by analysing the changes in one's well-being as an outcome of the changes in their and their partners' labour market status. With an analysis of couples' matched labour market activity, it aims at revealing how dual-insecurity within households hampers well-being.

1.2d. Partnership dissolution

In addition to its' negative impact on the well-being of partnered individuals, labour market insecurity may also be related to the partnership outcomes of couples. Depending on the experience of insecurity in the labour market, some partnerships may result in dissolution. Unemployment and temporary work are both stressful situations. They potentially entail financial strain, uncertainty, feelings of insecurity, mental stress and a decrease in living standards. These may affect whether or not partners' expectations from the partnership are met, and may alter their commitment to the partnership.

Neoclassical models of the family suggest that individuals' partnership decisions are based on expected utility maximization. According to expected utility theory, decision makers choose between risky or uncertain prospects by comparing their expected utility values. Individuals choose to get and remain married as long as the expected utility from partnership is higher than not being in a partnership. Partnership dissolution takes place

INTRODUCTION

when the expected utility from marriage falls below the expected utility from divorce (Becker *et al.* 1977; Becker 1981). Experiences of unemployment and temporary work can lead to a reduction of expected utility from marriage, hence increasing the probability of separation. There are various ways in which labour market insecurity can alter the level of expected utilities from marriage. Unemployment and temporary work can affect the sex-specific specialization between spouses. If the couple's economic well-being is based on the male as the bread-winner, the expected utility from partnership can decrease significantly for women upon his entry into insecurity. Financial difficulty and instability which arise as a result of insecurity experienced by either of the spouses can also put strain on the partnership, reduce living standards, and thus decrease the expected utility from partnership. Insecurity poses uncertainty in terms of individuals' future career outcomes and income prospects. In the context of uncertainty, individuals are unable to predict the value of expected utility from being in a partnership. As living in uncertainty is undesirable, individuals may assign a higher expected value for being single than they do for being in a partnership, which is based on a context of uncertainty. This process may then trigger separation.

Another stream of research focuses on the psychological consequences of labour market insecurity, instead of utility maximization. Insecurity is associated with psychological ill-health which is mediated through financial hardship. It is well documented that financial incapability and financial distress cause psychological ill-health (for a summary of findings see Taylor *et al.*, 2011). Financial strain can have additional deleterious effects on couples, such as a decline in partnership quality and an increase in marital conflict. Vinokur *et al.* (1996) suggested that financial hardship reduces the satisfaction that individuals derive from marriages. According to their study, financial strain increases

symptoms of depression for both the individual experiencing insecurity and their partner. These depressive symptoms reduce partners' ability to provide social support, such as expressing concern and care, for the spouse who is unemployed or in temporary work. Depressive symptoms also increase partners' undermining behaviour such as criticism and insults. The combination of decreased support and a greater exposure to behaviour that undermines identity through criticism and insult increases the depressive symptoms and reduces marital satisfaction for the partner experiencing insecurity. The level of depression becomes even more severe than that which was present due to financial strain.

Partnership outcomes of married and cohabiting couples are investigated in Chapter Five. The impact of labour market insecurity on the risk of partnership dissolution is analysed for coupled men and women. The relationship between temporary work and partnership outcomes is mostly neglected in the previous literature. Chapter Five provides a detailed analysis of non-permanent employment and its impact on marital and cohabiting separations. The implications of joint labour market status on partnership outcomes are also explored by using matched couple information.

1.3. INSECURITY HYPOTHESIS AND VULNERABILITY WITHIN THE INSECURE LABOUR FORCE

The main hypothesis of this thesis is that unemployment and temporary work are insecure forms of labour market statuses compared to permanent employment, and family outcomes of individuals who experience labour market insecurity differ from those with secure labour market histories. Family and work spheres are central to most people's lives and they are closely connected domains. The quality of one's work life has important implications on one's family life. Insecurity has numerous negative effects on an individuals' well-being. It poses a threat to one's economic welfare, affects career

INTRODUCTION

prospects, reduces job satisfaction, as well as psychological and physical well-being. Family-related decisions and family outcomes of those who experience labour market insecurity are adversely affected. The *insecurity hypothesis* predicts that, when they are experiencing labour market insecurity, individuals are more likely to *a.)* delay partnership formation, *b.)* delay transition into parenthood, *c.)* report lower levels of well-being, and *d.)* separate from their partners compared to when they are in secure employment.

Yet, the insecure labour force is a heterogeneous group. Some individuals within the insecure workforce are more disadvantaged than others in terms of the level of accumulated human capital, occupational skill level, length of the insecurity spell or work hours. This thesis concentrates on these four sources of disadvantage, and defines the unemployed and temporary workers who have low educational attainment, who have low occupational skills, who experience longer spells in insecurity and who work part-time as *vulnerable*. These groups are expected to be affected by insecurity to a greater extent. Poor education outcomes and low skill levels are directly related to poor employment opportunities, and they may restrain individuals' ability to arrange their family lives according to their own will. A longer time spent in insecurity not only affects future career outcomes, but also exhausts individuals' material and psychological coping resources. Part-time work arrangements are another form of atypical employment, and are usually associated with low pay and lack of opportunities for training and promotion. Those in insecure employment may face a double disadvantage in the labour market if they are hired on part-time hours; consequently, their family lives may suffer from insecurity to a larger extent. This thesis takes into consideration the variation within the insecure labour force and examines how the experiences of unemployment and temporary work are mediated through vulnerability.

1.4. LONGITUDINAL APPROACH AND THE BHPS

To examine the impact of experiencing labour market insecurity on individuals' family outcomes, the thesis adopts a longitudinal approach. Longitudinal data are composed of a series of cross-sections of subjects. 'Observing a cross-section of subjects over time allows us studying dynamic, as well as cross-sectional, aspects of a problem' (Frees, 2004; p. 2). Longitudinal data can be collected in either a prospective or retrospective manner. In prospective design, the sample is surveyed multiple times in fixed or flexible intervals, which is called a panel survey. Each set of cross-sections in panel data is called a wave. By contrast, retrospective studies collect histories from a cross-sectional sample covering an extended period of time, which is also named recall data. Longitudinal studies have important advantages over cross-sectional ones. Longitudinal datasets are dynamic in nature: differences or changes in a variable from one period to the next are observed within the same dataset for the same individual unit, which allows the researcher to observe social change over time. Also, longitudinal datasets are more powerful in terms of revealing causal mechanisms. Since there are multiple records in changes within variables from one period to the next, it is possible to take into account the temporal order of events⁷. Thanks to these properties, longitudinal data gives researchers the opportunity to analyse life-cycle transitions as well as the interaction between two or more life spheres, such as family and work.

Longitudinal data also has some important drawbacks. A large number of subjects need to be observed on a yearly basis, which makes longitudinal studies very costly and laborious. In order to ensure heterogeneity across subjects, especially the initial sample

⁷ It is worth noting that temporality does not necessarily mean causation. Sometimes the effect can be observed before the cause, or there may be a factor z which causes x and then y .

INTRODUCTION

selection has to be designed very carefully. The most important shortcoming of longitudinal studies is their problem of attrition, which may arise in the case of panel data. Attrition refers to the gradual erosion of subjects from the first wave throughout consecutive ones. As a result of attrition, the size of the sample may be reduced considerably, thereby diminishing the efficiency of estimates. Additionally, subjects in the initial sample dropping out systematically rather than randomly leads to biased estimates. Attrition can happen as a result of mortality, migration or non-response. Luckily, many well-established panel studies reduce attrition rates to a minimum by tracking individuals when they move locations, and replace the drop-outs with similar subsamples, thereby maintaining representativeness. There are also several tools available to researchers to cope with the problem of attrition, such as ignoring the non-response cases, imputing the missing data, using maximum likelihood estimation, or weighting for non-response (Vandecasteele and Debels, 2007). Another significant drawback of longitudinal data is the problem of *recall error* or *recall bias*. Recall error usually happens in retrospective surveys due to events being either forgotten or omitted by the respondents. For example, it has been found that many unemployment spells are forgotten in retrospective surveys, especially among women (Jacobs, 2002). Besides, recall errors can be systematically correlated with factors such as education (Smith and Thomas, 2003; Peters, 1988). However, even though retrospective studies are prone to recall bias, they are preferred over cross-sectional studies by many social scientists.

In this thesis, I use the British Household Panel Study. The BHPS is a longitudinal study started in 1991 with a sample of approximately 10300 individuals coming from 5500 households which were drawn from 250 different areas of Great Britain. The sample is re-interviewed roughly every year, and children born of the original sample members are

added automatically to the sample. BHPS is comprised of 18 waves between 1991 and 2008. Individuals in the BHPS sample can be matched to the Understanding Society survey from Wave 2 onwards, covering the years after 2009. The main topics covered in the survey are household organisation, employment, accommodation, tenancy, income and wealth, housing, health, socio-economic values, residential mobility, marital and relationship history, social support, and individual and household demographics. In addition to the panel waves, the BHPS has a retrospective component. Pre-1991 life history records on employment and demographic experiences are recorded in additional files which were collected in Waves 2 and 3 for the original sample, and Waves 11 and 12 for the new respondents who were not present in the earlier waves (Lambert, 2006)⁸.

The BHPS is not immune to the issues related to longitudinal design and suffers, to a certain extent, from both attrition and recall error. There is extensive research on the magnitude and sources of attrition in the BHPS. Studies consistently reported that the BHPS is a high quality panel data in terms of attrition rates. For example, Lipps (2009) found that the overall attrition rate in the BHPS was smaller than those in the German Socio Economic Panel and the Swiss Household Panel. Uhrig (2008) reported that the attrition rate in the BHPS was broadly similar to those of other panel studies, and that non-response attrition was highest over the first five waves before levelling off. The quality report prepared by Buck et al. (2006) indicates that, among individuals who took part in Wave 1, certain groups were more likely to drop out and thus be underrepresented. These groups included those aged between 16 and 24, never married, unemployed, with

⁸ It is worth noting that the retrospective information of spouses were only collected in Wave 2. In this thesis, the analyses which rely on partners' retrospective information are skewed towards the original sample who were interviewed in 1991 and who stayed in the panel in 1992.

INTRODUCTION

no qualifications, not active in any organisations, who are residents of Inner-London, West Midlands and Merseyside, local authority and housing association tenants and who were in the bottom 40 per cent of the income distribution. However, they also found that the magnitude of underrepresentation of these groups was generally small, and these differences were largely removed by the application of weighting.

With respect to the retrospective data, several studies examined the reliability of the information on unemployment spells in the past and whether or not there were significant recall errors. The general conclusion of these studies is that the recall of unemployment periods were problematic in the BHPS however not more so than in other retrospective studies. For example, Elias (1997) compared unemployment levels from the Labour Force Survey with those from the BHPS and the Family and Working Lives Survey. He found that information coming from certain groups, especially from women and older individuals, suffered the most from recall error. According to the author, underreporting of unemployment can be explained by the undesirable nature of unemployment experience. It is more likely to be treated as undesirable knowledge by the agents. Another study comparing the BHPS and the Family and Working Lives Survey concluded that retrospective unemployment histories were reasonably reliable between these two surveys (Dex and McCulloch 1998). In short, the problems of attrition and recall bias pertain to the BHPS; however, compared to other longitudinal studies the magnitude of each problem is within the benchmark. Moreover, there is a large literature on the nature and sources of these problems in the BHPS which enables researchers to be aware of their consequences.

It is important to note that, although both the panel and retrospective files of the BHPS include a very comprehensive record for individuals' work and family histories,

synthesizing this information using the raw files can be extremely complicated. Mare (2006)⁹ and Pronzato (2008) prepared a ‘work-life history data’ and a ‘family data’, respectively, which combine the information in the panel and retrospective files. It is reported that these combined files improve the retrospective reliability of the records thanks to cross-checking and the correction of mismatches between information from different sources (Lambert, 2006). In this thesis, work and family histories are extracted from the aforementioned synthesized files, instead of from the raw retrospective records¹⁰.

1.5. EXPECTED CONTRIBUTIONS

This thesis aims to provide significant theoretical and methodological contributions to the growing literature on labour market insecurity and family relationships, and more generally to the field of sociology of labour market. The expected theoretical contributions are four-fold. First, the thesis provides a detailed analysis of two distinct sources of insecurity in the labour market: unemployment and temporary work. Studies repeatedly indicated an increase in insecurity in British employment relations as a result of the transformations that the economy underwent after the 1970s. Especially with the recessions that resulted in double digit unemployment rates, there had been an unprecedented interest in academic research on the consequences of unemployment. However, after the mid 1990s unemployment rates gradually declined and the proportion of employees working in temporary employment increased after a period of relative stability. This raises the question of whether the most important source of insecurity in the labour force shifted from the unemployed to the temporarily employed. This thesis

⁹ David Mare’s file is based on the files prepared by Halpin (2006)

¹⁰ Chapter Four relies on panel waves only.

INTRODUCTION

aims at comparing the two forms of labour market insecurity in terms of their impact on family outcomes. It intends to do this by applying parallel analysis for unemployment and temporary work by using the same sample and statistical methods.

The second contribution that this thesis seeks to achieve is to assess whether or not insecurity in the workforce is gendered. During the same period, that is to say after the 1970s, the share of women in the British workforce continued to grow, and some suggested that male and female careers began to converge. However, many studies indicated that women increasingly occupied atypical jobs which were inherently poorer in quality. This left researchers with the issue of whether or not insecurity affected male and female labour market careers to the same extent, or insecurity was gendered towards women. This thesis provides separate analyses on men and women's work histories and family outcomes with the intention of comparing how insecurity affects different aspects of men's and women's family lives.

Third, research on the family is usually undertaken at the individual level. The information used frequently comes from either men, or women. When it comes from both resources, it is treated separately. Very few studies match couples' work and family histories and analyse the relationship between labour market insecurity and family outcomes from within the couple. This thesis examines not only gender differences in insecurity, but also the implications of joint insecurity within couples.

Finally, this thesis intends to further illuminate the differences and similarities between marriages and cohabitations in the context of labour market insecurity. As in many other industrial societies, the prevalence of cohabiting partnerships in the UK has increased significantly. While some consider cohabitation as an alternative to marriage, others argue that individuals enjoy cohabitation as an adaptive strategy when they cannot afford

to marry. Although various studies widely compared the nature of the two types of partnerships, a systematic analysis of the impact of unemployment and temporary work on different aspects of family life among married and cohabiting couples is needed. This thesis aims at filling this gap by repeating identical sets of analyses for those in marriages and cohabiting.

This thesis hopes to provide methodological contributions as well. In the last two decades with the spread of longitudinal studies and new statistical methods, the area of life course sociology underwent great progression. Most notably panel studies with retrospective components gave rise to an increasing use of event history analysis, which enabled the disentanglement of complex life-course events. This thesis builds on the current body of research by using longitudinal data and methods. The BHPS provides a rich source of information on work and family lives, thanks in particular to the detailed retrospective records. However, most of the research on labour market and family relations using this dataset neglected the retrospective information and used only the panel components, which potentially caused the problem of missing histories prior to the entry of the respondent into the panel. In Chapters Two, Three and Five, retrospective files are used in addition to the panel waves in order to construct monthly work-family histories which follow individuals from the age of 14, since this is the lowest age at which certain respondents were observed to form partnerships or conceive their first child. The subsample used in these chapters include only the respondents for whom a complete work and family history is available. The generous definition of the observation window enabled us to cover entire work, partnership and fertility histories of the respondents from the age of 14 onwards. This not only avoids the problem of left-censoring, but also helps to take into account bias which may arise due to individual-specific factors potentially

INTRODUCTION

related to the occurrence of repeated events by some respondents. Chapter Five analyses all partnerships into which the respondents has entered until the end of the observation period. The risk of partnership dissolution in all episodes coming from the same respondent is unlikely to be independent. Due to certain unobserved factors, some individuals may be more likely to enter into and end partnerships. Failing to include all partnership episodes may result in failing to account for unobserved heterogeneity. This thesis intends to contribute to the existing literature by using the complete work and family histories from the BHPS, and by using models appropriate to deal with unobservable individual factors which may bias the estimates.

1.6. THESIS STRUCTURE

This thesis consists of four independent but interrelated empirical chapters which are brought together with an introductory and conclusive chapter. Each empirical chapter examines a particular family outcome as a product of labour market insecurity. A topic-specific literature review is presented for each chapter, which is then followed in each case by a discussion of specific research questions and hypotheses. The empirical analyses in all the chapters are based on the same data source, the British Household Panel Study, and longitudinal methods are applied. However, the data is set differently in each chapter depending on the family outcome in question. The statistical models used in the empirical analyses also differ. The properties of the data and methods are presented individually for each empirical chapter. All chapters aim at comparing four sets of issues: the impact of unemployment and temporary work, gender differences in family outcomes, the implications of joint-insecurity at the couple level, and differences between marriages and cohabitations. For this reason, separate analyses are carried out for each aforementioned subset.

The empirical chapters are ordered according to the timeline of family events during one's life course, although these outcomes do not necessarily happen in this order for all respondents. Chapter Two, the first empirical chapter, focuses on young individuals' partnership formation process. It follows the work histories and partnership outcomes of men and women from the age of 14 and predicts the transition rates of entries into first marriage and/or cohabitation based on the experience of labour market insecurity using discrete time event history analysis. A total of 5248 individuals for whom complete work and family history data is available are analysed, 4176 of them forming marriages during the observation period. Separate models are run for the impact of unemployment and temporary work. In the case of unemployment, the likelihood of partnership formation in unemployment spells is compared to those in employment. In the case of temporary work, the reference category is the spells of permanent employment. Four important mediating factors are included in the models in order to examine the issue of vulnerability within the labour market, which are the duration of the insecurity spell, skill and education level of the respondent in insecurity, and work hours. Yearly aggregate unemployment rates, cohort and time dummies are added as control variables.

Chapter Three, the second empirical chapter, looks into transition into parenthood by using a similar approach. Men and women are observed since the age of 14 on a monthly basis until they conceive their first child. Fertility histories of 6540 individuals are combined with their work and partnership histories. Partners' characteristics and work histories, where available, are also matched with individual data, which allows the analysis of insecurity at the couple level. Once again, separate models are applied here for men and women, and for unemployment and temporary work. Vulnerability within the labour market is examined through similar mediating factors, namely duration of the

INTRODUCTION

insecurity spell, educational and skill levels, and part-time versus full-time work hours. Aggregate unemployment rates, type of partnership, cohort, age and age squared are controlled for. In order to address the issue of young male parenthood, additional models are applied by interacting unemployment with age and marital status. All analyses are carried out by using discrete time event history analysis. The problem of unobserved heterogeneity is handled with the help of frailty models.

Chapter Four, the third empirical chapter, investigates the well-being of individuals within partnerships, and extends the analysis to the well-being of the partner. Partnership quality and happiness within partnership is measured with four distinct indicators: partnership satisfaction, life satisfaction, subjective well-being (based on the GHQ-12) and feeling depressed. By using fixed-effect panel data models, this chapter examines how changes in one's well-being are affected by a) the changes in one's labour market status b) the changes in a partner's labour market status, and c) the changes in a couple's joint labour market status. Labour market and well-being variables are obtained from the 18 waves of the BHPS which consists of a sample of approximately 12500 individuals between 1991 and 2008. Separate models are conducted for both men and women, but the issue of whether or not men's well-being is affected by insecurity to a greater extent is also investigated. The relationship between labour market insecurity and well-being is possibly mediated by various factors. This chapter explores the interaction of labour market insecurity with length of the spell, education and skill levels, subjective job insecurity, availability of social support, and presence of young children. Self-reported financial difficulty, regional monthly unemployment rates, partner's well-being, time spent in a relationship, presence of children, age and age squared, which may predict well-being outcomes, are also controlled for.

Chapter Five, the last empirical chapter, looks at partnership outcomes and explores whether or not labour market insecurity increases the risk of partnership dissolution. Again, family and life histories from the BHPS sample are brought together. All partnerships that individuals have formed until the end of the observation period are included which amounts to approximately 5040 individuals nested within 8740 partnerships. Since partner's information is also available, labour market status of the partner and of the couple are likewise examined as determinants of partnership dissolution. In line with the first three empirical chapters, particularly vulnerable groups in terms of duration of the insecurity spell, education and skill level, and work hours are analysed. Risk of partnership dissolution has many other predictors, such as premarital conception/childbirth, presence of young children, previous divorce, being a teenager at the time of partnership formation, cohort, ethnicity, and age. These variables are all controlled for in order to detect the net effect of unemployment and temporary work on partnership dissolution. Multilevel discrete time event history analysis is used, and unobserved heterogeneity is taken into account via frailty models.

The findings from each empirical chapter and how they are related to each other are reviewed in the conclusion. Whether or not temporary work affects family outcomes as much as unemployment does, and the gender differences in the relationship between labour market insecurity and family are discussed. The similarities and differences between marital and cohabiting unions in terms of their response to insecurity, and the implications of information at the couple level in family analysis are also discussed. Limitations of this thesis and avenues for further research are presented at the end of the conclusive chapter.

INTRODUCTION

References:

- Ackum, Susanne. 1991. "Youth Unemployment, Labor Market Programs and Subsequent Earnings." *Scandinavian Journal of Economics* 93(4):531-43.
- Arulampalam, Wiji. 2001. "Is unemployment really scarring? Effects of unemployment experiences on wages." *Economic Journal* 111:585-606.
- . 2002. "State Dependence in Unemployment Incidence: Evidence for British Men Revisited." IZA.
- Arulampalam, Wiji, Paul Gregg, and Mary Gregory. 2001. "Unemployment Scarring." *Economic Journal* 111(475):577-84.
- Atkinson, John. 1984. "Manpower strategies for flexible organisations." *Personnel Management* 15(8):28-31.
- Barbieri, Paolo. 2007. "Atypical Employment and Welfare Regimes." Equalsoc Policy Paper, vol. 1, 2007.
- Barbieri, Paolo, and Stefani Scherer. 2009. "Labour Market Flexibilization and its Consequences in Italy." *European Sociological Review* 25(6):677-92.
- Beaujouan, Éva , and Máire Ní Bhrolcháin. 2011. "Cohabitation and marriage in Britain since the 1970s." in *Population Trends Nr.145*, edited by Chris W Smith. London: Office for National Statistics.
- Becker, Gary. 1993 [1964]. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. Chicago: London: University of Chicago Press.
- Becker, Gery S. 1981. *A treatise on the family*. Cambridge: Harvard University Press.
- Becker, Gary S., Elisabeth M. Landes, and Robert T. Michael. 1977. "An Economic Analysis of Marital Instability." Pp. 1141 in *Journal of political economy*: University of Chicago Press.
- Booth, Alison L. , Marco Francesconi, and Jeff Frank. 2002. "Temporary Jobs: Stepping Stones or Dead Ends." *The Economic Journal* 112(June):F189–F213.
- Buck, Nicholas , Jonathan Burton, Heather Laurie, Peter Lynn, and Noah S. C. Uhrig. 2006. "Quality Profile: British Household Panel Survey Version 2.0: Waves 1 to 13: 1991-2003." edited by Peter Lynn: Institute for Social and Economic Research.
- Burda, Michael C., and Antje Mertens. 2001. "Estimating Wage Losses of Displaced Workers in Germany." *Labour Economics* 8(2001):15-41.
- Cam, Surhan, John Purcell, and Stephanie Tailby. 2003. "Contingent Employment in the UK." Pp. 52-78 in *Contingent Employment in Europe and the United States*, edited by Ola Bergström and Donald Storrie. Cheltenham: Edward Edgar.
- Casey, Bernard, Hilary Metcalf, and Neil Millward. 1997. *Employers' Use of Flexible Labour*. London: Policy Studies Institute.
- Constantine, Larry. 1986. *Family paradigms*. New York: Guilford.
- Dex, Shirley, and Andrew McCulloch. 1997. *Flexible Employment*. Basingstoke: Macmillan.
- . 1998. "The Reliability of Retrospective Unemployment History Data." *Work, Employment and Society* 12(3):497-509.
- di Paola, Vanessa, Stéphanie Moullet, and Louis-André Vallet. 2010. "Atypical Employment and Welfare Regimes: The French Case." in *Equalsoc Final Conference*. Amsterdam.
- Elias, Peter. 1997. "Who Forgot They Were Unemployed?". Colchester: ISER Working Paper, No. 1997-19.
- Esping-Andersen, Gøsta , and Marino Regini. 2000. *Why Deregulate Labour Markets*.

- Oxford: Oxford University Press.
- Evans, Phil. 1998. "Why has the female unemployment rate fallen so much in Britain?" in *Bank of England Working Paper No:87*. London.
- Felstead, Alan, Brendan Burchell, and Francis Green. 1998. "Insecurity at Work: Is Job Insecurity Really Much Worse Now than Before." *New Economy* 5(3):180-84.
- Ferrie, Jane E., Michael G. Marmot, John Griffiths, and Erio Ziglio (Eds.). 1999. *Labour market changes and job insecurity: a challenge for social welfare and health promotion*: WHO Regional Publications, European Series, No. 81.
- Frees, Edward W. 2004. *Longitudinal and Panel Data: Analysis and Applications in Social Sciences*. Cambridge: Cambridge University Press.
- Friedman, Debra, Michael Hechter, and Satoshi Kanazawa. 1994. "A Theory of the Value of Children." *Demography* 31(3):375-401.
- Fryer, David. 1986. "Employment deprivation and personal agency during unemployment: A critical discussion of Jahoda's Explanation of the psychological effects of unemployment." *Social Behaviour* 1:3-24.
- . 1992. "Psychological or Material Deprivation: Why does unemployment have mental health consequences?" in *Understanding Unemployment: New Perspectives on active labour market policies*, edited by Eithne McLaughlin. London: Routledge.
- Gallie, Duncan. 1999. "Unemployment and Social Exclusion in the European Union." *European Societies* 1/2:139-67.
- Gallie, Duncan, Serge Paugam, and Sheila Jacobs. 2003. "Unemployment, Poverty and Social Isolation - Is There a Vicious Circle of Social Exclusion?" *European Societies* 5(1):1-32.
- Gallie, Duncan, and Serge Paugam. 2000. "The Experience of Unemployment in Europe: The Debate." in *Welfare Regimes and the Experience of Unemployment in Europe*, edited by Duncan Gallie and Serge Paugam. Oxford: Oxford University Press.
- Gallie, Duncan, Michael White, Yuan Cheng, and Mark Tomlinson. 1998. *Restructuring the Employment Relationship*. Oxford: Clarendon Press.
- Gallie, Duncan, Jonathan Gershuny, and Carolyn M. Volger. 1994. "Unemployment, the Household, and Networks." in *Social change and the experience of unemployment*, edited by Duncan Gallie, Catherine Marsh, and Carolyn M. Vogler. Oxford: Oxford University Press.
- Gebel, Michael. 2009. "Fixed-Term Contracts at labour Market Entry in West Germany: Implications for Job Search and First Job Quality." *European Sociological Review* 25(6):661-75.
- . 2010. "Early Career Consequences of Temporary Employment in Germany and the United Kingdom." *Work, Employment and Society* 24(4):641-60.
- Gebel, Michael, and Johannes Giesecke. 2009. "Labour Market Flexibility and Inequality: the Changing Risk Patterns of Temporary Employment in West Germany." *Journal for Labour Market Research* 42(3):234-51.
- Giesecke, Johannes. 2009. "Socio-Economic Risks of Atypical Employment Relationships: Evidence from the German Labour Market." *European Sociological Review* 25(6):629-46.
- Giesecke, Johannes, and Martin Groß. 2003. "Temporary Employment: Chance or Risk?" *European Sociological Review* 19:161-77.
- Goldenberg, Irene, and Herbert Goldenberg. 1991. *Family therapy: An overview (3rd ed)*. Pacific Grove, CA: Brooks/Cole.

INTRODUCTION

- Golsch, Katrin. 2003. "Employment Flexibility in Spain and its Impact on Transitions to Adulthood." *Work, Employment and Society* 17(4):691-718.
- Goodman, Alissa , and Ellen Greaves. 2010. "Cohabitation, marriage and child outcomes." Institute for Fiscal Studies, IFS Commentary C114, (<http://www.ifs.org.uk/publications/4823>).
- Gregory, Mary and Jukes. 2001. "Unemployment and subsequent earnings: Estimating scarring among British men 1984-1994." *Economic Journal* 111:F607-625.
- Halpin, Brendan. 2002. "British Household Panel Survey Combined Work-Life History Data, 1990-1999 [computer file]. 3rd ed." Economic and Social Research Council Research Centre on Micro-Social Change, University of Essex, Institute for Social and Economic Research; distributed by The Data Archive, University of Essex, Colchester.
- Hauser, Richard, and Brian Nolan. 2000. "Unemployment and Poverty: Change over Time." in *Welfare Regimes and the Experience of Unemployment in Europe*, edited by Duncan Gallie and Serge Paugam. Oxford: Oxford University Press.
- Heady, Patrick, and Malcolm Smith. 1989. *Living Standards during Unemployment: A Report of a Survey of Families Headed by Unemployed People*. London: H.M.S.O.
- Heery, Edmund, and John Salmon. 2000. *The Insecure Workforce*. London: Routledge.
- Jacobs, Sheila E. 2002. "Reliability and recall of unemployment events using retrospective data." *Work, Employment and Society* 16(3):537-48.
- Jahoda, Marie. 1982. *Employment and Unemployment. A Social-Psychological Analysis*. Cambridge: Cambridge University Press.
- Jamet, Stéphanie. 2006. "Improving Labour Market Performance in France." OECD Economics Department Working Papers, 504.
- Julkunen, Ilse. 2002. "Social and Material Deprivation among Unemployed Youth in Northern Europe." *Social Policy and Administration* 36(3):235.
- Kanter, Rosabeth Moss 1977. *Work and family in the United States: A critical review, and agenda for research and policy*. New York: Russell Sage Foundation.
- Lambert, Paul. 2006. "The British Household Panel Survey: Introduction to a longitudinal data resource." Working Paper 2 of 'Longitudinal Data Analysis for Social Science Researchers', ESRC Researcher Development Initiative training programme www.longitudinal.stir.ac.uk/wp/lda_2006_2.pdf.
- Layte, Richard, Henrik Levin, John Hendrickx, and Ivano Bison. 2001. "Unemployment and cumulative disadvantage in the labour market." in *Welfare Regimes and the Experience of Unemployment in Europe*, edited by D. Gallie and S. Paugam. Oxford: Oxford University Press.
- Leonard, Jonathan , and Marc Van Audenrode. 1995. "The Duration of Unemployment and the Persistence of Wages." CEPR Discussion Papers 1227.
- Lipps, Oliver. 2009. "Attrition of Households and Individuals in Panel Surveys." DIW Berlin: SOEP papers on Multidisciplinary Panel Data Research, no. 164.
- Mallon, Mary, and Joanne Duberley. 2000. "Managers and Professionals in the Contingent Workforce." *Human Resources Management Journal* 10(1):33-47.
- Mare, David. 2006. "Constructing Consistent Work-life Histories: A guide for users of the British Household Panel Study." Colchester: ISER Working Paper Series: 2006-39.
- McGinnity, Frances. 2004. *Welfare for the Unemployed in Britain and Germany*. Cheltenham: Edward Elgar Publishing.
- Mills, Melinda. 2000. *The transformations of partnerships. Canada, the Netherlands and*

- the Russian Federation in the Age of Modernity*. Amsterdam: Thela Thesis Population Studies Series.
- . 2005. "The transition to adulthood in Canada. The impact of irregular work shifts in a 24-hour economy." Pp. 277-304 in *Globalization, Uncertainty and Youth in Society*, edited by Hans-Peter Blossfeld, Erik Klijzing, Melinda Mills, and Karin Kurz. Oxford: Routledge.
- Millward, Neil, Alex Bryson, and John Forth. 2000. *All Change at Work? British Employment Relations 1980-1998, as Portrayed by the Workplace Industrial Relations Survey Series*. London: Routledge.
- Moylan, Sue, Jane Millar, and Richard Davies. 1984. *For Richer, For Poorer? DHSS Cohort Study of Unemployed Men*. London: H.M.S.O.
- OECD. 1999. *Employment Outlook*. Paris: OECD.
- . 2006. *Employment Outlook*. Paris: OECD.
- ONS. 1998. "Birth Statistics Review of the Registrar General on births and patterns of family building in England and Wales, 1998, Series FM1 no.27."
- . 2008. "Review of the National Statistician on births and patterns of family building in England and Wales, 2008, Series FM1 no.36."
- . 2009. "Marriages in England and Wales, Age at marriage and previous marital status, Table 5."
- Oppenheimer, Valerie Kincade. 1994. "Women's Rising Employment and the Future of the Family in Industrial Societies." *Population and Development Review* 20(2):293-342.
- Paugam, Serge. 1996. "Poverty and Social Disqualification: A Comparative Analysis of Cumulative Social Disadvantage in Europe." *Journal of European Social Policy* 6:287-303.
- Paugam, Serge, and Helen Russell. 2000. "The Effects of Employment Precarity and Unemployment on Social Isolation." in *Welfare Regimes and the Experience of Unemployment in Europe*, edited by Duncan Gallie and Serge Paugam. Oxford: Oxford University Press.
- Paugam, Serge. 1996. "A new social contract? Poverty and social exclusion: a sociological view." EUI Working Papers, European University Institution 96/37.
- Peters, Elizabeth H. 1988. "Retrospective versus panel data in analysing lifecycle events" *Journal of Human Resources* 23(4):488-513.
- Pichelmann, Karl, and Monika Riedel. 1993. "Unemployment Duration and the Relative Change in Individual Earnings: Evidence from Austrian Panel Data ": Research Memorandum No. 317 (Institute for Advanced Studies, Vienna).
- Piotrkowski, Chaya S. 1979. *Work and the family system*. New York: Free Press.
- Pleck, Joseph H, Graham L. Staines, and Linda Lang. 1980. "Conflicts between work and family life." *Monthly Labor Review* 103(3):29-32.
- Polavieja, Javier. 2006. "The Incidence of Temporary Employment in Advanced Economies: Why is Spain Different?" *European Sociological Review* 22(1):61-78(18).
- Pronzato, Chiara. 2008. "BHPS Family File." edited by University of Essex Institute for Social and Economic Research; distributed by The Data Archive, Colchester.
- Purcell, Kate. 2000. "Gendered employment insecurity." in *The Insecure Workforce*, edited by E. Heery and J. Salmon. London: Routledge.
- Ritchie, Jane. 1990. *Thirty Families: Their Living Standards in Unemployment*. London: H.M.S.O.
- Robinson, Peter. 2000. "Insecurity and Flexible Workforce: Measuring the Ill-defines." in *The Insecure Workforce*, edited by Edmund Heery and John Salmon. London:

INTRODUCTION

- Routledge.
- Smith, James P. , and Duncan Thomas. 2003. "Remembrances of things past: Test–retest reliability of retrospective migration histories." *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 166(1):23-49.
- Spence, Michael. 1974. *Market Signalling: Informational Transfer in Hiring and Related Screening Processes*. Cambridge, Massachusetts: Harvard University Press.
- Staines, Graham L. 1980. "Spillover vs. compensation: A review of the literature on the relationship between work and nonwork." *Human Relations* 33:111-29.
- Ström, Sara. 2003. "Unemployment and Families: A Review of Research." *Social Service Review* 77(3):399-430.
- Taylor, Mark P., Stephen P. Jenkins, and Amanda Sacker. 2011. "Financial capability and psychological health." *Journal of Economic Psychology* 32(5):710-23.
- Tilly, Chris. 1992. "Dualism in Part-Time Employment." *Industrial Relations* 31(2):330-47.
- Tregaskis, Olga. 1997. "The "Non-permanent" Reality!" *Employee Relations* 19(6):535-54.
- Uhrig, Noah S. C. 2008. "The Nature and Causes of Attrition in the British Household Panel Study." Colchester: ISER Working Paper Series, No: 2008-05.
- Vandecasteele, Leen , and Annelies Debels. 2007. "Attrition in Panel Data: The Effectiveness of Weighting." *European Sociological Review* 33(1):81-97.
- Vinokur, Amiram D., Richard H. Price, and Robert D. Caplan. 1996. "Hard Times and Hurtful Partners: How Financial Strain Affects Depression and Relationship Satisfaction of Unemployed Persons and Their Spouses." Pp. 166-79 in *Journal of Personality & Social Psychology*.
- WHO. 2011. "Impact of economic crises on mental health." Copenhagen: World Health Organization Regional Office for Europe.

2

LABOUR MARKET INSECURITY AND PARTNERSHIP FORMATION

CHAPTER TWO:

LABOUR MARKET INSECURITY AND PARTNERSHIP FORMATION:

AN ANALYSIS OF EARLY WORK HISTORIES AND TRANSITION INTO MARRIAGE AND COHABITATION AS FIRST PARTNERSHIP

CHAPTER 2

The aim of this chapter is to investigate the relationship between labour market insecurity and partnership formation process in Great Britain. Internationalization of the markets and flexibilization of employment relations brought about significant restructuring of the organization of work life, and the United Kingdom was not an exception to the transformations taking place across the globe. After the early 1970s British labour market underwent two important changes. On the one hand, unemployment rates grew gradually after 1970s and reached worrying levels in the 1980s and once again in the mid 1990s. On the other, there has been a shift away from standard forms of employment contracts towards non-permanent ones such as fixed-term contracts, which resulted in a fragmentation of the work force and diminishing of stable careers.

One major consequence of these changes in employment relations is that the return of mass unemployment and spread of non-standard types of employment diminished the overall stability of employment careers, which resulted in an increase in labour market insecurity, particularly for less experienced new labour market entrants. Economic and sociological theories suggest that unemployment and precarious employment not only impose insecurity and uncertainty at the actual time of occurrence, but also have a long term ‘scarring’ effect on future employment conditions. Earlier research has demonstrated that past unemployment leads into future unemployment and is correlated with lower job tenure as well as reduced earnings, and this effect is persistent for years after the actual unemployment spell is over (Arulampalam, 2001; Gregory and Jukes, 2001). When we draw our attention to the consequences of precarious employment the explanations in the literature are conflicting. One argument suggests that non-standard types of employment act as ‘entry ports’ and have a positive impact on subsequently getting a stable and secure job in the primary labour market. This line of argumentation suggests that, stepping into

labour market with non-standard types of employment is better than not working because those employees have the opportunity to acquire specific human capital and build up work related social capital. However, it also been suggested that there are strong negative aspects of non-standard employment. One is the possible stigma effect that employers can attach to employees in non-standard employment who failed to be selected for the primary labour market on the first place. Additionally, employers might prefer to invest less on temporary workers' training, and as a result, these employees could accumulate less human capital than permanent ones.

Entry into the labour market is one of the most significant transitions that young individuals go through in their early adulthood years, and labour market insecurity that they may encounter in initial stages of employment career can affect the timing of transitions in their family domains. The difficulties young individuals may face at this stage in the work-life sphere could affect their transition into partnership. This chapter aims at examining the impact of early adulthood work histories on the timing of partnership formation in the United Kingdom using longitudinal data and discrete-time event history analysis methods. It concentrates on first order partnerships meaning that the transition into first marriages and first cohabitations are examined. The first part of the chapter overviews theories of marriage timing and spells out how labour market insecurity is related to the timing of first partnerships. The second part presents the research questions and hypotheses tested in this chapter. In the third part data and methods are summarized. An evaluation of the results is presented in part four. The chapter is wrapped up with a discussion of the results.

2.1 A REVIEW OF LITERATURE: HOW LABOUR MARKET INSECURITY AFFECTS PARTNERSHIP FORMATION?

In this section I overview the theories of marriage timing focusing on the economic determinants of partnership formation. I present these theories by applying them in the context of labour market insecurity and highlight the mechanisms behind how labour market insecurity may affect the timing of first partnerships. Both economic and sociological research has placed great emphasis on the role of economic factors on decisions in the family domain; therefore I touch upon the theories from both schools.

Briefly, these theories suggest the following ideas. First, sex-specialization theory puts an emphasis on traditional male bread-winner, female home-maker roles and argues that labour market insecurity diminishes men's ability to specialize in a bread-winning role, and causes a delay in men's transition into marriage. Yet, it accelerates women's entry into marriage since the gains from marriage increase in the context of labour market insecurity for women. Economic independence theory maintains that as a result of labour market insecurity young adults postpone entry into marriage since they cannot guarantee the financial means to establish an independent household. Uncertainty theory claims that labour market insecurity causes a delay in timing of marriage by creating uncertainty with regards to young men's and women's current and future socioeconomic statuses. According to assortative mating theory, young adults tend to marry assortatively, but labour market insecurity reduces the chances of marrying assortatively, hence delays marriage. Finally, cohabitation theory suggests that in the presence of labour market insecurity young individuals tend to delay marriages and form cohabitational partnerships instead, which functions as an adaptive strategy. Sex-specialization theory presupposes specialized sex roles, while other theories lean towards a more egalitarian arrangement

among men and women, and assume that they are complementary to each other in labour market.

2.1a. Sex-specialization theory:

This theory argues that labour market insecurity delays marriage by reducing the gains from marriage because it hinders sex-specialization. In sociological theory differentiated sex-roles have been identified as an important element for a well functioning society. Traditional male breadwinner female homemaker family model has been regarded as a functional necessity for family as well as for society. Durkheim (1960) used the concept of sexual division of labour as an analogy for organic society to build up his theory of occupational division of labour and interdependence in a society. Parsons (1949) argued that sex role segregation was the key element to marital stability since competition between man and woman disrupts the family.

Later on Becker and others developed the economic theory of marriage which emphasizes that major gains to marriage arise from the mutual dependence of the spouses (Becker, 1981; Mincer and Polacheck, 1974; Schultz, 1974). According to this, there are different sources of gains to marriage, and the most important one is satisfied when one partner has comparative advantage in the market, and the other in the household. That way, the couple can maximize their gains from marriage by *specialization and exchange*. Traditionally men have the comparative advantage in the labour market whereas women have the comparative advantage in doing home-production, especially during the early months of childrearing. Since men's and women's utility functions are different due to this segregation, they are perceived as trading partners. This trade, in which men and women offer different things to each other, is the source of gains from marriage.

CHAPTER 2

One of the main implications of the economic theory of marriage is that sexual division of labour has become less advantageous as women's labour market participation and earnings rose. The incentives for women to marry reduced when they became economically independent (Becker, 1981). This resulted in an increase in non-marriage, delayed marriages, marital instability, and a decline in fertility.

However, the idea that women's increasing employment is associated with a deterioration of family as an institution has been subject to criticism (Blossfeld and Drobnič, 2001; Oppenheimer, 1988) in so far as it ignores the changes in men's market relations. According to critiques, deterioration in men's earnings, especially for new labour market entrants, is the reason behind a decline in marriage rates. Besides the drawbacks, the very logic of the economic theory of marriage suggests that labour market insecurity is associated with loss of comparative advantage of men in the market. In a traditional family, men expect to benefit from their wives, since women are more specialized in home-production; and women expect to rely on their husbands since men are specialized in gainful employment in the labour market. When men experience job insecurity, they allocate less time to market activities, invest less in human capital, become less-specialized and less competent trading partners in the marriage market, and their entry into partnership is consequently delayed. In this context, job insecurity does not have the same implication for women, since they are not expected to have comparative advantage in the labour market. Worse career prospects due to job insecurity would encourage women to early partnerships because the gains from marriage would be higher than remaining single. In short, labour market insecurity undermines sex-specific specialization by reducing the comparative advantage of men in the market, and delaying their entry into marriage, increasing the likelihood of women's entry into partnerships.

2.1b. Economic independence theory:

This theory maintains that as a result of labour market insecurity young adults postpone entry into marriage because they cannot guarantee financial means to establish an independent household. In modern societies young couples are expected to set up an independent household when they marry. However at the early stages of their careers, young adults' earnings are relatively low, and in many countries they are more likely to experience poverty than other age groups (Aassve *et al.*, 2007; Kangas and Palme, 2000). Job insecurity in particular complicates their formation of stable careers and delays their development as economically independent individuals. Economic independence is not only troublesome for young adults who experience poverty; those from higher socioeconomic classes also find it difficult to meet a socially defined minimal standard of housing (Oppenheimer *et al.*, 1997). In other words, there is a threshold effect, rather than an absolute poverty effect, because job insecurity in the early career years postpones the accumulation of resources required to set up an independent household at the desired standard. To sum up, young individuals from various social class backgrounds delay entry into first marriage as a result of the insecurity they experience in the labour market.

2.1c. Uncertainty theory and assortative mating:

This theory claims that labour market insecurity causes a delay in the timing of marriage because it poses uncertainty with regards to young men's and women's current as well as future socioeconomic statuses. In the last few decades the impact of globalization on increasing levels of uncertainty, the concentration of risk on more vulnerable groups (Beck, 1992, 2000; Castells, 1996) and the alteration in individuals' life courses (Blossfeld *et al.*, 2005) have all been extensively discussed among social scientists. The

CHAPTER 2

flexibilization of labour markets manifests itself in more and more precarious and lower-quality employment and in increases in incidences of irregular work contracts. Young individuals are particularly subject to job insecurity and their career development has been severely impeded. Since career development years coincide with other important life-long transitions, uncertainty that arises as a consequence of job insecurity prevents these young people from making long term binding decisions.

More specifically, in the theory of marriage timing Oppenheimer (1988) explains the timing of entering into a marital union as an outcome of transition into work. Work is a very important determinant of individuals' lifestyles and it is the major source of socio-economic status but, especially in young adulthood, work life is full of uncertainties. The variation in the timing of marriage, then, is affected by the extent of the difficulty people face in transition to a stable work career. Since men's economic activity mainly determines the lifestyle and socio-economic status of a family, the uncertainties in young men's transitions to stable work careers affect the timing of their marriage. However, with increasing female labour force participation and women's rising earnings potential, uncertainties in their work transitions add another set of exogenous factors which affect the timing of marriage. This theory predicts a delay in young men and women's entry into marriage as a result of increasing uncertainty in work careers and labour market insecurity.

This theory also assumes that young adults tend to marry assortatively. Young individuals postpone forming marital relationships because labour market insecurity reduces the chances of marrying assortatively. Marriage is a long term binding commitment and in order to secure a long lasting relationship individuals spend a great deal of time searching for a good match (Oppenheimer, 1988). Young adults choose their marriage partners on

the basis of some ascribed characteristics such as race, religion, physical appearance, parental background; and on some ascertained characteristics such as educational attainment and occupation. In the traditional male breadwinner family of Becker, gains to marriage are the highest if the partners are similar to each other in traits like physical capital, height, race, intelligence and preferences but different from each other in traits like earning potential, labour market attachment and occupation (Becker, 1973). Therefore Becker's economic theory of marriage predicts that women tend to marry men with a higher socio-economic status than themselves because men have comparative advantage in the labour market and women have comparative advantage in home production. Sociological studies on women's marital mobility also suggested that women have an incentive to look for mates with high occupational status since they share the status of the family, rather than determine the status themselves (Tyree and Treas, 1974).

With increasing female labour force participation and liberalization of sex roles, the importance of exchange between spouses has become less important. Many authors believe that women's economic resources have become increasingly attractive to men for various reasons (Davis, 1984; Schoen and Wooldredge, 1989). Firstly, specialization, which maximizes the gains from marriage, can actually be a risky strategy since spouses cannot substitute for each other in the unexpected event of loss of one of the spouses' skills, such as unemployment, long-term serious health problems, or death (Oppenheimer *et al.*, 1997). Second, women's earnings may enable men to realize their career ambitions by preventing them from settling for short term career benefits. Her employment can provide networks for his career development, or similarly her earnings can subsidize his career investments (Kalmijn, 1994). And thirdly, as it has been the case among American couples, women's labour market position can help to compensate for a fall in male real

wages. At the same time, industrialization and technological developments have increased living standards drastically in modern societies. While the opportunity cost of sole-homemaking for women has increased, the price to pay in order to enjoy the fruits of the advanced living standards via purchasing them in the market has rendered female employment unavoidable (Eggebeen and Hawkins, 1990). As a consequence dual-career couples emerged and became a fundamental family structure of advanced modern societies.

Since one's position in the labour market is a very strong determinant of current and future living standards, and social status in a household is shared; both men and women's labour market positions contribute to the socioeconomic well-being of a family. Both men's and women's work are important assets that they offer each other in the marriage market. It is easy to evaluate potential candidates in terms of race, religion or physical appearance but in the early years of career, when young adults are surrounded by uncertainties, assortative mating is difficult because it is hard to predict the future socioeconomic attributes of potential candidates. To summarize, job insecurity during early adulthood poses uncertainty, hinders assortative mating and results in delayed entry into marriage.

2.1d. Cohabitation theory:

Cohabitation theory claims that in the presence of labour market insecurity young individuals tend to delay marriages and prefer to form cohabitational partnerships as an adaptive strategy. While age at marriage has sharply increased in the last 30 years, a marked growth in non-marital cohabitation has also taken place in modern societies (Ermisch, 2005; Kiernan, 2002). The diffusion of non-marital cohabitation brought about debates on its nature: whether cohabitation is a substitute for marriage, or alternatively, a

stage in mate selection process. Some studies have shown that cohabiting and married couples have significant attitudinal and behavioural differences. Cohabitors hold less traditional family values and gender role ideologies than those held by married couples (Rindsfuss and Heuvel, 1990). They are more likely to have an egalitarian distribution of household tasks (South and Spitze, 1994). Cohabitors are less likely to form committed or lasting relationships (Bumpass and Smith, 1989), and to desire and have children (Manning and Landale, 1996).

Oppenheimer suggests that cohabitation is an adaptive strategy to the delay in marriage as a result of growing uncertainties in young men and women's careers. "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" (Oppenheimer, 1994; p. 308). Cohabitation may not only be a response to delayed marriages arising from the socioeconomic uncertainties young people go through, but also may be a major factor in rising delays in marriage. First, cohabiters who are planning to marry do not feel the pressure to do so soon because they already enjoy some of the benefits that marriage can provide. Second, cohabitations that do not work take a long time in one's life because cohabiters may not be fully engaged with the marriage market and not be searching alternative mates (Ermisch and Francesconi, 2000). In short, cohabitation is a response to uncertainties and delayed marriage (Clarkberg, 1999); and at the same time it is a crucial factor for delayed marriages.

2.2 RESEARCH QUESTIONS AND HYPOTHESES

1. To what extent does labour market insecurity affect the transition into first partnership? What aspects of it contribute to the timing of partnership formation?

If labour market insecurity affects the timing of partnership formation, then it is equally important to uncover through what sort of mechanisms labour market insecurity is related to the outcome. Previous studies concentrated on different aspects of insecurity such as current employment status, contract type of current job, type of first job in the labour market and time spent until obtaining a complete year stable employment. In this chapter I analyse two main aspects of labour market insecurity which are unemployment and temporary work and I measure two features of each: Current employment and contract type; length of unemployment and temporary work spells. First, current labour market insecurity may delay the transition into marriage as it creates a temporal uncertainty and can preclude young individuals from having the economic means to establish an independent household. Second, the length of labour market insecurity is examined because unemployment and temporary contracts prevent workers from accumulating human capital as much as permanent employees. Unemployment not only results in disruption of skill accumulation, but also increases the risk of future unemployment. Temporary workers are likely to be disadvantaged in terms of developing work-related skills due to the short term nature of the contract. However, more importantly, employers may be less willing to invest in temporary workers' training. As a result temporary employees would be more likely to get less rewarding jobs in the future. To capture the two aspects of labour market insecurity the hypotheses below will be tested:

Insecure labour market status hypothesis (H_1): Current unemployment and temporary work reduce the probability of entry into marriage compared to being employed or working with permanent contract.

Length of labour market insecurity spell (H_2): As the time spent in unemployment and temporary work increase, the likelihood of entry into first marriage decreases.

2. Is the effect of labour market insecurity gender-variant? Does labour market insecurity effect men's and women's transition into first marriage differently?

Theories on job insecurity and marriage describe two models of families. Sex-specialization theory illustrates a traditional family where economic well-being depends *only* on men's labour market activity, whereas socio-economic uncertainty and assortative mating theories describe an egalitarian family where both of the spouses contribute to economic well-being. These two models have different predictions on how job insecurity is related to the timing of entry into first marriage. According to the former model job insecurity experienced only by men delays entry into partnership because men are household providers. In order to be attractive mates by being able to support a family, men need to build stable careers as soon as possible, which secure their comparative advantage. On the other hand, gains from marriage are much higher than remaining single for women who experience job insecurity in early life course; therefore the traditional family model predicts that labour market insecurity expedites entry into marriage for women.

The latter model assumes that men's and women's labour market positions are complementary to each other in a marriage, and each spouse can potentially contribute to the economic well-being of a family. Women's earnings do not reduce the gains from

marriage; rather they are one important determinant of a couple's life-style and socio-economic status. This model predicts that job insecurity delays entry into first partnership for both sexes. Based on different predictions for genders I test the following hypotheses:

Specialized-roles hypothesis (H₃): For men labour market insecurity delays the timing of first marriage, however it accelerates the transition into marriage for women.

Complementary-roles hypothesis (H₄): Labour market insecurity delays entry into marriage for both men and women.

3. To what extent pre-marital cohabitation is related to the timing of first marriage?

Cohabitation before marriage is an important determinant of transition into marriage for several reasons. First, pre-marital cohabitation has become increasingly more common in the United Kingdom in every subsequent cohort (Berrington and Diamond, 1995; Ermisch and Francesconi 2000). Using the BHPS, Ermisch and Francesconi (2000) found that a majority of the first partnerships are cohabitations, and some of these live-in partnerships turn into marriages after a short while (median 2 years). However, one third of first cohabitations dissolve and the median duration for next cohabitation is 5 years. Therefore, they argue, all these contribute to a longer time before first marriage takes place and increase the chances that an individual never marries. Based on this finding, it is plausible to think that, cohabitation can work as a filtering instrument; those who are eligible partners may enter first into cohabiting unions and then into marriage. However, cohabitation provides most of the benefits of marriage, removes pressure to marry immediately and cohabitations that do not work take long amount of time from one's pre-marital life. For this reason cohabitation postpones entry into marriage. These mechanisms can be hypothesized as following:

Signalling effect of cohabitation (H₅): Young individuals who are in a cohabiting relationship are more likely to marry than those who are not.

Duration effect of cohabitation (H₆): The longer the cohabitation duration, the more delayed the marriage.

4. Does labour market insecurity encourage young individuals to form cohabiting unions instead of marry?

As discussed above marriage requires financial means to establish an independent household. Cohabitation is a less formal form of partnership and social expectations for couple's financial resources prior to cohabitation are less demanding. When individuals are constrained by economic circumstances, they may prefer to form cohabiting unions instead of marrying, therefore avoid postponing living together. In times of unemployment and insecure employment living with a partner provides important gains such as those derived from division of labour, or from the economies of scales for collective goods. These gains from cohabitation, combined with informal nature of the relationship, will prove cohabitation a desirable arrangement for young individuals facing insecurity and uncertainty.

The experience of unemployment and temporary work may have different implications for people depending on their occupational skill level and education qualification. For some people, such as tertiary education graduates, unemployment and temporary contracts precede transition into a well-paying whereas for others with lower educational achievement insecurity poses serious uncertainty and risk regarding individuals' earning potentials. There are two scenarios related to how the impact of insecurity on cohabitation varies. In scenario one, insecurity decreases the desirability of a candidate partner.

According to this logic, poorly educated young individuals experiencing insecurity will not attract potential partners and this will lead them to stay unattached longer than their counterparts with secure employment status. In scenario two, the decision regarding cohabitation depends on the gains from partnership which would otherwise not be obtained. Again, for a poorly educated young adult in insecurity gains from cohabitation (versus staying single) are larger than they are for securely employed ones. For this reason, the unemployed or temporary workers with lower education qualifications may prefer to cohabit sooner than similar individuals with secure employment. (Same scenarios may apply to different occupational skill groups).

Cohabitation hypothesis (H₇): Labour market insecurity accelerates the formation of cohabitating unions.

Undesirability Hypothesis (H₈): Poorly educated and/or lower skilled young individuals in insecure employment stay single longer before forming their first partnership than those in secure employment.

Gains from partnership Hypothesis (H₉): Poorly educated and/or lower skilled young individuals in precarious employment form cohabiting partnerships sooner than those in secure employment.

5. Does labour market insecurity affect all women's partnership formation behaviour the same way and to the same degree? Is it possible to talk about heterogeneity among women?

The idea that men and women differ from each other in their labour market behaviour and labour market insecurity may affect them distinctly has been mentioned above. However, women also may vary among themselves with respect to their attachment to the labour

market; therefore develop different strategies against insecurity. There is a growing research on how women's labour market behaviour is shaped by their own personal preferences, rather than being constrained by economic factors and leading to a significant heterogeneity among women. This view generated a debate in the literature and the arguments concentrated on two camps: those who lay emphasize on personal preferences, and those who highlight economic and social constraints.

The idea that individuals' personal preferences determined their labour market and family behaviour was first fully developed by Hochschild's qualitative work in which she grouped men and women according to their 'gender strategies'. She defines 'gender strategies' as 'a plan of action through which a person tries to solve problems at hand, given the cultural notions of gender at play' (p.15, 1990). A woman's gender ideology is determined by which sphere she wants to associate herself with (home or work) and what kind of a power distribution she wants within the marriage. According to this, she identifies three types of men and women: traditional, transitional and egalitarian.

Hakim's Preference Theory (2000, 2003) also draws on three types of women with regards to their work-lifestyle preferences, or gender strategies in Hochschild's terms, to explain and predict women's choices between market and family work. According to Hakim, women are a heterogeneous group with regard to their lifestyle preferences. There are three ideal-types of women: work centred women, home-centred women and adaptive women. Work-centred women have strong commitment to their careers or competitive activities in the public sphere. Home-centred women give priority to family life over paid work. Adaptive women combine employment with family work, without giving priority to either. Preference theory uses these ideal-types to explain women's employment choices over the life course, women's fertility behaviour, and women's responsiveness to

public policy, employment policy and social and economic circumstances (see Hakim 2002 and 2003 for employment and fertility behaviour).

In opposition to preference theory, it has been argued that institutional factors, organizational arrangements and job characteristics mainly determine women's career paths, not personal preferences (Crompton and Harris 1999, Kmec 2005, Maume 2006, Bakker and Geurts 2004). Even though the debate seems to be inconclusive, there are grounds to argue that women are a heterogeneous group and they develop more than one adaptive strategy against labour market insecurity. When they encounter labour market insecurity, women can realize themselves in the family domain, or they can try to cope with it in the labour market by postponing marriage. The level of attachment to the labour market also differentiates how certain women's marital behaviour varies from the others. In this chapter I test the idea of women's heterogeneity with the following hypothesis:

Heterogeneity of women hypothesis (H_{10}): As the educational level of women in insecure employment increases, the more delayed is the transition into partnership.

2.3. DATA AND METHODS

2.3a. Constructing Event History Data with Work-life and Family Histories:

The British Household Panel Study provides detailed information on individual's work and family histories with both panel and retrospective interviews. There are 18 waves available (1991-2008) and the first wave includes 5.500 households, 10.300 individuals. The original sample is re-interviewed annually, as well as their natural descendants and all the household co-residents. In order to have a complete history of working careers and

marriage timings, I use the ‘Work-History’ file and the ‘Family’ file¹¹, which are constructed with both panel components and the retrospective files of the BHPS. The work-history file contains spell-information regarding the employment and job histories of respondents, and has over 9,000 individuals. The family file gives the dates of all partnerships and birth events for over 31,000 individuals. The work-history file has one record for every work-spell, whereas the Family file has one record per individual. Spell and date information in both files are recorded in century-month format.

In order to create a consistent and full work-family-life history file I went through the following steps. First, I set the family file in event-history data format, where each individual is observed until the occurrence of the event (here first marriage and first cohabitation), and those who do not experience the event by the end of the observation period are treated as censored. In marriage models I followed unmarried individuals starting from the age of 15 until their first marriages. Those who stay never married until the end of the observation period are censored. In cohabitation models I followed them again from age of 15 until the first cohabitation. Those who got married or remained single by the end of the observation period are censored. I incorporated pre-marital cohabitation states and child-bearing information with marriage timing which produced an event history data set with full information on family events from the age of 15 to the event (or censoring)¹². Second, I used the work-life data to extract all employment spells for the same period covered in the family file. BHPS collected work histories retrospectively in second, third, tenth and eleventh waves, therefore complete work-histories are available only for those who participated in one of these waves. For this

¹¹ The Work-life file was prepared by David Mare (2006) and the Family file was prepared by Chiara Pronzato (2008) and both files are accessible from the UK Data Archive.

¹² For cohabitation data only fertility history is incorporated.

reason I eliminated observations that have not been surveyed retrospectively. I transformed the spell data into individual data to ensure uniformity with the family file. Finally, I merged together the family and work-history files. I expanded the data into person-month format where each individual participates in the dataset as the number of months he or she was observed. These transformations and eliminations yielded an event-history data with full work-life, partnership and fertility histories for 5248 individuals in marriage models, and 5225 individuals in cohabitation models.

TABLE 2.1. A SUMMARY OF THE EVENT HISTORY DATA

	MEN	WOMEN	TOTAL
N	2,424	2,824	5,248
Marriages	1,824	2,352	4176
Cohabitations	896	972	1,868
Person-months	355,438	328,973	684,411
	Mean	Mean	Mean
	(Std. Dev.)	(Std. Dev.)	(Std. Dev.)
Mean Observation Duration in months	199.9 (116.8)	176.7 (120.6)	188.8 (119.1)
Mean Age	23.4 (7.4)	22.4 (7.2)	22.9 (7.3)

Out of the 5248 cases in marriage models, 4176 experienced the event (marriage); 1824 being men and 2352 being women. On average, men are observed for 200 months, and women 177 months. The average ages during the observation period are 23,4 for men and 22,4 for women (see Table 2.1). As a first relationship 1868 individuals formed cohabiting unions (896 of the men and 972 of the women)¹³.

Table 2.2 represents the proportions of men and women who have been unemployed or worked under temporary contract and length of these spells. Incidence of both unemployment and temporary work is more common among men (35 per cent of men and

¹³ Descriptive figures regarding transition into cohabitation have a similar pattern to marriage; therefore I skip descriptive results for cohabitation thereby avoiding repetition.

22 per cent of women have experienced unemployment before marriage or censoring; while 28 per cent and 23 per cent of men and women respectively worked with temporary contract), and the duration of these spells are longer for men. For those who have had at least one spell of unemployment, men on average spent 18 months jobless whereas women's unemployment lasted 13 months. As for temporary work, men have a mean of 22 months temporary work experience and women have 19 months.

TABLE 2.2. UNEMPLOYMENT AND TEMPORARY WORK EXPERIENCES

	MEN		WOMEN		TOTAL	
	Freq.	%	Freq.	%	Freq.	%
Ever been unemployed	836	34.5	629	22.3	1465	27.9
Ever in temporary work	685	28.3	642	22.7	1327	25.3
N	2424		2824		5248	
	Mean		Mean		Mean	
	(Std. Dev.)		(Std. Dev.)		(Std. Dev.)	
Unemployment Duration (months)	17.8 (26.4)		13 (16.6)		15.6 (22.9)	
Temporary Work Duration (months)	22.4 (22.6)		18.8 (22.7)		20.5 (26.7)	

In Table 2.3 can be seen the cohabitation and parenthood experiences before marriage. Overall 907 of male respondents and 984 of female respondents have been in a non-marital cohabitational relationship. One third of men and women who got married in the observation period had pre-marital cohabitations. Among those who are still single, 42 per cent of men and 52 per cent of women have experienced at least one month of cohabitation with a partner. Length of time spent in cohabitational relationships¹⁴ is much shorter for individuals who marry compared to those who stay never married in the sample: 34 months for observations that end up with marriage and 77 months for the

¹⁴Durations here refer to the cumulative number of months that the respondent spent in a cohabitational relationship. For those who had more than one cohabitation experience, the duration of all those separate spells are pooled together.

CHAPTER 2

censored observations. Finally, one tenth of men and 13 per cent of women had one or more babies during the observation period.

TABLE 2.3. PREMARITAL COHABITATION AND PARENTHOOD

	MEN		WOMEN		TOTAL	
	Freq.	%	Freq.	%	Freq.	%
Ever cohabited	907	37.4	984	34.8	1891	36
<i>For Married Cases*</i>	654	35.9	741	31.5	1395	33.4
<i>For Censored Cases**</i>	253	42.2	243	51.5	496	46.3
Had child	249	10.2	354	12.5	603	11.5
	2424		2824		5248	
	Mean		Mean		Mean	
	(Std. Dev.)		(Std. Dev.)		(Std. Dev.)	
Premarital Cohabitation Duration	32.8 (32.7)		35.7 (36.1)		34.4 (34.6)	
Cohabitation Duration for Censored Cases	76 (73.5)		77.2 (65.4)		76.7 (59.6)	

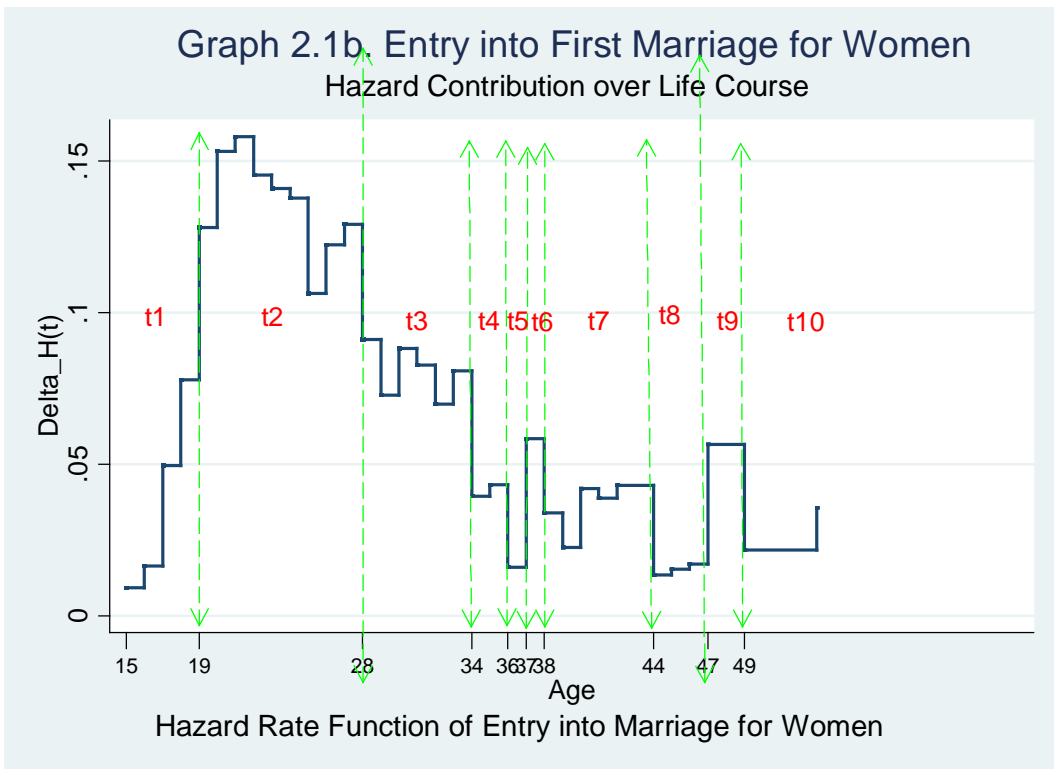
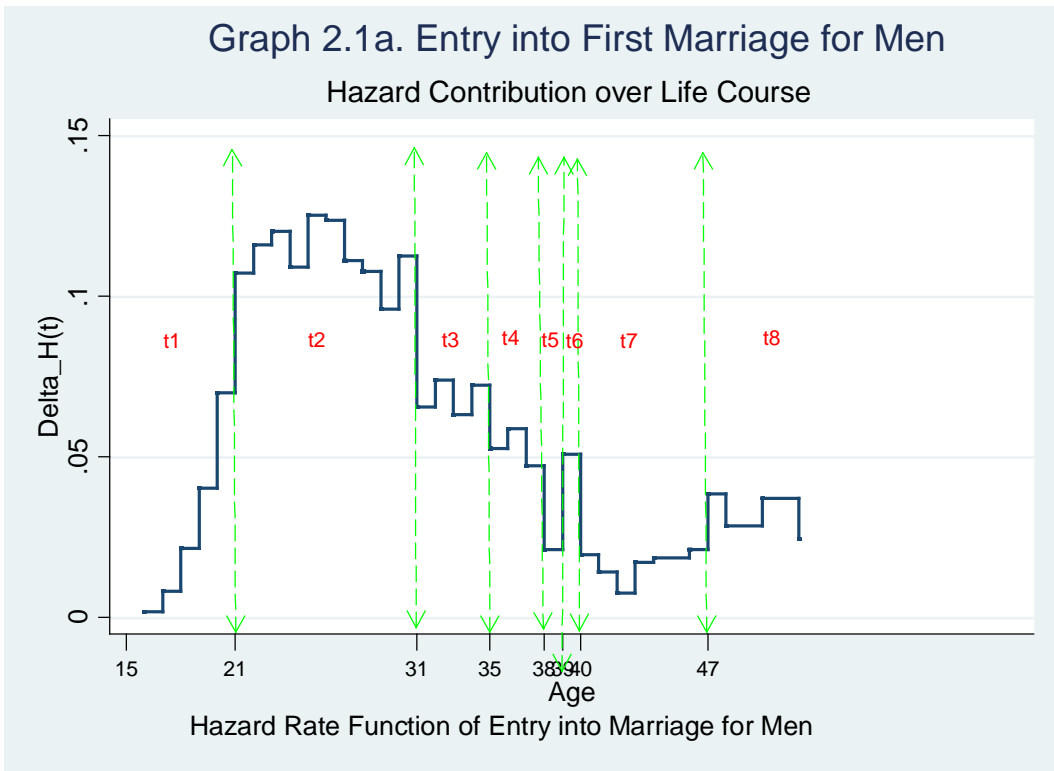
*For married cases percentages are for 1824 men, 2352 women and 4176 individuals in total.

**For censored cases are for 600 men, 472 women and 1072 individuals in total.

2.3b. Descriptive Statistics

In event history analysis the first step is to analyse the shape of the baseline hazard function. Here I present the hazard rate functions for entry into first marriage only. Hazard function gives the probability of occurring of an event at a particular time interval conditional on not having been occurred before. In this case it gives the probability of marrying at an age interval on the condition that the respondent has been single until then.

Graphs 2.1a and 2.1b represent the hazard rate functions of entry into first marriage for men and women separately. The shape of hazard function is similar for both groups; it increases steeply until early 20s, decreases gradually after late 20s, and increases slightly after mid 40s. The main difference between men and women is that, the hazard rate of entering into marriage for women is on average two years earlier than men, and the risk is concentrated in a shorter period.



2.3c. Model specification

In order to estimate the impact of labour market insecurity on the timing of first partnerships I use discrete time event history analysis method. Even though in theory an event can happen at any time point, in social sciences most often the information is observed in time intervals and the data is in discrete form. BHPS collects dates of the transitions, spells and events on a monthly basis; hence it is discrete-time data. In addition to the structure of the data, discrete time models have important advantages in treating the time-varying covariates. By splitting the data into person-months, one can incorporate the time-varying covariates into the data easily and achieve a dynamic data configuration which allows controlling 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 in this analysis to examine previous work, partnership and parenthood histories in a time varying manner. Most of the widely used software programs do not have a ready built-in command for discrete-time event history models; however the analyses can easily be performed by regular logistic regression models by introducing a variable capturing the hazard function. Stata performs this analysis with the 'logit' command. The dependent variable is the dummy variable for the outcome of the event, and it takes the value '0' in each person-month until the event occurs (e.g. as long as the respondent is single) and the value '1' when the event occurs (e.g. when the respondent gets married, or starts living with a partner). The probability of the event occurring in every single person-month is predicted by a base-line hazard function, the time-varying and time-constant covariates for the particular person-month.

In discrete time event history analysis the hazard function is shown as

$$h_j(t) = \Pr(y_j(t) = 1 \mid y_j(t-1) = 0) \quad (1)$$

where $h_j(t)$ is the probability of having an event during interval t , given it did not occur before, y_j , the dependent variable and it is a binary variable for each time interval t during which an individual j is at risk of occurrence of an event. Here all time intervals are of equal width.

And the equations for discrete-time logit models take the following form:

$$\text{logit} [h_i(t)] = \log \left[\frac{h_i(t)}{1-h_i(t)} \right] = \alpha(t) + \beta x_i(t) \quad (2)$$

where $\left[\frac{h_i(t)}{1-h_i(t)} \right]$ is the odds of conditional probability of event for period t . $h_j(t)$ is the hazard of ‘success’ of an event for an observation of an individual i over period t , and $1-h_j(t)$ is the hazard of ‘failure’ (no event). $\beta x_i(t)$ refers to the covariates for individual i at period t . $\alpha(t)$ is the logit of the baseline hazard function. Here it is introduced as piece-wise constant hazard model and defined as

$$\alpha(t) = \alpha_1 D_1 + \alpha_2 D_2 + \dots + \alpha_q D_q \quad (3)$$

where the time axis is divided into q intervals and D_k is a dummy variable equal to one if t is in the k_{th} interval and zero otherwise. Hazard functions are constant within each interval but may vary across intervals.

However, there may be some unobserved individual specific factors which influence the risk of partnership formation. For example physical attractiveness or lack of commitment can play a role in when individuals enter into partnerships, yet these characteristics cannot be observed with most of the survey data. In order to take into account the unobserved

heterogeneity I apply *frailty* models for each estimation. This is done by introducing an error term u_j to Equation (2) which transforms the model into random effects.

$$\text{logit} [h_i(t)] = \log \left[\frac{h_i(t)}{1-h_i(t)} \right] = \alpha(t) + \beta x_i(t) + u_j(t) \quad (3)$$

The estimates obtained with Equation (2) and Equation (3) differ from each other. In Equation (2) with no frailty the $\exp(\beta)$ coefficient gives the population averaged effect of x whereas in Equation (3) it gives the individual specific effect. The former model compares the odds of the event for two randomly selected individuals with x values 1 unit apart. On the other hand the frailty models estimates give the odds ratios by comparing two individuals with the same random effect value. Stata performs frailty models with ‘xtlogit’ command. The difference from regular panel data random effects is that, in discrete-time frailty models the hazard function is incorporated to the model. In this chapter I report the results from no-frailty models only, where the standard errors are clustered by individuals. However I discuss the implications of the unobserved heterogeneity separately. Whether or not there are statistically significant unobserved factors for each model are shown with the symbol (\dagger).

2.3d. Conceptualization and Variables

In this chapter I estimate a set of models for transition into marriage and transition into cohabitation. I do separate analysis for men and women¹⁵ as well as for unemployment and temporary work. Unemployment models use time-varying self-reported employment status which is regrouped into four categories: employed, unemployed, out of labour force and full-time student. Employment status is one month lagged. Unemployment models

¹⁵ Note that models 2a and 2b are an exception to this where unemployment is interacted with sex, and hence, the sample is pooled.

predict the likelihood of partnership formation for each employment status as opposed to being employed, which is the reference category. Further analysis is carried out to investigate the mediating factors which may influence the way unemployment is related to partnership formation. These mediating factors are as follows: *a.* sex: The gender effect of insecurity is captured with a dummy variable indicating whether or not the respondent is male. *b.* duration: Duration of unemployment is also time varying and it is calculated by counting the number of months the respondent has been unemployed until $t-1$ in that spell. I grouped the duration of unemployment into three intervals. Short-term unemployment is up to 6 months, mid-term unemployment is between 7-12 months and long-term unemployment is more than 1 year. *c.* low education: This is a dummy variable indicating that the respondent has no educational qualification. *d.* high education: Those who have completed Higher Degree or 1st Degree are recorded as highly educated¹⁶. *e.* child: indicates whether or not the respondent has a child, or expecting a baby. All these dummies are interacted with unemployment dummy (0 indicating employment and 1 indicating unemployment) in separate models. These interaction models intend to reveal whether or not insecurity affects the vulnerable groups to a larger extent.

Temporary work variable is also self-defined and constructed by using employment status and contract type. It is divided into five categories: permanent employee, temporary employee, unemployed, out of labour force and student. It is worth noting that information regarding contract type covers a rather limited time range. Contract type is not asked in retrospective questionnaires but only in the panel waves. Therefore temporary work analysis covers the labour market activities from 1990 onwards. Since

¹⁶ Education variable is time-constant and measures the highest educational qualification the respondent achieved during the observation period.

CHAPTER 2

the share of temporary contracts remained relatively low and constant until early 1990s the limited time range of temporary work histories is not expected to be problematic. Temporary work includes seasonal work, fixed term contract, agency temping, casual and other forms of non-permanent jobs. All non-permanent contract types are grouped together as temporary work due to small n sizes in each subcategory. Temporary work models estimate the risk of partnership formation for temporary employees, the unemployed, the inactive and students as opposed to permanent employees which is treated as the reference category. Similar to unemployment models the impact of some mediating factors is also investigated. These include the following. *a.* sex (as defined above). *b.* duration: it is a time-varying variable capturing the total number of months the individual has been working in temporary employment. Durations are grouped into four: Short-term temporary work which is up to 6 months, mid-term temporary work lasting between 7-12 months, long-term temporary work which has lasted between 1 to 2 years and extensive temporary work if it lasts 2 years or more. *c.* low education (as defined above). *d.* low skill: employees who are in ‘sales occupations’, ‘plant and machine’ and ‘other’ occupations according to the Standard Occupation Classification (SOC) are classified as low-skilled. *e.* part-time work hours: contracts which involve up to 30 hours of work per week are classified as part-time. *f.* child (as defined above). In the interaction models only employment spells are included in the analysis. A dummy variable is constructed for temporary work where 0 denotes permanent work. Temporary work dummy is interacted with the mediating factors one by one.

In addition to these, a number of control variables are introduced in the models discussed above. As an indicator of economic circumstances yearly aggregate national unemployment rate is controlled for. Level of human capital is measured with highest

educational qualification which is divided into four categories; high, medium, low and no qualification. High educational qualification includes Higher Degree and 1st Degree, medium qualifications include Higher National Certificate/Diploma, teaching qualifications and A levels, and low qualifications are O levels and CSE's. Highest education qualification is a time-constant variable. It takes the highest value an individual obtains over the observation period. Time dummies for the baseline hazard function of the duration are introduced with piece-wise constant specification and the time intervals are determined according to the hazard contributions (discussed above in descriptive statistics, and shown in graphs 2.1a and 2.1b). For men eight and for women ten time dummies are used¹⁷. Cohabitation status (for marriage models only) and presence of a child are also introduced in the model. Previous research showed that cohabiting couples who are expecting a baby together are more likely to marry (Steele *et al.* 2005). I introduced a variable which indicates whether the respondent is expecting a baby or has one. Then I disaggregated this measure by partnership status which yielded the following categories: single, single and has/expects a child, cohabiting, cohabiting and has/expects a child. Finally, a four-category cohort variable is controlled for. All variables which are derived from labour market status, partnership status and presence of a child (or expecting a child) are one month lagged and time varying.

¹⁷ For men, the intervals are divided according to following ages: 15-21, 21-31, 31-35, 35-38, 38-39, 39-40, 40-47, and, 47 and older. For women they are: 15-19, 19-28, 28-34, 34-36, 36-37, 37-38, 38-44, 44-47, 47-49, and, 49 and more.

2.4 RESULTS

2.4a. Unemployment and Partnership Formation

The results from discrete-time event history analysis for transition into marriage and cohabitation are presented in Table 2.4a where the odds ratios are reported. For men being unemployed in comparison to being employed the previous month decreases the likelihood of transition into marriage. Men are 30 per cent less likely to marry when they are unemployed, compared to when they are employed. Being out of labour force and being a student have strong delaying effect on men's marriage timing. These are consistent with *the insecure labour market status hypothesis (H₁)* which predicts that unemployment hinders men's accumulation of resources to provide a household thereby preventing them from getting married. Unemployment seems to neither delay nor speed up women's entry into marriage. What is worth noting is that, when women are out of labour force they are 80 per cent more likely to marry compared to when they are in employment. Being a student significantly reduces the rate of marriage also for women. Student role and partner roles are incompatible and individuals are very unlikely to start a marital or cohabiting partnership as long as their studies continue. Unemployment has no significant effect on transition into cohabitation. However, although the coefficients are insignificant, the odds ratios for men indicate a delayed effect for men, whereas women have a higher probability to cohabit when they are unemployed.

TABLE 2.4a. UNEMPLOMENT AND TRANSITION INTO FIRST PARTNERSHIP (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN	WOMEN	MEN	WOMEN
	1a [†]	1b [†]	1c	1d
EMPLOYMENT STATUS - REF. CAT.: EMPLOYED				
Unemployed	0.71*	1.08	0.86	1.19
Out of Labour Force	0.49**	1.78***	0.6	0.93
Student	0.09***	0.06***	0.19***	0.34***
UNEMPLOYMENT RATE	0.96**	0.95***	1.04*	1.03*
HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE				
High	0.9	0.81*	1.30*	1.26
Medium	0.99	0.83**	0.98	1.1
Low	1.1	0.89*	1.01	1
AGE (REF. CAT: t1)				
t2	4.27***	3.53***	3.84***	2.69***
t3	2.12***	1.92***	2.95***	2.20***
t4	1.53*	1.25	1.76	1.17
t5	0.82	0.46	0.52	1.36
t6	1.06	0.76	1.83	0.5
t7	0.48**	0.81	1.25	0.53
t8	0.42*	0.19*	0.69	0.56
t9	(dropped)	0.68	(dropped)	1.12
t10	(dropped)	0.10**	(dropped)	(dropped)
FAMILY STATUS (REF. CAT- SINGLE -NO CHILD/NOT EXPECTING A BABY)				
Cohabits and childless	3.37***	2.53***		
Single and has/expects a child	2.16***	0.49***		
Cohabits has/expects a child	2.44***	1.02		
Has/expects a child			5.56***	2.37***
COHORT- REF. CAT.: 1940-1949 COHORT				
1950-1959	0.78**	0.99	2.12***	3.06***
1960-1969	0.54***	0.73***	4.29***	5.52***
1970-1985	0.28***	0.35***	4.29***	6.33***
n (person-months)	335924	308275	281823	242538
N (individuals)	2418	2822	2406	2810
N of events	1817	2337	857	929
Mean obs. duration	138.9	109.2	117.1	87.3
Likelihood	-10321.02	-12657.34	-5316.797	-5644.515
Wald Chi ²	1307.56	1377.69	897.16	794.67

[†]: Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Age dummies for men are: t1: 15-21, t2: 21-31, t3: 31-35, t4: 35-38, t5: 38-39, t6: 39-40, t7:40-47, and, t8:47+. For women they are: t1: 15-19, t2: 19-28, t3: 28-34, t4: 34-36, t5: 36-37, t6: 37-38, t7: 38-44, t8: 44-47, t9: 47-49, and, t10: 49+.

CHAPTER 2

As to the relationship between the control variables and partnership formation, the coefficients for the aggregate level unemployment rate indicate that young individuals postpone marriage in bad economic times. An increase of one percentage point in the unemployment rate results in a 4-5 per cent decrease in the likelihood of marriage. On the other hand, young adults are more likely to enter into cohabitation when the level of unemployment is high. This might suggest that individuals consider cohabitation as an adaptive strategy in bad economic cycles when overall uncertainty is likely to increase. During a climate of economic hardship individuals are less likely to take long-term binding relationships, and relatively more casual aspect of cohabitation might be regarded as a more attractive partnership arrangement. It might also help the cohabiters to pool their resources and benefit from economies of scale.

In terms of highest education qualification Table 2.4a shows that there is a gradual delaying effect for women's transition into marriage. Women with low, medium and high education gradually delay marital partnerships compared to women with no qualification, which is indicated with decreasing odds ratios from low to high education. This might be related with the length of time that highly educated women spent in the education system. Alternatively, it can also indicate different life choices women make regarding their role in work and family life. Those who prefer to invest further in human capital postpone marital partnership formation, which is consistent with the 'heterogeneity of women' hypothesis (H_{10}). High education has an opposite effect on men's timing of cohabitations. Highly educated men are more likely to start a cohabiting union compared to those with no qualification. Higher educated men might have less traditional values towards family compared to men with lower levels of educational attainment, thereby being more likely to cohabit.

Time dummies for baseline hazard function indicate an elevated risk of partnership formation in the second and third periods which corresponds to ages 21-35 for men and 19-34 for women. The odds of partnership formation decline from late 30s onwards. Men are particularly unlikely to enter wedlock for the first time after the age 40 whereas for women the likelihood of becoming a bride is significantly lower after the age of 44.

Being in a cohabiting relationship and having a child/expecting a baby brings forward men's marriage plans. Cohabitation with or without a child (present or expected) produces positive odds compared to being single and childless. The strong and consistent impact of cohabitation over singlehood on subsequent marriage suggests that cohabiting has a signalling effect (H₅). Individuals who are marriageable and who are close to marriage age are initially selected into cohabiting partnerships, and marry quicker than those who are single. Single men who are expecting to become a father seem to be approximately twice more likely to marry. In contrast to men, single mothers and to-be-mothers are less likely to get married. The odds ratio for this group is half of the odds for single women to get married. The high risk of marriage among single fathers and to-be-fathers might be related to the incompleteness of fertility histories among non-married males compared to non-married females in retrospective surveys¹⁸. Since non-resident fathers might be underreporting fertility, those captured in the data might be overestimating the likelihood of marriages among single-fathers. Moreover cohabitation with a child has no effect for women (men in the same category have a large and positive likelihood). Having or expecting a child is a very strong predictor of transition into cohabitation for both men and women.

¹⁸ For example Rendall *et al.* (1999) found that the BHPS's retrospective fertility history data exhibits high levels of incompleteness in men's non-marital birth reports. Ratios of men's non-marital births per 100 women's non-marital births were 64.3.

Finally, as to birth cohort, each subsequent cohort delays marriage gradually, whereas younger cohorts are more likely to form cohabitating partnerships which is an indicator of changing attitudes of British society towards family life. (Control variables produce almost identical results in the subsequent models; therefore they will not be repeated in the continuation of the chapter.)

2.4b. Vulnerability within the Unemployed: Interactions

Sex: Table 2.4b presents results from interaction models of unemployment with sex. The analysis is limited to those episodes where the respondent is either employed or unemployed. Male and female respondents are pooled together, and the control variables discussed above are included. Model 2a shows that, among the unemployed, men are more likely to delay entry into marriage than do women, which is captured by the interaction term. This analysis is in line with the findings above, and confirms that unemployment has a gendered effect on young adults' transition into marriage. Young men's marital decisions are influenced to a greater extent by insecurity experienced through unemployment than is the case for women's marriage timing. There is no gender effect of unemployment on the timing of first cohabitations.

TABLE 2.4b. UNEMPLOYMENT AND GENDER (ODDS RATIOS)

	TRANSITION INTO MARRIAGE 2a†	TRANSITION INTO COHABITATION 2b
Unemployed	1.13	1.03
Male	0.82***	0.95
Unemployed*Male	0.66*	0.82
n (person-months)	500783	397515
N (individuals)	5177	5049
N of events	3674	1604
Mean obs. duration	96.7	79.1
Likelihood	-20426.505	-9783.6783
Wald Chi2	2125.01	1157.37

†: Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: **1.** Reference category is employed. **2.** Highest education level, unemployment rate, time dummies, family status and cohort are controlled for.

Duration: Unemployment experience which adds up one year and more has a strong and negative effect on men’s transition into marriage (Table 2.4c). Those who have been unemployed for more than a year have 0.57 times the odds of transition into first marriage than employed men. This finding is consistent with Hypothesis 2, which predicts a declining risk of entry into marriage as the length of insecurity spell increases. Unemployment signifies an interruption in human capital accumulation; it affects earnings negatively and is associated with future unemployment. For this reason young men with unemployment experience take longer until they form stable career trajectories. The longer time they spend in unemployment, the more delayed is their entry into marriage. Conversely, there is an increased probability of marriage for women in the first six months of unemployment. After the seventh month onwards the odds ratios for marrying are insignificant. This might be explained with the fact that those women who prefer to deal with insecurity by making a long-term binding decision in their private lives enter into marriage quickly. Other women who prefer to consolidate their labour market position before marrying stay in unemployment longer. In other words those who are self

CHAPTER 2

selected to overcome insecurity via marriage have shorter spells, whereas others have longer unemployment spells as they keep searching for a job. Duration of past unemployment experience does not have any impact on transition into cohabitation.

TABLE 2.4c. UNEMPLOYMENT AND DURATION (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN 3a [†]	WOMEN 3b	MEN 3c	WOMEN 3d
1-6 months in unemployment	1.32	1.72**	1.07	1.45
7-12 months in unemployment	0.52	0.75	1.11	0.86
1+ years in unemployment	0.57**	1.01	0.67	1.04
n (person-months)	274250	226533	223253	174262
N (individuals)	2411	2766	2360	2689
N of events	1739	1935	826	778
Mean observation duration	113.7	81.9	94.6	65.5
Likelihood	-9833.159	-10550.21	-5074.285	-4681.158
Wald Chi ²	1080.77	1000.14	707.35	507.31

[†]Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: 1. Reference category is employed. 2. Highest education level, unemployment rate, time dummies, family status and cohort are controlled for.

Education: The way unemployment affects young individuals' timing of partnership formation might vary according to education level. Tables 2.4d and 2.4e present results from the interaction effect of unemployment with low education and unemployment with high education, respectively. The interaction effect of unemployment with low education signifies an increased probability of marrying for women. Among the unemployed women those who have no educational qualification are twice more likely to marry compared to those who have completed at least a CSE's degree. This finding once again suggests that women with limited opportunities in the labour market concentrate on family domain when they experience insecurity at their work life domain, and it is along the lines of the idea that women are heterogeneous in their work-family life strategies

(H₁₀). As to high education, the interaction term with unemployment is statistically insignificant. Although men with high education delay marriage and highly educated adults are more likely to enter into cohabitation, there is not a statistically significant difference between the highly educated unemployed and the rest of the unemployed in terms of timing of partnership formation.

TABLE 2.4d. UNEMPLOYMENT AND LOW EDUCATION (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN	WOMEN	MEN	WOMEN
	4a [†]	4b	4c	4d
Unemployed	0.62*	0.96	0.71	1.21
No education	0.99	1.08	0.93	0.85
Unemployed*No education	1.51	2.00*	1.85	0.79
n (person-months)	274250	226533	223253	174262
N (individuals)	2411	2766	2360	2689
N of events	1739	1935	826	778
Mean observation duration	113.7	81.9	94.6	65.5
Likelihood	-9842.028	-10552.06	-5077.562	-4683.77
Wald Chi ²	1070.41	984.03	700.65	494.24

[†]Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: 1. Reference category is employed. 2. Unemployment rate, time dummies, family status and cohort are controlled for.

TABLE 2.4e. UNEMPLOYMENT AND HIGH EDUCATION (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN	WOMEN	MEN	WOMEN
	5a [†]	5b	5c	5d
Unemployed	0.76	1.27	0.86	1.22
High education	0.84*	0.87	1.31**	1.27*
Unemployed*High education	0.59	0.44	0.85	0.2
n (person-months)	274250	226533	223253	174262
N (individuals)	2411	2766	2360	2689
N of events	1739	1935	826	778
Mean observation duration	113.7	81.9	94.6	65.5
Likelihood	-9839.018	-10553.42	-5077.562	-4683.77
Wald Chi ²	1071.78	985.86	700.65	494.24

[†]Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: 1. Reference category is employed. 2. Unemployment rate, time dummies, family status and cohort are controlled for.

'*Gains from cohabitation*' hypothesis (H₉) predicted that poorly educated and/or lower skilled young individuals experiencing labour market insecurity form cohabiting partnerships sooner than those in secure employment because of the larger gains cohabitation would provide to the former group than it would provide to the latter. However, unemployment models reveal no support for this. Unemployed young adults with no educational qualification do not have accelerated entries into cohabitation. Moreover, both men and women with high educational qualifications are more likely to cohabit than those with lower levels of education. This group would potentially have lower gains from cohabitation than others because of their higher levels of human capital, therefore it contradicts hypothesis H₉, whereas it is consistent with the undesirability hypothesis (H₈). Individuals with poorer levels of education were expected to have lower transition rates into cohabitation because of their worse labour market prospects which indicates their undesirability as potential partners. Earlier entries into cohabiting unions by highly educated young adults provide support for H₈.

Parenthood: Finally, the partnership formation behaviour of parents and to-be-parents may differ from non-parents, and the difference might be more marked when they are unemployed. Because they are required to provide for the child, unemployed parents and to-be-parents can be considered as more vulnerable in the labour market. However, the results from the models with interaction of unemployment and parenthood do not provide evidence for this (see Table 2.4f).

TABLE 2.4f. UNEMPLOYMENT AND HAVING A CHILD (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN	WOMEN	MEN	WOMEN
	6a	6b	6c	6d
Unemployed	0.60**	1.21	0.83	1.25
Has/expecting a child	1.64***	0.75*	5.36***	2.30***
Unemployed*Child	1.64	0.8	1	0.52
n (person-months)	274250	226533	223253	174262
N (individuals)	2411	2766	2360	2689
N of events	1739	1935	826	778
Mean observation duration	113.7	81.9	94.6	65.5
Likelihood	-10022.2	-10681.59	-5077.562	-4683.77
Wald Chi ²	829.61	768.2	700.65	494.24

Note: **1.**Reference category is employed. **2.** Highest education level, unemployment rate, time dummies, partnership status and cohort are controlled for.

2.4c. Temporary Work and Partnership Formation

Similar set of analysis are carried out to investigate the impact of temporary work on timing of marriages and cohabitations. The results from the main models are presented in Table 2.5a. Temporary work causes a delay in young adults' transition into partnered life. Compared to permanent employees, temporary workers are less likely to marry. Female temporary employees also have a delayed transition into cohabitation, however there is no statistically significant effect for men's timing of cohabitation. Particularly for women working on a non-permanent contract has a strong negative effect on partnership formation. When they are working in temporary employment women are approximately 50 per cent less likely to start a marital or cohabiting union. These results provide support for the *insecurity hypothesis* (H_1).

TABLE 2.5a. TEMPORARY WORK AND TRANSITION INTO FIRST PARTNERSHIP (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN	WOMEN	MEN	WOMEN
	7a [†]	7b	7c	7d
EMPLOYMENT STATUS - REF. CAT.: PERMANENT EMPLOYEE				
Temporary employee	0.72*	0.47***	1.07	0.58**
Unemployed	0.87	0.89	1.93	2.42*
Out of labour force	0.97	0.67	2.48	0.57
Student	(omitted)	0.51	0.76	2.58**
UNEMPLOYMENT RATE	0.97**	0.95***	1.05*	1.03
HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE				
High	0.89	0.91	1.45*	1.66**
Medium	1.03	0.92	1.22	1.40*
Low	1.14	0.94	1.16	1.23
AGE (REF. CAT: t1)				
t2	4.78***	4.56***	3.93***	3.07***
t3	2.10***	2.42***	3.56***	2.61***
t4	1.59*	1.66	2.18*	0.94
t5	0.22	0.44	(dropped)	1.43
t6	0.78	0.52	2.89	(dropped)
t7	0.62	0.9	1.39	0.72
t8	0.27*	(dropped)	0.63	1.12
t9	(dropped)	1.29	(dropped)	2.34
t10	(dropped)	0.14*	(dropped)	(dropped)
FAMILY STATUS (REF. CAT- SINGLE -NO CHILD/NOT EXPECTING A BABY)				
Cohabits and childless	3.26***	2.57***		
Single and has/expects a child	1.91***	0.65*		
Cohabits and has/expects a child	2.19***	1.44*		
HAS/EXPECTS A CHILD			5.69***	2.68***
COHORT- REF. CAT.: 1940-1949 COHORT				
1950-1959	0.83*	0.98	1.81***	3.15***
1960-1969	0.54***	0.73**	3.85***	5.86***
1970-1985	0.21***	0.30***	3.72***	6.24***
n (person-months)	197893	175336	165905	139107
N (individuals)	2258	2599	2185	2483
N of events	1282	1558	552	567
Mean observation duration	88.2	68	76.3	56.8
Likelihood	-7204.125	-8422.037	-3419.25	-3427.319
Wald Chi ²	845.56	820.67	519.34	436.28

[†] Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: Reference category is permanent employee. Age dummies for men are: t1: 15-21, t2: 21-31, t3: 31-35, t4: 35-38, t5: 38-39, t6: 39-40, t7:40-47, and, t8:47+. For women they are: t1: 15-19, t2: 19-28, t3: 28-34, t4: 34-36, t5: 36-37, t6: 37-38, t7: 38-44, t8: 44-47, t9: 47-49, and, t10: 49+.

It is important to note that when employment status is disaggregated with the contract type, as in the models discussed above, unemployment becomes a significant predictor of entry into cohabitation among women. In other words, unemployed women are almost 2,5 times more likely to start cohabiting compared to women working in permanent jobs. This is different than the findings in unemployment models presented in table 2.4a where the partnership formation process of unemployed individuals were compared to all employed individuals regardless of their contract type.

2.4d. Vulnerability within Temporary Employees: Interactions

Sex: The models with interaction effect of temporary work and gender are presented in Table 2.5b. In these models the episodes of non-employment are excluded. Interaction term suggests that, among the temporary employees, men have higher likelihood to form a partnership than women. In other words, temporary work has a delaying impact on women's partnership formation compared to men. This is interesting, since among unemployed individuals women report earlier entries into marriages compared to men whereas among the temporary employees they report delayed entries into partnerships. This might be related to the nature of temporary work women usually do. In the UK men constitute a greater share of fixed-term contracts whereas women are concentrated in more casual types of non-permanent jobs (Purcell 2000, Booth et al, 2002), which are inferior to fixed-term contracts in terms of job quality. For example in France it was found that female temporary workers are more likely to suffer from poor psychological well-being and stress because the duration of contracts are shorter than male fixed-term contracts and the job quality is lower than male temporary work (Santin *et al.* 2009).

TABLE 2.5b. TEMPORARY WORK AND GENDER (ODDS RATIOS)

	TRANSITION INTO MARRIAGE 8a [†]	TRANSITION INTO COHABITATION 8b
Temporary work	0.46***	0.62*
Male	0.80***	0.9
Temporary work*Male	1.51*	1.70*
n (person-months)	370564	301818
N (individuals)	4822	4611
N of events	2825	1086
Mean observation duration	76.8	65.8
Likelihood	-15554.974	-6697.9741
Wald Chi ²	1721.96	871.36

[†]: Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: **1.**Reference category is permanent employee. **2.** Highest education level, unemployment rate, time dummies, family status and cohort are controlled for.

Duration, education, skill and parenthood: Temporary employment is interacted with time dummies measuring the current duration spent in temporary, education level, occupational skill group and parenthood status and the results are presented in Tables 2.5c-2.5f. The duration of temporary work seems to be related to delayed marriages however there is not a meaningful pattern with the length of temporary work spells. Temporary workers with no education do not differ from those with higher levels of education. The interaction term of temporary work and low occupational skill do not yield statistically significant odds, either. Finally, parent and non-parent temporary employees do not differ from each other with respect to timing of partnership formation. The partnership formation behaviour of temporary workers with lower level of human capital and with parental responsibilities do not seem to differ from the others, which contradicts with the idea of vulnerability among the temporary contract holders.

TABLE 2.5c. TEMPORARY WORK AND DURATION (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN	WOMEN	MEN	WOMEN
	9a [†]	9b	9c	9d
1-6 months in temporary work	0.89	0.42*	0.63	0.67
7-12th months in temporary work	0.34	0.46	0.88	0.37*
2nd year in temporary work	0.39*	0.49*	1.1	0.71
>3 years in temporary work	0.93	0.48**	1.44	0.56
n (person-months)	196462	172686	163419	136916
N (individuals)	2240	2582	2161	2450
N of events	1276	1549	539	547
Mean obs. duration	87.7	67.4	76	56.7
Likelihood	-7168.183	-8366.537	-3343.557	-3328.508
Wald Chi ²	838.21	809.75	498.69	408.93

[†]: Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: **1.**Reference category is permanent employee. **2.** Highest education level, unemployment rate, time dummies, family status and cohort are controlled for.

TABLE 2.5d. TEMPORARY WORK AND LOW EDUCATION (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN	WOMEN	MEN	WOMEN
	10a [†]	10b	10c	10d
Temporary work	0.63*	0.51***	1.04	0.60*
No education	0.94	1.08	0.79	0.75*
Temporary work*No education	1.42	0.36	1.42	1.31
n (person-months)	196462	172686	163419	136916
N (individuals)	2240	2582	2161	2450
N of events	1276	1549	539	547
Mean observation duration	87.7	67.4	76	56.7
Likelihood	-7172.391	-8365.358	-3346.102	-3331.724
Wald Chi ²	843.57	812.96	488.63	392.75

[†]: Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: **1.**Reference category is permanent employee. **2.** Unemployment rate, time dummies, family status and cohort are controlled for.

TABLE 2.5e. TEMPORARY WORK AND LOW SKILL (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN	WOMEN	MEN	WOMEN
	11a [†]	11b	11c	11d
Temporary work	0.72	0.48***	1.13	0.71
Low skill	0.9	1.11	0.93	0.93
Temporary work*Low skill	0.87	0.86	0.93	0.54
n (person-months)	196462	172686	163419	136916
N (individuals)	2240	2582	2161	2450
N of events	1276	1549	539	547
Mean observation duration	87.7	67.4	76	56.7
Likelihood	-7171.613	-8366.043	-3347.308	-3332.523
Wald Chi ²	835.17	807.43	489.78	393.14

[†]Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: **1.**Reference category is permanent employee. **2.** Unemployment rate, time dummies, family status and cohort are controlled for.

TABLE 2.5f. TEMPORARY WORK AND HAVING A CHILD (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN	WOMEN	MEN	WOMEN
	13a	13b	13c	13d
Temporary work	0.68*	0.42***	1.03	0.66*
Has/expecting a child	1.60***	0.72*	5.38***	2.40***
Temporary work*Child	1.1	2.27	2.03	(dropped)
n (person-months)	196462	172686	163419	136685
N (individuals)	2240	2582	2161	2450
N of events	1276	1549	539	547
Mean observation duration	87.7	67.4	76	56.7
Likelihood	-7286.545	-8456.766	-3346.991	-3331.834
Wald Chi ²	703.37	629.37	521.81	388.57

Note: **1.**Reference category is permanent employee. **2.** Highest education level, unemployment rate, time dummies and cohort are controlled for.

Part-time hours: Part time work is another form of atypical employment and it may elevate the impact of temporary contracts. Table 2.5g shows that there is a strong and negative effect of the interaction term for women’s transition into cohabitation. Among

the female temporary employees those working part time are almost 95 per cent less likely to cohabit compared to those working full-time. The mean age for part-time temporary employment for women is two years greater than the mean age for full-time temporary employment. In other words among the temporary employees, women working part time are, on average, two years older. This is inconsistent with the idea that female part-time temporary employees delay partnership formation due to their younger age. It is more plausible to argue that women who are experiencing double insecurity as a result of the combination of temporary work and part-time hours are not potential attractive partners, therefore are less likely to cohabit than female temporary employees working full-time.

TABLE 2.5g. TEMPORARY WORK AND PART TIME WORKING HOURS (ODDS RATIOS)

	TRANSITION INTO MARRIAGE		TRANSITION INTO COHABITATION	
	MEN 12a [†]	WOMEN 12b	MEN 12c	WOMEN 12d
Temporary work	0.73*	0.40***	1.21	0.92
Part time hours	0.50*	1.24	0.42*	1
Temporary work*Part time	1.3	1.66	1.28	0.06**
n (person-months)	196462	172686	163419	136916
N (individuals)	2240	2582	2161	2450
N of events	1276	1549	539	547
Mean observation duration	87.7	67.4	76	56.7
Likelihood	-7170.114	-8364.183	-3343.755	-3324.986
Wald Chi ²	835.96	816.56	500.54	401.03

[†]Likelihood ratio test indicates statistically significant unobserved heterogeneity.

Note: **1.**Reference category is permanent employee. **2.** Highest education level, unemployment rate, time dummies, family status and cohort are controlled for.

2.4e. Unobserved Heterogeneity: Individual Specific Factors in Partnership Formation?

Besides the variables included in these analysis, there might be some individual specific unobserved factors which are correlated with partnership formation process. Some individuals might be more likely to form earlier partnerships than others for reasons like

preferences, personality traits or physical attractiveness which are not available to the researcher with survey data. Omission of such unobservables, if they exist, would bias the estimates, therefore they should be controlled for.

Every model presented above is replicated by applying a frailty model which takes into account the unobserved heterogeneity as discussed previously. The results from frailty models are not presented in this chapter however, the models are indicated with the symbol (\dagger) when the likelihood ratio tests suggest that there is statistically significant unobserved heterogeneity. The results suggest that there are some unobserved individual specific factors that affect the timing of marriages, especially for men. The unobserved heterogeneity becomes insignificant for women's marriage timing once unemployment and temporary work are interacted with vulnerability measures.

Even though there are some individual-specific unobserved factors influencing young adults' transition into marriage, controlling these characteristics change the coefficients of labour market variables only marginally. The only indicator for which the estimates change remarkably after controlling for unobserved heterogeneity is that of family status. The positive effect of cohabiting as opposed to being single increases sharply as does the effect of the effect of parenthood (current or expected) as opposed to being single and childless. It can be concluded that the labour market insecurity variables included in no-frailty models give reasonably unbiased estimates.

2.5. CONCLUSION

This chapter is an attempt to analyze the relationship between labour market insecurity and how it affects young individual's transition into first partnerships. The findings suggest that insecurity has a remarkable effect on young individuals' partnership formation process. The empirical analyses revealed that individuals delay forming their

first marital partnerships when they experience insecurity in the labour market. It was also shown that the experience of temporary work causes a postponement of cohabitation among women. Both unemployment and temporary work are associated with a lower probability of forming partnerships. However, the insecurity which arises from the two sorts of labour market statuses affects men's and women's partnership formation distinctly. As a result of unemployment only men postpone entry into marriage. Similarly, unemployed men's likelihood of marrying is one third lower than unemployed women's odds of marrying. On the other hand, the experience of temporary employment is associated with delayed transitions into marriage for both men and women, and a delay in the transition into cohabitation for women. The interaction effect showed that women in temporary employment enter into partnerships later than men with similar job contract. It can be concluded that unemployment poses more insecurity for male life course whereas temporary work poses more insecurity for female life course.

Since insecurity causes a delay in both men's and women's partnership formation process, this chapter provides support for the complementary roles hypothesis (H₄) which expects a delaying effect of insecurity for both sexes. On the other hand, because women, overall, are not more likely to enter into partnerships when they are in insecurity compared to when they are not, there is no evidence for specialized-roles hypothesis (H₃).

This chapter analysed in detail the impact of insecurity for the transition into marriages and transition into cohabitations as first partnerships. The cohabitation hypothesis (H₇) predicted that young individuals would be more likely to cohabit when they are experiencing insecurity in the labour market because they would not be able to afford marrying whereas cohabitation would provide them with most of the benefits of marriage. There is no support from the individual information for the cohabiting hypothesis.

CHAPTER 2

Conversely, there is a delaying impact of temporary work on women's cohabitation timing. However, aggregate level unemployment rate suggests a small but positive relationship between unemployment rate and transition into cohabitation, which might provide some support to the cohabitation hypothesis.

Partnership formation is a crucial step in life course, and its timing is closely related to individuals' labour market integration and how well they do. As a result of the changes which have been taking place in the employment relations, young individuals are facing more uncertainty. The role of work trajectories is becoming more influential for individuals' decisions regarding their partnered lives. This chapter showed that those with experience of insecurity shape their first partnership formation process different than individuals who have not experienced insecurity in the labour market.

References (2):

- Aassve, Arnstein, Maria A. Davia, Maria Iacovou, and Stefano Mazzucco. 2007. "Does leaving home make you poor? Evidence from 13 European countries." *European Journal of Population* 23:315-338.
- Arulampalam, Wiji. 2001. "Is unemployment really scarring? Effects of unemployment experiences on wages." *Economic Journal* 111(475):585-606.
- Bakker, Arnold B. and Sabine A. E. Geurts. 2004. "Toward a dual-process model of work-home interference." *Work and Occupations* 31:345-366.
- Beck, Ulrich. 1992. *Risk society: Towards a new modernity*. London: Sage.
- . 2000. *The brave new world of work*. Cambridge: Polity Press.
- Becker, Gary S. 1973. "A Theory of Marriage: Part I." *The Journal of Political Economy* 81:813-46.
- Becker, Gary S. 1981. *A treatise on the family*. Cambridge: Harvard University Press.
- Berrington, Ann and Ian Diamond. 2000. "Marriage or cohabitation: a competing risks analysis of first-partnership formation among the 1958 British birth cohort." *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 163:127-151.
- Blossfeld, Hans Peter and Sonja Drobnič. 2001. "Careers of Couples in Contemporary Society: From Male Breadwinner to Dual-earner Families." Oxford: Oxford University Press.
- Blossfeld, Hans Peter, Erik Klijzing, Melinda Mills, and Karin Kurz. 2005. "Globalization, Uncertainty and Youth in Society." Abingdon: Routledge.
- Blossfeld, Hans Peter and Andreas Timm. 2003. "Who marries whom: Educational systems as marriage markets in modern societies." Dordrecht: Kluwer Academic Publishers.
- Bumpass, Larry L. and James A. Smith. 1989. "National Estimates of Cohabitation." *Demography* 26(4):615-625.
- Castells, Manuel. 1996. *The rise of network society*. Oxford: Blackwell.
- Clarkberg, Marin. 1999. "The Price of Partnering: The Role of Economic Well-being of Young Adults' First Union Experiences." *Social Forces* 77(3):945-968.
- Crompton, Rosemary and Fiona Harris. 1998. "Explaining Women's Employment Patterns: 'Orientations to Work' Revisited." *The British Journal of Sociology* 49:118-136.
- Davis, Kingsley. 1984. "Wives and work: Consequences of the Sex Role Revolution." *Population and Development Review* 10:397-417.
- Durkheim, Emil. 1960. *The division of labour in society*. Glencoe, Ill: The free press.
- Eggebeen, David J. and Alan J. Hawkins. 1990. "Economic Needs and Wives Employment." *Journal of Family Issues* 11:48-66.
- Ermisch, John. 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.
- Ermisch, John, and Marco Francesconi. 2000. "Cohabitation in Great Britain: not for long, but here to stay." *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 163(Part 2):153-171.
- Gregory, Mary, and Robert Jukes. 2001. "Unemployment and subsequent earnings: Estimating scarring among British Men 1984-94." *Economic Journal* 111(475):607-625
- Hakim, Catharine. 2000. *Work-lifestyle Choices in the 21st Century: Preference Theory*. Oxford: Oxford University Press.

CHAPTER 2

- . 2002. "Lifestyle Preferences as Determinants of Women's Differentiated labour Market Careers." *Work and Occupations* 29:428-459.
- . 2003. "A New Approach to Explaining Fertility Patterns: Preference Theory." *Population and Development Review* 29:349-374.
- Hochschild, Arlie Russell. 1990. *The Second Shift*. New York: Avon Books.
- Kalmijn, Matthijs. 1994. "Assortative Mating by Cultural and Economic Occupational Status." *the American Journal of Sociology* 100:422-52.
- Kangas, Olli and Joakim Palme. 2000. "Does social policy matter? Poverty cycles in the OECD countries." *International Journal of Health Services* 30:335-352.
- Kiernan, Kathleen. 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.
- Kmec, Julie A. 2005. "Setting Occupational Sex Segregation in Motion: Demand-Side Explanations of Sex Traditional Employment." *Work and Occupations* 32:322-354.
- Manning, Wendy and Nancy Landale. 1996. "Racial and Ethnic Differences in the Role of Cohabitation in Permanent Childbearing." *Journal of Marriage and the Family* 58:63-77.
- Mare, David. 2006. "Constructing Consistent Work-life Histories: A guide for users of the British Household Panel Survey." in *ISER Working Paper*. Colchester: ISER.
- Maume, David J. 2006. "Gender Differences in Taking Vacation Time." *Work and Occupations* 33:161-190.
- Mincer, Jacob and Solomon Polacheck. 1974. "Family investments in human capital: Earnings of women." *Journal of political economy* 82:76-S108.
- Oppenheimer, Valerie Kincade. 1988. "A theory of marriage timing." *the American Journal of Sociology* 94:563-591.
- . 1994. "Women's Rising Employment and the Future of the Family in Industrial Societies." *Population and Development Review* 20:293-342.
- Oppenheimer, Valerie Kincade, Matthijs Kalmijn, and Nelson Lim. 1997. "Men's career development and marriage timing during a period of rising inequality." *Demography* 34:311-330.
- Parsons, Talcott. 1949. "The social structure of the family." Pp. 173-201 in *The family: Its function and destiny*, edited by R. Anshen. New York: Harper and Brothers.
- Pronzato, Chiara. 2008. "BHPS Family File." edited by U. o. E. Institute for Social and Economic Research; distributed by The Data Archive, Colchester.
- Rendall, Michael S. , Lynda Clarke, Elizabeth H. Peters, Nalini Ranjit, and Georgia Verropoulou. 1999. "Incomplete reporting of men's fertility in the United States and Britain: a research note." *Demography* 36:135-144.
- Rindsfuss, Ronald and Audrey Van den Heuvel. 1990. "Cohabitation: A Precursor to Marriage or an Alternative to Being Single." *Population and Development Review* 16:703-26.
- Santin, Gaëlle, Christine Cohidon, Marcel Goldberg and Ellen Imbernon. 2009. "Depressive symptoms and atypical jobs in France, from the 2003 Decennial health survey" *American Journal of Industrial Medicine*, 52(10): 799-810.
- Schoen, Robert and John Wooldredge. 1989. "Marriage Choices in North Carolina and Virginia, 1969-71 and 1979-81." *Journal of Marriage and the Family* 51(2):465-481.
- Schultz, Theodore W. 1974. "Marriage, family human capital, and fertility." *Journal of political economy* vol. 82, pt.2.

- South, Scott J. and Glenna Spitze. 1994. "Housework in Marital and Nonmarital Households."
American Sociological Review 59(3): 327-347.
- Stee, Fiona, Constantinos Kallis, Harvey Goldstein and Heather Joshi. 2005. "The Relationship
between Childbearing and Transitions from Marriage and Cohabitation in Britain."
Demography, 42(4): 647-673
- Tyree, Andrea and Judith Treas. 1974. "The Occupational and Educational Mobility of Women."
American Sociological Review 39:293-302.

CHAPTER 2

Appendix A - SUMMARY OF THE HYPOTHESES TESTED IN CHAPTER 2

Hypotheses:	Prediction	Support?
H1: Insecure labour market status	“Current unemployment and precarious types of employment reduce the risk of entry into marriage compared to being employed or working with permanent contract.”	Some support
H2: Length of insecurity spell	“As the time spent in unemployment and precarious employment increase, the likelihood of entry into first marriage decreases.”	Some support
H3: Specialized roles hypothesis	“For men labour market insecurity delays the timing of first marriage, however it accelerates the transition into marriage for women.”	Some support
H4: Complementary roles	“Labour market insecurity delays entry into marriage for both men and women.”	Some support
H5: Signalling effect of cohabitations	“Young individuals who are in a cohabiting relationship are more likely to marry than those who are not.”	Support
H6: Duration effect of cohabitation	“The longer the cohabitation duration, the more delayed the marriage.”	Support
H7: Cohabitation Hypothesis	“Labour market insecurity accelerates the formation of cohabiting unions”	Some support
H8: Undesirability hypothesis	“Poorly educated and/or lower skilled young individuals in precarious employment stay single longer before forming their first partnership than those in secure employment.”	Support
H9: Gains from cohabitation	“Poorly educated and/or lower skilled young individuals in precarious employment form cohabiting partnerships sooner than those in secure employment.”	No support
H10: Heterogeneity of women	“As the educational level of women in insecure employment increases, the more delayed is the transition into partnership is delayed.”	Some support

3

LABOUR MARKET INSECURITY AND TRANSITION INTO PARENTHOOD

CHAPTER THREE:

LABOUR MARKET INSECURITY AND TRANSITION INTO PARENTHOOD:

AN ANALYSIS OF INDIVIDUAL AND COUPLE INSECURITY AS A DETERMINANT OF TIMING OF FIRST BIRTHS

The aim of this chapter is to investigate how labour market insecurity affects the timing of transition into parenthood. I focus on two forms of insecurity: unemployment and temporary work. Unemployed individuals are more likely to experience poverty, mental health problems, repeated unemployment and lower levels of happiness than individuals who are in employment. Yet, the results regarding how unemployment affects parenthood decisions are rather inconclusive. Compared to other types of non-standard employment relationships such as part-time work, temporary work is connected to a more significant level of perceived and real job insecurity, and it brings about poorer career outcomes. Temporary work is to a great extent undesired or perceived as unwanted yet necessary step to stable employment, and employees in temporary work feel higher levels of job insecurity. Across Europe, employees in permanent contracts enjoy better job quality, higher levels of security, and better future career prospects than those in temporary contracts. On average those who enter the labour market via temporary work will experience a wage penalty, are more likely to have further temporary work spells and more at risk of future unemployment. Increasingly labour market entrants in Europe start their working lives via this type of employment. A recent body of literature has suggested that temporary work could also have a crucial impact on parenthood decisions.

In recent years there has been a wealth of research on insecurity in the labour market and its implications on fertility decisions. However, the results are far from conclusive and the mechanisms at work are yet to be revealed. The neoclassical family models, which mainly dominate the theoretical framework, argue that men's labour market insecurity will delay fatherhood as it hampers men's capability as providers. For women insecurity will either work the same way as it does for men, because it leads to a reduction of household income; or it will bring forward women's fertility by reducing the opportunity

cost of spending time on child care. Empirical studies found contradictory results for both men and women. This may be partly due to the variation in the social policy settings related to family and economic vulnerability and partly due to different gender ideologies in the countries studied. Most of the studies to date have focused on unemployment, however research on the family consequences of temporary work as a form of labour market insecurity is scarce.

For women's fertility some studies found a positive relationship between unemployment and child-bearing (for example see Liefbroer and Corijn, 1999 for the Netherlands and Flanders; Andersson, 2000 for Sweden; Hoem, 2000 for Sweden; Adsera, 2004 for EU15 countries; Gonzalez and Jurado, 2006 for Spain, Italy, Germany, France; Ozcan *et al.*, 2010 for East Germany). Conversely, some studies showed that unemployment delays women's fertility (for example Witte and Wagner, 1995 for East Germany). Other studies reported no effect at all for Germany (Kreyenfeld, 2009; Ozcan *et al.*, 2010 for West Germany; and Kravdal, 2002 for Norway). There are far fewer studies on men's unemployment and transition into parenthood, and even these are not conclusive. Liefbroer and Corjin (1999) found a negative relationship for the Netherlands. For the UK Payne (1989) and Sullivan and Falkingham (1991) demonstrated that among British men unemployment was associated with earlier entry into fatherhood. In the UK while Francesconi and Golsch (2008) reported no effect, Schmitt (2008) concluded that unemployment delayed men's transition into fatherhood.

As to the United Kingdom, there is a consensus on the positive impact of unemployment for women's entry into motherhood. With respect to men, however, the results are inconclusive. The research conducted by Sullivan and Falkingham (1991) and Payne (1989) both concentrated on young males' family formation behaviour using the National

Child Development Study and both studies showed that unemployment was correlated with early entry into fatherhood. The sample in these studies covered all individuals who were born in a particular week of 1958 in Great Britain. When these studies were carried out, the sample had been observed until 1981 when the respondents were 23 years old. Although these studies are limited by a rather young age group, they are able to follow young men from the beginning of their labour market career. The longitudinal study of Francesconi and Golsch (2008) found no effect of unemployment for British men. They used the first nine waves of the British Household Panel Study and predicted the likelihood of transition into first parenthood with yearly data and they did not find any significant difference in the hazard rates of employed and unemployed men. Finally, Schmitt (2008) analysed the gender-specific effects of unemployment in four European countries using the ECHP (1994-2001) data. His analysis yielded a negative effect of unemployment on British men's entry into parenthood. He also controlled for partner's education level, unemployment status and income and found that men's partner's unemployment increased the risk of parenthood. But partner characteristics were not matched by own characteristics, thereby falling short of explaining how the combination of both partners labour market activity effects timing of childbearing. Even though the last two studies mentioned above adopted dynamic models and observed men from a wide range of age groups, they fail to capture the entire work history of respondents.

Relatively much less empirical research has been carried out on temporary work and parenthood; and the findings are also inclusive. Scherer who compared 16 EU countries (including the UK) found that temporary employees are less likely to intend to have children in the future (2009). However Francesconi and Golsch's study did not reveal a direct effect of temporary work on transitions into parenthood (2008).

In this chapter the main objective is to reveal *whether labour market insecurity has any effect on the timing of parenthood and if so what the sign of the effect is and whether it varies between men and women*. This task is carried out using the family and work history files, prepared using the British Household Panel Study, which enable us to follow individuals' career histories, starting from their reproductive age, on a monthly basis. Labour market insecurity is measured by two indicators: unemployment and temporary work experiences. Not only current insecurity but also its duration and its impact for different occupational skill groups, education levels and work hour arrangements (full-time/part-time) are examined. One important contribution of this chapter is that, a differentiation between overall insecurity (starting from age 14) and within-relationship insecurity has been made by estimating all models for both time-frames. Another contribution is a detailed examination of couples' employment status and its impact on timing of parenthood. A set of models compare the transition rates of couples in secure and insecure employment and of couples in terms of educational homogamy, while another set of models include employment and education information of the spouses at the individual level. This chapter also aims at shedding more light on the issue of male unemployment and fatherhood. The effect of unemployment for marital and non-marital childbearing and the age effect of unemployment are discussed.

The structure of this chapter is as follows: In Section 3.1 I will present three theoretical frameworks in relation to the economic determinants of parenthood and outline the relevant hypotheses to be tested. Section 3.2 is a brief description of the UK in terms of employment relations and social policies on parenthood. Data and methods are discussed in Section 3.3, while the results are presented in Section 3.4. Concluding remarks and a discussion of the results are found in Section 3.5.

3.1. THEORETICAL FRAMEWORK AND HYPOTHESES:

3.1a. Neoclassical Models - Labour market supply and family formation:

The neoclassical models of fertility (and Becker (1981) more specifically) use two behavioural mechanisms to link labour market participation and family formation: the 'income effect' and the 'price-of-time effect'. It is assumed that marriage and parenthood are both valuable yet costly goods. Higher levels of human capital generally provide better labour market prospects; therefore individuals with higher education will be able to have higher earnings potential than those with lower levels of education. Better labour market prospects are not only necessary to meet the cost of family formation, but also make one an attractive candidate in the marriage market (Oppenheimer, 1988). The 'income effect' therefore predicts that accumulation of human capital has a positive effect on the timing of transition into parenthood. Similarly, an interruption in human capital accumulation would have a delaying impact on parenthood. The 'price-of-time effect', on the other hand, suggests that there are opportunity costs attached to family formation because it would lead individuals to spend less time in the labour market and wage-earning. These opportunity costs are higher for those with higher educational attainment than for those with lower levels of education. The 'price-of-time effect' presumes a negative effect of human capital accumulation on family formation¹⁹.

The same logic can be applied to the relationship between labour market insecurity and transition into parenthood. Those with precarious employment histories are less likely to have high earning potentials and therefore they would postpone parenthood, which suggests that 'income effect' predicts a negative relationship between labour market

¹⁹ See Liefbroer and Corijn, 1999 for a detailed discussion of Becker's view on educational attainment and family formation.

insecurity and parenthood decisions. On the other hand, the opportunity cost of leaving the labour market is much lower for the unemployed or the temporary workers than it is for those who are already in secure employment trajectories. As child-bearing requires a considerable amount of time, 'price-of-time effect' expects those with precarious employment trajectories to enter into parenthood earlier because of lower opportunity costs attached to leaving employment.

Since Becker's theory presumes a traditional family with a sex-specific division of labour (Oppenheimer, 1994), the 'income effect' would explain the relationship between labour market insecurity and parenthood among *men*, whereas 'price-of-time effect' would explain the relationship among *women*. In this traditional family-system framework, men are specialized in the labour market and they maintain the breadwinner role when the baby comes. They are less likely to enter into fatherhood when they have insecure employment trajectories; hence, for men the income effect predicts a negative relationship between insecurity and child-bearing. Women, on the other hand, predominantly specialize in home-making and child-bearing. When they are in full-time and/or permanent employment, combining the home-maker and labour market activities becomes highly problematic. The 'price-of-time effect' leads one to expect that when women are unemployed or in temporary work, they are more likely to enter into motherhood because the opportunity cost of leaving the labour market is much lower.

In short, with respect to the 'income effect' and the 'price-of-time effect', we can expect the following outcomes for individuals experiencing labour market insecurity: Men's entry into fatherhood would mainly be determined by the income effect, *those with insecure labour market conditions delaying the timing of having the first child compared to those in secure employment conditions*. Women's entry into motherhood, on the other

hand, is expected to be determined by both of the mechanisms. In the last half century women have increasingly spent more time in the education system and now a great many of them are strongly attached to the labour market. When better educated women experience labour market insecurity, the opportunity cost of withdrawal of labour supply is higher, because the amount of wage to be given up is higher; which severely hampers their future career prospects. *Whilst highly educated women are going through labour market insecurity, they are expected to delay motherhood until they consolidate their labour market situation.* In other words, the ‘price-of-time’ effect is expected to dominate the relationship for highly educated women in precarious employment and these women are predicted to enter into motherhood later than would lower educated women. It is also possible to argue that highly educated women in secure employment can better support the family, as well as have the opportunity to buy childcare from the market. In that case, based on the ‘income effect’ one would expect early entries into motherhood because motherhood and wage-earner roles would be compatible for these women. It is worth keeping in mind that highly educated women spend more time in education leaving the student role at an older age than do less educated women. All in all, for this group I expect ‘price-of-time’ effect to overrule the ‘income effect’ in the UK setting where affordable child care is almost non-existent. Conversely, women with lower education qualifications may prefer to compensate for occupational insecurities by concentrating on the motherhood role (Friedman, *et al.*, 1994). They may try to gain social status via motherhood, because the chances of gaining self esteem via occupational achievement are substantially lower for poorly educated women in precarious employment (Tölke and Diewald, 2003).

The hypotheses which can be derived from the neoclassical models can be summarized as follows:

Men's Economic Prerequisite Hypothesis: Men going through labour market insecurity delay entry into fatherhood (H₁).

Women's Earnings Potential Hypothesis: Highly educated women going through labour market insecurity delay entry into motherhood (H₂).

Women's parent role adoption hypothesis: Poorly educated women going through labour market insecurity enter into motherhood earlier (H₃).

3.1b. Couple's Joint Insecurity and Fertility Decisions:

In the light of the neoclassical family models presented above insecurity should be related to men and women's family formation behaviour. However, the extent to which insecurity affects a person's fertility decisions may be greatly affected by their partner's employment status. It is reasonable to imagine that one partner's success in the labour market can compensate for the other's failure. For example, for an unemployed man(woman) who has a partner with secure employment, the consequences of joblessness would not be the same as they would have been for an unemployed man(woman) who has a partner with very low earnings potential. Similarly, whether a man is partnered with a woman who is inactive or not also affects how much time a couple has for childbearing. Availability of women's time may offset the insecurity effect; thereby wiping out the differences between employed and unemployed men's transition rates into fatherhood.

Another issue is that partners' employment statuses are correlated and one party's entry into and/or exit from labour market may influence the other's entry/exit. It can be argued

that one partner's unemployment creates incentives for the other to be employed, and *vice versa*. However, many studies showed that unemployment is concentrated within couples (see Ström 2003 for a review of results). There are several reasons which can explain 'unemployment homogamy'. First, as couples live together they encounter the same local labour market conditions, thereby both falling into unemployment in areas with poor economic performance (de Graaf and Utlee, 2000; Utlee *et al.*, 1988). Second, in most of the advanced industrial countries partners are sorted assortatively according to their earnings potential measured as educational attainment (Mare, 1991; Blossfeld and Timm, 2003). The inequality in the marriage market can shape the inequality in the labour market and as a result individuals with lower educational attainment, who are more vulnerable in the labour market, end up partnering with those who have similar traits.

The following hypotheses can be formulated based on couple's joint employment activity:

Insecurity hypothesis: Asymmetrical couples with one secure and one insecure partner in terms of labour market status postpone entry into parenthood compared to dual-earner couples, because they do not have as much financial basis to support a child (H₄).

Women's availability of time hypothesis: Couples with an inactive female spouse are more likely to have their first children compared to couples with an employed female spouse. (H₅).

Dual-insecurity hypothesis: When both partners experience labour market insecurity they are expected to remain childless for longer periods than couples where at least one partner is in secure employment (H₆).

3.1c. Insecurity and ‘Theory of Out-of-Wedlock Childbearing’:

The theories I have discussed so far assume that individuals make their procreative decisions within a marital union, and I outlined their predictions about the effect of labour market insecurity on transition into parenthood from this neoclassical framework. These theories suggest that when the joint income of a couple is sufficient to afford to have a child, then the couple will marry and have children. However, economic conditions can also affect fertility behaviour out of wedlock. Two ways in which economic opportunities may affect non-marital fertility have been suggested. First, Wilson (1987) argued that poor employment opportunities for young men may discourage marriage. This will increase the population of young women at risk of giving birth outside wedlock, and pregnant women will not want to marry the father of the child. Secondly, Willis's theory of out-of-wedlock childbearing (1999) argues that a man may prefer to remain single and father children out of wedlock if he can attract a sufficient number of partners who are willing to bear his children with little or no support from him. He shows that men are more likely to father children out of wedlock when the absolute level of male income is lower and female income relative to males is higher. This theory found empirical support especially from studies on black lone-motherhood in the US (Moynihan, 1965; Wilson, 1987). The studies found a remarkable link between areas with high unemployment rates among black men and number of female-headed households. They suggested that under these circumstances, where there is a shortage of marriageable men, women prefer having children out of wedlock instead of waiting for a marriageable man. The availability of welfare support for lone-mothers was also seen to make lone-motherhood more tolerable. Similarly, using the British Household Panel Study Ermisch (2000, 2005) found that poor employment opportunities encouraged childbearing outside of marriage, and discouraged

the formation of cohabiting unions. Furthermore, Ermisch and Francesconi (2000) show that cohabiting women with unemployed partners are much more likely to have a child.

Additionally some men may be self-selected into marriage and fathering children within marriage. These men may initially give more importance to the idea of providing sufficient resources for children before having them. In the case of labour market insecurity, married men who are unemployed or have temporary jobs will delay their transition into fatherhood. On the other hand, single and cohabiting men in the same situation may bring forward their paternity plans when they do not attract marriage partners but still attract partners with whom they can have children. The hypothesis to be tested is:

Non-marital childbearing hypothesis: Unemployed single men are more likely to conceive their first child than employed single men when they can shift the cost of childrearing to single mothers (H_{7a}), and, unemployed unmarried (single or cohabiting) men become fathers sooner than employed unmarried men when there is a shortage of marriageable men (H_{7b}).

3.2. EMPLOYMENT REGIME, WELFARE AND FAMILY SYSTEMS IN THE UK

With respect to market relations the United Kingdom represents a liberal market economy with low state interference in occupational and family relations (Esping-Andersen, 1990). Hiring and firing workers is not regulated by strong legal barriers, and both employees and employers focus on maximisation of income on a short-term basis rather than establishing long-term relations (Hall and Soskice, 2001). The welfare state provides only minimal support for economic risks such as unemployment; therefore individuals are exposed to extensive risks of poverty and insecurity. Still, due to high labour market

turnover and flexibility, the problem of long-term social exclusion is not a major problem (DiPrete, 2002). The volatile structure of the labour markets endows young adults' life courses with a high level of precariousness and economic insecurity. The unemployment benefit regulations are rather ungenerous. There is only income support (currently called the Jobseekers' Allowance) which is a flat rate insurance for up to 6 months, and there is no universal unemployment assistance scheme. Therefore individuals need to be well integrated into the labour market before entering into parenthood, and this integration largely depends on the variation among individuals on the basis of educational qualifications, labour market status as well as employment contract and work hours.

The UK provides minimal support also with respect to family policies. During the period of this study child related leaves were primarily awarded to mothers²⁰. Child allowance benefits are lower than many European countries, and unemployed parents are not entitled to family transfers. Public childcare is provided only for those over four years old. There is a public help scheme towards childcare costs for families with under-school-age children; nevertheless, particularly for the better off couples, childcare costs are one of the highest among the EU countries (Bradshaw and Finch, 2002). Lack of extensive family policies encourages women to take part in the market economy and dual earner family formation works as a preventive measure against labour market insecurity. However, women's great participation in the labour market does not result in a gender-egalitarian system. In the UK the majority of non-standard work contracts such as part-time or temporary jobs are held by women, and in most of the cases women's income

²⁰ The life and family history data files used in this paper covers the period until 2004. Women were entitled with a 26-weeks maternity leave whereas paternity leave consisted of a leave up to two weeks to be taken within 56 weeks after the birth in 2004 (OECD, 2005).

constitutes just a contribution to the family income. It is mostly women who reduce their working hours or withdraw from the labour market for child-bearing.

3.3. DATA AND METHODS

3.3a. An overview of the data and the sample:

The sample comes from the British Household Panel Study. BHPS is a yearly longitudinal survey which started in 1991 with 10,300 individuals coming from 5,500 households; and so far it has 18 waves available. Each wave, among other variables, contains information on employment status and family events that occurred in the last year and this information is recorded on a monthly basis. In the second, third, tenth and the eleventh waves a retrospective survey was introduced to collect the entire family and employment histories. Thus, reliable monthly work-life and family history information is available in the BHPS data. Using the waves and retrospective surveys a family file and a work-life history file²¹ were synthesized. The sample I use in this chapter comes from these synthesised files. In order to limit the sample to those with complete family and work histories I first selected individuals who were included in one of the surveys which contained retrospective family and work histories. I then used the family file to determine the end of observation period for each individual, being the month of birth of the first child, or the last month observed for those who did not yet have a child. However, I subtracted nine months from the birth of the first child, 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 time of conception, however, can

²¹ Family File has been prepared by Chiara Pronzato (2008) and is available via UK Data Archive. Work-History File has been prepared by David Mare (2006) and is available via UK Data Archive.

enable me to reveal rational decisions on family formation²². After this, I merged the work-history information with family data until the end of the observation period. I then excluded respondents who were born before 1940 or after 1987²³. This process yielded a sample of 6540 individuals with full work and family histories, of whom 3060 were men and 3480 were women (see table 3.1). On average men are observed for 172 months (14.3 years) and women for 146 months (12.2 years) as women become parents earlier than men. 57.6 per cent of men became fathers over the period at the average age 26.6. 68.5 per cent of women became mothers at the average age 24.0. 49 per cent of men and 54.4 per cent of women had at least one episode of marriage, whereas only 33.4 per cent of men and 32 per cent of women had been in a cohabiting relationship.

TABLE 3.1. A SNAPSHOT OF THE BHPS WORK LIFE-FAMILY HISTORY SAMPLE

	Men		Women		All	
	Freq.	%	Freq.	%	Freq.	%
First birth	1763	57.6	2384	68.5	4147	63.4
Single episode	3056	99.9	3474	99.8	6530	99.8
Married Episode	1499	49	1892	54.4	3391	51.9
Cohabiting episode	1022	33.4	1115	32	2137	32.7
Age at first birth	26.6		24		25.1	
Total number of individuals	3060		3480		6540	
Total number of person-months	526813		510612		1037425	

Table 3.2a and 3.2b present the distribution of the sample by employment status indicators, and reveals slight differences between men and women with men suffering

²² Going backwards from the date of the child to conception is not unproblematic. By using this method I am not able to capture the conceptions which 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 Statistics, 2008). Maternity rates after conception among women over 40 are the lowest (ranging between 66 per cent -76 per cent).

²³ Some of the younger individuals in this age range, especially who were born in the 1980s, are likely to be right-censored because they were in their twenties when they are last observed. And those who have a child at young age may be a selected group who bias the estimates. However this group is very small and I preferred to include them in the analysis.

from insecurity more often than women. As to the labour market insecurity, more men than women experienced unemployment and temporary work for at least one month (37 per cent of men and 25 per cent of women had been unemployed, and 35 per cent of men and 30 per cent of women had had temporary work). For both sexes short term unemployment is the most common (28 per cent and 20 per cent for men and women respectively), whereas only 8 per cent of men and 5 per cent of women had been unemployed over a year. Short term temporary work is also the most common duration among both men and women (18 per cent and 15 per cent respectively), whereas only 8 per cent of men and 7 per cent of women in the sample have had extensive temporary work experience lasting more than two years.

The distribution of couples among secure and insecure employment combinations is presented in Table 3.3. Secure employment for couples is the most common state and around 90 per cent of all couples have spent at least a month as dual-earners. Employed male and inactive female follows this with a fifth of all couples. Joint insecurity is limited to a small fraction of couples. Only 2 per cent of couples had experienced joint unemployment with both of the partners being jobless at the same month, and another 2 per cent of the couples had joint temporary work. Another 1 per cent had been in a situation where one of the partners had a temporary job and the other was unemployed.

TABLE 3.2. DISTRIBUTION OF THE SAMPLE BY EMPLOYMENT VARIABLES

	Men			Women		
	Person-months (N)	Persons (n)	%	Person-months (N)	Persons (n)	%
Employment Status						
Employed	347010	2975	97.3	326245	3312	95.36
Permanent	264839	2679	87.8	252578	3031	87.3
Temporary	22820	1053	34.5	20919	1029	29.64
Unemployed	16554	1122	36.7	9541	871	25.08
Out of Labour Force	10932	558	18.3	19147	870	25.05
Student	100330	2789	91.2	111473	3168	91.22
Duration of Unemployment						
1-6 months (short)	3945	869	28.4	2833	679	19.51
7-12 months (medium)	3773	326	10.7	2123	200	5.75
1+ years (long)	8836	252	8.2	4585	166	4.77
Duration of Temporary Work						
1-6 months (short)	2177	534	17.5	2218	520	14.94
7-12 months (medium)	4365	360	11.8	4302	358	10.29
1-2 years (long)	4158	222	7.3	4763	242	6.95
2+ years (extensive)	12120	254	8.3	9636	238	6.84
Employment and Skill						
Low skilled	91553	1718	56.2	65425	1577	45.41
Medium skilled	179471	2272	74.3	197228	2567	73.91
High skilled	52823	848	27.7	43395	701	20.18
Temporary Work and Skill						
Low skilled	9152	572	18.7	7659	480	13.82
Medium skilled	10985	590	19.3	11007	672	19.35
High skilled	2618	127	4.2	2203	118	3.4
Contract type						
Full-time permanent	235506	2510	82.2	223514	2813	81.02
Full-time temporary	11008	704	23.1	10186	685	19.73
Part-time permanent	9374	408	13.4	20392	742	21.37
Part-time temporary	7715	435	14.3	9737	513	14.78
Self-employed	27211	473	15.5	10354	222	6.39

Note: % refers to the percentage of individuals who fall in the relevant category at least for one month (i.e. 97.3% all men have been employed at least for a month)

TABLE 3.3. DISTRIBUTION OF THE SAMPLE BY COUPLE MATCHED EMPLOYMENT STATUS

	Men			Women		
	Person-months (N)	Persons-months (n)	%	Person-months (N)	Persons (n)	%
Couples in Unemployment Models						
Employed & Employed	62142	1112	90.4	65306	1193	91.6
Employed & Unemployed	1095	125	10.2	1324	134	10.3
Employed & Inactive	5035	290	23.6	2760	105	8.1
Unemployed & Employed	1344	129	10.5	1009	131	10.1
Unemployed & Unemployed	194	23	1.9	190	23	1.8
Unemployed & Inactive	284	40	3.3	200	21	1.6
Inactive & Employed	1189	62	5	4784	251	19.3
Inactive & Unemployed	186	10	0.8	250	32	2.5
Inactive & Inactive	825	34	2.8	1937	44	3.4
Total number of individuals	72294	1230		77760	1302	
Couples in Temporary Work Models						
Permanent & Permanent	38398	873	83	41226	948	85.2
Permanent & Temporary	1729	96	9.1	1649	97	8.7
Permanent & Unemployed	822	101	9.6	896	106	9.5
Permanent & Inactive	3958	236	22.4	1981	86	7.7
Temporary & Permanent	1647	90	8.6	1355	99	8.9
Temporary & Temporary	239	20	1.9	225	21	1.9
Temporary & Unemployed	47	11	1.1	150	16	1.4
Temporary & Inactive	316	29	2.8	163	15	1.4
Unemployed & Permanent	892	103	9.8	803	106	9.5
Unemployed & Temporary	149	15	1.4	32	9	0.8
Unemployed & Unemployed	194	23	2.2	190	23	2.1
Unemployed & Inactive	284	40	3.8	200	21	1.9
Inactive & All	2005	83	7.9	6302	250	22.5
Total number of individuals	50680	1052		55172	1113	

Note: % refers to the percentage of individuals who fall in the relevant category at least for one month (i.e. 90% of all men have been in ‘Employed & Employed’ couple situation at least for a month)

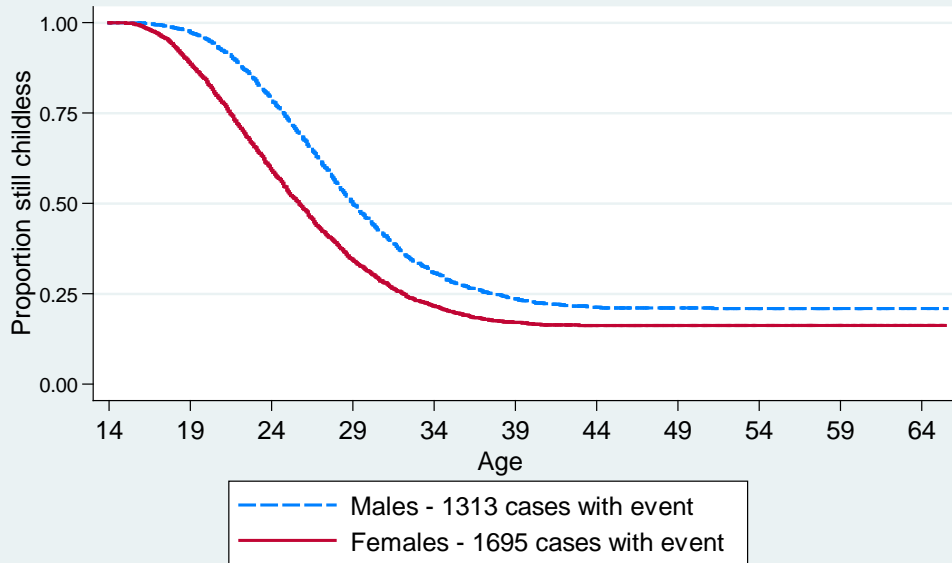
3.3b. A Descriptive Summary: Insecurity and Parenthood

Kaplan-Meier survivor estimates are presented in graphs 3.1a to 3.5b for different groups in the sample. The x axis in these graphs shows age or time, and the y axis show the proportion of individuals who are still childless. Test statistics for difference between groups’ survivor estimates are reported at the bottom of each figure. I report results from

four of the most widely-used test statistics (Log-rank test, Wilcoxon-Breslow-Gehan test, Taron-Ware test and Peto-Peto-Prentice test) that differ from each other on the weights they assign to each time period. For example the log-rank test puts more weight on the end of observation period whereas the Wilcoxon test stresses the differences at the beginning. Each pair of Kaplan-Meier Survivor Estimates Graphs presented below are conducted for the same subsample, only the graphs named with the letter 'a' follow individuals starting from age 14 while the graphs named with the letter 'b' cover the period when the respondent is in a relationship. The purpose of repeating each estimation for two different observation periods is to illustrate that insecurity over the life course and insecurity within relationships have different implications for parenthood decisions.

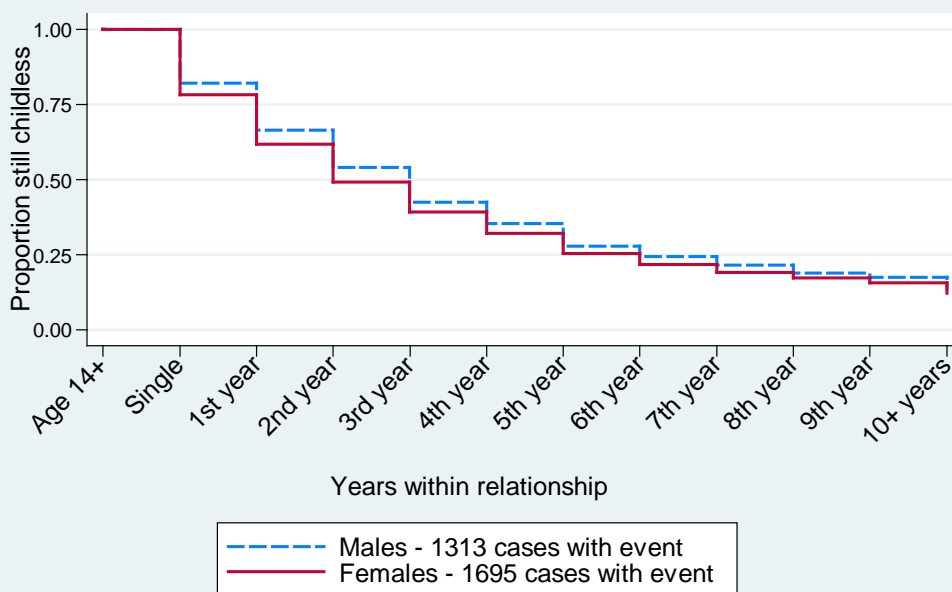
In Graphs 3.1a and 3.1b can be seen the survivor estimates of men and women for each time period where individuals are at risk of transition. It is clear that for all ages and every year in relationship women have higher rates of transition into parenthood, and the difference is statistically significant. By the age of 45, 16 per cent of females and 22 per cent of males in the sample are still childless.

Graph 3.1a. Entry into Parenthood - Duration after age 14



Between-group difference test statistics:
 Long-rank: *** ; Wilcoxon: ***; Tarone-Ware: ***; Peto: ***

Graph 3.1b. Entry into Parenthood - Duration after relationship



Between-group difference test statistics:
 Long-rank: n.s. ; Wilcoxon: *; Tarone-Ware: *; Peto: *

3.3c. Model Specification:

Discrete-time event history analysis and discrete time frailty models are used in order to predict the impact of labour market insecurity on the timing of parenthood. In this chapter I prefer discrete-time models to continuous-time models for following reasons: Even though in theory an event can happen at any point in time, in social science research most often these events are only recorded in discrete time. In the BHPS the variables are collected on a monthly basis. Additionally, setting the data in discrete-time format by episode splitting provides important gains. By keeping a one-month record for each individual, it is possible to introduce time varying covariates into a complicated model. As I include various individual time varying characteristic and spousal information, discrete-time models provide a dynamic modelling strategy. Discrete-time models also allow one to specify very flexible baseline hazard functions. A second issue about model selection is that, failing to control for unobserved heterogeneity may introduce serious bias in event history analysis. The models that account for the unobserved heterogeneity are called 'frailty' models²⁴. If there are individual-specific unobserved factors affecting the timing of parenthood, such as attitudes towards family life, then ignoring the unobserved heterogeneity leads to over-estimating the degree of negative duration dependence as individuals with high unobservable effect will 'fail' faster. Similarly, the degree of positive duration dependence would be under-estimated since individuals with low unobservable effect would 'fail' more slowly. In short, in this chapter I use no-frailty and frailty discrete-time event history models with piece-wise constant hazard function. Most of the statistical software does not have in-built discrete-time and frailty discrete-time event history analysis tools. Stata executes these models with logit and xtlogit

²⁴ I follow Stephen Jenkins (2005) for frailty models.

commands, which perform exactly like logistic regression analysis and random effect models.

In discrete-time logit models the response variable is a binary indicator of the event and here the person-months with no event are recorded as ‘0’ and the ones when the conception of the first child occurs are ‘1’. The hazard function in logit models is written as:

$$h_j(t) = \Pr(y_j(t) = 1 \mid y_j(t-1) = 0) \quad (1)$$

where $h_j(t)$ is the probability of the event occurring 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 (conception) in each (t) where t is the value of the month for each individual, indicated with j . The equations for no-frailty discrete-time models take the following form:

$$\text{logit}[h_j(t)] = \log \left[\frac{h_j(t)}{1-h_j(t)} \right] = \alpha(t) + \beta(x_j) \quad (2)$$

Here $\left[\frac{h_j(t)}{1-h_j(t)} \right]$ refers to the conditional probability of the event occurring in period t for individual j . The hazard of ‘success’ of an event for individual j in period t is denoted by $h_j(t)$, and the ‘failure’ by $1-h_j(t)$. We introduce the random effect in xtlogit models with a u_j term which has a normal (Gaussian) distribution. The frailty discrete-time event history models can be written as:

$$\text{logit}[h_j(t)] = \log \left[\frac{h_j(t)}{1-h_j(t)} \right] = \alpha(t) + \beta(x_j) + u_j \quad (3)$$

where $u_j \sim N(0, \delta_u^2)$, and δ_u^2 is the unobserved heterogeneity or ‘frailty’ term. Basically in the no-frailty models (2) the coefficient $\exp(\beta)$ compares the odds of an event for two

randomly selected individuals with x values 1 unit apart and $\exp(\beta)$ is the population averaged effect of x . On the contrary, in the frailty models (3) $\exp(\beta)$ is the odds ratio of when the random effect is held constant as in comparing two individuals with the same random effect value. In these models $\exp(\beta)$ is the individual-specific effect of x .

In the models above the logit of the baseline hazard function is represented as $\alpha(t)$. I specify the baseline hazard function in a flexible form by grouping the time intervals and using the piece-wise constant hazard function below:

$$\alpha(t) = \alpha_0 D_0 + \alpha_1 D_1 + \alpha_2 D_2 + \dots + \alpha_{11} D_{11} \quad (3)$$

where the time axis is divided into 11 intervals. D_0 represents ‘singlehood’ and it takes the value 1 if the individual is single and 0 otherwise. Intervals D_1 to D_{10} represent each year after the individual is in a relationship. In interval D_{11} I group all the months where the relationship has lasted 11 years or more. The baseline hazard function is a non-linear individual specific function because the timing of relationships varies across individuals and I follow individuals over multiple partnerships.

For each model I repeat a ‘no-frailty’ (logit) and ‘frailty’ (xtlogit) discrete-time analysis. If the likelihood ratio test of ‘rho’ being equal to zero can be rejected, then unobserved heterogeneity has an effect on model parameters. In these cases I report the results from ‘frailty’ models. When the likelihood ratio test cannot suggest statistically significant unobserved heterogeneity, then I use the estimates from ‘no-frailty’ models. In ‘no-frailty’ models I cluster the standard errors by individuals.

In previous studies time period in which to observe the impact of labour market insecurity on transition into parenthood was either defined in a broad manner starting from the

reproductive age or bounded by a number of years due to data availability. In this chapter I use three sets of models to assess the insecurity factor and this enables me to distinguish overall-effect of insecurity and relationship specific insecurity. In the first set of models I use the broad definition of observation period and follow each respondent from age 14 until the conception of the first child (or until the last observation if the case is censored). In the second set of models I include only the months when the individual is in a partnership (legally married or cohabiting) and thereby predict the hazard of conceptions that take place only within a partnership. And in the third set of models I include partner's employment activities and educational qualifications during the partnerships. The analyses are undertaken for men and women separately. The three step strategy aims at disentangling the complex relationship between insecurity and family formation, and the odds ratios are reported throughout the models.

3d. Definitions and Variables:

A wide range of labour market and family variables are used in the models. For individual unemployment models (1a to 4e) I use current employment status, length of current unemployment spell, occupational skill levels, highest educational attainment and contract type. Employment status is self-defined²⁵ and it is a monthly time varying variable. Duration of unemployment is calculated by counting the number of months the respondent has been unemployed until $t-1$ and it is also time-varying. Duration of

²⁵ Since the information in my sample comes from both panel waves and retrospective files there is a slight difference in the definition of unemployment. In both types of data employment status is self-defined, by asking the respondent which category in the show-card describes best their situation (for the time period in question). The difference is that, in the panel waves, unemployment is phrased just as 'unemployment', but in the employment history data it appears as 'unemployed/looking for work'. When asking the respondents to remember their past employment history it is sensible to broaden the definition of unemployment, therefore this definition nuance is not expected to create a bias.

unemployment is grouped into three intervals, Short-term unemployment being up to 6 months, mid-term unemployment between 7-12 months and long-term unemployment 13 months and more. Skill levels are constructed based on Standard Occupation Classification (SOC) scheme. High skilled employees are those in ‘managers & administrators’, and ‘professional occupations’ categories, medium skilled employees are grouped as those in ‘associate professionals and technical’, ‘clerical and secretarial’, ‘craft & related’ and ‘personal & protective sector’ occupations. Finally employees who are in ‘sales occupations’, ‘plant and machine’ and other occupations are classified as low-skilled.

Temporary work variable (used in models 7a to 10e) is also self-defined however it covers a rather limited time range. Whether one’s job is permanent or temporary is not asked in retrospective questionnaires but only in the panel waves. Therefore temporary work analysis covers the labour market activities from 1991 onwards. Seasonal, fixed term and temporary work are classified as temporary work. Temporary work durations are grouped into four: Short-term temporary work which is up to 6 months, mid-term temporary work lasting between 7-12 months, long-term temporary work which is between 13 to 24 months and extensive temporary work if it is 25 months or more. Models 5a-6b and 11a-11b use partners’ employment status and education information derived from the variables described above. In 5a, 6a, 11a and 12a partners’ employment status are controlled for whereas in 5b, 6b, 11b and 12b they are matched to construct ‘couple’ information.

Highest educational qualification (own and partner’s) is divided into four categories; high, medium, low and no qualification. High educational qualification includes Higher Degree and 1st Degree, medium qualifications include Higher National

Certificate/Diploma, teaching qualifications and A levels, and low qualifications are O levels and CSE's. Highest education qualification is a time-constant variable. It takes the highest value an individual obtains over the observation period. Other variables used in the models are the yearly aggregate national unemployment rate, time-dummies for the baseline hazard function, type of partnership (cohabitation or marriage), cohort, age, age squared, partner's education, partner's age and partner's age squared.

3.4. RESULTS

3.4a. Unemployment and parenthood:

Table 3.4 shows the estimates for men's unemployment. Models 1a-1e cover the overall observation period (14+) and models 2a-2e cover only the relationships. Each pair of 'letters' (i.e. 1a and 2a) are identical models except for the observation period. In line with the findings of Payne (1989) and Sullivan and Falkingham (1991) models 1a and 2a reveal a positive impact of unemployment on the transition into fatherhood. This result stands out against the hypothesis of men's economic prerequisite (H_1). Being out of the labour market also has a positive impact on fatherhood, but only in the relationship-specific models. Studentship consistently produces low odds of parenthood for men. When we look at the duration of unemployment (1b-2b), men in short-term and long-term unemployment are more likely to become fathers than those who are not unemployed. Mid-term unemployment is not significant. Short-term unemployment becomes insignificant when we concentrate on periods when the respondent is in a relationship. Long-term unemployment seems to have large and significant positive odds for the likelihood of parenthood in both models, indicating early entries into fatherhood. Skill level has an impact only in the overall period model (1c-2c). Low skilled employees are more likely to become fathers than high skilled ones when observed since the age 14.

Models 1d and 2d include the education level of unemployed men. In both models unemployed men with medium and low education qualifications and those with no qualification become fathers sooner than all employed men. Highly educated unemployed men do not differ from employed men. In work hour models (1e-2e) it is clear that neither part-time work nor self-employment have an impact on men's family formation decisions. What is worth reporting is that in all these models men's unemployment has a positive and significant effect on parenthood. Another labour market indicator in these models is the aggregate level yearly unemployment rate for the UK. It is a robust finding that unemployment rate has a negative impact on transition into parenthood. A one percentage point increase in the unemployment rate causes a 3 per cent drop in the likelihood of parenthood.

The coefficients for highest education qualification seem to be in line with the human capital accumulation theory. The longer men invest in education the less likely they are to become fathers. Higher-educated men are 50 per cent less likely to have their first child than men with no qualifications and the chances get increasingly higher for medium and lower-educated men. Time-dummies for the baseline hazard function indicate that men are much more likely to father their first child when they are in a partnership. There is not a clear pattern in overall period (1a-1e), however, after the first year in relationship the odds for first child increase and summit at the 6th year. Then they decrease but still remain positive throughout the relationship. Within the relationship (2a-2e), 2nd to 6th years do not differ from the first year in terms of hazard of parenthood. The likelihood significantly decreases with the 7th year in the relationship. The type of the relationship matters for conception of the first child. Cohabiting men are 70 per cent less likely to have their first child than married men. There is no cohort effect worth reporting. Age has

CHAPTER 3

a positive effect, but the size of the effect decreases in relationship specific models (2a-2e).

**TABLE 3.4. MEN'S UNEMPLOYMENT AND HAZARD OF TRANSITION INTO PARENTHOOD
ODDS RATIOS FROM LOGIT ESTIMATES**

	From age 14					From start of relationship				
	1a [†]	1b [†]	1c	1d	1e [†]	2a	2b	2c	2d	2e
EMPLOYMENT STATUS - REF. CAT.: EMPLOYED										
Unemployed	1.84***	-	2.06***	-	1.82***	1.67***	-	1.80***	-	1.70***
Out of Labour Force	1.35	1.33	1.56**	1.4	1.33	1.82**	1.80**	1.94**	1.80**	1.85**
Student	0.26***	0.26***	0.23***	0.21***	0.25***	0.42**	0.42***	0.41***	0.38***	0.43**
DURATION OF UNEMPLOYMENT										
Short-term	-	1.74***	-	-	-	-	1.3	-	-	-
Midterm	-	1.31	-	-	-	-	1.44	-	-	-
Long-term	-	2.14***	-	-	-	-	2.24***	-	-	-
SKILL AND EMPLOYMENT STATUS: REF. CAT.: HIGH SKILLED AND EMPLOYED										
Low skilled	-	-	1.24***	-	-	-	-	1.17*	-	-
Medium skilled	-	-	1.12*	-	-	-	-	1.06	-	-
EDUCATION QUALIFICATION OF THE UNEMPLOYED: REF. CAT.: EMPLOYED										
High	-	-	-	0.63	-	-	-	-	0.65	-
Medium	-	-	-	1.63**	-	-	-	-	1.54	-
Low	-	-	-	2.47***	-	-	-	-	1.81**	-
None	-	-	-	2.36***	-	-	-	-	2.77***	-
CONTRACT TYPE AND EMPLOYMENT STATUS: REF. CAT.: FULL-TIME AND EMPLOYED										
Part-time	-	-	-	-	0.68	-	-	-	-	1.21
Self employed	-	-	-	-	1.02	-	-	-	-	1.1
HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE										
High	0.53***	0.54***	-	-	0.54***	0.74***	0.74***	-	-	0.74***
Medium	0.65***	0.65***	-	-	0.65***	0.77***	0.77***	-	-	0.78***
Low	0.84**	0.84**	-	-	0.83**	0.89	0.9	-	-	0.9
N	469573	469485	448160	470921	469573	106313	106313	100477	106387	106313
N	3038	3038	3055	3056	3038	1834	1834	1765	1838	1834
Events	1678	1678	1574	1682	1678	1352	1352	1260	1355	1352
Mean duration	154.6	154.5	146.7	154.1	154.6	58	58	56.9	57.9	58
Likelihood	-9357.9	-9357.3	-8820.5	-9398.8	-9356.5	-6852.6	-6851.4	-6402.0	-6871.5	-6851.9
Wald Chi ²	2066.2***	2056.22***	2125***	2539.68***	2063.2***	467.1***	467.1***	452.1***	481.5***	469***

Legend: * p<0.05; ** p<0.01; *** p<0.001; [†]Frailty models, n: total person months, N: Total individuals

**TABLE 3.4. MEN'S UNEMPLOYMENT AND HAZARD OF TRANSITION INTO PARENTHOOD
ODDS RATIOS FROM LOGIT ESTIMATES (CONTINUES) CONTROL VARIABLES**

	From age 14					From start of relationship				
	1a [†]	1b [†]	1c	1d	1e [†]	2a	2b	2c	2d	2e
UNEMP RATE	0.97**	0.97**	0.97***	0.97***	0.97**	0.97**	0.97**	0.97**	0.97**	0.97**
RELATIONSHIP DURATION - REF. CAT: SINGLE						REF CAT.: 1 YEAR AFTER PARTNERSHIP				
1 year	16.91***	17.03***	16.53***	16.61***	16.86***	-	-	-	-	-
2 years	17.43***	17.57***	15.96***	16.21***	17.38***	0.99	0.99	0.97	0.99	0.99
3 years	17.10***	17.28***	14.54***	15.22***	17.07***	0.94	0.94	0.89	0.93	0.94
4 years	19.98***	20.23***	16.34***	17.30***	19.98***	1.06	1.06	1	1.06	1.06
5 years	16.65***	16.89***	13.04***	13.87***	16.67***	0.85	0.85	0.80*	0.85	0.85
6 years	23.31***	23.61***	17.62***	18.95***	23.38***	1.15	1.14	1.08	1.16	1.15
7 years	14.32***	14.52***	11.03***	11.47***	14.39***	0.69**	0.69**	0.67**	0.70**	0.68**
8 years	13.33***	13.59***	10.59***	10.57***	13.35***	0.63**	0.63**	0.64**	0.64**	0.62**
9 years	14.65***	14.94***	11.21***	11.47***	14.64***	0.67**	0.67**	0.68*	0.69*	0.67**
10 years	11.76***	11.98***	8.69***	9.11***	11.77***	0.52**	0.52**	0.52**	0.54**	0.52**
11+ years	6.81***	6.96***	4.99***	5.07***	6.79***	0.27***	0.27***	0.27***	0.28***	0.27***
COHABITING	0.30***	0.30***	0.32***	0.32***	0.30***	0.31***	0.31***	0.32***	0.32***	0.31***
COHORT- REF. CAT.: 1970-1985 COHORT										
1940-1949	1.14	1.15	1.24**	1.23**	1.11	1.07	1.08	1.15	1.16	1.09
1950-1959	1.04	1.05	1.11	1.1	1.02	1.05	1.05	1.07	1.07	1.06
1960-1969	1.19*	1.18	1.24**	1.23**	1.16	1.18	1.18	1.19	1.2	1.2
AGE	1.45***	1.45***	1.40***	1.38***	1.44***	1.30***	1.30***	1.28***	1.27***	1.30***
AGE ²	0.99***	0.99***	0.99***	0.99***	0.99***	1.00***	1.00***	1.00***	1.00***	1.00***
N	469573	469485	448160	470921	469573	106313	106313	100477	106387	106313
N	3038	3038	3055	3056	3038	1834	1834	1765	1838	1834
Events	1678	1678	1574	1682	1678	1352	1352	1260	1355	1352
Mean duration	154.6	154.5	146.7	154.1	154.6	58	58	56.9	57.9	58
Likelihood	-9357.9	-9357.3	-8820.5	-9398.8	-9356.5	-6852.6	-6851.4	-6402.0	-6871.5	-6851.9
Wald Chi ²	2066.2***	2056.22***	2125***	2539.68***	2063.2***	467.1***	467.1***	452.1***	481.5***	469***

Legend: * p<0.05; ** p<0.01; *** p<0.001; [†]Frailty models, n: total person months, N: Total individuals

Women's unemployment and transition into parenthood are reported in Table 3.5. All models show that unemployment has a positive effect only in the overall period, and it becomes insignificant in the within-relationship models. The first set of models includes conceptions both in partnerships and in singlehood. Unemployment may accelerate the fertility hazard for single women but once they are in a partnership it does not have any effect. This may be explained by child benefits that single mothers can claim. Alternatively, some women may prefer to become single mothers if there is a shortage of marriageable men around them, which is predicted in non-marital child-bearing

hypothesis (H_{7b}). Being out of the labour market has a consistent and large positive effect on women's fertility decisions which is along the lines of neoclassical models. Studentship has a delaying effect only in the overall period. It does have a negative impact, however, once women are in a partnership being a student or not does not matter for first births (3a-3e). Similar to men, duration models (3b-4b) show that short-term and long-term unemployment bring forward motherhood in the overall period, but only long-term unemployment does so in the relationship-specific model. When unemployment period gets longer women may lose their commitment to looking for a job thereby reducing the job seeking efforts. Hence, they have more time available for child bearing. Models 3c and 4c include the occupational skill level of employed women. Employed women with lower skills are more likely to become mothers than high skilled women; however there is no difference between medium-skilled and highly skilled women in employment. The educational qualification of the unemployed has a positive and significant effect only in the overall duration model (3d). Unemployed women with no educational qualifications are 300 per cent more likely to become mothers than employed women. For the low, medium and highly educated unemployed women there is no difference compared to employed women. This outcome supports women's parent role adoption hypothesis (H_2). Finally work hours is introduced in models 3e and 4e. As expected, women working part-time for both observation periods have higher odds ratios than full-timers. Self-employment does not have any significant effect on timing of the first child. Country level economic circumstances have exactly the same effect as they do for men. The higher unemployment rates yield lower hazard rates of motherhood.

**TABLE 3.5. WOMEN'S UNEMPLOYMENT AND HAZARD OF TRANSITION INTO PARENTHOOD
ODDS RATIOS FROM LOGIT ESTIMATES**

	From age 14					From start of relationship				
	3a [†]	3b [†]	3c	3d	3e [†]	4a [†]	4b [†]	4c [†]	4d [†]	4e [†]
EMPLOYMENT STATUS - REF. CAT.: EMPLOYED										
Unemployed	1.60***	-	1.86***	-	1.65***	1.26	-	1.34	-	1.32
Out of Labour Force	2.49***	2.50***	2.67***	2.34***	2.57***	2.46***	2.47***	2.68***	2.50***	2.58***
Student	0.41***	0.41***	0.37***	0.30***	0.42***	1.07	1.08	0.94	0.87	1.1
DURATION OF UNEMPLOYMENT										
Short-term	-	1.53**	-	-	-	-	1.07	-	-	-
Midterm	-	1.08	-	-	-	-	1.19	-	-	-
Long-term	-	2.43***	-	-	-	-	1.69*	-	-	-
SKILL AND EMPLOYMENT STATUS: REF. CAT.: HIGH SKILLED AND EMPLOYED										
Low skilled	-	-	1.37***	-	-	-	-	1.28**	-	-
Med. skilled	-	-	1.09	-	-	-	-	1.07	-	-
EDUCATION QUALIFICATION OF THE UNEMPLOYED: REF. CAT.: EMPLOYED										
High	-	-	-	0.6	-	-	-	-	0.57	-
Medium	-	-	-	1.46	-	-	-	-	1.14	-
Low	-	-	-	1.35	-	-	-	-	1.48	-
None	-	-	-	3.01***	-	-	-	-	1.51	-
CONTRACT TYPE AND EMPLOYMENT STATUS: REF. CAT.: FULL-TIME AND EMPLOYED										
Part-time	-	-	-	-	1.29***	-	-	-	-	1.44***
Self employed	-	-	-	-	0.9	-	-	-	-	0.9
HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE										
High	0.37***	0.37***	-	-	0.36***	0.53***	0.53***	-	-	0.52***
Medium	0.46***	0.46***	-	-	0.46***	0.59***	0.59***	-	-	0.59***
Low	0.67***	0.67***	-	-	0.66***	0.79***	0.79***	-	-	0.79***
N	462135	462135	442505	462504	462135	131586	131586	124663	131586	131586
N	3461	3461	3472	3472	3461	2295	2295	2231	2295	2295
Events	2291	2291	2171	2294	2291	1744	1744	1657	1744	1744
Mean dur.	133.5	133.5	127.4	133.2	133.5	57.3	57.3	55.9	57.3	57.3
Likelihood	-12614.8	-12612.6	-11978.6	-12687.9	-12611.1	-8717.4	-8716.7	-8281.2	-8741	-8711.9
Wald Chi ²	2095.6***	2103.7***	2394***	2475.5***	2053.7***	621.4***	620.8***	632.2***	629.7***	614.7***

Legend: * p<0.05; ** p<0.01; *** p<0.001; [†]Frailty models, n: total person months, N: Total individuals

CHAPTER 3

**TABLE 3.5. WOMEN'S UNEMPLOYMENT AND HAZARD OF TRANSITION INTO PARENTHOOD
ODDS RATIOS FROM LOGIT ESTIMATES (CONTINUES) CONTROL VARIABLES**

	From age 14					From start of relationship				
	3a [†]	3b [†]	3c	3d	3e [†]	4a [†]	4b [†]	4c [†]	4d [†]	4e [†]
UNEMP. RATE	0.97***	0.97***	0.97***	0.97***	0.97***	0.97**	0.97***	0.97***	0.97***	0.97***
RELATIONSHIP DURATION - REF. CAT: SINGLE						REF CAT.: 1 YEAR AFTER PARTNERSHIP				
1 year	10.88***	10.87***	10.74***	10.46***	10.92***	-	-	-	-	-
2 years	11.45***	11.41***	10.30***	10.25***	11.56***	1.05	1.05	0.99	1.03	1.06
3 years	11.41***	11.37***	9.65***	9.57***	11.57***	1.04	1.04	0.95	1	1.06
4 years	12.47***	12.43***	10.03***	9.90***	12.68***	1.14	1.14	1.01	1.08	1.16
5 years	12.09***	12.02***	9.42***	9.20***	12.36***	1.1	1.1	0.97	1.04	1.13
6 years	16.66***	16.57***	11.77***	12.04***	17.08***	1.50***	1.51***	1.24	1.40**	1.56***
7 years	11.45***	11.37***	7.86***	7.89***	11.77***	1.03	1.03	0.85	0.94	1.07
8 years	12.54***	12.44***	8.63***	8.31***	12.87***	1.12	1.13	0.94	1.02	1.17
9 years	9.72***	9.65***	6.51***	6.42***	9.97***	0.87	0.87	0.71	0.8	0.91
10 years	12.28***	12.25***	8.08***	8.03***	12.64***	1.11	1.11	0.9	1.01	1.15
11+ years	6.62***	6.55***	4.14***	4.04***	6.84***	0.57**	0.57**	0.46***	0.51***	0.60**
COHABITING	0.32***	0.32***	0.35***	0.35***	0.32***	0.32***	0.32***	0.33***	0.33***	0.32***
COHORT- REF. CAT.: 1970-1985 COHORT										
1940-1949	0.83*	0.82*	1	1	0.86	0.84	0.84	0.95	0.98	0.85
1950-1959	0.81**	0.80**	0.98	0.97	0.83**	0.84	0.84	0.95	0.94	0.84
1960-1969	1.01	1	1.11	1.11	1.04	0.99	0.98	1.05	1.05	0.99
AGE	1.34***	1.34***	1.24***	1.20***	1.36***	1.25***	1.25***	1.22***	1.18***	1.26***
AGE ²	0.99***	0.99***	1.00***	1.00***	0.99***	1.00***	1.00***	1.00***	1.00***	1.00***
N	462135	462135	442505	462504	462135	131586	131586	124663	131586	131586
N	3461	3461	3472	3472	3461	2295	2295	2231	2295	2295
Events	2291	2291	2171	2294	2291	1744	1744	1657	1744	1744
Mean dur.	133.5	133.5	127.4	133.2	133.5	57.3	57.3	55.9	57.3	57.3
Likelihood	-12614.8	-12612.6	-11978.6	-12687.9	-12611.1	-8717.4	-8716.7	-8281.2	-8741	-8711.9
Wald Chi ²	2095.6***	2103.7***	2394***	2475.5***	2053.7***	621.4***	620.8***	632.2***	629.7***	614.7***

Legend: * p<0.05; ** p<0.01; *** p<0.001; [†]Frailty models, n: total person months, N: Total individuals

Other variables used in models 3a-4e are as follows. Like men, there is an education gradient for the timing of first child. In the overall models highly educated women are 63 per cent, medium level educated women are 54 per cent and low educated women are 33 per cent less likely to become mothers, compared to women with no educational qualification. In the within-relationship models (4a-e) the education gradient still persists only the difference between groups is less prominent. The pattern with the duration variables is also very similar to men's but the odds for women's time dummies are smaller. Similar to men, women are more likely to have their first child when they are in a

partnership rather than when they are single, and six years after the partnership produces the highest odds ratio. Cohabiting women are 70 per cent less likely than married women to conceive a child.

Finally in Table 3.6 the estimates from couple models are presented. In models 5a and 6a relevant information about partner is controlled for, whereas in models 5b and 6b couple information is used by combining partners' information with each other. All these models are within-relationship only, and all matched couples are compared with dual-employed couples, which is the reference category. In model 5a, when we control men's partners' employment status and educational qualifications, the positive unemployment effect disappears. This may suggest that what matters for the timing of the first birth is not unemployment per se but with whom unemployed men are partnered. Indeed, in model 5b we see that among the unemployed men only those who are partnered with inactive women have significant positive odds whereas unemployed men with employed and unemployed partners do not differ from dual earner couples. Similarly employed men partnered with inactive women are also more likely to enter into parenthood. In model 5a the education gradient also disappears; neither men's nor women's educational qualifications matter for parenthood when introduced into the model simultaneously. These results indicate gender symmetry in couple's parenthood timing. Men's fatherhood timing is determined by whether or not their partner is out of the labour market, regardless of their own employment status. On the other hand, women's timing of transition into motherhood is determined by their own labour market status. As long as women are out of the labour market, they become mothers more quickly, regardless of whether their partner is employed or unemployed. In short, among couples, female labour market status is the main determinant of the timing of having the first child.

CHAPTER 3

Model 5b (and 6b for women) includes an educational homogamy variable which has six categories: *High homogamy*, where both partners hold higher or first degree, *medium homogamy* where both partners have either Higher National Certificate/Diploma, or teaching qualifications or A levels, *low homogamy* where both partners have either O levels or GCSE's, *no qualification* where neither of the partners hold any of the qualifications mentioned above, *hypergamy* where the respondent has lower qualifications than his/her partner, and finally *hypogamy* where the respondent is partnered downwards. There is no significant difference between the high and medium homogamy couples, whereas all the other couple combinations have higher ratios of transition than high homogamy couples. The last two categories are interesting for women. The odds of first births for women partnered upwards compared to high-homogamy couples are larger than the odds for women partnered downwards compared to high-homogamy couples. Upwardly mobile women may have more tendencies to form families than downwardly mobile women who may be constrained to spend more time in the labour market, thereby becoming mothers later than the former category. All in all, those couples who invest longer years in human capital accumulation postpone parenthood. Models 6a and 6b repeat the same analyses for women. From both models it is clear that the most important predictor of women's timing of first child is being out of the labour force. (From now on I skip reporting the estimates for control variables as the coefficients are broadly similar to the models 1a-4e).

TRANSITION INTO PARENTHOOD

TABLE 3.6. COUPLED MEN AND WOMEN'S UNEMPLOYMENT AND HAZARD OF TRANSITION INTO PARENTHOOD – ODDS RATIOS FROM LOGIT ESTIMATES

	Men		Women	
	5a [†]	5b [†]	6a [†]	6b [†]
OWN EMPLOYMENT STATUS - REF. CAT.: EMPLOYED				
Unemployed	1.48	-	1.06	-
Out of Labour Force	1.47	-	3.06***	-
Student	0.24*	-	0.89	-
PARTNER'S EMPLOYMENT STATUS - REF. CAT.: EMPLOYED				
Unemployed	1.06	-	1.27	-
Out of labour force	3.66***	-	1.34	-
Student	1.18	-	0.54	-
COUPLE'S MATCHED EMPLOYMENT STATUS - REF. CAT.: BOTH PARTNERS EMPLOYED				
Employed & Unemployed	-	1.13	-	0.95
Employed & Inactive	-	2.70***	-	0.68
Unemployed & Employed	-	1	-	1.14
Unemployed & Unemployed	-	1.79	-	1.56
Unemployed & Inactive	-	6.24***	-	0.69
Inactive & Employed	-	0.47*	-	2.49***
Inactive & Unemployed	-	2.04	-	4.72***
Inactive & Inactive	-	2.05	-	1.69
HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE				
High	0.79	-	0.74	-
Medium	0.84	-	0.72*	-
Low	0.99	-	0.91	-
PARTNERS' HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE				
High	0.79	-	0.78	-
Medium	0.82	-	0.9	-
Low	1.05	-	1.03	-
EDUCATIONAL HOMOGAMY - REF. CAT.: HIGH LEVEL HOMOGAMY				
Medium homogamy	-	1.15	-	1.1
Lower homogamy	-	1.68***	-	1.65***
No qualification	-	1.76***	-	1.90***
Hypogamy (upward mobility)	-	1.43**	-	1.44**
Hypergamay (downward mobility)	-	1.40**	-	1.52***
N	70771	71860	75762	76909
N	1205	1224	1261	1285
Events	981	1003	1043	1068
Mean duration	58.7	58.7	60.1	59.9
Likelihood	-4781.2	-4903.9	-5080.1	-5205.2
Wald Chi ²	379.6***	376.4***	374.3***	372***

Legend: * p<0.05; ** p<0.01; *** p<0.001; † Frailty models, n: total person months, N: Total individuals

TABLE 3.6. COUPLED MEN AND WOMEN'S UNEMPLOYMENT AND HAZARD OF TRANSITION INTO PARENTHOOD – ODDS RATIOS FROM LOGIT ESTIMATES (CONTINUES)

	Men		Women	
	5a [†]	5b [†]	6a [†]	6b [†]
UNEMPLOYMENT RATE	0.96*	0.95***	0.96*	0.96***
DURATION (YEARS AFTER PARTNERSHIP) - REF. CAT: 1 ST YEAR IN RELATIONSHIP				
2 years	1.16	1.13	1.16	1.16
3 years	1.3	1.25*	1.23	1.23
4 years	1.48*	1.37**	1.40*	1.39**
5 years	1.33	1.21	1.41	1.40*
6 years	2.18***	1.94***	2.12***	2.08***
7 years	1.3	1.14	1.31	1.29
8 years	1.29	1.11	1.38	1.35
9 years	1.14	1	0.96	0.94
10 years	0.99	0.88	1.18	1.17
11+ years	0.74	0.64	0.77	0.75
COHABITING	0.30***	0.30***	0.28***	0.27***
COHORT- REF. CAT.: 1970-1985 COHORT				
1940-1949 cohort	0.7	0.75	0.86	0.97
1950-1959 cohort	0.76	0.79	0.9	0.97
1960-1969 cohort	0.81	0.87	0.98	1.07
N	70771	71860	75762	76909
N	1205	1224	1261	1285
Events	981	1003	1043	1068
Mean duration	58.7	58.7	60.1	59.9
Likelihood	-4781.2	-4903.9	-5080.1	-5205.2
Wald Chi ²	379.6***	376.4***	374.3***	372***

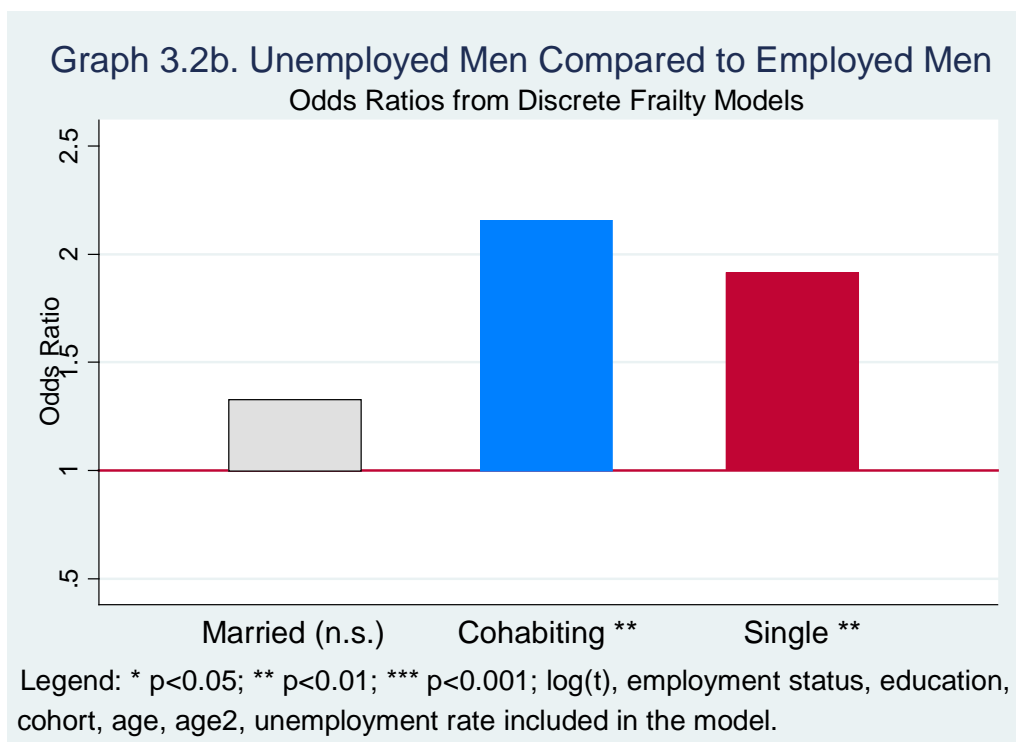
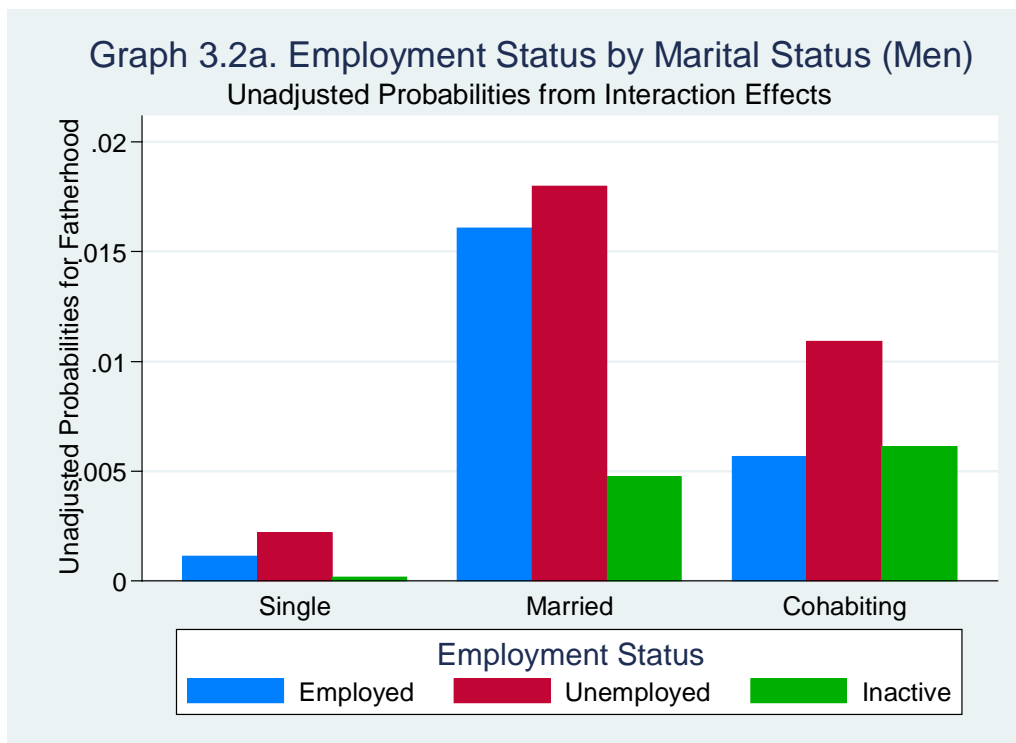
Legend: * p<0.05; ** p<0.01; *** p<0.001; [†]Frailty models, n: total person months, N: Total individuals

3.4b. Exploring early entry into fatherhood among unemployed men: Marital status and age

As discussed above, unemployment has a positive effect for men's transition into fatherhood. In this section I further look at transition rates of employed and unemployed men and compare them by two criteria: marital status and age. As to marital status; childbearing plans of men in insecurity may be a function of their relationship status. Unmarried-unemployed men may be more likely to father a child than their married counterparts for various reasons. Their economic inadequacy will discourage marriage, unemployed men being more likely to remain single or cohabit. Yet, even though they cannot be perceived as promising marriage partners they may attract women who do not wish to postpone childbearing plans (Wilson, 1987; Willis, 1999). As to age, the studies

of Payne (1989) and Sullivan and Falkingham (1991) focussed on early fatherhood among young men who were 23 years old or younger. It is worthy to examine the age effect of unemployment on procreant behaviour.

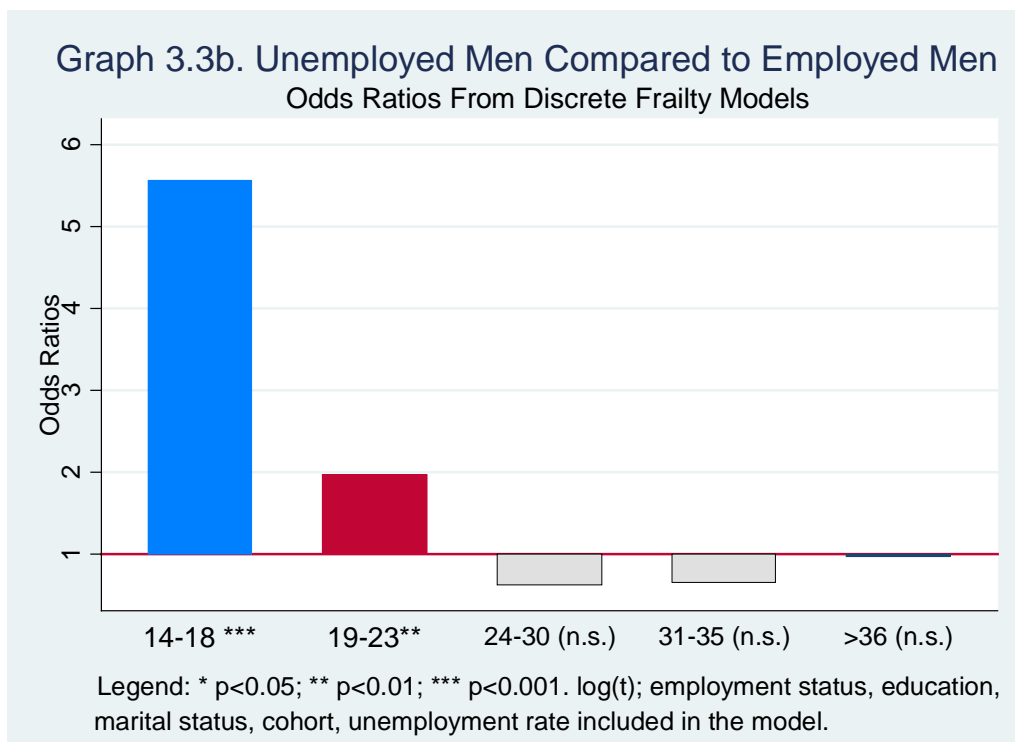
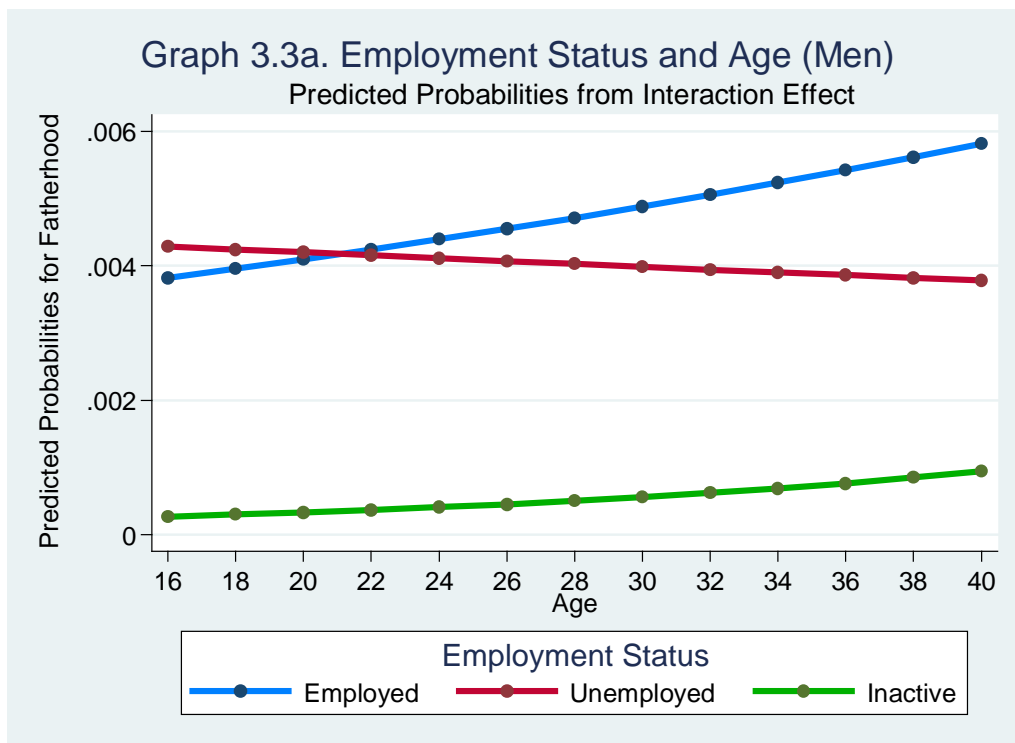
Graph 3.6a presents the unadjusted probabilities of transition into fatherhood derived from models with interaction effects of employment status and marital status. Among the single, the cohabiting and the married, unemployed men have higher odds of having their first child than employed men. In Graph 3.6b, the odds ratios from discrete time frailty models for employed and unemployed men by their marital status are presented, and $\log(t)$, employment status, education level, cohort, age, age square and unemployment rate are included in the model. Here in the full model the difference between *married* employed and unemployed men becomes insignificant. Among cohabiting men, those who are unemployed have 2.16 times the odds of having a baby in relation to employed men and this ratio is statistically significant. Similarly, among single men, the unemployed enter into fatherhood sooner than employed men. These findings are in line with the non-marital childbearing hypothesis (H_7).



A comparison of employed and unemployed men by age reveals that unemployment leads to fatherhood for younger men. Graph 3.7a shows the predicted probabilities from models with interaction effect of age and employment status. Unemployed men have a declining

probability of fatherhood as they get older, whereas employed men's probability increases by age. Until the age of 21 unemployed men have larger predicted probabilities than employed men. The age effect of employment status remains similar in the discrete time random effect models where $\log(t)$, employment and marital status, education level, cohort and unemployment rate are controlled. Unemployed and employed men are compared by age groups; and among the 14-18 age group the odds of fatherhood are 5.5 times higher for unemployed men than they are for employed ones. Unemployed men in the 19-23 age group are twice as likely to become fathers than employed ones. The odds for other age groups are very small and statistically not significant.

Marital status and age seems to have an impact on whether unemployment leads to fatherhood or not, however the results presented above should be considered with caution. In the BHPS, when we disaggregate employment status by relationship status and age, there are not many cases. The magnitude of the odds ratios may be inflated due to small cell size, however, in the light of these results, further studies with larger samples would be worthwhile.



3.4c. Temporary work and parenthood:

Temporary work analyses (Tables 3.7, 3.8 and 3.9) replicate the models discussed above for unemployment, this time comparing permanent and temporary employment. Neither for men nor for women does temporary work *per se* have a significant explanatory power on the timing of the first child (7a-8a, 9a-10a). Only when it coincides with other factors does temporary work effect transition into parenthood. In Table 3.7 results for men are presented. In model 7b and 8b it can be seen that short-term temporary work (six months or less) has a delaying effect in the overall period, but becomes insignificant in within-relationship models. This can be the case because some jobs by their nature may be based on renewal of the contract periodically; therefore longer durations reported in temporary employment may not reflect the actual temporality. However, some work contracts may initially entail a probationary period, and the first months in temporary work may imply serious uncertainty for the future. Skill levels of the temporary workers do not yield any significant effect compared to permanent workers (7c-8c). On the other hand, the education level of temporary workers seems to be the most important predictor of the timing of the first child. When compared to permanent employment, in the overall period (7d), highly educated and lower educated temporary workers are respectively 38 per cent and 55 per cent less likely to become fathers. Those with no qualification, in contrast, are 87 per cent more likely to do so. In the restricted model (8d) only the low educated temporary workers face a negative effect. The positive effect for men with no qualification working in temporary jobs not only remains significant but also gets larger. The negative effect for higher educated men can be explained by longer time these men spent in full-time education, whereas for the lower educated male temporary workers, insecurity may be the probable cause of postponing fatherhood, as predicted in the

CHAPTER 3

neoclassical models. Part-time or full-time work hours in permanent and temporary work are not significant for men (7e-8e).

TABLE 3.7. MEN'S TEMPORARY WORK AND HAZARD OF TRANSITION INTO PARENTHOOD ODDS RATIOS FROM LOGIT ESTIMATES

	From age 14					From start of relationship				
	7a [†]	7b [†]	7c	7d	7e [†]	8a	8b	8c	8d	8e
EMPLOYMENT AND CONTRACT STATUS - REF. CAT.: EMPLOYED WITH PERMANENT CONTRACT										
Temp. work	0.76	-	-	-	-	0.97	-	-	-	-
Unemployed	1.74***	1.75***	2.28***	1.84***	1.74***	1.60***	1.62***	1.75*	1.71***	1.63***
Out of Labour Force	1.3	1.3	1.76*	1.37	1.3	1.81**	1.81**	1.93*	1.81**	1.85**
Student	0.26***	0.26***	0.26***	0.20***	0.25***	0.42***	0.42**	0.40**	0.37***	0.43**
DURATION OF TOTAL TEMPORARY WORK - REF CAT: NO TEMPORARY WORK										
Short term	-	0.44**	-	-	-	-	0.71	-	-	-
Mid term	-	1.18	-	-	-	-	1.19	-	-	-
Long term	-	0.88	-	-	-	-	1.37	-	-	-
Extensive	-	0.99	-	-	-	-	1.11	-	-	-
SKILL, EMP. STATUS AND CONTRACT TYPE - REF. CAT.: HIGH SKILL EMPLOYED TEMP. CONTRACT										
Low skill	-	-	0.92	-	-	-	-	1.23	-	-
Med. skill	-	-	1.03	-	-	-	-	0.95	-	-
Permanent	-	-	1.31	-	-	-	-	1.09	-	-
EDUCATION QUALIFICATION OF THE TEMPORARY WORKER - REF. CAT.: PERMANENT EMPLOYEE										
High	-	-	-	0.62*	-	-	-	-	0.86	-
Medium	-	-	-	0.77	-	-	-	-	0.97	-
Low	-	-	-	0.45*	-	-	-	-	0.41*	-
None	-	-	-	1.87**	-	-	-	-	2.22**	-
EMP. STATUS AND CONTRACT TYPE - REF. CAT.: FULL TIME EMPLOYED WITH PERMANENT CONTRACT										
FT temp	-	-	-	-	0.8	-	-	-	-	0.97
PT perm	-	-	-	-	0.64	-	-	-	-	1.18
PT temp	-	-	-	-	0.51	-	-	-	-	0.98
Self Emp.	-	-	-	-	1.01	-	-	-	-	1.1
HIGHEST EDUCATIONAL QUALIFICATION: NONE										
High	0.52***	0.52***	-	-	0.53***	0.73***	0.73***	-	-	0.73***
Medium	0.64***	0.64***	-	-	0.65***	0.77***	0.77***	-	-	0.78***
Low	0.81**	0.81**	-	-	0.82**	0.87	0.87	-	-	0.88
UNEMP. RATE	0.97**	0.97**	0.97**	0.97**	0.97**	0.97**	0.97**	0.97**	0.97**	0.97**
N	405913	410992	407076	412149	406073	87102	88249	87147	88310	87173
N	3027	3033	3045	3051	3027	1678	1691	1682	1695	1679
Events	1376	1388	1379	1390	1376	1093	1103	1095	1105	1093
Duration	134.1	135.5	133.7	135.1	134.2	51.9	52.2	51.8	52.1	51.9
Likelihood	-7705.1	-7777.1	-7744.5	-7805.1	-7704.3	-5542	-5596	-5557	-5610	-5542
Wald Chi ²	1702***	1732***	2400***	2442***	1708***	463***	395***	460***	470***	463***

Legend: * p<0.05; ** p<0.01; *** p<0.001; [†]Frailty models, n: total person months, N: Total individuals

For women duration of temporary work is insignificant in both full and restricted periods (9b-10b, table 3.8). The occupational skill models show that in the overall period low skilled females in temporary work are 74 per cent less likely to become mothers than those working in permanent jobs (9c). This variable becomes insignificant in within-relationship models (10c). The insecurity faced by low-skilled females in temporary work may be compensated by the presence of a partner. The education level of temporary workers plays a role only for women at the bottom and top of the educational ladder. Highly educated females in temporary work are 50 per cent more likely to postpone motherhood compared to all female permanent contract holders. These women may be anticipating settling down to permanent jobs in the near future, thus postponing their family formation plans. This effect disappears in model 10d. Female temporary workers with no education qualification are two and a half times more likely to become mothers in the restricted model (10d). The difference in fertility timings of higher and lower educated women support the two hypotheses derived from the neoclassical models; namely women's earning potential hypothesis (H_2) for the former group, and women's parent role adoption hypothesis (H_3) for the latter group. Another interesting finding is that, in the overall model, women in part-time temporary employment postpone motherhood compared to those in full-time permanent employment (9e). This is interesting because part-time work is one of the strongest predictors for women's child-rearing behaviour. When temporary work is accompanied by a full-time contract it does not seem to have a delaying effect, meaning that when a part-time contract is accompanied by a permanent work there is no accelerating effect. Only when temporary work goes together with restricted working hours does it generate insecurity for females who then postpone entry into motherhood. When we consider temporary and part time

CHAPTER 3

work within relationship durations the negative effect vanishes, which again may be wiped out by the presence of a partner who provides financial security (10e).

TABLE 3.8. WOMEN'S TEMPORARY WORK AND HAZARD OF TRANSITION INTO PARENTHOOD ODDS RATIOS FROM LOGIT ESTIMATES

	From age 14					From start of relationship				
	9a	9b	9c	9d	9e	10a	10b	10c	10d	10e
EMPLOYMENT AND CONTRACT STATUS - REF. CAT.: EMPLOYED WITH PERMANENT CONTRACT										
Temporary	0.8	-	-	-	-	1.13	-	-	-	-
Unemployed	1.62***	1.62***	1.36	1.52***	1.63***	1.21	1.21	1.05	1.13	1.22
Out of Labour Force	2.41***	2.41***	1.92**	2.28***	2.43***	2.37***	2.37***	2.02**	2.25***	2.40***
Student	0.41***	0.41***	0.26***	0.31***	0.41***	1.04	1.04	0.75	0.83	1.04
DURATION OF TOTAL TEMPORARY WORK - REF CAT: NO TEMPORARY WORK										
Short term	-	0.91	-	-	-	-	1.29	-	-	-
Mid term	-	0.75	-	-	-	-	0.88	-	-	-
Long term	-	0.6	-	-	-	-	0.99	-	-	-
Extensive	-	0.91	-	-	-	-	1.3	-	-	-
SKILL, EMP. STATUS AND CONTRACT TYPE - REF. CAT.: HIGH SKILL EMPLOYED WITH TEMP. CONTRACT										
Low skill	-	-	0.36**	-	-	-	-	0.86	-	-
Med. skill	-	-	0.61	-	-	-	-	0.95	-	-
Permanent	-	-	0.84	-	-	-	-	0.9	-	-
EDUCATION QUALIFICATION OF THE TEMPORARY WORKER - REF. CAT.: PERMANENT EMPLOYEE										
High	-	-	-	0.51**	-	-	-	-	0.71	-
Medium	-	-	-	0.79	-	-	-	-	1.09	-
Low	-	-	-	0.68	-	-	-	-	1.11	-
None	-	-	-	1.61	-	-	-	-	2.20*	-
EMPLOYMENT STATUS AND CONTRACT TYPE - REF. CAT.: FULL TIME EMPLOYED WITH PERMANENT CONTRACT										
FT temp.	-	-	-	-	0.95	-	-	-	-	1.17
PT perm.	-	-	-	-	1.16	-	-	-	-	1.24*
PT emp.	-	-	-	-	0.54**	-	-	-	-	1.07
Self Emp.	-	-	-	-	0.86	-	-	-	-	0.86
HIGHEST EDUCATIONAL QUALIFICATION: NONE										
High	0.42***	0.43***	-	-	0.43***	0.56***	0.56***	-	-	0.57***
Medium	0.55***	0.55***	-	-	0.55***	0.67***	0.67***	-	-	0.67***
Low	0.71***	0.71***	-	-	0.71***	0.83**	0.83**	-	-	0.83**
UNEMP RATE	0.98**	0.98**	0.97***	0.97***	0.98**	0.97**	0.97**	0.97**	0.97**	0.97**
n	405196	409822	405500	410185	405253	109809	111300	109803	111300	109848
N	3456	3460	3467	3471	3456	2166	2178	2166	2178	2166
Events	1989	2011	1992	2014	1989	1524	1542	1524	1542	1524
Duration	117.2	118.4	117	118.2	117.3	50.7	51.1	50.7	51.1	50.7
Likelihood	-10865	-10987	-10920	-11043	-10862	-7535	-7625	-6028	-7641	-7533
Wald Chi ²	2042***	2062***	2854***	2891***	2040***	570***	577***	641***	657***	571***

Legend: * p<0.05; ** p<0.01; *** p<0.001; † Frailty models, n: total person months, N: Total individuals

Finally the estimates from couple models are reported in Table 3.9. Models 11a and 12a reveal nothing much different from models 5a and 6a. When partner's employment status and education level are controlled for, the only significant predictor is women's inactivity. In the men's model (11a) male studentship produces very small odds. Model 11b reveals once again that permanently employed or unemployed men who are partnered with inactive women have remarkably larger odds ratios for fatherhood. The inactive female effect does not appear for men with temporary contracts. It is important to note that cell sizes for temporary workers and their partners are rather small. This may be the reason for not observing a positive inactive female effect for males in temporary employment. In model 12b the most powerful predictor is, again, female inactivity. This model also yields two striking findings. First, women with permanent jobs who are partnered with unemployed men are 64 per cent less likely to have a baby than dual permanent worker couples. This is in line with H_1 which predicts that men's employment status is more important for the economic security of a family. We do not see a similar effect for unemployed men partnered with employed women in models 5b and 6b, but we do find a similar effect when we distinguished between women's temporary and permanent employment. One possible explanation is that men with career aspirations are partnered with women who also have such aspirations and work in permanent jobs. These couples may be postponing parenthood until the man settles down to an acceptable job. Second, females in temporary work who are partnered with males in permanent work have higher odds of motherhood than dual permanent worker couples. Women in temporary jobs may have lower opportunity cost of having a baby and interrupting their labour market activity compared to women in permanent employment. Education and homogamy variables produce very similar results with couple's unemployment models; therefore I forgo discussing these coefficients.

**TABLE 3.9. COUPLED MEN AND WOMEN'S TEMPORARY WORK AND HAZARD OF TRANSITION INTO PARENTHOOD
ODDS RATIOS FROM LOGIT ESTIMATES**

	Men		Women	
	11a [†]	11b [†]	12a [†]	12b [†]
OWN EMPLOYMENT STATUS - REF. CAT.: EMPLOYED				
Temporary contract	0.88	-	1.33	-
Unemployed	1.38	-	1.11	-
Out of labour force	1.37	-	2.80***	-
Student	0.10*	-	1.03	-
PARTNER'S EMPLOYMENT STATUS - REF. CAT.: EMPLOYED				
Temporary contract	1.24	-	0.87	-
Unemployed	1.23	-	1.1	-
Out of labour force	3.60***	-	1.31	-
Student	1.37	-	0.46	-
MATCHED EMP. STATUS OF THE PARTNERS - REF. CAT.: BOTH PARTNERS PERMANENT CONTRACT				
Permanent & Temporary	-	1.21	-	1.28
Permanent & Unemployed	-	1.37	-	0.36*
Permanent & Inactive	-	2.64***	-	0.73
Temporary & Permanent	-	1.09	-	1.55*
Temporary & Temporary	-	1.73	-	0.8
Temporary & Unemployed	-	(omitted)	-	2.19
Temporary & Inactive	-	1.59	-	(omitted)
Unemployed & Permanent	-	0.46	-	1.23
Unemployed & Temporary	-	2.52	-	(omitted)
Unemployed & Unemployed	-	1.82	-	1.4
Unemployed & Inactive	-	5.99***	-	0.7
Inactive & All	-	0.7	-	2.35***
HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE				
High	0.8	-	0.63**	-
Medium	0.87	-	0.79	-
Low	0.93	-	0.97	-
PARTNERS' HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE				
High	0.64**	-	0.8	-
Medium	0.86	-	0.87	-
Low	1.03	-	0.93	-
EDUCATIONAL HOMOLOGY - REF. CAT.: HIGH LEVEL HOMOLOGY				
Medium homology	-	1.4	-	1.35
Lower homology	-	1.85***	-	1.75***
No qualification	-	2.01***	-	1.99***
Hypogamy (upward mobility)	-	1.78***	-	1.68***
Hypergamay (downward mobility)	-	1.63**	-	1.84***
UNEMPLOYMENT RATE	0.95**	0.95**	0.97*	0.97*
N	49547	50337	53641	54483
N	1026	1047	1073	1099
Events	695	715	750	774
Duration	48.3	48.1	50	49.6
Likelihood	-3338.2	-3447.4	-3612.4	-3723.9
Wald Chi ²	298***	292.83***	298.46***	297.12***

Legend: * p<0.05; ** p<0.01; *** p<0.001; [†]Frailty models, n: total person months, N: Total individuals

3.4d. Gendered impact of insecurity on parenthood?

Does the experience of insecurity in the labour market affect men and women alike? Additional analysis is carried out to detect the impact of gender on the way insecurity influences men's and women's transition into parenthood. Results in tables 3.10a and 3.10b show the likelihood of parenthood for single, cohabiting and married individuals. Among the single individuals the unemployed are far more likely to become parents. Singles working on temporary work become parents later than single permanent employees. On average single men have their first children later than single women, whereas married men are more likely to become parents compared to married women. Yet, there is no significant interaction effect of insecurity and gender. Men and women experiencing insecurity do not have statistically different transition rates into parenthood. The impact of insecurity on individuals' timing of having first child seems to be gender-neutral.

TABLE 3.10a. GENDER EFFECT OF UNEMPLOYMENT ON HAZARD OF TRANSITION INTO PARENTHOOD - ODDS RATIOS FROM LOGIT ESTIMATES

	Single	Cohabiting	Married
Unemployed	2.63***	1.7	1.05
Men	0.56***	1.07	1.18***
Unemployed*Men	0.68	1.02	1.41
n	469102	64856	157535
N	6229	1894	3201
Events	758	2467	380
Duration	75.3	34.2	49.2
Likelihood	-5474.13	-12226.5	-2280.06
Wald Chi ²	254.45	440.2	99.34

Legend: * p<0.05; ** p<0.01; *** p<0.001;

Note: **1.** Education level, cohort, time dummies, age, age squared and aggregate unemployment are controlled for. **2.** Analysis includes only employed and unemployed episodes.

TABLE 3.10b. GENDER EFFECT OF TEMPORARY WORK ON AZARD OF TRANSITION INTO PARENTHOOD - ODDS RATIOS FROM LOGIT ESTIMATES

	Single	Cohabiting	Married
Temporary work	0.49*	1.37	1.04
Men	0.60***	1.12	1.11*
Temporary work*Men	0.94	0.37	1.23
n	376558	49444	129048
N	5815	1687	2890
Events	578	273	2047
Duration	64.8	29.3	44.7
Likelihood	-4208.85	-1655.45	-10106.9
Wald Chi ²	179.14	70.82	352.67

Legend: * p<0.05; ** p<0.01; *** p<0.001;

Note: Education level, cohort, time dummies, age, age squared and aggregate unemployment are controlled for. . 2. Analysis includes only employed episodes.

3.5. DISCUSSION AND CONCLUSION

In this chapter I investigated how labour market insecurity affects individuals' family formation plans in the UK. I performed a detailed examination of work and family histories of respondents, distinguishing the impact of insecurity experienced throughout life course and insecurity experienced during partnerships. The results showed that insecurity had many important yet complicated implications on transition into parenthood. Unemployment produced net effects whereas temporary work is found to be related to family plans indirectly. Similar to previous studies, when I analysed women from age 14 unemployment resulted in early entries into motherhood. However this effect disappeared when I concentrated on labour market status only during partnerships. Men are found to become fathers sooner in unemployment. I discussed that the acceleration effect applies to unmarried and younger men because unemployment may be discouraging them from marriage. Temporary work itself, for neither sex, is a statistically significant determinant of entry into parenthood. When I disaggregate men's temporary work with duration and educational level then temporary work affects timing of first

child, whereas for women skill level, educational level and contract type determine whether or not temporary employment is related to entry into motherhood. The analyses showed that there were no gender differences in the way insecurity affected timing of parenthood.

One of the contributions of this chapter has been a close investigation of partner's employment history and how insecurity affected timing of parenthood among couples. The findings clearly suggest that partner's employment history and education qualifications mattered for fertility behaviour and should be further investigated in prospective studies. For men, the effect of labour market insecurity varies depending on whom he is partnered with. When men are partnered with women who are out of labour force they are more likely to become fathers no matter what their own employment status is. Symmetrically, women's fertility timing is more strongly determined by whether or not she is active or inactive in the labour market rather than her partner's employment status. The only exception to this is women with permanent contracts who are together with unemployed men, who postpone parenthood and women with temporary contracts who are partnered with men with permanent contracts who become parents sooner.

This study has also considerable limitations. Even though the data has been constructed in the richest way possible to cover work and partnership histories of individuals starting from their reproductive age, it lacks important variables such as income, receiving of welfare benefits, house tenure or values and attitudes towards family and gender relations which all may play a role on decisions related to parenthood. The criteria of avoiding left censoring and covering entire work history resulted in a reduction of the sample, thereby leaving fewer cases when the respondents are disaggregated by a combination of own and partner information. Another limitation is that, partner's complete work history is

available only for those who joined the panel in the first two waves, but not in the retrospective interviews conducted throughout the eleventh and twelfth waves. Since I restrict the sample with only those whose complete work histories are available, my dataset is biased towards the initial sample, who are also, on average, older. Older respondents are more likely to have traditional values towards gender roles. Therefore, this restriction possibly causes an overestimation of gender symmetry while underestimating the impact of egalitarian roles among younger couples regarding the timing of parenthood.

There is strong empirical evidence showing that labour market insecurity has many negative consequences on individuals. Unemployment hampers one's future career and job quality, leads to social exclusion and poverty, reduces life satisfaction and damages psychological well-being. Similarly, temporary employment is associated with lower pay and high risk of job loss. As this chapter shows, when unemployment causes younger individuals and those with lower qualifications to become parents there is a risk that their children may be raised in unfavourable conditions. In such a stressful situation, to-be-parents face the double burden of unemployment. Not only do they suffer from financial strain and anxiety but the unemployed person needs to be engaged in job search activities as well. They may be unable to be fully prepared, economically and psychologically, to undertake parental role. The level of public support provided for the unemployed, which is minimal in the UK, could play a crucial role to support persons in precarious employment conditions which can enable them to bring forward children in a healthier environment.

References (3):

- Adsera, Alicia. 2004. "Changing Fertility Rates in Developed Countries. The Impact of Labour Market Institutions." *Journal of Population Economics* 17(1):17-43.
- Andersson, Gunnar. 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.
- Becker, Gary S. 1981. *A treatise on the family*. Cambridge: Harvard University Press.
- Blossfeld, Hans-Peter, and Andreas Timm. 2003. *Who marries whom: Educational systems as marriage markets in modern societies*. Dordrecht: Kluwer Academic Publishers.
- Bradshaw, Jonathan, and Naomi Finch. 2002. "A comparison of Child Benefit packages in 22 countries." Department for Work and Pensions Research Report No. 174.
- de Graaf, Paul, and Wout Ultee. 2000. "United in Employment, United in Unemployment? Employment and Unemployment of Couples in the European Union." Pp. 265-85 in *Welfare Regimes and the Experience of Unemployment in Europe* edited by Duncan Gallie and Serge Paugam. Oxford: Oxford University Press.
- DiPrete, Thomas A. 2002. "Life Course Risks, Mobility Regimes, and Mobility Consequences: A Comparison of Sweden, Germany, and the United States." *American Journal of Sociology* 108:267-309.
- Ermisch, John. 2000. "Employment Opportunities and Pre-marital Births in Britain." Colchester: ISER Working Papers, 2000-26. Institute for Social and Economic Research.
- . 2005. "The Puzzling Rise in Childbearing Outside Marriage." Pp. 23-53 in *Understanding Social Change*, edited by Anthony F. Heath, John Ermisch, and Duncan Gallie. Oxford: Oxford University Press.
- Ermisch, John, and Marco Francesconi. 2000. "Cohabitation in Great Britain: not for long, but here to stay." *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 163(Part 2):153-171.
- Esping-Andersen, Gosta. 1990. *The Three Worlds of Welfare Capitalism*. Polity Press. Princeton University Press. 1990. Princeton, N.J.: Princeton University Press.
- Francesconi, Marco, and Katrin Golsch. 2008. "The Process of Globalization and Transitions to Adulthood in Britain: The Process of Globalization and Transitions to Adulthood in Britain." in *Globalization, Uncertainty and Youth in Society*, edited by Hans-Peter Blossfeld, Erik Klijzing, Melinda Mills, and Karin Kurz. Abington: Routledge.
- Friedman, Debra, Michael Hechter, and Satoshi Kanazawa. 1994. "'A Theory of the Value of Children.'" *Demography* 31:375-401.
- Gonzalez, Maria Jose, and Teresa Jurado-Guerro. 2006. "Remaining Childless in Affluent Economies. A Comparison of France, West Germany, Italy and Spain, 1994-2001." *European Journal of Population* 22:317-52.
- Hall, Peter A., and David Soskice (Eds.). 2001. *Varieties of Capitalism. The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.
- Hoem, Britta. 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](https://doi.org/10.4054/DemRes.2000.2.4)
- Jenkins, Stephen. 2005. "Survival Analysis." unpublished manuscript, Institute for Social and Economic Research, University of Essex. Downloadable via <http://www.iser.essex.ac.uk/files/teaching/stephenj/ec968/pdfs/ec968lnotesv6.pdf>

- Kravdal, Øystein. 2002. "The impact of individual and aggregate unemployment on fertility in Norway." *Demographic Research* 6(10):263-294.
- Kreyenfeld, Michaela. 2009. "Uncertainties in Female Employment Careers and the Postponement of Parenthood in Germany." *European Sociological Review* 26(3):351-66.
- Liefbroer, Aart C., and Martine Corijn. 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.
- Mare, David. 2006. "Constructing Consistent Work-life Histories: A guide for users of the British Household Panel Survey." in *ISER Working Paper*. Colchester: ISER.
- Mare, Richard D. 1991. "Five Decades of Assortative Mating." *American Sociological Review* 56:15-32.
- Moynihan, Daniel Patrick 1965. "The Negro Family: The Case For National Action ". Office of Policy Planning and Research, United States Department of Labor.
- OECD. 2005. "Babies and bosses – Reconciling work and family life (Volume 4): Canada, Finland, Sweden and United Kingdom." Paris: OECD Library.
- Office for National Statistics. 2008. "Conception statistics: Conceptions for women resident in England and Wales."
- Oppenheimer, Valerie Kincade. 1988. "A theory of marriage timing." *the American Journal of Sociology* 94(3):563-91.
- . 1994. "Women's Rising Employment and the Future of the Family in Industrial Societies." *Population and Development Review* 20(2):293-342.
- Ozcan, Berkay, Ulrich K. Mayer, and Joerg Luedicke. 2010. "The Impact of Unemployment on the Transition to Parenthood." *Demographic Research* 23(29):807-46.
- Payne, Joan. 1989. "Unemployment and Family Formation among Young Men." *Sociology* 23(2):171-91.
- Pronzato, Chiara. 2008. "BHPS Family File." edited by U. o. E. Institute for Social and Economic Research; distributed by The Data Archive, Colchester.
- Scherer, Stefani. 2009. "The Social Consequences of Insecure Jobs " *Social Indicators Research* 93:527:547.
- Schmitt, Christian. 2008. "Gender-Specific Effects of Unemployment on Family Formation: A Cross-National Perspective." in *SOEP papers*. DIW Berlin: The German Socio-Economic Panel (SOEP).
- Ström, Sara. 2003. "Unemployment and Families: A Review of Research." *Social Service Review* 77(3):399-430.
- Sullivan, Oriel, and Jane Falkingham. 1991. "Unemployment: Family Circumstances and Childhood Correlates among Young People in Britain." Pp. 115-32 in *Population Research in Britain*, edited by Michal Murphy and John Hobcraft. London: Population Investigation Committee.
- Tölke, Angelika, and Martin Diewald. 2003. ""Insecurities in Employment and Occupational Careers and their Impact on the Transition to Fatherhood in Western Germany." *Demographic Research* 9:41-67.
- Ultee, Wout, Jos Dessens, and Wim Jansen. 1988. "Why does unemployment come in couples? An analysis of (un)employment and (non)employment homogamy tables for Canada, the Netherlands and the United States in the 1980s " *European Sociological Review* 4(2):111-22.
- Willis, Robert J. 1999. "A theory of out-of-wedlock childbearing." *Journal of Political Economy*

107:S33-S64.

Wilson, William Julius 1987. *The Truly Disadvantaged*. Chicago: University of Chicago Press.

Witte, James C, and Gert G Wagner. 1995. "Declining Fertility in East Germany after Unification: A Demographic Response to Socioeconomic Change." *Population and Development Review* 21(2):387-97.

4

LABOUR MARKET INSECURITY AND WELL-BEING WITHIN COUPLES

CHAPTER FOUR

LABOUR MARKET INSECURITY AND WELL-BEING WITHIN COUPLES: A PANEL STUDY OF TRANSITIONS INTO INSECURITY AND CHANGE IN WELL-BEING

CHAPTER 4

In the previous chapters I explored the impact of labour market insecurity on the timing of partnership formation and transition into parenthood. In this chapter I focus on distress in the family and investigate the effect of unemployment and temporary work on partnered individuals' partnership satisfaction and well-being. The distress of a family member may not only influence spouses' welfare, but it can also affect their fertility decisions and relationship stability. Therefore, this chapter aims at providing a link between labour market insecurity, well-being within the family and life-course events. The impact of unemployment on different aspects of one's well-being is widely studied, and the adverse affect of unemployment is well documented. There is a growing but limited literature on the impact of temporary work on individuals' wellbeing outcomes, as well, although there is disagreement with respect to the direction of the effect. However, not just one's own labour market situation affects well-being within the family. Partners' labour market insecurity and couple insecurity also affect partnership satisfaction and well-being. While most studies report a negative impact of spousal insecurity on individual well-being, some studies report a positive or no effect. Yet, it is not clear whether there is a direct effect or an indirect one mediated through external factors, such as the spouse's own well-being. Moreover, the issue of couples' joint insecurity and how labour market transitions at the couple level impact family well-being is very narrowly explored.

This chapter builds on the growing literature on the negative impact of insecurity on well-being in marriages and cohabitations; and its contribution is threefold. First, it is an attempt to analyze the relationship between insecurity and well-being in the family more comprehensively by looking at different sources of insecurity and different well-being outcomes. To this end, three sources of insecurity are explored: the individuals' own

labour market insecurity, their partner's labour market insecurity, and couple insecurity. I analyze the impact of insecurity on four different outcomes: *partnership satisfaction*, *life satisfaction*, *psychological well-being* and *depression*. I also look into the interaction of labour market insecurity with various characteristics in order to assess whether or not those who are more vulnerable suffer to a larger extent from adverse affects. Second, I use a sample of partnered individuals from the 18 waves of the BHPS, and estimate the well-being outcomes with fixed effects models. This allows me to deal with unobserved individual specific factors which may be correlated with both dependent and independent variables. The issue of unobserved heterogeneity is addressed in many papers on unemployment, and also in some studies on temporary employment. However, the findings on the impact of temporary work are inconclusive. Therefore, this chapter aims at providing an unbiased and more comprehensive estimation of the impact of insecurity on families' well-being. And third, thanks to its rich content, the BHPS allowed me to introduce into my models a list of important control variables which are thought to correlate with individuals' well-being.

This chapter is structured as follows. Section 4.1 reviews some of the key literature on insecurity of the individual, the partner and the couple on well-being. Section 4.2 describes the data and methodology. Section 4.3 discusses the main empirical results and Section 4.4 concludes.

4.1. PREVIOUS LITERATURE

4.1a. Unemployment, temporary work and well-being:

Across different countries and data-sets researchers consistently found that unemployment is associated with lower levels of life satisfaction, psychological well-

CHAPTER 4

being and happiness (for example Clark and Oswald, 1994; Clark, 2003; Whelan *et al.*, 1998; Frey and Stutzer, 2002; Murphy and Athanasau, 1999; Nordenmark and Strandh, 1999, Clark *et al.*, 2001). Similarly, many studies have repeatedly found poorer mental health status among the unemployed, and reported that the negative effect appears to be independent of pre-existing health conditions (Banks and Jackson, 1982).

Alternative explanations have been suggested to describe a causal mechanism between the two. Some studies attributed the negative effect of unemployment to financial problems arising from joblessness. Change in family income between employment to unemployment (Jackson and Warr, 1984), borrowing money during the unemployment period (White, 1991) and debt (Heady and Smith, 1989) were found to be associated with poor well-being. Other studies defined unemployment as a stressful life event since working has a number of non-financial 'latent' benefits. According to this approach employment not only provides one with economic security, but also provides a time structure, social contacts, participation in collective purposes, status and identity, and regular activity (Jahoda, 1982). Similarly, Warr (1987) added that employment endows individuals with income, social contact, a more structured life and opportunities for self-realization. In unemployment individuals lack these psychological functions and for this reason they suffer from psychological ill-health. Loss of job, or fear of becoming jobless, may also contribute to stress and anxiety. Feelings of uncertainty and ambiguity, which result from a lack of control over these stressful events, have a deleterious effect on well-being (Lazarus and Folkman, 1984).

Nordenmark and Strandh (1999) tested the power of economic and psychological effects of unemployment for Sweden and their models supported the idea that individuals with greater economic and psychological need for employment suffer from unemployment

more severely. Economic need for employment is measured in disposable income, while psychological need is measured by the Work Involvement Scale which asks how important employment is for the unemployed. In another study with the same dataset Nordenmark (1999) also found that unemployed individuals with a strong non-financial employment commitment are more likely to experience poorer mental well-being than will be experienced by those with lower commitment.

Long-term effects of unemployment are also well documented. For example, a study on Germany showed that unemployment can have a scar effect on future well-being as well as affecting current well-being. Using the German Socio-Economic Panel, Clark *et al.* (2001) and Lucas *et al.* (2004) found that past unemployment had a negative impact on current well-being, even many years after re-employment. This can be explained by the wage penalty effect of unemployment. Similarly, those who had been unemployed in the past were more likely to be in precarious jobs and less likely to be in settings that enabled them to develop themselves professionally (Gallie *et al.*, 1998).

Additionally, temporary workers have a high risk of job loss or getting trapped in precarious employment. Several studies showed that temporary work is also associated with stress and poor psychological well-being. Santin *et al.* (2009) found that fixed term contracts in France were associated with depressive symptoms for women, but not for men. This association persisted after controlling for organizational and psychological factors. The authors argue that in France fixed-term contracts are shorter for women than men and the working conditions are worse for female fixed-term employees than their male counterparts. For this reason temporary employment has a negative psychological effect for women. Virtanen *et al.* (2005) conducted a meta-analysis and found that

temporary workers compared to permanent workers were more at risk of psychological stress.

Another study on the Catalonian region of Spain reported that some forms of temporary employment were associated with poor well-being (Artazcoz *et al.*, 2005). This study concluded that fixed term temporary contracts and no-contract employment arrangements were sources of poor mental health, but fixed-term contracts were not. They also found that these health effects were restricted to women and male manual workers, who are less privileged groups. Their findings suggest that poor mental health is potentially a consequence of precariousness of some temporary work arrangements.

However some studies showed no adverse effect of temporary work arrangements on well-being. A comparative study reported a relationship between temporary employment and well-being in Germany but not in Britain (Rodriguez, 2002). The study concluded that in Germany people working on a fixed-term full-time contract basis were 42 per cent more likely to report poor health status than permanent workers, even after adjusting for previous health, unemployment experience and socioeconomic characteristics. Similar findings are not observed for Britain. In Germany fixed-term contracts have become increasingly more common especially for the young labour market entrants, as a result of which temporary work became increasingly involuntary. The author argues that the adverse negative effect in Germany could be attributable to the forced nature of atypical jobs there, as opposed to Britain. In a longitudinal study among the British male and female workers Bardasi and Francesconi (2004) found that temporary work neither had a long-term detrimental health effect nor was it associated with ill psychological health during the 1990's.

Gash *et al.* (2007) compared the well-being status of unemployed workers exiting unemployment via permanent contracts and those exiting via fixed-term contracts in Germany and Spain. They found improved well-being after re-employment. For German men the size of the positive impact of exits via permanent and temporary contracts was very similar. Whereas Spanish men who exited via fixed-term contracts showed a smaller improvement in well-being than those who exited via permanent contracts and the positive effect of fixed-term employment diminished after two years. That the type of contract does not matter for German employees as much as it does for Spanish men is explained by the greater opportunity structures available in Germany for temporary employees, such as lower levels of wage-penalty and higher wage compensation for German temporary workers compared to Spanish temporary workers.

The results of wider comparative European studies also present an inconclusive picture. For instance, based on the Second European Survey of Working Conditions a study analysed the relationship between employment status and various health outcomes in the EU-15 countries and found that individuals with precarious employment arrangements showed lower levels of stress than full-time permanent employees (Benavides *et al.*, 2000). On the other hand, a more recent study using the European Social Survey-2004 across western European countries found that temporary workers reported significantly lower levels of life satisfaction than permanent employees (Scherer, 2009).

4.1b. Partnership satisfaction

In addition to undermining well-being job insecurity may also reduce the satisfaction with the relationship in the couple. Couples experiencing insecurity, economic pressure or financial strain may become angry, frustrated and emotionally troubled. This may increase marital conflict, which in turn, reduces partnership satisfaction. In the case of

unemployment it is argued that, since it is associated with uncertainty and loss (or reduction) of income, unemployed individuals may become less attractive as marriage partners, thereby putting pressure on the relationship (Blood and Wolfe, 1960). Also, unemployment puts financial strain on couple's budgets and may reduce the satisfaction they obtain from the relationship (Vinokur *et al.*, 1996). According to one study auto workers who recently lost their job or were anticipating job loss reported more conflict with their spouses and children than the employed control group. Financial hardship was shown to be the mechanism for the conflict, and it produced more conflict for men than it did for women (Broman *et al.*, 1990). Scherer's (2009) comparative study among Western European countries reports that temporary workers perceived a remarkably higher level of economic disadvantage than permanent workers (at the household level). She also found that the former group was more likely to report disagreement with their partner than the permanent employees. Because partnership dissatisfaction can be relevant to individuals' fertility decisions and risk of separation, in this chapter my second aim is to re-assess the relationship between labour market insecurity and partnership satisfaction.

4.1c. Partner's labour market insecurity and well-being

In social psychology the process that occurs when a psychological strain experienced by one partner effects the level of strain experienced by the other partner is called a crossover effect (Westman, 2001; Westman *et al.*, 2004). Findings suggest that many types of strain are transmitted from one spouse to the other; such as distress, depression, and marital dissatisfaction (Barnett, *et al.*, 1995; Westman and Vinokur, 1998, Westman *et al.*, 2004). There are a number of studies that considered whether insecurity of one spouse effects the well-being of the other and most of these studies report that job

insecurity on the part of one spouse is negatively associated with the other's well-being (for a summary of findings see Ström, 2003). In terms of unemployment, the negative effect seems to be more severe for those who are unemployed themselves than for their spouses (Liem and Liem, 1988). However, some studies found that partner impact is gender asymmetric. For example, Winkleman and Winkleman's study (1995) showed that there is a large effect of male unemployment on the female partner's happiness. In the same spirit, it was also found that the effect of unemployment on the well-being of one's spouse is weaker among men living with unemployed partners than it is among women living with unemployed men.

Cochrane and Stopes-Roe's study among working age English adults reported that women with unemployed husbands were particularly likely to report high levels of depression, but no reciprocal effect of wives' employment status on husbands' well-being was found (1981). Although partner's unemployment is found to have an effect, it was suggested that the 'direct' negative unemployment effect was rather weak and it was in reality mediated through other factors. Some of these mediating factors that have an influence on spousal well-being are: the psychological well-being of the unemployed husband, rather than their actual employment status (Dew *et al.*, 1987), previous family history of psychiatric problems, preexisting financial problems, weak social support from relatives (Penkower *et al.*, 1988), and preexisting family problems (Fagin and Little, 1984, Liem and Liem, 1988; Lobo and Watkins, 1995). To my knowledge there are no empirical studies on externalities of partner's employment contract on an individual's well-being. The third aim of this chapter is then to re-evaluate the impact of partners' unemployment on individuals' well-being; and to explore whether or not partner's employment in temporary contract affects individuals' well-being as well.

4.1d. Couple Insecurity and Well-being:

Above, I reviewed the literature on adverse consequences of labour market insecurity on individuals' and their spouses' well-being; and I reported that, in some cases, these effects differ between men and women. Now I shall turn my attention towards employment dynamics within couples. The relationship between husbands' and wives' labour force participation decisions are widely studied, however, both theoretical and empirical work have considered wives' labour force supply as an outcome of husbands' employment status. The standard theory predicts that there is an "added worker effect", and wives are expected to increase their labour supply upon their husbands' job loss. However, there is almost no empirical evidence supporting the added worker effect. In reality, it is repeatedly found that wives of unemployed men are less likely to be employed (e.g. Davies *et al.*, 1992). Wives' disincentive to work is explained by shared local labour market conditions ('discouraged worker' effect), the negative impact of a supporting wife on unemployed husband's self-esteem (Barrere-Maurisson *et al.*, 1985), issues of masculinity, authority and pride (McKee and Bell, 1985), and awareness of the operation of social security system (McKee and Bell, 1985). In short, there is a tendency among couples to avoid the unemployed husband-employed wife model. This could also apply to couples with temporary male and permanent female workers. Because of this, *male-insecure* couples may experience sharper drops in well-being than *female-insecure* couples.

When both spouses are in labour market insecurity they may experience an even more severe decrease in their well-being. *Dual-insecure* couples do not only face greater uncertainty, financial difficulty and strain. They may also suffer from exhaustion of their coping recourses since both partners are in a stressful situation. Indeed, many studies

suggested that insecurity, especially unemployment tends to concentrate within couples (for a review of findings see Ström, 2003). It is reasonable to expect that individuals in dual-insecure couples are more vulnerable than others, and hence, would display poorer well-being outcomes. Since male income tends to constitute a larger share of household income male-insecurity may put more strain on the family members than does female-insecurity. A hierarchical relationship can be expected between the source of couple insecurity and well-being: Dual-insecurity is likely to have the most damaging consequence, followed by male-insecurity and then female-insecurity.

On the other hand, Clark (2003) treats unemployment as a social norm and argues that unemployment ‘hurts less’ when there is more of it among relevant others. His analysis among British couples indicates that the unemployed report higher levels of well-being when the partner is also unemployed. Moreover, male-insecurity can also be regarded as a role-reversal. If the male partner is unable to provide a secure economic prospect for the household and the female partner plays a larger role in the maintenance, this may be detrimental to the well-being, especially to the well-being of the male partner. For this reason, male-insecurity may hamper the well-being of coupled individuals to a greater extent than do dual-insecurity. My fourth aim in this chapter is to explore labour market insecurity at the couple level and to evaluate the impact of dual-insecurity, male-insecurity and female-insecurity on men and women’s well-being.

4.1e. Moderating factors: Are some individuals more vulnerable to the effects of insecurity?

Some individuals have a disadvantaged position in the labour market due to their background and characteristics; hence they may be more vulnerable to insecurity than

those who are better off. Previous literature suggested that, among other things, duration of insecurity spell, occupational skill levels, education level, work hours, subjective job insecurity, availability of social support, and presence of a young child may mediate the relationship between insecurity and well-being outcomes. First, in terms of duration, several studies concluded that unemployment has a strong negative initial impact on well-being, especially for men (Warr, 1987; Jackson and Warr; 1984, Brenner and Levi, 1987; Maier *et al.*, 2006; Burchell, 2011), and the well-being leveled off after some time in unemployment. Clark *et al.* (2001) showed that, if individuals are unemployed for some time already they get used to the situation, which they refer as *habituation*. They also demonstrated that those who experience the sharpest drop in well-being leave unemployment quicker as a result of which longer spells are experienced by those whose well-being remained relatively superior. On the other hand, some studies found that accumulation of anticipation of job loss has an adverse impact on well-being (Heaney *et al.*, 1994; and Burgard *et al.*, 2009), because one's capacity to deal with stressful events, such as job loss, may exhaust in time. Due to the fixed-nature of their employment contracts, temporary workers are likely to anticipate job-loss. In this chapter I expect to find a decreasing effect of unemployment and an accumulated effect of temporary work on individuals' well-being outcomes.

Second, some individuals may be more vulnerable in the labour market because of the level of occupational skills and educational qualifications they have. In this regard, those with low human capital would suffer higher levels of change in well-being from labour market insecurity. However, some studies suggested that individuals differ in terms of their work identification, work satisfaction, and work stress (for a discussion of literature see Andersen, 2009). People in higher class positions report higher levels of work

identification and satisfaction; therefore they may experience sharper drops in well-being due to changes in their employment status. On the other hand, usually individuals in high skill occupations are exposed to more work demand, and hence, more work stress. For that reason, they may experience relatively smaller drops in well-being after entering insecure employment compared to individuals in low skill occupations, who experience less work stress. In this chapter I analyze the interaction of labour market insecurity with low human capital. I expect to find a larger effect on labour market insecurity for those at the bottom of qualification ladder because of their vulnerability in the labour market.

Third, temporary employees are a heterogeneous group in terms of their work arrangements, and their experience of labour market insecurity may vary according to working part-time or full-time. In the UK part-time employment is usually considered as voluntary, since it provides flexible arrangements for the young, the old or women with children. From this perspective, part-time temporary employment should not have an adverse impact on well-being. However, some researchers emphasized the involuntary nature of part-time work, and its cost on part-time workers (e.g. Burchell *et al.*, 1997). In this chapter, I explore how the change in work hours affects temporary employees' well-being outcomes.

Fourth, studies consistently showed that subjective job insecurity, or fear of job loss during employment can impose the same level of stress on individuals as is experienced in job loss itself (Dekker and Schaufeli, 1995; Paugam and Zhou, 2007, Burchell, 1994; Bohle *et al.*, 2001). However, not all temporary employees necessarily feel insecure. Similarly some of them may undergo a greater amount of insecurity than others. For example Gallie *et al.* (1998) showed that in Britain some temporary workers, namely short-term temporary workers, felt much less secure in their current job. Whereas,

contract workers expressed less concern for their short-term job security and did not from permanent workers in terms of their prospects for upward mobility. In this chapter, I expect to find a strong negative effect of subjective job insecurity on well-being, and, a variation between employees' wellbeing outcomes by reported level of subjective job insecurity.

Fifth, the availability of social support can mitigate the negative effect of unemployment experience. Indeed, some studies showed that unemployed individuals who are surrounded by supportive networks fare better than those with no such networks with respect to psychological well-being and life satisfaction (Pinquart and Sörensen, 2000; McKee-Ryan *et al.*, 2005; Russell, 1996). Therefore, I take into account the availability of social support and analyze whether or not support has an alleviating impact on unemployment in my sample. I expect to find a larger negative well-being impact of unemployment on individuals who are more vulnerable due to lack of social support.

And finally, having a young child may alter the way one feels while going through labour market insecurity. Although children bring significant benefits to the family, such as self-worth, happiness and a feeling of maturity, having young children at the time of labour market insecurity may cause distress. Unemployed individuals or those working in temporary contracts may find it harder to financially support additional family members. Young children also require parental time, hence it may be argued that unemployment provides parents with time availability and reduces stress level which would have risen otherwise. However, individuals in insecure employment are likely to be engaged in job search activities which may be very demanding. Childcare activities may overload the parents' time schedule and put them in a stressful situation.

4.1f. Other determinants of well-being:

In addition to the labour market insecurity and the moderating variables discussed above, there are some other factors which can be related to the well-being. In this chapter I focus on seven other determinants of well-being which are argued to be associated with well-being, namely financial difficulty, local unemployment rate, partner's well-being, partnership duration, presence of children (whose implications were discussed above only for the insecure work force), age and time period. In addition to the labour market variables and mediating factors, the models in this chapter also control for these variables. The relationship between each of these factors and well-being outcomes are briefly discussed below.

First, financial difficulty is one of the strongest predictors of psychological well-being. Not the absolute income but the level of subjective economic hardship is a strong risk factor for subsequent depressive symptoms among the recently unemployed individuals (Price *et al.*, 1992). Facing economic hardship is not only frustrating but it also erodes one's resources for coping with the experience of insecurity. Second, the prevalence of unemployment at the local labour market can mediate the level of stress individuals go through when they experience unemployment or temporary work. High unemployment in the area is a sign of bad economic conditions. Individuals in high unemployment areas may face a relatively more stressful situation since more people would be competing for a limited number of secure jobs. However, if unemployment becomes a norm in a local community, it may be less stigmatizing to be jobless (Clark, 2003), hence the impact of job insecurity becomes less damaging. Third, the well-being of family members within a household can influence the well-being of others. Psychological stress that a spouse is experiencing can be transmitted to the other spouse (discussed in detail above). Fourth,

previous studies found a decline in partnership satisfaction during marriages (*inter alias* Schumm and Bugaighis, 1986). Partnership duration can be expected to cause a decline in other well-being outcomes. Fifth, well-being may decrease after the birth of the first child. The addition of a baby to the household increases the amount of domestic work, the need for care and financial resource which in turn reduces satisfaction among couples. On the other hand, children provide social, emotional and economic support to parents in the long run; hence parents can be expected to be happier than non-parents (See Kohler *et al.*, 2005 for a detailed review of the relationship between children and happiness). Sixth, longitudinal studies found a U-shaped relationship between age and mental well-being in the UK (Clark *et al.*, 1996; Clark and Oswald, 1994). Finally, yearly period dummies are introduced in the model to capture fluctuations in overall well-being.

4.2. DATA AND METHODOLOGY

4.2a. The BHPS sample

I use data from the BHPS, a representative longitudinal household survey started in 1991 that initially contained approximately 5500 households and 10300 individuals. The BHPS has detailed yearly recordings on employment position, partnership status and well-being outcomes, as well as many other socio-demographic variables, and it is complemented by retrospective information covering the period before the respondent enters the panel. In this chapter I used the information coming from the first 18 waves, which cover the period from 1991 to 2008.

Since the aim of this chapter is to analyse well-being in partnerships depending on labour market insecurity, I limit my sample to respondents who are aged between 20-65 and who are either married or living with a cohabiting partner. The respondents who appear in the

panel only once are excluded from the sample. These restrictions yield a sample of 12636 unique individuals who are observed for 73352 times in total with a mean of 5,8 individual-years. There are 4976 men in the sample who appear as married at least for one wave whose mean age is 45,6 and 1998 men who live in cohabiting partnerships at least for one wave whose mean age is 34.7. The corresponding sample numbers for females are similar to those of males. 5217 women appear as married in the sample at least in one wave whose mean age is 44.6, and 1994 women appear as cohabiting at least in one wave whose mean age is 33.2.

Note that although most of the key variables used in the analysis are asked repeatedly every wave, some of the well-being outcomes, namely partnership satisfaction and life satisfaction are available in only a limited number of waves. This results in variant sample sizes for different sets of analysis, which are provided at the bottom of tables from estimation results.

4.2b. Panel data fixed effects models:

Availability of individual level longitudinal data allows me to use panel data fixed effects models which are appropriate to deal with the problem of unobserved heterogeneity. This problem occurs if unobserved fixed individual characteristics are correlated with both dependent and independent variables and bias the estimates. In my analysis an unobserved individual characteristic, for instance lack of commitment, may influence both labour market and well-being outcomes. A correlation between labour market position and well-being then would be caused by a correlation of each component with the unobserved lack of commitment, rather than with each other. The estimates would

then suffer from omitted variable bias, since unobserved lack of commitment would bias the correlation between labour market position and well-being.

A fixed effects model is appropriate to deal with the problem of unobserved heterogeneity. This model is based on the assumption that the unobserved individual heterogeneity is time invariant, and fixed effects model removes the unobserved heterogeneity by using within-individual change over time in the independent and dependent variables (see e.g., Hayashi, 2000; Hsiao, 2003; Wooldridge, 2002; and Brüderl, 2005). In other words, fixed effects model uses the changes in the independent variables (here labour market position) to predict the changes in the dependent variable (here well-being outcomes)²⁶.

A standard linear regression can be written as in the Equation 1 shown below. In this model y_i is the dependent variable for individual i ($i = 1, 2, \dots, n$), and β' is a vector of independent variables. α_i is the individual specific component, which may bias the estimates unless it is taken in the account, and u_{it} is a random error term. Note that the individual specific component, α_i , is assumed to be time-invariant.

$$y_{it} = \beta' x_{it} + \alpha_i + u_{it}, \quad t = 1, 2, \dots, T \quad (1)$$

When we average this equation over time for each i we get the Equation (2):

$$\bar{y}_i = \beta' \bar{x}_i + \alpha_i + \bar{u}_i \quad (2)$$

²⁶ In this chapter fixed-effect models are preferred over random effect models which rely on the assumption that individual-specific effect is uncorrelated with the explanatory variables. This is a strong assumption, and indeed I performed the Hausman test (which compares the fixed versus random effects under the null hypothesis that the individual effects are uncorrelated with the other regressors in the models) and it suggests that a random effect model produces biased estimates.

Fixed effects transformation can be realized by time-demeaning the data and by subtracting Equation (2) from Equation (1). In other words, time demeaning is done by subtracting the within-individual mean from each observation's dependent and independent variables. Since there are at least two observations per individual, a time-demeaning version of fixed effects transformation is more appropriate (Wooldridge 2009).

$$y_{it} - \bar{y}_i = \beta' (x_{it} - \bar{x}_i) + u_{it} - \bar{u}_i, \quad t = 1, 2, \dots, T \quad (3)$$

In the new equation y_{it} is the dependent variable for individual i at time t where $t = 1, 2, \dots, T$; and \bar{y}_i is the individual mean of dependent variable. β' is the vector of independent variables (x) at time t ; and \bar{x}_i is the individual mean of these variables. Note that fixed effects transformation relies on the assumption that the unobserved individual specific components are constant over time, therefore time-demeaning the data on y and βx discards the unobserved heterogeneity, which may potentially be correlated with the observables. As can be seen in Equation (3), after fixed effect transformation the unobserved individual specific component, α_i , has disappeared (Wooldridge 2009). Since the fixed effects estimator is based on within-individual change over time, any explanatory variable which is constant over time is dropped out from the model. Therefore, fixed effect models do not estimate coefficients for time-constant variables such as ethnicity or gender.

The model presented above is appropriate for linear models. However, as discussed below in detail one of the well-being outcomes, namely the depression outcome, is a binary variable and linear models cannot be used to estimate this outcome. Instead I estimate the depression outcome with a logistic regression model with fixed-effects, which is also

called as conditional logit model. Since, in the case of a binary outcome variable, individual-specific effects are not additive they cannot be differenced out by time-demeaning. Instead, the individual specific component α_i can be conditioned out with conditional likelihood as shown in Equation (4).

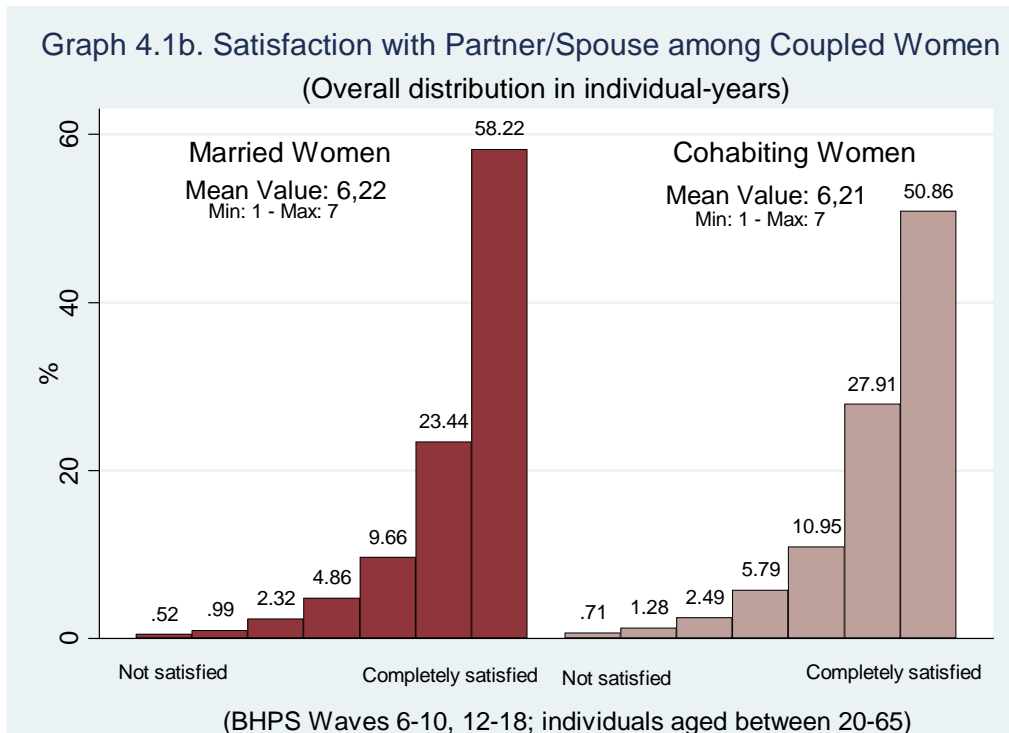
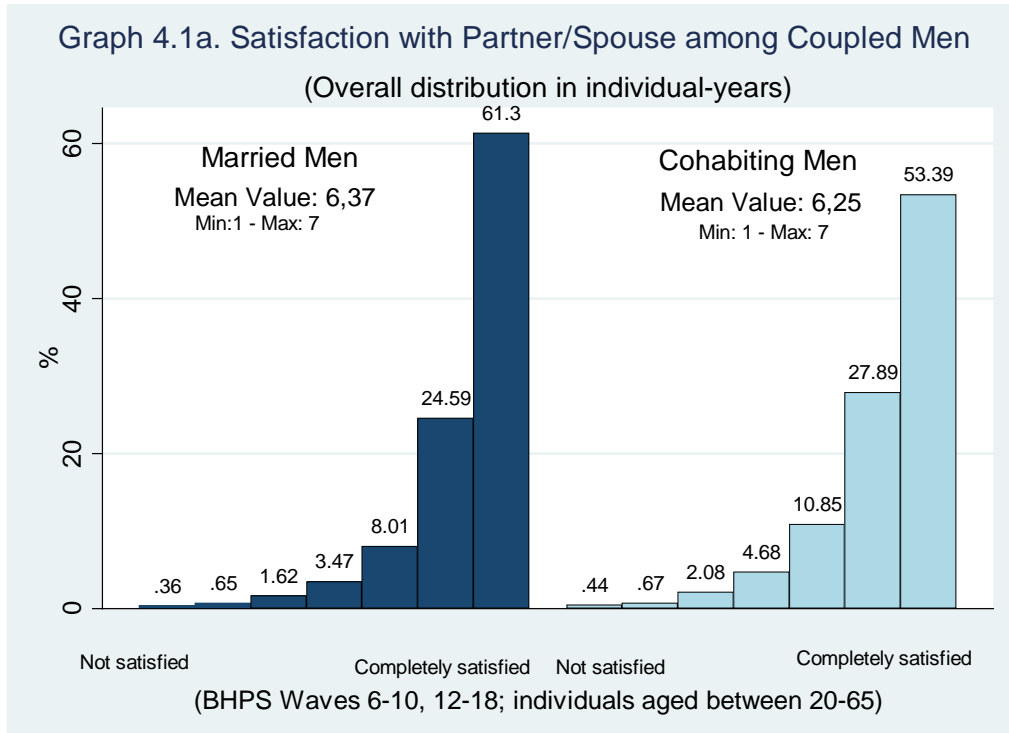
$$P(y_{it} = 1) = \frac{\exp(\beta_1 x_{it} + \alpha_i)}{1 + \exp(\beta_1 x_{it} + \alpha_i)} \quad (4)$$

$P(y_{it} = 1)$ is the probability of an individual i experiencing the outcome variable in time interval t , and the right hand side of the equation is the conditional probability of the occurrence of the outcome for individual i in time interval t . Applying fixed effects transformation by conditioning out the individual component provides a big advantage. It produces unbiased estimates of β_1 even if there is unobserved heterogeneity (Brüderl, 2005). Note that this model requires within-individual variation in the dependent variable. Those individuals whose outcome variable is constant across t do not provide any information to the model; hence, they are dropped out. This reduces the sample size for models estimating the depression outcome.

4.2c. Measurement of the outcome variables: Partnership satisfaction, Life satisfaction, Subjective well-being and Depression

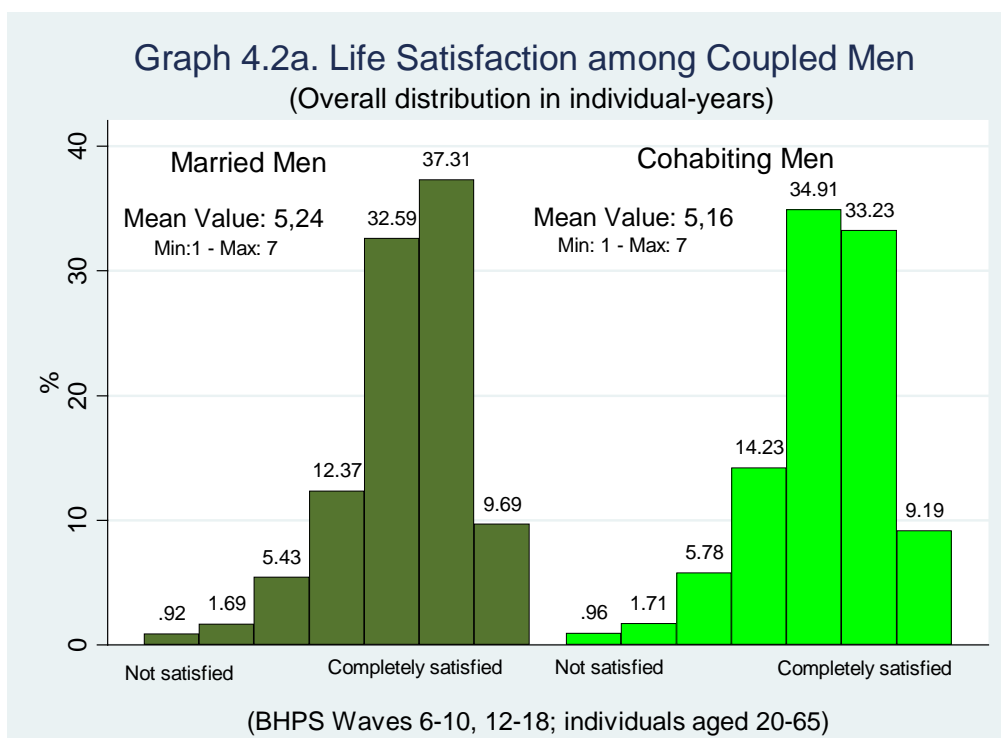
Partnership satisfaction is captured with the question “How satisfied or dissatisfied are you with your husband/wife/partner)” and the answer varies between a scale of 1 to 7 with the lowest value being “Not satisfied at all” and the highest value being “Completely satisfied”. Partnership satisfaction has a right-skewed distribution, with a majority of respondents reporting high levels of satisfaction (See Graphs 4.1a and 4.1b). Married men are the most satisfied group with their partner with a mean value 6.37. This is followed by

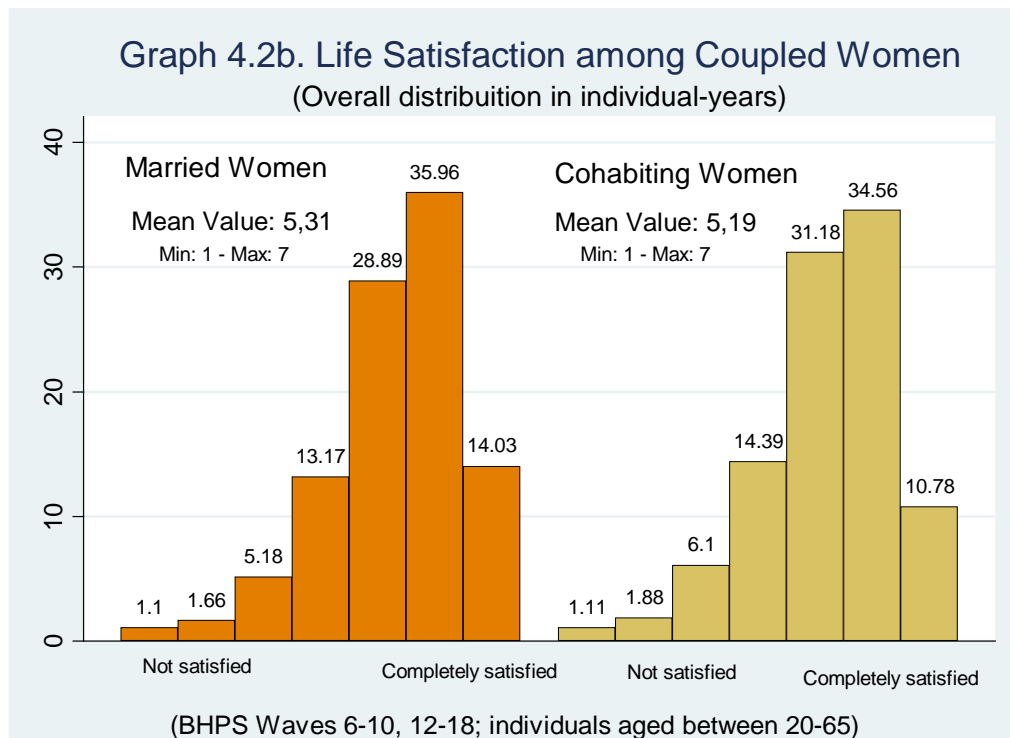
married women with a mean value 6.25. Cohabiting men and women are almost equally satisfied with their partners with a mean value of 6.2.



CHAPTER 4

Life satisfaction is measured in a similar way with the question “How satisfied or dissatisfied are you with your life overall”, and the answers are constructed in the same way as the partnership item. The distribution of life satisfaction scale is closer to a normal distribution but is still slightly skewed towards high satisfaction. As can be seen from Graphs 4.2a and 4.2b cohabiting individuals are more satisfied with their overall lives. The mean value for cohabiting men is 5.31 whereas it is 5.24 for married men. Similarly, cohabiting women have a mean of 5.19 while married ones have a mean score of 5.16.





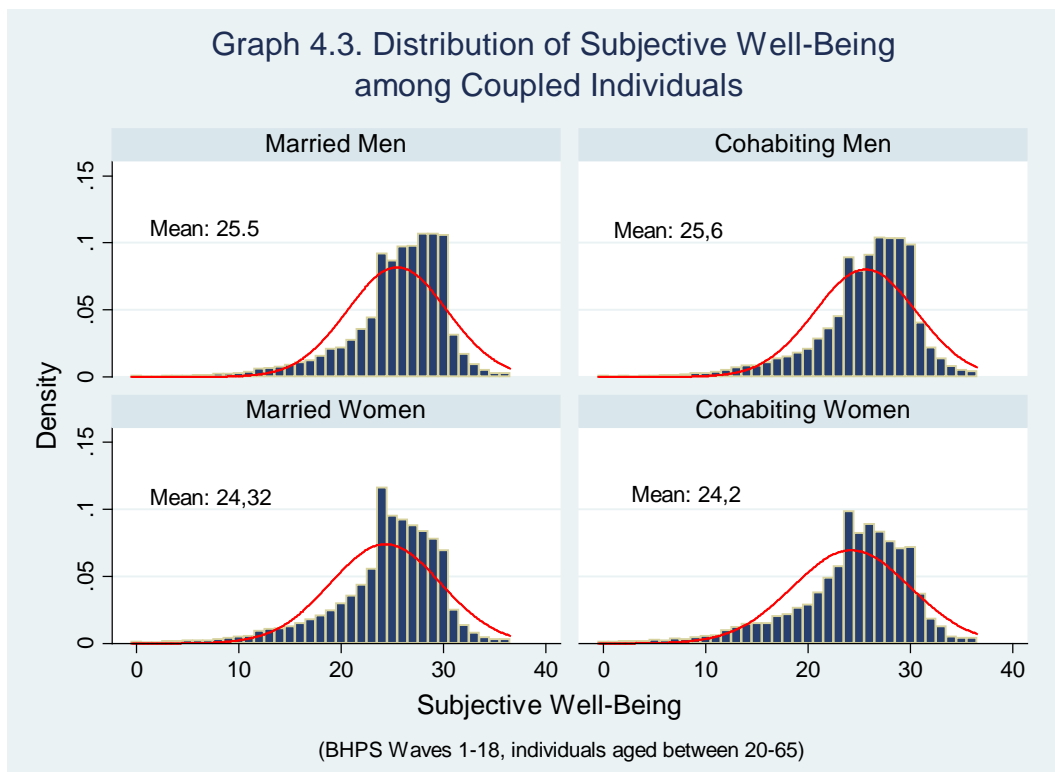
For subjective well-being I used the Likert index of the 12-item General Health Questionnaire. GHQ-12 is widely used in studies on unemployment and well-being (e.g. Andersen, 2009; Nordenmark *et al.*, 2006; Shields and Wheatley Price, 2005; Murphy and Athanasau, 1999; Nordenmark, 1999; Schaufeli, 1997) and is a well validated measure (Pevalin, 2000; Goldberg and Williams, 1988). This index is based on 12 items that combine problems relating to concentration, loss of sleep, playing a useful role, being capable of making decisions, being constantly under strain, overcoming difficulties, enjoying day-to-day activities, ability to face problems, feeling unhappy or depressed, losing confidence, believe in self-worth and general happiness. Respondents rate each item, which follows the question stem “Have you recently...”, on a scale from 0 to 3, 0 indicating “no problems” and 3 indicating “many more problems than usual”. The Likert index of GHQ-12 summarizes scores from these 12 items and varies between 0 to 36, with 0 representing the highest possible subjective well-being and 36 the lowest possible subjective well-being. I reversed the scale to make the interpretations more

straightforward and in my analysis higher values represent higher subjective well-being and vice versa²⁷.

The GHQ question asks if the respondent has recently felt the aforementioned problems, which raises the issue of whether it is appropriate to use it on a yearly basis. Even though the question is devised to measure how the respondent has been feeling recently, it has been shown that the GHQ-12 in the BHPS is robust to retest, meaning that it was a reliable and consistent instrument to use in yearly longitudinal surveys (Pevalin, 2000). Another concern is that, since the measure asks respondents to rate how they feel compared to how they usually feel the item may underestimate chronic conditions. For instance, if a person has been unemployed for a long time and does not feel more depressed than usual anymore, the item may fail to capture the fluctuation in their well-being. However, fixed-effect models, which will be discussed below, capture within individual changes in well-being and relate them to the changes in employment status.

Graph 4.3 shows the mean scores for subjective well-being from the GHQ-12 measure. Married individuals score slightly higher on subjective well-being than do the cohabiters. Married men have a mean value of 25.5, compared to cohabiting men who score 24.3. Married women, similar to married men, have a mean value of 25.6, whereas cohabiting women score, on average, 24.2.

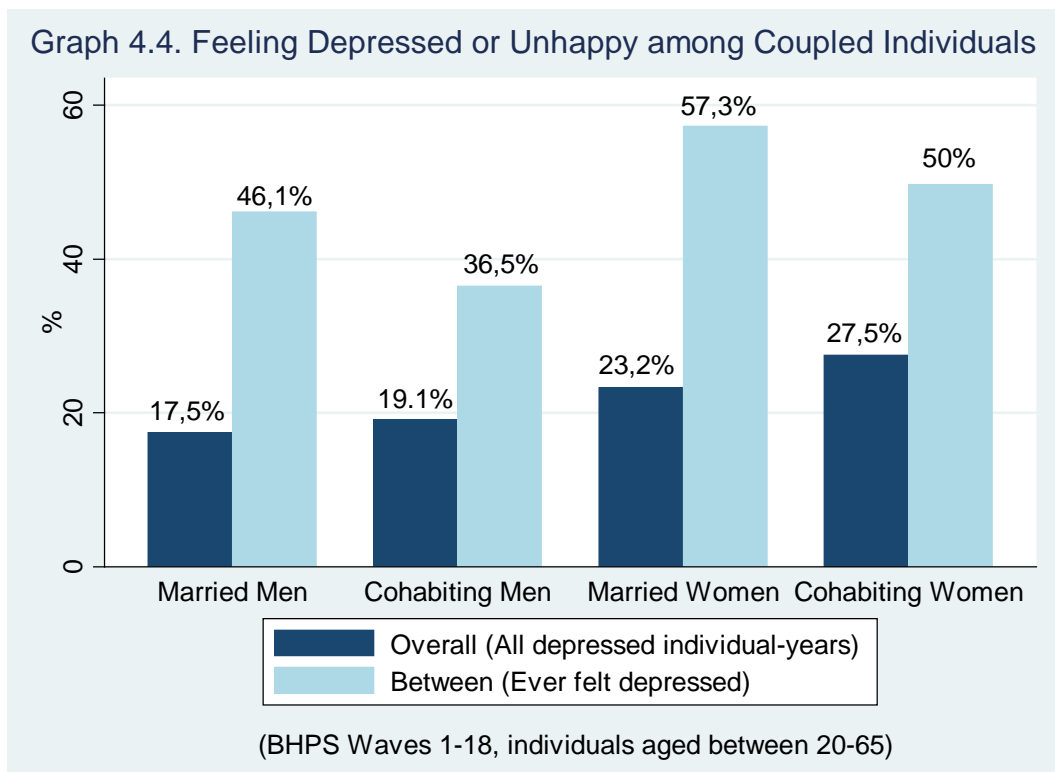
²⁷ Several studies examined the best method to use the GHQ scores. Some studies investigated a sensible cut-off point to identify depression (Shelton and Herrick, 2009), or mental disorder (Makowska *et al.*, 2002). For instance mean score or 2/3 points for GHQ-12 were used as cut-off points. However, since the purpose of this chapter is not to identify depression or mental disorder but instead to investigate the intra-personal fluctuations in the well-being the GHQ-12 scores are used as a continuous variable.



And finally, with respect to depression, in the BHPS there are two variables which measure depression on a yearly basis. One of them is derived from the health problems variable. In this variable information on depression is captured only if the respondent mentions depression or anxiety as a health problem in a given year. The other depression variable is one of the items in the GHQ-12 index, which measures whether or not the respondent has been feeling unhappy or depressed. The answers vary on a scale between 0 and 3 as discussed above, and the degree of feeling depressed or unhappy is available for all respondents. Therefore, I use the depression item from the GHQ-12 index. The depression variable is converted into a binary scale. Those who stated that they have been feeling “Not at all” and “No more than usual” unhappy or depressed are coded as 0, indicating not depressed; and those who have been feeling “Rather more” and “Much more” unhappy or depressed are coded as 1, indicating depressed.

CHAPTER 4

Graph 4.4 shows overall and between distributions of feeling depressed among married and cohabiting men and women. Light blue bars refer to between distribution; i.e. the share of respondents who have felt depressed at least once during the panel. Depression is more widespread among women, and among married individuals. 57 per cent of married women have been depressed at least in one wave, and this holds for half of the cohabiting women. Feeling depressed for at least one wave is reported by 46 per cent of married men and 37 per cent of cohabiting men. Dark blue bars show the overall distribution; i.e. the proportion of all observation points the respondents expressed that they have been feeling rather more or much more unhappy and depressed. Cohabiting women reported feeling depressed in 28 per cent of all waves, and married women reported it in 23 per cent of all waves. Incidence of overall depression is much lower among men. Only 18 per cent and 19 per cent of all waves were scored as feeling depressed by married and cohabiting men, respectively. In short, women and married individuals are more likely to feel depressed or unhappy at least once. However, the cohabiting individuals' overall experience of depression spans a larger amount of time across the period studied.



Partnership satisfaction, life satisfaction and depression measures are on ordinal scale, however, unfortunately, there is no procedure agreed upon for the panel estimation of ordinal data with fixed effects, and to my knowledge no such command is available for statistical software packages. Therefore, I treated partnership and life satisfaction measures as continuous variables and applied linear models with fixed effects. I used linear models also to estimate subjective well-being. I preferred dichotomizing the depression variable and recoded it as a dummy variable. I used logistic regression models with fixed effects to estimate the likelihood of feeling depressed²⁸ (see the footnote for

²⁸ Since panel data models with fixed effects are not available for ordinal data, I tested various models and compared the coefficients of labour market variables for partnership satisfaction, life satisfaction and depression outcomes. I estimated *a.*) random effects ordered probit models by treating the outcome as an ordinal variable; *b.*) fixed effects and random effects logistic regression models by dichotomizing the outcome variable; *c.*) linear panel data regression by treating the outcome variable as continuous; *d.*) logistic and ordered logistic regression models by treating the data as pooled cross-sections and clustering the standard errors within individuals. The coefficients for labour market variables produced by these models are consistent in terms of the

details of other models I tried to fit).

4.2d. Measurement of the main explanatory variables: Employment status

I combined current employment activity and contract type, and constructed a five-category indicator of labour market status: permanent employee, temporary employee, unemployed, out of labour force, and student. Temporary employment refers to all non-permanent contracts and includes seasonal work, fixed-term contract, agency and casual work. Unemployment is based on self-reported employment status. Temporary employment and unemployment measure labour market insecurity and are compared with permanent employment in the models. Table 4.1 shows the distribution of the sample by employment status for individuals and individual-years. Approximately 14 per cent of married men and 12 per cent of cohabiting men have been temporary employees at least in one wave (presented in column four). Similarly, 15 per cent of married women and 11 per cent of cohabiting women were recorded as temporary employees at least in one wave. Unemployment occurs more frequently among men than it does among women in the sample. Some 14,5 per cent of married men and 17 per cent of cohabiting men have been unemployed at least in one wave, whereas 9 per cent of married women and 10 per cent of cohabiting women have ever been unemployed during the panel.

sign of the relationship, although the size of the coefficient varies. Since random effect models produce biased estimates, probit models are inapplicable and the panel component of the data has a large amount of advantage over cross-sectional data I decided to use fixed-effect linear regression models for partnership and life satisfaction, and fixed effect logistic regression for the depression outcome.

TABLE 4.1. DISTRIBUTION OF THE BHPS SAMPLE BY EMPLOYMENT STATUS -WAVES 1-18

	MEN				WOMEN			
	Overall		Individuals		Overall		Individuals	
MARRIED COUPLES								
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Permanent employee	36886	78.11	5560	83.48	33048	60.34	5424	73.6
Temporary employee	1682	3.56	910	13.66	2123	3.88	1102	14.95
Unemployed	1844	3.9	958	14.38	857	1.56	646	8.77
Out of Labour Force	6554	13.88	1790	26.88	18379	33.56	4282	58.1
Student	259	0.55	185	2.78	361	0.66	220	2.99
Total	47225	100	6660*		54768	100	7370*	
COHABITING COUPLES								
Permanent employee	8456	79.55	2601	84.56	7890	67.23	2517	76.37
Temporary employee	554	5.21	362	11.77	548	4.67	373	11.32
Unemployed	863	8.12	514	16.71	427	3.64	326	9.89
Out of Labour Force	615	5.79	291	9.46	2565	21.86	1013	30.73
Student	142	1.34	109	3.54	306	2.61	220	6.67
Total	10630	100	3076*		11736	100	3296*	

*: Total of unique individuals in the sample.

The same procedure is applied for partner’s labour force status variable. Couple’s labour market statuses are also matched according to this categorization. If both spouses are either unemployed or in temporary work they are treated as dual-insecure couples. If the male spouse is in labour market insecurity but his partner has a permanent job they are labelled as male-insecure. And if the female is either unemployed or a temporary employee while he is working on a permanent job they are called as a female-insecure couple. Note that the observations where one or both of the spouses are inactive are excluded from the multivariate analysis because the purpose of the study is to investigate the transitions between secure and insecure labour market statuses.

The distribution of couples by labour market insecurity is shown in Table 4.2. Column 2 of each sub-table presents the overall distribution of individual-years in terms of matched employment status. 12 per cent of all married couple-years have been recorded as

CHAPTER 4

insecure, where at least one spouse's labour market status is insecure, only 0,7 per cent of these married-years being dual-insecure with both partners being either. Among married couples "She is temporary employee and He is permanent employee" is the most common coupled insecurity status, with 12 per cent of couples experiencing this for at least in one wave. This is followed by "He is unemployed and she is out of labour force" with 7,5 per cent of couples falling in this category at least in one wave. Couple insecurity is more pervasive among cohabiting individuals. 19,5 per cent of all cohabiting-years are recorded as insecure, and 2,7 per cent of those as dual- insecure. Similar to married couples, "She is temporary employee and He is permanent employee" is the most common coupled insecurity status among the cohabiters with 8,7 per cent of all couples experiencing it at least in one wave; and "He is unemployed and She is out of labour force" is experienced by 8,5 per cent of all cohabiters at least in one wave. To summarize, many married and cohabiting couples experience labour market insecurity at least once, however during their overall partnered lives insecurity, on average, do not last for too long. Also, insecurity is more common among the cohabiters then it is among married couples.

TABLE 4.2. DISTRIBUTION OF THE BHPS COUPLES BY MATCHED EMPLOYMENT STATUS – WAVES 1-18

	MARRIED COUPLES				COHABITING COUPLES				
	Overall		Individuals		Overall		Individuals		
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
<i>Secure couples</i>									
He is permanent & She is permanent	24746	55.3	4422	69.46	5670	59.3	1960	69.88	
<i>Dual-insecure couples</i>									
He is temporary & She is temporary	150	0.34	100	1.57	61	0.64	47	1.68	
He is temporary & She is unemployed	31	0.07	28	0.44	16	0.17	16	0.57	
He is unemployed & She is s temporary	57	0.13	49	0.77	24	0.25	20	0.71	
He is unemployed & She is unemployed	104	0.23	79	1.24	97	1.01	76	2.71	
Total of dual-insecure couples	342	0.77	256	4.02	198	2.07	159	5.67	
<i>Male-insecure couples</i>									
He is temporary & She is permanent	911	2.04	560	8.8	315	3.29	217	7.74	
He is temporary & She is OLF	509	1.14	320	5.03	114	1.19	88	3.14	
He is unemployed & She is permanent	594	1.33	409	6.42	241	2.52	176	6.27	
He is unemployed & She is OLF	959	2.14	480	7.54	385	4.03	240	8.56	
Total of male-insecure couples	2973	6.65	1769	27.79	1055	11.03	721	25.71	
<i>Female-insecure couples</i>									
She is temporary & He is permanent	1436	3.21	790	12.41	349	3.65	246	8.77	
She is temporary & He is OLF	161	0.36	105	1.65	21	0.22	19	0.68	
She is unemployed & He is permanent	436	0.97	350	5.5	202	2.11	169	6.02	
She is unemployed & He is OLF	116	0.26	91	1.43	37	0.39	32	1.14	
Total of female-insecure couples	2149	4.8	1336	20.99	609	6.37	466	16.61	
Total of all insecure couples	5464	12.22	3361	52.8	1862	19.47	1346	47.99	
<i>Other couples</i>									
He is permanent & She is OLF	8599	19.22	2510	39.43	1428	14.93	681	24.28	
He is OLF & She is permanent	1964	4.39	681	10.7	238	2.49	141	5.03	
He is OLF & She is OLF	3978	8.89	1211	19.02	364	3.81	194	6.92	
Total of all couples	44751	100	6366*		9562	100	2805*		

4.2e. Measurement of mediating factors: Vulnerability within the insecure workforce

Some temporary employees and unemployed individuals may be more vulnerable in the labour market than others depending on particular characteristics. Therefore, labour market insecurity may not have much impact on their well-being as a whole, whereas it may have so on some more vulnerable groups. To detect how labour market changes

CHAPTER 4

affect more vulnerable groups I performed additional analysis and interacted the labour market insecurity with seven indicators which aim to capture vulnerable groups. In order to isolate the impact of insecurity's interaction with those factors I used a more restricted sample. For the analysis with unemployment I only included the observations in employment and unemployment, and dropped out the observations when the respondent is out of labour force or registered as a full-time student. In doing so the models capture the changes in well-being as an outcome of the changes between unemployment and employment. For temporary work analysis I only included the observations where the respondent is employed with temporary and permanent contracts, but drop out the unemployed or inactive spells. Again, the models predict the change in well-being based on switching between permanent and temporary employment.

First, as discussed previously, depending on the duration of the spell, insecurity may have a harsher impact on well-being. I used three duration dummies for the length of temporary work and unemployment: Less than one year²⁹, one to two years, and more than two years. The estimated coefficients on duration refer to the effect of different spells of insecurity on well-being as compared to that of employment. Second, I interacted insecurity with low level of human capital with the idea that those with less human capital may suffer from insecurity more severely compared to others. For temporary employees I used low occupational skills, and for the unemployed I only used low education level since occupation information is not available when they are unemployed. I defined those individuals in 'sales occupations' and those who work as 'plant and machine operators' and in 'elementary occupations' as *low skilled employees*,

²⁹ The ILO's definition of short term unemployment is less than one year. I used the same criteria for temporary work spells

which are the bottom two groups in Standard Occupations Classification (SOC). Low education group includes those who do not have any qualification.

Third, working hours may add another layer of vulnerability to the situation of temporary employment. Hence I interacted temporary work with part-time work which is defined as less than 30 hours per week. Fourth, temporary employees may differ from one another in terms of the level of perceived job insecurity. For some, temporary employment may not entail uncertainty, whereas for others it may. In order to capture the effect of subjective job insecurity I interacted temporary employment with job insecurity. In order to do so I used an item which measures how satisfied the respondent is in terms of job security on a scale of 1 to 7; with 1 being “not satisfied at all” and 7 being “highly satisfied”. Then I dichotomized this variable and labelled those who scored on this item from 1 to 4 as reporting subjective job insecurity, and interacted this with temporary employment.

Fifth, studies suggested that the negative effect of unemployment on well-being can be mitigated by social support available to the unemployed individuals. I analysed the interaction effect of social support by using an item which measures whether the respondent has someone outside the household who can help if the respondent is depressed. Sixth, individuals who have a young child in the household may suffer more severely from unemployment and temporary work. I interacted unemployment and temporary work separately with a dummy variable which indicates the presence of a child younger than 6 years.

Finally, there may be gender differences in the extent to which insecurity affects individuals' well-being. In order to capture the gender effect, unemployment and temporary work dummies are interacted with the ‘male’ dummy.

4.2f. Measurement of the control variables:

A number of control variables are introduced into the fixed effects models. *i.)* A dummy variable is used for self-reported financial difficulty. *ii.)* Local unemployment rates, which are obtained on a monthly basis from the Office of National Statistics, are integrated in the data³⁰. *iii.)* Each well-being measure of the partner is included in the models corresponding to own well-being outcome, i.e. partner's life satisfaction is controlled for in life satisfaction models. Partner's well-being variables are defined in the same manner as own well-being outcomes, which are described in detail above. *iv.)* Another control variable measures the current duration of partnership. This is a categorical variable which is composed of *first year, second year, third year, 4th-5th years, 6th-10th years* and *more than 10th years* in the relationship. The first year is taken as the reference category. *v.)* Presence and number of children are included, too, which is treated as a categorical variable with following categories: *No children, one child, two children* and *more than two children*. Finally, *vi.)* age, age squared and *vii.)* a period dummy measured as the year of the panel are controlled for in the analysis.

4.3 RESULTS

Before going over the main results I would like to make a few general remarks. The core of the analyses in this chapter is to assess the impact of *i.) individual's own, ii.) partner's, and iii.) couple's joint* labour market insecurity on wellbeing outcomes. Hence, the analyses were performed separately based on the three sources of insecurity. Moreover,

³⁰ Local unemployment rates are available for 11 regions in the ONS statistics: North East, North West, Yorkshire and the Humber, East Midlands, West Midlands, East, South East, London, South West, Wales and Scotland and the series starts from April, 1992. Unemployment rates for Northern Ireland are obtained from Labour Relations Agency and the data is available quarterly between 1999 and 2008.

labour market insecurity may have distinct implications for men and women, as well as for married and cohabiting individuals. Thus, all the outcomes (partnership satisfaction, life satisfaction, subjective well-being and depression) were analysed separately for men and women; and for married and cohabiting individuals. Another issue is that I estimated all models step-wise. I first ran a simple model with the outcome variables predicted only by the labour market insecurity variable. Then I added step by step the control variables in the following order: financial difficulty, local unemployment rate, partner's well-being variable, number of years since the start of relationship, number of children, age and age squared, and the year dummy. I observed the change of the effect of the main explanatory variables as I included each control variable. The sign of the coefficients of the main explanatory variables remained mostly consistent, yet the size of the effect increased or decreased as more controls were included. In this chapter I only present the results from the simple models, where only the main explanatory variables are included; and the full models, where the explanatory variables as well as the complete list of control variables are introduced. This gives an idea of the gross effect of labour market insecurity, the effect of it after many relevant characteristics are controlled for, and how the size of the effect changes upon inclusion of the controls. And finally, note that the first three outcomes, namely partnership satisfaction, life satisfaction and subjective well-being, are estimated with linear fixed effect models; hence the coefficients are presented in the tables. However, the fourth outcome (depression) was estimated with logistic fixed effect models. I presented the odds ratios from logistic models, which stand for a decreasing risk of depression when the odds ratio is between 0 and 1, and increasing risk of depression when the odds ratio is larger than 1.

4.3a. Individuals' own insecurity and well-being in the family:

In this set of analyses the individuals' own labour market status is used to estimate the impact of labour market insecurity on well-being, without taking partner's labour market status into consideration. Tables 4.3a and 4.3b represent the results from fixed effects models for all four well-being outcomes. Both simple and full models are presented in these tables but here I discuss the results from the full models. Temporary employment and unemployment are compared to permanent employment, which is the reference category for labour market status. It can clearly be seen that temporary employment has no impact on men's wellbeing. Neither for married nor for cohabiting men does switching from permanent to temporary employment affect any of the well-being outcomes. On the other hand, for married women's well-being temporary work has a somewhat positive impact. Temporary employment slightly increases their life satisfaction and subjective well-being, compared to permanent employment. There is no such effect for cohabiting women.

Unemployment has a negative and strong(er) impact on men and married women's well-being. When they are unemployed, men report lower levels of life satisfaction and subjective well-being, and they are more likely to feel depressed compared to when they are permanent employees. Married women also suffer from an adverse impact of unemployment, and their subjective well-being is poorer and they are more likely to feel depressed, compared to when they are permanently employed. There is no such effect for cohabiting women.

TABLE 4.3a. INDIVIDUALS' OWN LABOUR MARKET STATUS AND WELLBEING OUTCOMES AMONG MEN - FIXED EFFECT MODELS (SIMPLE VERSION)

	IN MARRIAGES			
	Partsat	Lifesat	Wellbeing	Depressed
	1a (Coef.)	1b (Coef.)	1c (Coef.)	1d† (OR)
Temporary employee (Permanent)	0.03	-0.04	0.02	1.1
Unemployed (Permanent)	-0.03	-0.23***	-1.97***	2.40***
Out of labour force (Permanent)	-0.06*	-0.14***	-0.91***	1.52***
Student (Permanent)	-0.07	0.09	-0.38	1.27

FIXED EFFECT MODELS (FULL VERSION)

	3a	3b	3c	3d
Temporary employee (Permanent)	0.02	-0.03	0.11	1.02
Unemployed (Permanent)	0.01	-0.15***	-1.46***	1.96***
Out of labour force (Permanent)	-0.01	-0.13***	-0.92***	1.63***
Student (Permanent)	-0.08	0.09	-0.21	1.19
Financial difficulty (d)	-0.04	-0.48***	-2.57***	2.78***
Local Unemployment	0.01	-0.02	-0.02	1.02
Subjective well-being	0.02***	-	-	-
Partner's satisfaction from partnership	0.18***	-	-	-
Partner's life satisfaction	-	0.10***	-	-
Partner's Subjective Well-being	-	-	0.13***	-
Partner feeling depressed (d)	-	-	-	1.91***
2nd year in relationship (1st year)	-0.02	-0.06*	-0.15	1.01
3rd year in relationship (1st year)	-0.07**	-0.07**	-0.19	1.13
4-5th year in relationship (1st year)	-0.08**	-0.10**	-0.34**	1.24
6-10th year in relationship (1st year)	-0.14***	-0.17***	-0.46***	1.31**
10+ year in relationship (1st year)	-0.20***	-0.19***	-0.54***	1.44**
1 child (No children)	-0.08*	0.02	0.14	1.01
2 children (No children)	-0.16***	0.02	0.32*	1.02
2+ children (No children)	-0.23***	-0.03	-0.07	1.19
Age	0.01	-0.08***	-0.31***	1.20*
Age square	0	0.00***	0.00***	1.00***
N (total of individual x years)	29203	29595	42459	24633
n (total of individuals)	5111	5134	6125	2565
Mean observation points in years	5.7	5.8	6.9	9.6

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Reference category for categorical variables shown in parenthesis. **2.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **3.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **4.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18.

TABLE 4.3a. INDIVIDUALS' OWN LABOUR MARKET STATUS AND WELLBEING OUTCOMES AMONG MEN - FIXED EFFECT MODELS (SIMPLE VERSION) - CONTINUES

	IN COHABITATIONS			
	Partsat	Lifesat	Wellbeing	Depressed
	2a (Coef.)	2b (Coef.)	2c (Coef.)	2d (OR)
Temporary employee (Permanent)	-0.01	-0.01	0.34	0.88
Unemployed (Permanent)	-0.07	-0.38***	-2.12***	2.10***
Out of labour force (Permanent)	-0.09	-0.43***	-2.75***	1.94**
Student (Permanent)	0.19	0.26	0.43	0.65
FIXED EFFECT MODELS (FULL VERSION)				
	4a	4b	4c	4d
Temporary employee (Permanent)	-0.02	-0.03	0.32	0.86
Unemployed (Permanent)	0	-0.32***	-1.69***	1.62**
Out of labour force (Permanent)	0.05	-0.32***	-2.18***	1.5
Student (Permanent)	0.13	0.16	0.56	0.54
Financial difficulty (d)	-0.08	-0.44***	-2.45***	2.71***
Local Unemployment	0.04	0.04*	-0.03	1.01
Subjective well-being	0.03***	-	-	-
Partner's satisfaction from partnership	0.17***	-	-	-
Partner's life satisfaction	-	0.10***	-	-
Partner's Subjective Well-being	-	-	0.12***	-
Partner feeling depressed (d)	-	-	-	1.74***
2nd year in relationship (1st year)	0	-0.12**	-0.45**	1.02
3rd year in relationship (1st year)	-0.05	-0.17***	-0.36*	1.19
4-5th year in relationship (1st year)	-0.04	-0.17**	-0.80***	1.28
6-10th year in relationship (1st year)	-0.16*	-0.22**	-0.76**	1.12
10+ year in relationship (1st year)	-0.18	-0.30**	-0.83*	1.14
1 child (No children)	-0.03	-0.1	-0.16	1.16
2 children (No children)	-0.06	-0.02	-0.05	1.14
2+ children (No children)	-0.14	-0.08	-0.99	1.34
Age	-0.09*	-0.07	-0.18	1.12
Age square	0	0.00*	0	1
N (total of individual x years)	6864	7019	9099	4201
n (total of individuals)	2205	2242	2679	751
Mean observation points in years	3.1	3.1	3.4	5.6

Legend: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; (d): dummy variable.

Notes: **1.** Reference category for categorical variables shown in parenthesis. **2.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **3.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **4.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18.

TABLE 4.3b. INDIVIDUALS' OWN LABOUR MARKET STATUS AND WELLBEING OUTCOMES AMONG WOMEN - FIXED EFFECT MODELS (SIMPLE VERSION)

	IN MARRIAGES			
	Partsat	Lifesat	Wellbeing	Depressed
	5a	5b	5c	5d
	(Coef.)	(Coef.)	(Coef.)	(OR)
Temporary employee (Permanent)	0.07*	0.09**	0.36**	0.96
Unemployed (Permanent)	-0.02	-0.11*	-1.46***	1.71***
Out of labour force (Permanent)	0.04*	-0.02	-0.42***	1.16**
Student (Permanent)	0.07	0.15	0.65*	0.81

FIXED EFFECT MODELS (FULL VERSION)

	7a	7b	7c	7d
Temporary employee (Permanent)	0.02	0.08*	0.37**	0.94
Unemployed (Permanent)	-0.02	-0.09	-1.40***	1.64***
Out of labour force (Permanent)	0.05**	-0.01	-0.46***	1.19***
Student (Permanent)	0.03	0.17*	0.69*	0.76
Financial difficulty (d)	-0.08**	-0.37***	-2.00***	2.29***
Local Unemployment	0.02*	-0.02	-0.07*	1.04
Subjective well-being	0.02***	-	-	-
Partner's satisfaction from partnership	0.21***	-	-	-
Partner's life satisfaction	-	0.12***	-	-
Partner's Subjective Well-being	-	-	0.18***	-
Partner feeling depressed (d)	-	-	-	1.93***
2nd year in relationship (1st year)	0.01	-0.06	-0.18	1.16
3rd year in relationship (1st year)	-0.08**	-0.11***	-0.22	1.04
4-5th year in relationship (1st year)	-0.12***	-0.14***	-0.35*	1.19
6-10th year in relationship (1st year)	-0.18***	-0.19***	-0.24	1.01
10+ year in relationship (1st year)	-0.24***	-0.24***	-0.22	1.09
1 child (No children)	-0.12**	0.01	0.23	0.80*
2 children (No children)	-0.14**	-0.02	0.63***	0.72**
2+ children (No children)	-0.14*	-0.09	0.58*	0.68*
Age	-0.05*	-0.06**	-0.20*	1.05
Age square	0.00***	0.00***	-0.00***	1.00**
N (total of individual x years)	30908	31428	44850	31267
n (total of individuals)	5333	5373	6337	3260
Mean observation points in years	5.8	5.8	7.1	9.6

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Reference category for categorical variables shown in parenthesis. **2.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **3.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **4.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18.

TABLE 4.3b. INDIVIDUALS' OWN LABOUR MARKET STATUS AND WELLBEING OUTCOMES AMONG WOMEN - FIXED EFFECT MODELS (SIMPLE VERSION) - CONTINUES

	IN COHABITATIONS			
	Partsat	Lifesat	Wellbeing	Depressed
	6a (Coef.)	6b (Coef.)	6c (Coef.)	6d (OR)
Temporary employee (Permanent)	0.12	0.06	0	1.16
Unemployed (Permanent)	0.09	-0.08	-1.10**	1.16
Out of labour force (Permanent)	0.08	-0.04	-0.94***	1.18
Student (Permanent)	0.05	-0.02	-0.63	1.03

FIXED EFFECT MODELS (FULL VERSION)

	8a	8b	8c	8d
Temporary employee (Permanent)	0.1	0.06	0.19	1.05
Unemployed (Permanent)	0.11	0	-0.59	1
Out of labour force (Permanent)	0.17**	0.01	-0.58**	1.02
Student (Permanent)	0.02	-0.04	-0.4	0.88
Financial difficulty (d)	-0.13*	-0.54***	-2.76***	2.09***
Local Unemployment	0.02	-0.01	0.01	1.02
Subjective well-being	0.03***	-	-	-
Partner's satisfaction from partnership	0.20***	-	-	-
Partner's life satisfaction	-	0.11***	-	-
Partner's Subjective Well-being	-	-	0.18***	-
Partner feeling depressed (d)	-	-	-	1.74***
2nd year in relationship (1st year)	-0.16***	-0.05	-0.07	1.03
3rd year in relationship (1st year)	-0.30***	-0.14**	-0.34	1.02
4-5th year in relationship (1st year)	-0.39***	-0.22***	-0.73**	1.37
6-10th year in relationship (1st year)	-0.53***	-0.21**	-0.59*	1.13
10+ year in relationship (1st year)	-0.80***	-0.20*	-1.17**	1.35
1 child (No children)	-0.09	0.04	-0.24	1.32
2 children (No children)	0.03	-0.04	-0.43	2.06*
2+ children (No children)	0.01	0.18	-0.96	2.93**
Age	0.07	0.02	-0.06	1.06
Age square	-0.00**	0	0.00*	1.00*
N (total of individual x years)	6745	6886	8931	5095
n (total of individuals)	2161	2190	2623	951
Mean observation points in years	3.1	3.1	3.4	5.4

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

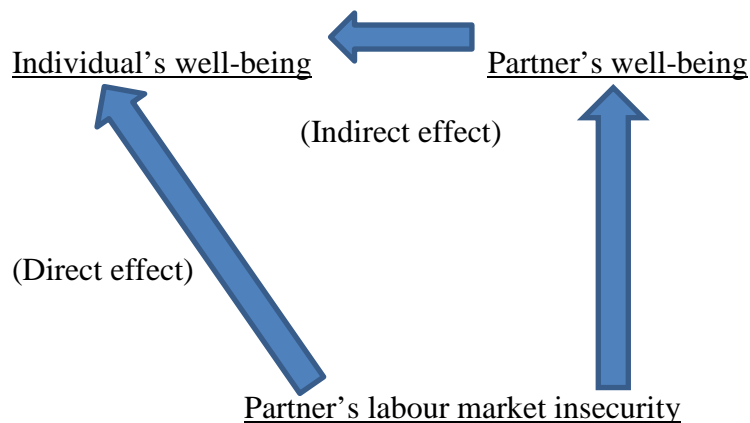
Notes: **1.** Reference category for categorical variables shown in parenthesis. **2.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **3.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **4.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18.

It is important to note that, for each well-being outcome the partner's corresponding well-being indicator is included in the model. The well-being of individuals in a partnership is very likely to be influenced by the same conditions such as financial difficulty. There is also a crossover process within couples and one partner's welfare can affect how the other partner feels. The role of labour market insecurity discussed here is net of the crossover effect between partners.

4.3b. Partner's insecurity and well-being in the family:

In the family context partner's labour market activity may play an important role in how individuals feel. The employment status of the spouse is related to several aspects of quality of family life such as the amount of household income and savings, the distribution of household tasks, and the amount of time family members have available for each other. Similarly, the individuals' well-being is affected by the well-being of their spouses. Therefore, there are two distinct mechanisms which can mediate the relationship between individuals' wellbeing and partners' insecurity. There is a direct effect of partner's employment status, and an indirect effect of partner's well-being which is associated to the partner's own labour market insecurity. In order to shed light on these mechanisms well-being outcomes are regressed by two sets of models with and without controlling for partner's wellbeing. Only the results from models controlling for partner's well-being are presented for simplicity.

Figure 1. WELL-BEING AND PARTNER'S LABOUR MARKET INSECURITY³¹



The analyses reveal that for men's well-being the partner effect is an indirect one for the case of temporary work. Controlling for how wives feel matters for whether or not wives' labour market insecurity influences husbands' subjective well-being and risk of depression, although the impact is only minor. Results on Table 4.4a show that that men who are married to women working as temporary employees have slightly lower levels of subjective well-being and are more likely to feel depressed, compared to when they are married to women in permanent employment. When wife's subjective well-being and depression scores are omitted from the model, the effect disappears. This indicates that men's well-being is related to wives' temporary employment only after taking wives' well-being into account. On the contrary, wife's unemployment, as opposed to her being in permanent employment, has a small but positive effect on married men's satisfaction from partnership. This effect remains even if wife's partnership satisfaction is omitted meaning that there is a direct effect of her unemployment on his well-being. When their wives are unemployed men are on average more satisfied with their partners regardless of

³¹ Whether or not the causal mechanism modelled in the figure is suitable can be tested more appropriately using structural equation models; however, for the purpose of methodological uniformity throughout the chapter, this option is disregarded.

how well she feels during her unemployment. The partner's labour market status does not influence cohabiting men's well-being.

Male insecurity has a more pronounced negative effect on wives' well-being outcomes. Married women whose spouses are working in temporary work or unemployed are less satisfied with life, have poorer subjective well-being and are more likely to feel depressed. The effect of male insecurity on female well-being is a direct one. Regardless of how he feels during his insecurity spell, married women display a drop in well-being and face an elevated risk of feeling depressed (Table 4.4b).

TABLE 4.4a. PARTNER'S LABOUR MARKET STATUS AND WELLBEING OUTCOMES AMONG MEN – FIXED EFFECT MODELS

	IN MARRIAGES			
	Partsat	Lifesat	Wellbeing	Depressed
	9a (Coef.)	9b (Coef.)	9c (Coef.)	9d (OR)
(SIMPLE VERSION)				
Partner temporary employee (Permanent)	0.07*	0.03	-0.21	1.21*
Partner unemployed (Permanent)	0.09*	0	-0.12	1.07
Partner OLF (Permanent)	0.04*	0.02	-0.03	1.05
Partner student (Permanent)	0.04	-0.1	0.25	1.01
(FULL VERSION)				
	11a	11b	11c	11d
Partner temporary employee (Permanent)	0.05	0.02	-0.25*	1.19*
Partner unemployed (Permanent)	0.10*	0.02	0.11	0.98
Partner OLF (Permanent)	0.04**	0.02	-0.02	1.05
Partner student (Permanent)	0.02	-0.11	0.27	0.94
N (total individual x years)	29238	29688	42507	24626
n (total of individuals)	5115	5144	6129	2563
Mean observation points in years	5.7	5.8	6.9	9.6
	IN COHABITATIONS			
(SIMPLE VERSION)	10a	10b	10c	10d†
Partner temporary employee (Permanent)	-0.06	-0.07	-0.05	0.88
Partner unemployed (Permanent)	0.07	-0.05	-0.3	1
Partner OLF (Permanent)	-0.07	-0.05	-0.34	1.11
Partner student (Permanent)	-0.03	0.01	-0.63	1.03
(FULL VERSION)				
	12a	12b	12c	12d†
Partner temporary employee (Permanent)	-0.09	-0.1	-0.09	0.82
Partner unemployed (Permanent)	0.04	-0.02	-0.13	0.92
Partner OLF (Permanent)	-0.06	-0.02	-0.07	0.96
Partner student (Permanent)	-0.03	-0.02	-0.57	1.01
N (total individual x years)	6858	7020	9093	4201
n (total of individuals)	2206	2244	2681	748
Mean observation points in years	3.1	3.1	3.4	5.6

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: 1. Reference category for categorical variables shown in parenthesis. 2. Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. 3. Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. 4. Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18.

TABLE 4.4b. PARTNER'S LABOUR MARKET STATUS AND WELLBEING OUTCOMES AMONG WOMEN – FIXED EFFECT MODELS

	IN MARRIAGES			
	Partsat	Lifesat	Wellbeing	Depressed
	13a	13b	13c	13d
(SIMPLE VERSION)	(Coef.)	(Coef.)	(Coef.)	(OR)
Partner temporary employee (Permanent)	-0.01	-0.07*	-0.43**	1.33***
Partner unemployed (Permanent)	-0.04	-0.16***	-0.87***	1.58***
Partner OLF (Permanent)	-0.07**	-0.04	-0.33**	1.21**
Partner student (Permanent)	-0.08	-0.11	0.02	1.06
(FULL VERSION)				
	15a	15b	15c	15d
Partner temporary employee (Permanent)	-0.03	-0.07*	-0.41**	1.30**
Partner unemployed (Permanent)	-0.03	-0.10*	-0.29*	1.26*
Partner OLF (Permanent)	-0.04	0	-0.04	1.17*
Partner student (Permanent)	-0.14	-0.14	0.18	0.95
N (total individual x years)	30860	31328	44790	31227
n (total of individuals)	5331	5363	6334	3263
Mean observation points in years	5.8	5.8	7.1	9.6
	IN COHABITATIONS			
(SIMPLE VERSION)	14a	14b	14c	14d†
Partner temporary employee (Permanent)	0.04	0.03	-0.11	0.98
Partner unemployed (Permanent)	-0.09	-0.09	-0.69*	1.26
Partner OLF (Permanent)	-0.24**	-0.23**	-1.07**	1.72**
Partner student (Permanent)	0.07	0.25	-0.64	1.54
(FULL VERSION)				
	16a	16b	16c	16d
Partner temporary employee (Permanent)	0.02	0.03	-0.12	0.96
Partner unemployed (Permanent)	-0.09	0	0.03	1.04
Partner OLF (Permanent)	-0.15	-0.16*	-0.43	1.53*
Partner student (Permanent)	-0.06	0.21	-0.69	1.54
N (total individual x years)	6757	6891	8943	5103
n (total of individuals)	2162	2190	2622	953
Mean observation points in years	3.1	3.1	3.4	5.4

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: 1. Reference category for categorical variables shown in parenthesis. 2. Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. 3. Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. 4. Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18.

4.3c. Couple insecurity and well-being in the family:

So far in the analyses I focussed on labour market insecurity at the individual level; either individual's own insecurity or the partner's insecurity as an individual characteristic. However, depending on both partners' employment status, some couples may be more vulnerable than others. In this section I compare different combinations of matched couple employment status with dual permanent employment, where both male and female partner are working as permanent employees. I expect men and women in *dual-insecurity* to display the poorest well-being outcomes because they are the most vulnerable of all. This will be followed by *male-insecure* couples, and then *female-insecure* couples. Male-insecurity is expected to have a larger detrimental effect than female-insecurity since men's contribution to the household income is greater.

Dual insecurity seems to have a significant detrimental effect on women's well-being (Table 4.5a and 4.5b), especially in the case of dual-unemployment. When both partners are unemployed women report lower levels of subjective well-being and are more likely to feel depressed. Dual-unemployment has no significant impact on men's well-being. Men who are unemployed and married to women in temporary work exhibit worse well-being outcomes. There is some support to the idea that dual-insecure couples are vulnerable, hence, particularly women in this situation suffer from negative externalities of labour market insecurity. However, interestingly, *male-insecurity* has a larger impact on men's well-being than does dual-insecurity, whereas female-insecurity worsens women's wellbeing the most. Therefore, the expectation that insecurity has a hierarchical impact starting from the most vulnerable couples to the least is not verified. Instead, the effect seems to be gender-symmetrical, meaning that male insecurity is strongly associated with male well-being and female insecurity is strongly associated with female

well-being. Male insecurity is also an important source of poor well-being among married couples, which is consistent with the idea of tensions due to role-reversal.

In more detail, for both married and cohabiting men the poorest well-being outcomes (excluding partnership satisfaction) appear when he is unemployed but she has a permanent job. The drop in well-being may be attributed to the role reversal within the family, which can be frustrating for men. As mentioned above, unemployed married men whose partners are in temporary work also display similar results. However, for these couples, it seems more likely to be the case that it is role-reversal rather than dual-insecurity which is leading to a reduction in men's well-being. Female-insecurity also has a small and negative impact on married men's well-being. When he is in permanent and she is in temporary employment, men report lower levels of psychological well-being and they are more prone to feeling depressed. The only significant effect of couple insecurity for cohabiting men is the adverse impact of male-insecurity on well-being (for couples in which he is unemployed and she has a permanent job). This is intriguing, because previous studies showed that cohabiters were more gender-equal in their attitudes (Rindsfuss and Heuvel, 1990).

Insecurity at the couple level affects women's well-being in a mixed way. Married women's risk of feeling depressed is elevated to the largest extent by dual-insecurity, more specifically when both spouses are unemployed. However, for other well-being outcomes one source of female-insecurity, namely when she is unemployed and he has a permanent job, also has a strong negative impact. This stands in contrast to the other type of female-insecurity where she is working on temporary basis and he is on permanent basis. This combination increases married women's life satisfaction and psychological well-being. Male-insecurity reduces women's well-being significantly. When women are

CHAPTER 4

in permanent employment but their husbands are working on temporary contracts or are unemployed, their well-being outcomes are poorer than when they are both in permanent employment. This may also be attributed to reversed-roles within the household. For cohabiting women insecurity is significant for only one case. When she has a temporary job but he is unemployed, insecurity has a strong, but positive effect on psychological well-being, compared to when they are both in permanent contracts.

TABLE 4.5a. COUPLE'S LABOUR MARKET STATUS AND WELLBEING OUTCOMES AMONG MEN – FIXED EFFECT MODELS (FULL VERSIONS)

	IN MARRIAGES			
	Partsat 19a (Coef.)	Lifesat 19b (Coef.)	Wellbeing 19c (Coef.)	Depressed 19d (OR)
<i>Dual-Insecurity</i>				
He is temporary & She is temporary (both permanent)	0.12	0.13	0.82*	0.66
He is temporary & She is unemployed (both permanent)	0.45*	0.05	0.06	1.34
He is unemployed & She is temporary (both permanent)	0.13	0.07	-1.61**	2.20*
He is unemployed & She is unemployed (both permanent)	-0.17	0.06	-0.21	1.28
<i>Male-Insecurity</i>				
He is temporary & She is permanent (both permanent)	0.01	-0.05	0.09	1.03
He is unemployed & She is permanent (both permanent)	0.11*	-0.18***	-2.07***	2.43***
<i>Female-Insecurity</i>				
He is permanent & She is temporary (both permanent)	0.03	-0.01	-0.41***	1.31**
He is permanent & She is unemployed (both permanent)	0.15**	0.08	0.1	0.97
N (total individual x years)	29109	29479	42335	24512
n (total of individuals)	5108	5131	6123	2557
Mean observation points in years	5.7	5.7	6.9	9.6
	IN COHABITATIONS			
	20a	20b	20c	20d
<i>Dual-Insecurity</i>				
He is temporary & She is temporary (both permanent)	-0.24	-0.12	-0.11	1.42
He is temporary & She is unemployed (both permanent)	0.15	0.1	-0.36	0.32
He is unemployed & She is temporary (both permanent)	0.09	-0.16	-1.2	0.31
He is unemployed & She is unemployed (both permanent)	-0.1	-0.15	-0.87	0.99
<i>Male-Insecurity</i>				
He is temporary & She is permanent (both permanent)	0.08	-0.02	0.3	0.8
He is unemployed & She is permanent (both permanent)	0.14	-0.27**	-1.97***	1.97**
<i>Female-Insecurity</i>				
He is permanent & She is temporary (both permanent)	-0.06	-0.11	-0.17	0.78
He is permanent & She is unemployed (both permanent)	0.11	0.03	-0.1	1.02
N (total individual x years)	6839	6988	9065	4180
n (total of individuals)	2203	2239	2678	746
Mean observation points in years	3.1	3.1	3.4	5.6

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Reference category for categorical variables shown in parenthesis. **2.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **3.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **4.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18.

TABLE 4.5b. COUPLE'S LABOUR MARKET STATUS AND WELLBEING OUTCOMES AMONG WOMEN – FIXED EFFECT MODELS (FULL VERSIONS)

	IN MARRIAGES			
	Partsat	Lifesat	Wellbeing	Depressed
	23a (Coef.)	23b (Coef.)	23c (Coef.)	23d (OR)
<i>Dual-Insecurity</i>				
He is temporary & She is temporary (both permanent)	0.06	-0.05	-0.33	1.55
He is temporary & She is unemployed (both permanent)	-0.19	0.2	0.25	1.12
He is unemployed & She is temporary (both permanent)	-0.47*	-0.34	-0.74	1.06
He is unemployed & She is unemployed (both permanent)	0.15	0.05	-1.20*	1.96*
<i>Male-Insecurity</i>				
He is temporary & She is permanent (both permanent)	-0.02	-0.09*	-0.58***	1.34**
He is unemployed & She is permanent (both permanent)	-0.05	-0.18**	-0.53*	1.47**
<i>Female-Insecurity</i>				
He is permanent & She is temporary (both permanent)	0.02	0.09*	0.40**	0.89
He is permanent & She is unemployed (both permanent)	0	-0.14*	-1.70***	1.80***
N (total individual x years)	30761	31202	44659	31084
n (total of individuals)	5328	5360	6332	3254
Mean observation points in years	5.8	5.8	7.1	9.6
	IN COHABITATIONS			
	24a	24b	24c	24d
<i>Dual-Insecurity</i>				
He is temporary & She is temporary (both permanent)	0.27	0.17	-0.24	1.49
He is temporary & She is unemployed (both permanent)	-0.2	0.23	3.55**	0.81
He is unemployed & She is temporary (both permanent)	0.23	-0.11	-1	1.74
He is unemployed & She is unemployed (both permanent)	-0.15	0.2	-0.78	1.04
<i>Male-Insecurity</i>				
He is temporary & She is permanent (both permanent)	0.09	0.02	-0.41	1.03
He is unemployed & She is permanent (both permanent)	-0.03	0.01	-0.1	1.01
<i>Female-Insecurity</i>				
He is permanent & She is temporary (both permanent)	0.11	0.02	-0.1	1.03
He is permanent & She is unemployed (both permanent)	0.1	-0.14	-0.64	0.96
N (total individual x years)	6726	6855	8902	5072
n (total of individuals)	2158	2185	2620	948
Mean observation points in years	3.1	3.1	3.4	5.4

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Reference category for categorical variables shown in parenthesis. **2.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **3.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **4.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18.

A detailed analysis of insecurity within the couple level suggests that dual-insecure couples are not the most vulnerable. Male and female insecurity also have important consequences for the well-being of coupled individuals. Particularly for male well-being role reversal has a more damaging effect than severe insecurity experienced by both of the spouses. Moreover, it can also be seen that, for all types of couple insecurity having a spouse unemployed seems to have a larger impact than having a spouse in temporary employment.

4.3d. Mediating factors:

As discussed above, some individuals may be more vulnerable in the labour market than others and the experience of temporary work and unemployment may damage their well-being to a greater degree than other individuals. In order to take into account such mediating factors I interacted labour market insecurity with duration of spell, low occupational skill, low educational level, part-time work hours, subjective job insecurity, social support, having young children and sex.

Starting with duration of insecurity spells, the coefficients of different duration dummies are presented in Tables 4.6a and 4.6b. Since the models are predicted with fixed-effects, the coefficients compare a particular individual's well-being across different durations with the same individual's well-being when they are employed. Therefore it is possible to determine how the effect of insecurity changes for an individual over time. Table 4.6a shows that for married men the coefficients for well-being outcomes do not seem to diminish with the duration of unemployment. For life satisfaction, subjective well-being and depression the coefficients for all three duration dummies are significant and negative and do not decrease sharply with more time spent in unemployment. It suggests that for

CHAPTER 4

married men unemployment has a detrimental effect on well-being, but this effect is independent of its duration. No support is found for habituation into unemployment among married men. However, for cohabiting men and women the negative effect of unemployment seems to diminish after one year, which can be seen on the right hand panel of Table 4.6a and on Table 4.6b. Cohabiting men and women report a decline in their well-being initially, but after the first year their well-being no longer differs from their level of well-being when they were employed. The habituation effect is observed for these groups, which means that they adapt to the situation after one year in unemployment. Temporary work itself is not a significant determinant of men's well-being and interacting it with duration does not make any difference either.

TABLE 4.6a. INTERACTION OF DURATION AND UNEMPLOYMENT AMONG MEN – FIXED EFFECT MODELS (FULL VERSIONS)

IN MARRIAGES				
	Partsat 25a (Coef.)	Lifesat 25b (Coef.)	Wellbeing 25c (Coef.)	Depressed 25d (OR)
1st year in unemployment (Employed)	0.05	-0.27***	-2.07***	2.31***
2nd year in unemployment (Employed)	-0.03	-0.34***	-2.28***	2.12**
>3rd year in unemployment (Employed)	0.07	-0.33***	-1.39***	2.03**
N (total individual x years)	25266	25870	36831	20826
n (total of individuals)	4549	4580	5415	2236
Mean observation points in years	5.6	5.6	6.8	9.3
IN COHABITATIONS				
	26a	26b	26c	26d
1st year in unemployment (Employed)	-0.03	-0.34***	-2.08***	1.94***
2nd year in unemployment (Employed)	0.1	-0.11	-1.36**	1.85
>3rd year in unemployment (Employed)	0	-0.14	-0.73	1.14
N (total individual x years)	6423	6605	8509	3771
n (total of individuals)	2104	2151	2562	691
Mean observation points in years	3.1	3.1	3.3	5.5

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Reference category for categorical variables shown in parenthesis. **2.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner’s corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **3.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **4.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18. **5.** Subsample includes only observations in employment and unemployment.

TABLE 4.6b. INTERACTION OF DURATION AND UNEMPLOYMENT AMONG WOMEN – FIXED EFFECT MODELS (FULL VERSIONS)

IN MARRIAGES				
	Partsat 27a (Coef.)	Lifesat 27b (Coef.)	Wellbeing 27c (Coef.)	Depressed 27d (OR)
1st year in unemployment (Employed)	0.03	-0.20**	-1.84***	1.83***
2nd year in unemployment (Employed)	0.04	0.11	-0.68	1.41
>3rd year in unemployment (Employed)	-0.1	-0.17	-0.45	1.13
N (total individual x years)	20815	21323	29961	20013
n (total of individuals)	4116	4155	4887	2338
Mean observation points in years	5.1	5.1	6.1	8.6
IN COHABITATIONS				
	28a	28b	28c	28d
1st year in unemployment (Employed)	0.17	-0.21*	-1.10*	1.23
2nd year in unemployment (Employed)	-0.25	0.1	-0.98	1.61
>3rd year in unemployment (Employed)	-0.07	0.22	0.61	0.33
N (total individual x years)	5150	5268	6844	3647
n (total of individuals)	1807	1840	2206	733
Mean observation points in years	2.9	2.9	3.1	5

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Reference category for categorical variables shown in parenthesis. **2.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner’s corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **3.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **4.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18. **5.** Subsample includes only observations in employment and unemployment.

Second, the well-being of individuals with low human capital may be affected by insecurity to a greater extent due to their vulnerable position in the labour market. For this reason labour market insecurity and low human capital are interacted. For the unemployed, I used low education, whereas for temporary employees I used low occupational skill. Among the married unemployed women those who have low education are more likely to experience a decline in well-being (Table 4.7a). Low education has an ambiguous impact on how unemployment is related to married men’s well-being. Among the unemployed men those who have low education are less satisfied

with their partnership compared to when they were in employment. However, the interaction effect produces a positive coefficient for subjective well-being. One explanation for the positive outcome could be that low-educated men may have little job satisfaction when they are employed. Thus, their well-being improves after unemployment.

Table 4.7a. INTERACTION OF UNEMPLOYMENT AND LOW EDUCATION – FIXED EFFECT MODELS (FULL VERSIONS)

MARRIED MEN				
	Partsat 29a (Coef.)	Lifesat 29b (Coef.)	Wellbeing 29c (Coef.)	Depressed 29d (OR)
Unemployed	0.13**	-0.30***	-2.27***	2.42***
Unemployed*Low education	-0.27**	0.03	0.80**	0.78
N (total individual x years)	25074	25645	36604	20741
n (total of individuals)	4496	4516	5357	2222
Mean observation points in years	5.6	5.7	6.8	9.3
MARRIED WOMEN				
	30a	20b	30c	30d
Unemployed	0	-0.21**	-1.12***	1.29
Unemployed*Low education	0.07	0.14	-1.28**	2.37**
N (total individual x years)	20698	21192	29824	19939
n (total of individuals)	4090	4122	4862	2327
Mean observation points in years	5.1	5.1	6.1	8.6

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner’s corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **2.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **3.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18. **4.** Subsample includes only observations in employment and unemployment. **5.** Low education, which is a time constant variable, is dropped out from fixed-effect models.

Table 4.7b shows results from models with temporary work and low skill interaction for married men and the results indicate an interaction effect between the two. Among temporary employees those with low skill occupations have worse well-being outcomes

CHAPTER 4

than other skill groups. In other words for men temporary work has a negative effect on well-being when it is combined with low skill occupations.

TABLE 4.7b. INTERACTION OF TEMPORARY WORK AND LOW SKILL – FIXED EFFECT MODELS (FULL VERSIONS)

MARRIED MEN				
	Partsat 31a (Coef.)	Lifesat 31b (Coef.)	Wellbeing 31c (Coef.)	Depressed 31d (OR)
Temporary work	-0.02	0.02	0.28	0.88
Low skill	0.03	0.03	0.34***	0.77***
Temporary work*Low skill	0.09	-0.04	-0.46*	1.52*
N (total individual x years)	22095	22187	32460	18623
n (total of individuals)	3792	3796	4535	1936
Mean observation points in years	5.8	5.8	7.1	9.6

Legend: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; (d): dummy variable.

Notes: **1.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **2.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **3.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18. **5.** Subsample includes only observations in temporary and permanent work.

Third, temporary employees who work part-time may report lower levels of well-being since their situation involves two dimensions of atypical employment. However, the models where temporary work and part time work hours are interacted do not yield any significant coefficients. There is neither a main effect of part-time work nor an interaction effect with temporary employment (Results not presented).

Fourth, self reported subjective job insecurity may also affect individuals' well-being outcomes and have an interaction effect when combined with temporary work. Table 4.8 shows the results from interaction models for men. For life satisfaction, subjective well-being and depression, subjective job insecurity has a detrimental effect. (There is a similar effect also for women but the results are not presented). Among male temporary workers those who reported that they feel insecure in their job score less on subjective

well-being (married men) and are more likely to feel depressed (cohabiting men). Interestingly, among the temporarily-employed men (both married and cohabited) those who reported insecurity are more likely to be satisfied with their partnership. These men may be compensating the insecurity they go through in their professional lives with their partnerships.

TABLE 4.8. INTERACTION OF TEMPORARY WORK AND SUBJECTIVE JOB INSECURITY – FIXED EFFECT MODELS (FULL VERSIONS)

MARRIAGED MEN				
	Partsat 32a (Coef.)	Lifesat 32b (Coef.)	Wellbeing 32c (Coef.)	Depressed 32d (OR)
Temporary work	-0.11	-0.04	0.90***	0.62
Not secure	-0.01	-0.19***	-1.09***	1.83***
Temporary work*Not secure	0.28***	0.14	-0.72*	1.21
N (total individual x years)	19700	19852	28278	15606
n (total of individuals)	3756	3766	4469	1758
Mean observation points in years	5.2	5.3	6.3	8.9
COHABITATING MEN				
	33a	33b	33c	33d
Temporary work	-0.24	0.03	1.91***	0.16**
Not secure	-0.01	-0.21***	-1.05***	1.51**
Temporary work*Not secure	0.33*	0.02	-1.14	5.04*
N (total individual x years)	5043	5121	6540	2672
n (total of individuals)	1746	1766	2085	513
Mean observation points in years	2.9	2.9	3.1	5.2

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner’s corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **2.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **3.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18. **4.** Subsample includes only observations in temporary and permanent work.

Fifth, I also discussed that for some individuals receiving social support from friends could mitigate the negative effect of unemployment on well-being. In Table 4.9 results from the interaction of social support and unemployment are presented for married women. For both

CHAPTER 4

women and men, lack of social support is associated with poorer well-being outcomes. For married women, in addition to the main effect, there is also an interaction effect. Unemployed women are less satisfied with their partnership and life if they do not have anyone outside their household who could provide them with social support. Unemployed women for whom no social support is available are a vulnerable group, and hence, suffer from insecurity to a greater extent compared to their counterparts for whom there is social support available.

TABLE 4.9. INTERACTION OF UNEMPLOYMENT AND SOCIAL SUPPORT – FIXED EFFECT MODELS (FULL VERSIONS)

	MARRIED WOMEN			
	Partsat 34a (Coef.)	Lifesat 34b (Coef.)	Wellbeing 34c (Coef.)	Depressed 34d (OR)
Unemployed	-0.73***	-0.62**	-1.68	2.63
Social Support	0.04	0.23***	0.78***	0.67***
Unemployed*Social support	0.66**	0.59**	1.24	0.42
N (total individual x years)	8895	9005	11205	5170
n (total of individuals)	3585	3609	3810	1257
Mean observation points in years	2.5	2.5	2.9	4.1

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner's corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **2.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **3.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18. **5.** Social support question asked only in waves 7, 9, 13, 15, and 17. **4.** Subsample includes only observations in employment and unemployment.

Finally, insecurity can hamper the well-being of parents with young children more than it does that of individuals who do not have young children to sustain in the household. Both unemployment and temporary work are interacted with a dummy indicating the presence of at least one young child aged up to 6 (results not presented). There is a negative main effect of having a young child on married women's subjective well-being. The interaction

effect is only significant in some instances. The interaction of unemployment and young children produces poorer life-satisfaction for married men, and lower levels of partnership satisfaction for cohabiting men. When temporary work is interacted with presence of a young child it reduces the subjective well-being of married women. In short, among individuals going through labour market insecurity those who have a young child in the household seem to suffer from adverse consequences of insecurity to a greater extent than those who do not have a young child.

4.3e. Gendered insecurity?

This chapter so far has shown that labour insecurity has a detrimental effect on the well-being of partnered men and women. One of the questions which remains unanswered is whether or not the effects of insecurity are gendered. Are men more vulnerable to insecurity than women, or the extent of the association is similar between the sexes? In order to address this question, insecurity dummies are interacted with sex. Results suggest that the relationship between insecurity and well-being is gendered, especially among married individuals. When both men and women are pooled together, unemployment has a negative impact on well-being, which is consistent with the previous results (Table 4.10a). However, among those who experience unemployment, men's life satisfaction and subjective well-being drops to a larger extent than do women's well-being indicators. It is worth noting that, especially in the simple models with no control variables, the difference is even sharper, and, men are more likely to feel depressed (Only full models presented here).

TABLE 4.10a. INTERACTION OF UNEMPLOYMENT AND GENDER – FIXED EFFECT MODELS (FULL VERSIONS)

IN MARRIAGES				
	Partsat 35a (Coef.)	Lifesat 35b (Coef.)	Wellbeing 35c (Coef.)	Depressed 35d (OR)
Unemployed	0.01	-0.17**	-1.47***	1.66***
Unemployed*Male	0.05	-0.13*	-0.54*	1.36
N (total individual x years)	46113	47227	66637	40863
n (total of individuals)	8679	8749	10320	4579
Mean observation points in years	5.3	5.4	6.5	8.9
IN COHABITATIONS				
	36a	36b	36c	36d
Unemployed	0.08	-0.1	-0.83*	1.04
Unemployed*Male	-0.1	-0.16	-0.86*	1.71
N (total individual x years)	11587	11889	15371	7430
n (total of individuals)	3914	3994	4772	1426
Mean observation points in years	3	3	3.2	5.2

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner’s corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **2.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **3.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18. **5.** Social support question asked only in waves 7, 9, 13, 15, and 17. **4.** Subsample includes only observations in employment and unemployment.

The same applies for cohabiting individuals. Similarly, temporary work affects men more than it affects women; however the difference is less pronounced and only significant for life satisfaction of married individuals (Table 4.10b).

TABLE 4.10b. INTERACTION OF TEMPORARY WORK AND GENDER – FIXED EFFECT MODELS (FULL VERSIONS)

	IN MARRIAGES			
	Partsat 34a (Coef.)	Lifesat 34b (Coef.)	Wellbeing 34c (Coef.)	Depressed 34d (OR)
Temporary work	0.03	0.10***	0.40***	0.9
Temporary work*Male	0	-0.13**	-0.31	1.13
N (total individual x years)	44665	45062	64138	38946
n (total of individuals)	8373	8396	9934	4372
Mean observation points in years	5.3	5.4	6.5	8.9
	IN COHABITATIONS			
	28a	28b	28c	28d†
Temporary work	0.08	-0.02	-0.16	0.9
Temporary work*Male	-0.11	-0.02	0.67	1.13
N (total individual x years)	10845	10994	14253	38946
n (total of individuals)	3689	3729	4458	1296
Mean observation points in years	2.9	2.9	3.2	5.2

Legend: * p<0.05; ** p<0.01; *** p<0.001; (d): dummy variable.

Notes: **1.** Control variables in full models: Financial difficulty, Local Unemployment Rate, Psychological well-being in partnership satisfaction models, partner’s corresponding well-being indicator, Years spent in relationship, Presence of children, Age, Age-squared and year dummy. **2.** Partsat: Partnership satisfaction; Lifesat: Life satisfaction; Wellbeing: Subjective well-being; Depressed: Feeling unhappy or depressed. **3.** Partnership satisfaction and Life satisfaction available only in waves 7-10 and 12-18. **5.** Social support question asked only in waves 7, 9, 13, 15, and 17. **4.** Subsample includes only observations in employment and unemployment.

4.3f. Control variables:

As mentioned before, the impact of control variables are very similar across different sets of analysis. For that reason I presented them only in *individual’s own labour market insecurity* models (Tables 4.3a, and 4.3b). First, self reported financial difficulty has generally a strong negative effect on the well-being of individuals, with the only exception being men’s satisfaction from partnership, for which the coefficient is not significant. It reduces the life satisfaction and subjective well-being, increases the risk of feeling depressed, and reduces women’s satisfaction from partnership. The negative effect of financial difficulty on well-being outcomes remains constant during step-wise

modelling. Second, monthly local unemployment level is introduced in the models with the idea that higher unemployment rate would increase the well-being because it may be less stigmatizing when there are more unemployed individuals around. Only for married women there is a minor negative impact of regional unemployment rate for subjective well-being. On the other hand, the models suggest that higher unemployment rates increase life satisfaction among cohabiting men very slightly. These results do not provide much support for the effect of local labour market conditions on the well-being. Third, individuals' own subjective well-being is controlled for in partnership satisfaction models and there is a weak but positive association between the well-being and partnership satisfaction. Apart from this, the corresponding well-being measure of the partner is introduced into four well-being models, i.e. partner's depression included in depression models. There is a robust and strong effect of partner's well-being on individuals' own well-being outcomes. When the partner is more satisfied with the partnership and life, and scores higher in subjective well-being, so does the respondent. Similarly, when the partner is feeling depressed, the respondent is more like to feel depressed, too. The results show that there is a strong crossover process between spouses' well-being. Fourth, current duration of the relationship is a strong predictor of well-being outcomes. For married men, the longer the time spent in the relationship, the lower is partnership satisfaction, life satisfaction and subjective well-being. They are also more likely to feel depressed after 6 years, compared to the first year in relationship. For married women the same applies for partnership and life satisfaction. Cohabiting men are less satisfied with their lives and have lower subjective well-being after the second year onwards in relationship. For cohabiting women time spent in relationship decreases the satisfaction gained from partnership gradually. They also report lower levels of life satisfaction and subjective well-being from the second year onwards in the relationship.

Since age and age square are also in the model the duration effect is net of aging. Individuals' well-being and satisfaction reduces throughout their partnership regardless of their age. Fifth, presence and number of children also have an affect on the well-being of married individuals. When men have one, two, and more than two children they are gradually less satisfied with their partnership compared to when they are childless. Similar effect, although not gradual, is also observed for married women. However, married women are better off in terms of subjective well-being and are less likely to feel depressed when they have at least one child, compared to when they have none. Children reduce the satisfaction that married people gain from their partners, but they increase married women's level of well-being. Sixth, age and age-squared are controlled for. Negative coefficients of age indicate a U-shaped effect of age for married men's life satisfaction, psychological well-being and likelihood of feeling depressed, and for cohabiting men's partnership satisfaction. There is also a U-shaped impact of age on married women's partnership satisfaction, life satisfaction and psychological well-being, which decrease over life and then increase again. And finally, a year dummy is introduced in the model to account for any period effect on the well-being (result not presented in tables); however inclusion of the period dummy does not alter the impact of insecurity variables remarkably.

4.4. DISCUSSION AND CONCLUSION

In this chapter I examined the well-being outcomes for unemployment and temporary work among couples in Britain between 1991 and 2008. In line with the previous literature, I found a negative impact of unemployment on individuals' own well-being. Husbands' unemployment also has a strong effect on poor well-being of wives. The negative impact of unemployment for married men remains constant over time. Married

CHAPTER 4

men do not seem to get better at coping with the negative externalities of unemployment. Cohabiting men and women's well-being ceases to be affected by unemployment after one year in joblessness. Unemployed men with low education report higher levels of well-being compared to unemployed men with higher levels of education. This may be due to lower levels of job satisfaction that low educated men get. For women, the availability of social support diminishes the negative impact of unemployment on their well-being.

Temporary work does not have such a direct negative impact on men's well-being. To the contrary, married women report higher levels of well-being when they are in temporary work compared to when they are in permanent work. Only when their partner is working on a temporary basis do husbands and wives display poorer well-being. Some groups among the temporary employees are particularly vulnerable. For instance, the well-being of low-skilled temporary employees suffers from insecurity to a great extent. Similarly, subjective job insecurity lowers the well-being of temporary employees.

Dual-insecurity in couples is expected to put them in a vulnerable situation, hence, hamper their well-being considerably. Indeed, couples where both of the spouses are unemployed are more likely to report poor well-being compared to couples with both spouses working on permanent jobs. However, for men male insecurity has a larger negative impact than dual-insecurity. Similarly women's well-being is affected by their insecurity as much as it is affected by dual insecurity. The results do not provide clear support for the idea of vulnerability of dual-insecure couples. It is also worth noting that unemployment in couples seems to play a larger role than temporary employment.

This chapter explored impact of insecurity on four distinct well-being outcomes. Among these, level of subjective well-being, risk of feeling depressed, and, to a lesser extent, life

satisfactions are highly associated with insecurity. Insecurity causes significant fall in subjective well-being and life satisfaction whereas it elevates the risk of feeling depressed. It is remarkable that partnership satisfaction, an indicator which is based on the interaction between the partners, is not affected adversely by spouses' individual or couples' combined labour market statuses; even without introducing important predictors of partnership satisfaction such as financial difficulty or subjective well-being. It suggests that cognitive mechanisms operating between stressful events and satisfaction with the partner must differ from those operating between well-being outcomes and insecurity within family.

Analysing the well-being within couples is important because stressful situations such as labour market insecurity has negative externalities on other family members, as well as its' direct impact on individuals experiencing it. However well-being within partnership is not only interesting in itself. Couples' well-being can play a mediating role in other domains of family lives. Happiness within partnership can influence fertility decisions, and it may reduce the likelihood of separations and divorce. For this reason, from the policy perspective, the broader implications of labour market insecurity should be carefully considered.

References (4):

- Andersen, Signe Hald. 2009. "Unemployment and Subjective Well-being. A Question of Class?" *Work and Occupations* 36(1):3-25.
- Artazcoz, Lucía , Joan Benach, Carme Borrell, and Imma Cortès. 2005. "Social inequalities in the impact of flexible employment on different domains of psychosocial health." *Journal of Epidemiology & Community Health* 59:761-67.
- Banks, Michael H, and Paul R Jackson. 1982. "Unemployment and risk of minor psychiatric disorder in young people: cross sectional and longitudinal evidence." *Psychological Medicine* 12:789-98.
- Bardasi, Elena , and Marco Francesconi. 2004. "The impact of atypical employment on individual wellbeing: evidence from a panel of British workers." *Social Science & Medicine* 58:1671–88.
- Barnett, Rosalind C, Stephen W. Raudenbush, Robert T. Brennan, Joseph H. Pleck, and Nancy L. Marshall. 1995. "Changes in job and marital experience and change in psychological distress: A longitudinal study of dual-earner couples." *Journal of Personality and Social Psychology* 69:839–50.
- Barrère-Maurisson, Marie-Agnès, Françoise Battagliola, and Anne-Marie Daune-Richard. 1985. *The Course of Women's Careers and Family Life*: Matichester University Press.
- Benavides, Fernando , Joan Benach, Ana Diez-Roux, and David Gimeno. 2000. "How do types of employment relate to health indicators? Findings from the Second European Survey on Working Conditions." *Journal of Epidemiology & Community Health* 54(7):494–501.
- Blood, Robert O., and Donald M. Wolfe. 1960. *Husbands and wives: The dynamics of family living*. New York: The Free Press.
- Bohle, Philip, Michael Quinlan, and Claire Mayhew. 2001. "The health and safety effects of job insecurity: an evaluation of the evidence." *Economic and Labour Relations Review* 12(1):32-60.
- Brenner, Sten-Olof, and Lennart Levi. 1987. "Long-term unemployment among women in Sweden." *Social Science & Medicine* 25(2):153-61.
- Broman, Clifford L. , V. Lee Hamilton, and William S. Hoffman. 1990. "Unemployment and Its Effects on Families: Evidence from a Plant Closing Study." *American Journal of Community Psychology*, 18(5):643-59.
- Brüderl, Josef. 2005. "Panel Data Analysis." in <http://www2.sowi.uni-mannheim.de/lsssm/veranst/Panelanalyse.pdf>.
- Burchell, Brendan. 1994. "Who is affected by Unemployment? Job insecurity and Labour Market influences on Psychological Health." in *Social Change and the experience of Unemployment*, edited by Duncan Gallie, Catherine Marsh, and Carolyn Vogler. Oxford: Oxford University Press.
- . 2011. "A Temporal Comparison of the Effects of Unemployment and Job Insecurity on Wellbeing." *Sociological Research Online* 16(1):9.
- Burchell, Brendan, Angela Dale, and Heather Joshi. 1997. *Part-Time Work among British Women*. Oxford: Oxford University Press.
- Burgard, Sarah, Jennie E. Brand, and James S. House. 2009. "Perceived job insecurity and worker health in the United States." *Social Science & Medicine* 69(5):777-85.
- Clark, Andrew E. 2003. "Unemployment as a social norm: Psychological evidence from panel data." *Journal of Labor Economics* 21:323-51.

- Clark, Andrew E., Yannis Georgellis, and Peter Sanfey. 2001. "Scarring: The Psychological Impact of Past Unemployment." *Economica* 68(270):221-41.
- Clark, Andrew E., and Andrew J. Oswald. 1994. "Unhappiness and Unemployment." *Economic Journal* 104(424):648-59.
- Clark, Andrew E., Andrew J. Oswald, and Peter Warr. 1996. "Is job satisfaction U-shaped in age?" *Journal of Occupational and Organizational Psychology* 69(57-81).
- Cochrane, Raymond, and Mary Stopes-Roe. 1981. "Women, Marriage, Employment and Mental Health." *British Journal of Psychiatry* 139(November):373-81.
- Davies, Richard B., Peter Elias, and Roger Penn. 1992. "The relationship between a husband's unemployment and his wife's participation in the labour force." *Oxford Bulletin Of Economics and Statistics* 54(2):145-71.
- Dekker, Sydney WA, and Wilmar B. Schaufeli. 1995. "The Effects of Job Insecurity on Psychological Health and Withdrawal: A Longitudinal Study." *Australian Psychologist* 30(1):57-63.
- Dew, Mary A., Evelyn J. Bromet, and Herbert C. Schulberg. 1987. "A Comparative Analysis of Two Community Stressors' Long-Term Mental Health Effects." *American Journal of Community Psychology* 15(2):167-84.
- Fagin, Leonard, and Martin Little. 1984. *The Forsaken Families: The Effects of Unemployment on Family Life*. Harmondsworth: Penguin Books.
- Frey, Bruno S., and Alois Stutzer. 2002. "What can Economists Learn from Happiness Research." *Journal of Economic Literature* XL:402-35.
- Gallie, Duncan, Michael White, Yuan Cheng, and Mark Tomlinson. 1998. *Restructuring the Employment Relationship*. Oxford: Clarendon Press.
- Gallie, Duncan, Michael White, Yuan Cheng, and Mark Tomlinson. 1998. *Restructuring the Employment Relationship*. Oxford: Clarendon Press.
- Gash, Vanessa , Antje Mertens, and Laura Romeu Gordo. 2007. "Are fixed-term jobs bad for your health: A comparison of West Germany and Spain." *European Societies* 9(3):429-58.
- Goldberg, David, and Paul Williams. 1988. *A user's guide to the general health questionnaire*. Windsor: NFER-Nelson.
- Hayashi, Fumio. 2000. *Econometrics*. Princeton, NJ, & Oxford, UK: Princeton University Press.
- Heady, Patrick, and Malcolm Smyth. 1989. *Living Standards During Unemployment: A Report of a Survey of Families Headed by Unemployed People*. London: H.M.S.O.
- Heaney, Catherine A., Barbara A. Israel, and James S. House. 1994. "Chronic job insecurity among automobile workers: Effects on job satisfaction and health." *Social Science & Medicine* 38(10):1431-37.
- Hsiao, Cheng. 2003. *Analysis of panel data*. Cambridge, UK.: Cambridge University Press.
- Jackson, Paul R, and Peter B Warr. 1984. "Unemployment and psychological ill-health: the moderating role of duration and age." *Psychological Medicine* 14(605-614).
- Jahoda, Marie. 1982. *Employment and Unemployment. A Social-Psychological Analysis*. Cambridge: Cambridge University Press.
- Kohler, Hans-Peter, Jere R. Behrman, and Alex Skytthe. 2005. "Partner + Children = Happiness? The Effects of Partnerships and Fertility on Well-Being." *Population and Development Review* 31(3):407-45.
- Lazarus, Richard S., and Susan Folkman. 1984. *Stress, Appraisal, and Coping*. New York: Springer.
- Liem, Ramsay, and Joan Huser Liem. 1988. "Psychological Effects of Unemployment on

- Workers and Their Families." *Journal of Social Issues* 44(4):87-105.
- Lobo, Francis, and Glen Watkins. 1995. "Late Career Unemployment in the 1990s: Its Impact on the Family." *Journal of Family Studies* 1(2):103-13.
- Lucas, Richard E., Andrew E. Clark, Yannis Georgellis, and Ed Diener. 2004. "Unemployment Alters the Set Point for Life Satisfaction." *Psychological Science* 15(1):8-13.
- Maier, Richard, Andrea Egger, Alfred Barth, Robert Winker, Wolf Osterode, Michael Kundi, Christian Wolf, and Hugo Ruediger. 2006. "Effects of short- and long-term unemployment on physical work capacity and on serum cortisol " *International Archives of Occupational and Environmental Health* 79:193-98.
- Makowska, Zofia, Dorota Merecz, Agnieszka Mościcka, and Wojciech Kolasa. 2002. "The validity of general health questionnaires, GHQ-12 and GHQ-28, in mental health studies of working people." *International Journal of Occupational Medicine and Environmental Health* 15(4):353-62.
- McKee, Lorna, and Colin Bell. 1985. *Marital and Family Relations in Times of Male Unemployment*: Manchester University Press.
- McKee-Ryan, Frances M., Zhaoli Song, Connie R. Wanberg, and Angelo J. Kinicki. 2005. "Psychological and Physical Well-Being During Unemployment: A Meta-Analytic Study." *Journal of Applied Psychology* 90(1):53-76.
- Murphy, Gregory C. , and James A. Athanasou. 1999. "The effect of unemployment on mental health." *Journal of Occupational and Organizational Psychology* 72:83-99.
- Nordenmark, Mikael. 1999. "Employment Commitment and Psychological Well-being among Unemployed Men and Women." *Acta Sociologica* 42(135):135-46.
- Nordenmark, Mikael, and Mattias Strandh. 1999. "Towards a Sociological Understanding of Mental Well-Being Among the Unemployed: The Role of Economic and Psychosocial Factors." *Sociology* 1999(33):577-97.
- Nordenmark, Mikael, Mattias Strandh, and Richard Layte. 2006. "The impact of unemployment benefit system on the mental well-being of the unemployed in Sweden, Ireland and Great Britain." *European Societies* 8(1):83-110.
- Paugam, Serge, and Ying Zhou. 2007. "Job insecurity." in *Employment Regimes and the Quality of Work*, edited by Duncan Gallie. Oxford: Oxford University Press.
- Penkower, Lili , Evelyn J. Bromet, and Mary A. Dew. 1988. "Husbands' Layoff and Wives' Mental Health: A Prospective Analysis " *Archives of General Psychiatry* 45(11):994-1000.
- Pevalin, David J. 2000. "Multiple applications of the GHQ-12 in a general population sample: an investigation of long-term retest effect." *Social Psychiatry and Psychiatric Epidemiology* 35:508-12.
- Pinquart, Martin, and Silvia Sörensen. 2000. "Influences of socioeconomic status, social network, and competence on subjective well-being in later life: A meta-analysis." *Psychology and Aging* 15:187-224.
- Price, Richard H., Michelle Van Ryn, and Amiram Vinokur. 1992. "Impact of a Preventive Job Search Intervention on the Likelihood of Depression Among the Unemployed." *Journal of Health and Social Behavior* 33(2):158-67.
- Rindsfuss, Ronald, and Audrey Van den Heuvel. 1990. "Cohabitation: A Precursor to Marriage or an Alternative to Being Single." *Population and Development Review* 16(4):703-26.
- Rodriguez, Eunice 2002. "Marginal employment and health in Britain and Germany: Does unstable employment predict health?" *Social Science & Medicine* 55:963-79.

- Russell, Helen. 1996. "Women's experience of unemployment: A study of British women in the 1980s." in *PhD Thesis*. Oxford: University of Oxford.
- Santin, Gaëlle, Christine Cohidon, Marcel Goldberg, and Ellen Imbernon. 2009. "Depressive symptoms and atypical jobs in France from the 2003 Decennial health survey." *American Journal of Industrial Medicine* 52(10):799-810.
- Schaufeli, Wilmar. B. 1997. "Youth unemployment and mental health: Some Dutch findings." *Journal of Adolescence* 20:281-92.
- Scherer, Stefani. 2009. "The Social Consequences of Insecure Jobs" *Social Indicators Research* 93:527:47.
- Schumm, Walter R., and Margaret A. Bugaighis. 1986. "Marital Quality over the Marital Career: Alternative Explanations." *Journal of Marriage and Family* 48(1):165-68.
- Shelton, N. J., and K. G. Herrick. 2009. "Comparison of scoring methods and thresholds of the General Health Questionnaire-12 with the Edinburgh Postnatal Depression Scale in English women." *Public Health* 123(12):789-93.
- Shields, Michael. A, and Stephen Wheatley Price. 2005. " Exploring the economic and social determinants of psychological well-being and perceived social support in England." *Statistical Society Association* 168(3): 513-37.
- Ström, Sara 2003. "Unemployment and Families: A Review of Research." *Social Service Review* 77(3):399-430.
- Vinokur, Amiram D., Richard H. Price, and Robert D. Caplan. 1996. "Hard Times and Hurtful Partners: How Financial Strain Affects Depression and Relationship Satisfaction of Unemployed Persons and Their Spouses." *Journal of Personality & Social Psychology* 71:166-79.
- Virtanen, Marianna , Mika Kivimäki, Matti Joensuu, Pekka Virtanen, Marko Elovainio, and Jussi Vahtera. 2005. "Temporary employment and health: a review." *International Journal of Epidemiology* 34(3):610-22.
- Warr, Peter 1987. *Work, Unemployment, and Mental Health*. Oxford: Clarendon Press.
- Westman, Mina. 2001. "Stress and strain crossover." *Human Relations* 54:717–52.
- Westman, Mina, and Amiram Vinokur. 1998. "Unravelling the relationship of distress levels within couples: Common stressors, emphatic reactions or crossover via social interaction?" *Human Relations* 51:137–56.
- Westman, Mina, Amiram Vinokur, Lee Hamilton, and Ilan Roziner. 2004. "Crossover of Marital Dissatisfaction During Military Downsizing Among Russian Army Officers and Their Spouses." *Journal of Applied Psychology* 89(5):769–79.
- Whelan, Christopher, Duncan Gallie, and Frances McGinnity. 1998. "Unemployment and Psychological Distress: a comparison of Britain and Ireland." Mimeo, ESRI.
- White, Michael. 1991. "Against unemployment." in *Policy Studies Institute*. London.
- Winkelmann, Liliana, and Reiner Winkelmann. 1995. "Happiness and Unemployment: A Panel Data Analysis for Germany." *Economics Quarterly* 41(4):293-307.
- Wooldridge, Jeffrey M. 2009. *Introductory Econometrics: A Modern Approach*. South-Western.

5

LABOUR MARKET INSECURITY AND PARTNERSHIP DISSOLUTION

CHAPTER FIVE:

LABOUR MARKET INSECURITY AND PARTNERSHIP DISSOLUTION:

A LONGITUDINAL ANALYSIS OF UNEMPLOYMENT, TEMPORARY WORK AND UNION DISSOLUTION IN THE UNITED KINGDOM

PARTNERSHIP DISSOLUTION

There is a growing literature on the relationship between labour market insecurity and family outcomes, and the findings from previous studies indicate a negative impact of insecurity on marital stability. However, only until recently, the literature was dominated by studies with serious methodological problems such as small sample sizes or single-point data. Also the main focus was limited to the familial consequences of male unemployment, whereas female unemployment and other forms of insecure employment were left out. Still, these studies clearly revealed a correlation between male unemployment and divorce. More recently, some longitudinal studies addressed the issue of unemployment and marital dissolution and their findings indicate that male unemployment increased the risk of divorce almost universally, and in some countries female unemployment also had a similar effect. These studies usually dealt with unemployment at the individual level, ignoring the economic activity of the partner during the respondents' unemployment. Usually the sample is restricted to legal marriages, and even when it is broadened to cohabiting unions, they failed to distinguish the effect of unemployment in different partnership types. The question of whether temporary work is related to partnership dissolutions remains entirely untackled.

In this chapter my purpose is to provide a more elaborate analysis of labour market insecurity and partnership dissolution in the United Kingdom. I aim to do this by using longitudinal data coming from panel waves and retrospective interviews and investigate the consequences of both unemployment and temporary work on partnership stability. I study men's, women's and couples' labour market insecurity and compare marital and cohabiting unions. With multilevel discrete-time event history analysis for recurrent events I model duration of partnerships based on labour market activity taking into

account some individual-specific unobservable factors which may increase the risk of partnership dissolution.

I start with an overview of the theoretical debate on the matter. In Section 5.1a I present a theoretical framework on unemployment and marital stability. Due to lack of an equivalent framework for temporary work and partnership I focus on the ways temporary work generates insecurity and stress, and economic disadvantages attached to temporary employment in Section 5.1b. Then, in Section 5.2 I discuss empirical results from longitudinal studies on familial consequences of unemployment and then go over some studies on how temporary work and job insecurity may affect quality of partnerships. I also discuss gender differences and couple dynamics within the context of insecurity and dissolution; and mention the temporal aspect to the relationship between labour market insecurity and wellbeing. I conclude the literature review with a discussion of other determinants of marital dissolution. After specifying the particular research questions I address in Section 5.4, I discuss the data and the sample, methods and main variables in Section 5.5. The results for male and female labour market insecurity for married and cohabiting individuals and, for joint economic activity for married and cohabiting couples are presented in Section 5.6. I also discuss the implications of individual-specific unobserved heterogeneity in Section 5.7. I close the article with a discussion of the main findings and limitations of the study in Section 5.8.

5.1. THEORETICAL DEBATE: HOW LABOUR MARKET INSECURITY RELATES TO PARTNERSHIP DISSOLUTION?

Unemployment and temporary work are two important forms of labour market insecurity however they differ from one another significantly. Unemployment is a state of being jobless, either as a result of job loss or starting to look for a job when entering the labour

PARTNERSHIP DISSOLUTION

market. Unemployed individuals may receive public assistance such as unemployment insurance or job seeking allowance for the entire or for a partial period of joblessness, but they most often suffer financial difficulty. On the other hand, temporary employment refers to the situation where the employee is expected to leave the employer within a certain period of time. Temporary workers earn regular income during the contract period, and work regularly; however they are likely to experience job insecurity. Due to these differences between the nature of unemployment and temporary employment, different mechanisms play a role in their relationship with partnership dissolution.

5.1a. Unemployment and Partnership Dissolution

The most well-known analysis of unemployment and marital instability comes from neoclassical family model which is based on the idea of *utility maximization*. This idea suggests that couples divorce when the expected utility from remaining married falls below the expected utility from divorce (Becker *et al.*, 1977; Becker, 1991). A sudden fall in income due to unemployment can dramatically alter the expected utility from marriage, and hence, may lead to divorce. This theory has a number of implications such as sex-specific specialization, income, imperfect information, and marriage specific capital. The degree of specialization between spouses affects the gains from marriage. When one of the spouses is specialized in the labour market and the other is in the household, gains from marriage are larger than when there is no division of labour. Unemployment can lead to a change in roles and hamper the division of labour, thereby reducing the gains from marriage. It may also cause a sudden and unexpected drop in household income, which dramatically changes the utility gained from remaining married. Some suggested that as unemployment signifies loss (or a reduction) of income, and an increase in uncertainty (or imperfect information about the spouse), it may turn individuals into less

attractive marriage partners, therefore creating pressure in the relationship (Blood and Wolfe, 1960). Unemployment also puts financial strain on couple's budgets and it may reduce the satisfaction they obtain from the relationship (Vinokur *et al.*, 1996). Utility maximization analysis also suggests that gains from marriage depend on 'marriage specific capital', which refers to the *goods* which are valuable within marriage but less valuable outside of marriage such as children, home ownership or knowledge about the other spouse. When marriage contains marriage specific capital divorce risk is expected to decline, since these goods lose value after divorce.

Other studies underlined the importance of *mental stress* which is caused by unemployment (Dooley *et al.*, 1996, Burchell, 1994), and found that family conflict was one of the most negative consequences of unemployment (Gallie *et al.*, 1994). A well-known study by Marie Jahoda (1982) analyzed the psychological benefits of employment and suggested that working has a number of non-financial 'latent' benefits. Employment not only provides one with economic security, but also provides a time structure, social contacts, participation in collective purposes, status and identity, and regular activity. A study by Nordenmark and Strandh (1999) showed that harmful psychological consequences of unemployment experience are not only related to economic need but also to psychological need for employment. In this study, using Swedish data, economic need for employment is measured in terms of disposable income, while psychological need is measured by the Work Involvement Scale which asks how important employment is for the unemployed. Results show that those with greater economic and psychological need for employment suffer more severely from unemployment than do others.

5.1b. Temporary work and Partnership Dissolution:

A theoretical literature on the relationship between temporary employment and partnership dissolution is almost non-existent; however there is growing research evidence on the negative effects of job insecurity on mental health and marital quality, as well as studies on the working conditions and future career prospects of the temporary workers. I will discuss the mechanisms behind how temporary work may affect partnership stability referring to the theories of job insecurity and then discuss how temporary work experience may affect family life.

Several studies showed that employees who faced job insecurity had, on average, poorer health outcomes and reported higher levels of psychological stress. More striking, some studies showed that it was not a sudden and unexpected reduction in job security that caused a decline in well-being. It was rather prolonged experience of job insecurity which leads to increasingly impaired psychological well-being (Heaney *et al.*, 1994). A study with the BHPS found that well-being of those in insecure jobs declined throughout the period of insecurity whereas similar result was not found among those who have been unemployed for more than six months (Burchell, 1997; see also Dekker and Schaufeli, 1995 for Australia). These studies show that being in insecure employment can be at least as traumatic as being unemployed. A stressful climate experienced during insecure employment can be transferred to private lives. This phenomenon is called 'spillover' (Kanter, 1977). Workers who feel anxious, depressed, insecure and unsatisfied about their work may find it increasingly hard to fulfil their roles as partners and parents, and their stress can affect their partners' well-being, too. Temporary employment, especially when it is involuntary, involves job insecurity which can affect the well-being of temporary workers and cause stress in their partnerships.

In addition to feeling insecure, it has been shown that temporary employees lacked certain advantages that their counterparts with permanent jobs enjoy, and that those who enter the labour market via temporary contracts tend to face more precarious careers. Across Europe, employees in permanent contracts enjoy better job quality, higher levels of security, and better future career prospects than those in temporary contracts. On average those who enter the labour market via temporary work will experience a wage penalty, are more likely to have further temporary work spells and are more at risk of future unemployment. Increasingly more and more labour market entrants in Europe start their working lives via this type of employment (for an overview of temporary work in Europe see Inanc, 2010). Poorer working conditions and less secure future career prospects associated with temporary employment can also contribute to impaired psychological well-being of employees, which, in turn, can reduce the satisfaction they get from their partnerships. A comparative study of European countries shows that temporary employees had less time to spend with their partners and had disagreements more often compared to permanent employees (Scherer, 2009).

5.2. EMPIRICAL FINDINGS

5.2a. Unemployment and divorce in longitudinal studies

There is a scarce but growing body of research using individual level longitudinal data that examined whether or not unemployment increases the risk of marital instability. These studies differed from each other in terms of the groups they focused, time periods observed and methods used. The first set of studies came from the United States and conducted by using the Panel Study of Income Dynamics. Ross and Sawhill (1975) analysed the PSID and found that American families in which the husband experienced serious unemployment had a divorce rate twice as higher than others. Using the same data

PARTNERSHIP DISSOLUTION

Starkey (1996) also found that husbands' unemployment increased marital stability in both black and white couples.

Another group of studies focussed on Scandinavian countries by using register data in a panel format. These studies examined both wives' and husbands' unemployment, but they were not able to perform separate analysis for cohabitations and marriages. Due to the panel format of the data used, these studies were not able to control for factors such as start time of the partnership or age at marriage, which are found to be important predictors of marital instability (discussed below). Even though they adopted a dynamic approach, by putting labour market and partnership activities in a temporal order, they were not able to model partnership dissolution with duration models. The first study was a Danish one by Jensen and Smith (1990) who analysed marital and labour market behaviour of 3000 couples each year between 1979 and 1985. They found that unemployment was an important factor explaining marital instability. However, only the husbands' unemployment was found to have an effect on the divorce risk. They reported that this effect took place immediately and did not accumulate over time.

Jalovaara (2003) on Finnish couples, on the other hand, found that men's, women's or joint unemployment elevated the divorce risk. Over 750.000 couples were followed for a three year period from 1991 to 1993, who were married legally. Both partner's joint employment status was introduced to the models and she found that couples with an unemployed husband had a higher divorce risk than couples where both partners were employed. The risk was greatest when the wife was homemaker. Also couples with an unemployed wife had an elevated risk of divorce (irrespective of husband's employment status). Couples where both partners were unemployed had an even higher propensity to divorce than couples with one employed and one unemployed partner. A more recent

Norwegian study also found support for the impact of both partners' unemployment on marital dissolution (Hansen, 2005). This study included approximately 9000 couples aged between 16 and 67 over an eight-year period from 1989 to 1996. This study not only clearly showed that male and female unemployment increased the risk of marital dissolution but it also found support for the idea that there were gender differences in the impact of unemployment. While the husband's unemployment was related to economic strain, wife's unemployment was found to be related with other mediating factors such as how the roles and obligations are defined within the family.

To my knowledge there are three studies on the British couples using longitudinal approach. The first was conducted by Lampard (1994) who found that unemployment was an important factor for an increased risk of divorce. This study examined approximately 5000 husbands and wives who were interviewed retrospectively in the Social Change and Economic Life Initiative (SCELI) survey. The study examined the impact of premarital unemployment, and immediate and longer term effects of unemployment on the risk of marital breakdown. He found that, for both sexes, premarital unemployment had a significant effect on divorce. Unemployment also had immediate and longer-term effects on marital dissolutions. Unemployment at a given year increased the divorce risk next year by approximately 70 per cent. Post-marital unemployment continued to contribute to divorce risk in the consecutive years. This study also looked at whether marital dissolutions had an effect on unemployment and showed that divorcees had a higher risk of unemployment than those whose relationships were intact. Second, Marsh and Perry's (2003) report indicates that partnership dissolution was related to male unemployment and economic hardship. This study is based on the FACS 2001 (Families and Children Study) survey where lone parents and low/moderate income couples were

PARTNERSHIP DISSOLUTION

oversampled and compared with all British families. Lone parents and low/moderate income couples were interviewed in three waves (1999-2001) whereas cross section estimates of all families were introduced only in 2001. Finally a recent working paper using the BHPS compared legal marriages and cohabitations and reported that both male and female unemployment were significant determinants of partnership dissolution (Blekesaune, 2009). This study used the panel waves from 1991 to 2005 and observed approximately 3500 partnerships. Both wife's and husband's unemployment were found to increase the risk of separation but no difference was observed between the dissolution risk of cohabitations and legal marriages. Similar to Hansen's study on Norway, mediating factors between unemployment and dissolution are reported to differ between men and women. While the relationship between male unemployment and marital instability was mediated by low financial satisfaction in female partners, financial dissatisfaction among men was not observed to mediate the impact of unemployment on partnership dissolution. This indicated that the role of providing financial security is imposed on men more than it is imposed on women. Even though this study captures a long time period, includes both female and male unemployment and distinguishes between legal marriages and cohabitations, it fails to capture important information such as the duration of the relationship, premarital work history and age at marriage.

5.2b. Temporary work, job insecurity and partnership dissolution

Empirical research analysing the relationship between temporary work and partnership dissolution directly is almost non-existent. Some studies examine the factors behind individuals' movement into nonstandard employment such as temporary contracts. These studies report that it is common among the newly divorced women to move into temporary contracts due to economic needs (Farber, 1999; Wiens-Tuers and Hill, 2002).

However, there are some papers which relate temporary work to family conflict, and job insecurity to divorce/separation. A study by Scherer (2009) detects the social consequences of temporary contracts across 16 Western European countries using the ESS 2004 module and concludes that temporary employment contributes to the creation of problematic situations in family and private life. Temporary workers also perceive a remarkably higher level of economic disadvantage than permanent workers (at the household level). Her findings from multivariate analysis show that, controlling for working hours, individuals working with temporary contracts suffer slightly higher levels of time strain, which is measured as reporting to have less time for their family, than permanent employees. She also reports that temporary workers have a higher tendency to have conflicts with their partners, compared to permanent employees. This study does not take into consideration marital outcomes, but still shows that temporary work arrangements generate stress in married couples' family lives.

Lampard's (1994) study of British couples using the SCEL survey³² finds that those respondents who described their jobs at the time of marriage as being 'insecure' had a much increased risk of marital dissolution. The 'insecurity' measure used in this study is self-reported; the respondents were asked how secure they regarded their job and were asked to choose between 'a very secure job', 'a fairly secure job', 'a fairly insecure job', and 'a very insecure job'. It is not clear whether the respondents who reported to have insecure jobs were temporary employees, or anticipating job loss while having a permanent contract. What is clear is that, self-evaluated insecure job at marriage was a highly significant predictor of marital breakdown. It is reasonable to predict that temporary contracts might have a very similar effect.

³² For more information on the SCEL survey see Gallie, D. (1991).

5.2c. Gender differences and couple dynamics:

Previous studies also showed that men's labour market insecurity seems to put more stress on marital relationships than women's labour market insecurity. This was explained by the fact that men are most often the main income providers and their labour market insecurity put a greater amount of strain on the family budget, and hence, causes greater economic stress. An alternative explanation is derived from the role theory, and suggests that when women are unemployed or face job insecurity they do not feel as much pressure as men to find a new/secure job because unemployment may help them solve the role conflict that they experience when they are in paid work (see Hansen, 2005 for a discussion of these explanations and results for Norway). On the same lines, Becker *et al.* (1977) argue that any sudden change in gender roles might put psychological pressure on both partners.

Some studies showed that for women the husbands' job insecurity, rather than their own was negatively correlated to their own well-being (Voydanoff and Donnelly, 1988). One reason why some wives may experience their husbands' job insecurity as distressing was suggested to be the fact that some women tend to provide emotional support to their husbands and that women can sometimes be overburdened (Rook *et al.*, 1991). Another reason could be that, since women provide a considerably smaller share of income to the family, in the case of male unemployment the household suffers from a greater income loss than the income loss when the woman herself is unemployed.

'Doing gender' theory can also be relevant in explaining why men's unemployment creates a larger amount of family stress. When the husband is unemployed and the wife is employed, men might be expected to increase their share of contribution to housework as he has relatively more time available for these activities than her. 'Doing gender'

approach, however, argues that housework is a symbolic enactment of gender relations (Bittman *et al.*, 2003; Greenstein, 1996, 2000; Brines, 1994; Ferree, 1990; West and Zimmerman, 1987), and the time allocated to housework is actually determined mainly by gender, rather than availability of resources. When the wife's relative resource exceeds that of husband's and he becomes economically dependent on her, the number of hours spent on housework increases for women but decreases for men. Gupta (1999) discovered that when the husband has difficulties in performing his traditional breadwinner task in the family, both spouses display more gendered roles in order to avoid violating socially expected gender norms. The reluctance of unemployed men to contribute more to domestic tasks and employed partner's overcompensation might cause familial problems rooted in an overburdened female and an un-cooperative male. Therefore the impact of male unemployment on marital dissolution is found to be more important.

5.2d. Temporal aspect of the relationship between insecurity and dissolution

Several studies focussed on the changes at the psychological and physical well-being along the duration of unemployment (Warr, 1987; Jackson and Warr, 1984; Brenner and Levi, 1987; Maier *et al.*, 2006; Burchell, 2011). It was found that immediately after job loss a rapid deterioration at the wellbeing is observed for the first few months. Approximately around the third and sixth months, the well-being of the unemployed reaches the low point, then, there is a levelling off when they learn how to cope with the new situation and adapt to the changes. If the impact of unemployment on partnership dissolution is related to mental stress, it is reasonable to expect an immediate rather than a retarded risk of separation.

On the other hand, other studies suggested that individual's capacity to cope with stressful events might become exhausted over time (Lazarus and Folkman, 1984). The studies of

PARTNERSHIP DISSOLUTION

Heaney *et al.* (1994) and Burgard *et al.* (2009) both concluded that among the American workers, long-term subjective job insecurity had an increasing negative effect on well-being. They suggest that job insecurity has an accumulative impact on well-being. Temporary workers are very likely to express subjective job insecurity due to the fixed nature of their work contracts. It can be expected that temporary work can have a longer term negative impact on partnership stability.

3e. Other determinants of Partnership Dissolution: Who separates?

Previous studies discussed, and found evidence for, some other factors which contribute to the risk of union dissolution; namely early age at marriage, premarital cohabitation, previous divorce or separation, premarital births or conception and parental divorce. One of the most universal determinants of divorce is young age at marriage; especially teenage marriages. The relationship between young age at marriage and risk of divorce is reported for the UK as well. Studies comparing divorce rates between ‘teenage brides’ and those who married in early twenties reported a larger risk of divorce for the former group (Haskey, 1996). Young age at marriage can be related to higher divorce rate for various reasons. Becker *et al.* (1977) and Oppenheimer (1988) pointed out that higher divorce rates result from insufficient time spent for searching for an appropriate partner. Those who marry at early age are likely to lack information about the longer term characteristics of future spouses. Other authors suggested that psycho-social characteristics may explain the link between marital breakdown and early age at marriage, such as lack of preparedness for marriage and emotional immaturity (Levinger, 1976; Goode, 1966). Booth and Edwards (1985) found that couples marrying at a young age tended to have poor marital role performance which results from a lack of adequate adult role models during adolescence. They also suggested that those marrying at early age mostly do so

without the approval and support of family, thereby having a lower barrier to divorce due to lack of social pressures to stay together. Another mechanism explaining the link between high divorce rates among couples marrying at early age can be the greater opportunities available to them of meeting potential remarriage partners (Booth and Edwards 1985, South 1995). Some researchers argued that the relationship between divorce and age at marriage was spurious. Some personality characteristic, such as anti-social behaviour or tendency to rush decision making, can make some individuals more likely to marry at young age and go through marital dissolution.

There is a variety of evidence for many developed countries, including Britain that couples who cohabit prior to marriage (with the same partner they eventually marry or with a different partner) have higher risk of marital dissolution. In Britain, studies conducted by Haskey (1992) and Berrington and Diamond (1997) both showed that among the first marriages, those couples who cohabited premaritally were more likely to experience partnership breakdown than those who married directly. Most researchers argued that the increased risk of separation among premaritally cohabiting couples resulted from a selection effect. For example these couples were found to have less traditional attitudes towards family formation (Axinn and Thornton, 1992; Thompson and Colella, 1992; DeMaris and MacDonald, 1993) and had weaker commitment to marriage as an institution (Bennett *et al.*, 1988). Berrington and Diamond's study (1997), which used the 1958 British birth cohort study, found that those who lived with their spouse prior to marriage were less religious, more likely to have experienced parental separation and more likely to have experienced premarital conception or birth. The impact of premarital cohabitation persisted after controlling these and other background characteristics.

PARTNERSHIP DISSOLUTION

Another group with greater divorce rates is couples where one or both of the partners have been married previously. For Britain Haskey (1996) reported that among the couples who married before 1961, those who were married previously were twice as likely to get a divorce as those with no previous divorce. Among the younger cohorts he found that the differences between the two groups were smaller yet persistent. The relationship between previous marriages and higher risk of divorce was explained by a lack of skill either in selecting a compatible partner or staying together (Bracher *et al.*, 1993), by perceiving separation as a solution to conflict or being a member of groups that find divorce more acceptable (Levinger, 1976). Bracher *et al.*, (1993) suggested that more recent marriages suffered emotional or financial strains imposed by previous separations.

There is also a strong association between premarital conception (or birth) and subsequent partnership instability, especially among the cohorts who married before 1980s. Empirical studies are abundant on this relationship for Britain, the U.S., Canada, Australia and Sweden (see Clarke and Berrington (1999) for a summary of findings). Explanations focused on the experience of single motherhood. Some authors suggested that lone motherhood may encourage women to hold less traditional values towards marriage and divorce (Teachman, 1983; Morgan and Rindfuss, 1985). Becker *et al.* (1977) argued that presence of a child may reduce a woman's ability to search for a compatible partner and may reduce her attractiveness to potential partners.

Studies focusing on parental characteristics found that there is an intergenerational transmission of divorce risk (Bumpass and Sweet, 1972; Pope and Mueller, 1976; Teachman, 1983; Glenn and Kramer, 1987; McLanahan and Bumpass, 1988; Bumpass *et al.*, 1991; Amato, 1996; Berrington and Diamond, 1997; Kiernan, 1997). For Britain and the United States studies showed that the risk of divorce was higher among those who

experienced the dissolution of their parents' marriage. Some of these studies suggested that the relationship between parental and own divorce was mediated through factors such as early age at marriage, premarital cohabitation and premarital childbearing. The partnership dissolution rate for those who experienced parental divorce remained higher even after controlling for mediating factors. One of the main explanations put forward is the 'socialization hypothesis' and it suggests that a reduced parental supervision over children after divorce may lead these children to enter into marriage at an early age or to conceive prior to marriage. Those whose parents divorced have less exposure to successful models of marital interaction, and may find marriage less attractive, thereby have little ability to deal with marital stress (Pope and Mueller, 1976; McLanahan and Bumpass, 1988; Amato, 1996).

Another key concept in marital stability is 'marriage specific capital' and it refers to goods that are less valuable outside the marriage than in marriage, and the accumulation of marriage specific capital reduces the risk of divorce (Becker *et al.*, 1977). Presence of children, home ownership, and knowledge about one's partner are some examples of marriage specific capital. According to this, couples with children are less likely to divorce than couples with no children, and there is a large number of empirical studies which support this relationship (For a summary of findings see Hansen, 2005, p 139-140).

Young couples are expected to be more likely to experience marital dissolution than old couples for three reasons: young couples might have a looser bond as they have not accumulated as much marriage specific capital as older couples, or because older people have less opportunities in marriage market, or older couples might have negative attitudes towards divorce (for a detailed discussion see South and Spitze, 1986). Another key hypothesis in the literature is that the greater the difference between partners' traits, the

PARTNERSHIP DISSOLUTION

greater the risk of marital dissolution. Similar traits were argued to increase the consensus among partners and balance the power structure. Dissimilarities such as difference in age, difference in labour market experience, and difference in educational attainment were used in several studies to measure the similarity of the partners; and age difference has been found to positively associate to marital dissolution. Young age at marriage was shown to increase the risk of marriage, whereas duration of marital relationship had a negative effect (for a brief discussion on these studies see Hansen, 2005).

5.3. RESEARCH QUESTIONS

Above I tried to give a brief but comprehensive overview of how unemployment and temporary work are related to partnership dissolution. I summarised the main theories on the subject and findings from previous empirical studies. I also discussed some other major determinants of partnership dissolution. After having summed up the major issues on the matter, now I turn to the specific questions that I am addressing in this chapter. Its main aim is to assess *whether or not labour market insecurity is related to partnership dissolution*. Previous studies found that in Britain for both men and women unemployment increased the risk of separation. I re-evaluate this finding by analysing comprehensive family and work histories for married and cohabiting individuals. Since cohabitations are argued to differ from marriages, the risk of separation might be dissimilar between the two types of partnerships. Some individuals might prefer cohabitation over marrying in uncertain times since to start up a cohabitating union does not require the same level of financial stability. For this reason it can be expected that cohabiting unions are not as likely to dissolve as marriages in times of labour market insecurity. On the other hand, it may also be the case that cohabiters are relatively less committed to the relationship. Insecurity can have a more damaging impact on the

stability of cohabitations. A comparison of marriages and cohabitations is expected to shed light on the question of the durability of the two forms of partnerships in times of labour market insecurity.

I will extend the analysis to the issue of temporary work and scrutinize *whether or not temporary work is also related to an elevated risk of separation*. There is a gap in the literature in empirically investigating the relationship between temporary employment and the probability of separation. Some studies explored the impact of subjective job insecurity on partnership dissolution, and some others studied how much temporary work affects family conflict. Both stream of studies point out negative externalities of insecurity on family life. This chapter focusses on the experience of temporary employment; and examines longitudinally the risk of partnership dissolution.

Another purpose of the chapter is to inspect *how long it takes for labour market insecurity to cause partnership dissolution*. Insecurity may have a sudden impact or an accumulated impact increasing the separation risk gradually. Some studies showed that there is a sudden drop in unemployed men's psychological well-being in the first six months. The rapid fall in the level of well-being might lead to separation. However, the previous chapter showed that negative impact of unemployment on men's well-being do not diminish in time. It stays pretty much constant until more than a year. On the contrary, other studies have argued that insecurity has an accumulative impact. Over time, insecure employment conditions erode individuals' coping resources thereby affecting their well-being and family outcomes. This chapter looks into the issue of the temporal aspect of insecurity and analyses in detail the relationship between the insecurity duration spells and partnership outcomes.

PARTNERSHIP DISSOLUTION

It was shown in the previous chapters that some individuals are more vulnerable to the consequences of insecurity because of their disadvantageous position in the labour market. This chapter inquires *whether the impact of unemployment and temporary work is mediated by skill level, educational qualifications and work hours*. There is a variation among the unemployed and the temporary employees with respect to their status in the educational and occupational ladder, and their working arrangements. Due to these differences they might develop different strategies to reduce the uncertainty. Thus, insecurity might have different impact on their partnership stability, and this issue is addressed in detail in the chapter.

Finally, I explore the joint employment activity of couples and *how partner's employment status and contract type is related to partnership instability*. Although analysing insecurity at the individual level can give substantial insight into the issue of partnership dissolution, the picture remains incomplete unless partners' employment status is taken into account. Sometimes insecurity of a spouse may not lead to separation but the combination of one spouses' insecurity with the employment status of the other spouse does cause instability in romantic unions. There are very few longitudinal studies looking at insecurity and separations at the couple level. This study aims at contributing to filling the gap in the literature on joint household economic activity by using detailed partner work histories matched with the respondent.

5.4. DATA AND METHODS

5.4a. Work and Family histories from the BHPS:

The hypotheses are tested on a nationally represented sample coming from the British Household Panel Study. The BHPS is a longitudinal survey which interviews households

yearly since 1991. The initial wave included 5500 households where 10,300 individuals resided. By 2011 there are 18 waves available and around 40,000 individuals participated in at least one wave. In each wave, *inter alia*, the family and employment status, as well as the changes in family and employment in the last year, are recorded. In addition to this, in the second, the third, the tenth and the eleventh waves, a retrospective survey covering entire life histories are included. Based on this information a ‘Work-History File³³’ and a ‘Family File³⁴’ have been constructed, which are used in this chapter. I use a sample of approximately 5000 individuals (2200 men and 2800 women) for whom complete work and family histories are available in both of the synthesized files, which I call the ‘partnership dissolution sample’. The sample is restricted to individuals who were born between 1940 and 1987 and whose ages vary between 15 and 65. To construct this dataset I merged together employment and family information on a monthly basis. I excluded the months when the respondents reported that they were not in a relationship, thereby leaving behind only the relationship spells, either cohabitations or legal marriages. These spells are ordered according to the starting month and followed until either the last observed month, or the end of the relationship, which produced a dataset for discrete-time event history analysis. The observed months are nested within relationships and the relationships are nested within the individuals; *i.e.* each individual is allowed to form multiple partnerships that lasted at least one month. If a relationship still continues when the last observation is recorded, then the relationship is right-censored. The dissolution for cohabitation is defined as separation and cohabitations are followed until the month of separation. Cohabiting relationships which ended with widowhood and marriage are treated as right-censored. With respect to legal marriages, the relationships that result in

³³ For details see Mare, D. (2006)

³⁴ Family File has been prepared by Chiara Pronzato (2008) and is available via UK Data Archive.

PARTNERSHIP DISSOLUTION

separation or divorce are considered as partnership dissolution; however the ending date of marriage is set to separation date wherever possible³⁵. The partnerships which are still intact at the end of the observation period and those ended with widowhood are treated as right-censored.

An advantage of the BHPS is that, it is possible to match respondents with their partners from the sample if the partnership took place during one of the waves. I managed to match over 4000 individuals with their in-sample partners and added partners' employment indicators to the partnership dissolution dataset.

In Table 5.1 the frequency and duration of partnerships are presented by relationship type and sex. Out of 5042 individuals in the sample 4266 of them married at least once and formed 5068 marriages in total. 1504 of these marriages ended with dissolution (constituting 30 per cent of all marriages, with 26.4 per cent for men and 32.3 per cent for women). Mean marriage for men lasts 118 months until separation and married women on average are separated after 119 months. Mean age of separation for married men is 35.4 whereas it is 33.3 for women. 2757 individuals have been in a cohabiting relationship over the observation period, and 3672 cohabiting partnerships are observed in total. 1095 of these partnerships (30 per cent) resulted with dissolution. Mean duration of cohabiting relations are 31.6 months for men and 35.6 for women.

³⁵ Date of separation is unavailable for only 5 per cent of marriages. For these marriages six month is subtracted from the date of divorce.

TABLE 5.1. A SNAPSHOT OF THE BHPS PARTNERSHIP DISSOLUTION SAMPLE

	MARRIAGES			COHABITATIONS		
	Men	Women	All	Men	Women	All
N of person-months (N)	445659	599848	1045507	59673	76623	136296
N of partnerships (i)	2152	2916	5068	1609	2063	3672
N of individuals (j)	1847	2419	4266	1225	1532	2757
N of events ($\delta = 1$)	568	936	1504	465	630	1095
N of individuals with event ($j, \delta = 1$)	493	799	1292	345	504	849
Dissolution rate of partnerships	26.4%	32.1%	29.7%	28.9%	30.5%	29.8%
Event per person	1.2	1.2	1.2	1.3	1.3	1.3
Mean age at separation	35.4	33.3	34.1	28.4	27.7	28
Mean duration of partnership	118.5	119.1	118.9	31.6	35.6	33.9

The distribution of the sample by employment variables is displayed on tables 5.2a and 5.2b for married individuals, on tables 5.3a and 5.3b for cohabiting individuals and on table 5.4 for married and cohabiting couples. According to table 5.2a, 1755 men out of 1777 (99 per cent) have been employed for at least one month, whereas 558 of them (31 per cent) have spent at least one month in unemployment. Being out of labour market or student are less common among men who are in the partnership dissolution sample. Only 20 per cent and 3 per cent of them have ever been out of labour market and student respectively. Corresponding figures for married women are as follows: 2207 women out of 2338 (94 per cent) spent at least one month in employment, and 512 of them (22 per cent) have ever been unemployed. Being out of labour market is more commonly experience among married women than their male counterparts. 1875 women, who constitute 80 per cent of females, have ever been out of the labour force. 6 per cent of females reported to be students at some point during marriage. Similar figures are given for temporary work (Table 5.2b), duration of unemployment experience and duration of temporary contracts. The issues worth noting are that, a larger share of males than

PARTNERSHIP DISSOLUTION

females have worked with a permanent contract, whereas a larger share of females than males had temporary work experience. (See Tables 5.3a and 5.3b for the distribution of the sample by the same indicators for cohabiting individuals.)

TABLE 5.2a. DISTRIBUTION OF THE SAMPLE WITH EMPLOYMENT STATUS - MARRIED COUPLES

	MEN			WOMEN		
	Person months (N)	Individuals (n)	%*	Person months (N)	Individuals (n)	%*
EMPLOYMENT STATUS						
Employed	365013	1755	98.87	343735	2207	94.48
Unemployed	11275	558	31.44	5815	512	21.92
Out of Labour Force	16781	364	20.51	188207	1875	80.27
Student	1224	56	3.15	2908	141	6.04
DURATION OF UNEMPLOYMENT						
Short-term (1-3 months) [†]	682	280	15.77	581	242	10.36
Mid-term (4-12 months)	2583	279	15.72	2210	261	11.17
Long-term (12+ months)	8010	195	10.99	3024	101	4.32
Total n		1777			2338	

[†] Durations refer to the total length of insecurity spell within partnership.

* % refers to the percentage of individuals who fall in the relevant category at least for a month.

TABLE 5.2b. DISTRIBUTION OF THE SAMPLE WITH TEMPORARY WORK VARIABLES - MARRIED COUPLES

	Men			Women		
	Person months (N)	Individuals (n)	%*	Person months (N)	Individuals (n)	%*
CONTRACT TYPE						
Permanent Contract	262950	1661	95.9	264646	2135	91.67
Temporary Contract	7158	405	23.38	16049	725	31.13
DURATION OF TEMPORARY CONTRACT						
Short-term (1-6 months)	691	193	11.14	1363	360	15.46
Mid-term (7-12 months)	1289	145	8.37	2895	265	11.38
Long-term (1-2 years)	918	66	3.81	2471	152	6.53
Extensive (2+ years)	4260	103	5.95	9320	199	8.54
Total n		1732			2328	

[†] Durations refer to the total length of insecurity spell within partnership.

* % refers to the percentage of individuals who fall in the relevant category at least for a month.

TABLE 5.3a. DISTRIBUTION OF THE SAMPLE WITH EMPLOYMENT STATUS - COHABITING COUPLES

	MEN			WOMEN		
	Person months (N)	Individuals (n)	%*	Person months (N)	Individuals (n)	%*
EMPLOYMENT STATUS						
Employed	39912	1012	97.12	44914	1199	88.29
Unemployed	3023	207	19.87	2209	232	17.08
Out of Labour Force	1493	77	7.39	11090	434	31.96
Student	529	41	3.93	1173	90	6.63
DURATION OF UNEMPLOYMENT						
Short-term (1-3 months) ⁺	221	92	8.83	227	105	7.73
Mid-term (4-12 months)	833	93	8.93	787	107	7.88
Long-term (12+ months)	1969	71	6.81	1195	52	3.83
Total n		1042			1358	

⁺ Durations refer to the total length of insecurity spell within partnership.

* % refers to the percentage of individuals who fall in the relevant category at least for a month.

TABLE 5.3b. DISTRIBUTION OF THE SAMPLE WITH CONTRACT TYPE - COHABITING COUPLES

	Men			Women		
	Person months (N)	Individuals (n)	%*	Person months (N)	Individuals (n)	%*
CONTRACT TYPE						
Permanent Contract	26635	847	83.7	33158	1059	77.47
Temporary Contract	1502	148	14.62	2082	215	15.73
DURATION OF TEMPORARY CONTRACT						
Short-term (1-6 months)	244	72	7.11	508	135	9.88
Mid-term (7-12 months)	388	47	4.64	520	60	4.39
Long-term (1-2 years)	184	17	1.68	503	37	2.71
Extensive (2+ years)	686	41	4.05	551	27	1.98
Total n		1012			1367	

⁺ Durations refer to the total length of insecurity spell within partnership.

* % refers to the percentage of individuals who fall in the relevant category at least for a month.

PARTNERSHIP DISSOLUTION

The distribution of the couples by matched employment status can be seen in Table 5.4. As can be seen from the upper panel of the table, for both types of couples, i.e. married and cohabiting, the most common employment combination is when both partners are employed. 95 per cent of all married couples and 86 per cent of cohabiting couples have spent at least one month in dual employment. Among married couples the male breadwinner and female homemaker model is experienced by 79 per cent of all couples, whereas it is experienced by only 24 per cent of cohabiting couples. It seems that married couples exhibit more traditional gender roles than cohabiting ones. 1.8 per cent of married partners and 3.5 per cent of cohabiting ones suffered from coupled-unemployment where both the male and the female were unemployed at the same time. According to the distribution of couples by contract type at the lower panel of the table 5.42c, 90 per cent of all married couples but only 63 per cent of all cohabiting couples have experienced dual permanent work at least for a month. Dual temporary work is experienced by a small proportion of couples; 3.75 per cent of the married and 2 per cent of the cohabiting ones.

TABLE 5.4. DISTRIBUTION OF COUPLES' MATCHED EMPLOYMENT INDICATORS

UNEMPLOYMENT						
	Married Couples			Cohabiting Couples		
	Person months (N)	Individuals (n)	% *	Person months (N)	Individuals (n)	% *
He's employed & She's employed	434798	2630	94.74	34408	920	86.38
He's employed & She's unemployed	5069	569	20.5	917	121	11.36
He's employed & She's OLF	203582	2193	79	5689	258	24.23
He's unemployed & She's employed	7570	650	23.41	1582	147	13.8
He's unemployed & She's unemployed	447	50	1.8	331	37	3.47
He's unemployed & She's OLF	10301	442	15.92	1973	84	7.89
He's OLF & She's employed	18711	506	18.23	1235	53	4.98
He's OLF & She's unemployed	582	56	2.02	419	19	1.78
He's OLF & She's OLF	21083	438	15.78	973	25	2.35
TEMPORARY WORK						
	Married Couples			Cohabiting Couples		
	Person months (N)	Individuals (n)	% *	Person months (N)	Individuals (n)	% *
He's Permanent & She's Permanent	289306	2513	90.53	19852	677	63.57
He's Permanent & She's Temporary	18718	852	30.69	1090	97	9.11
He's Permanent & She's Unemployed	4228	508	18.3	603	79	7.42
He's Permanent & She's OLF	162538	2039	73.45	4253	204	19.15
He's Temporary & She's Permanent	9109	485	17.47	1305	80	7.51
He's Temporary & She's Temporary	1547	104	3.75	279	21	1.97
He's Temporary & She's Unemployed	157	36	1.3	117	22	2.07
He's Temporary & She's OLF	8059	349	12.57	569	47	4.41
He's Unemployed & She's Permanent	5946	549	19.78	877	110	10.33
He's Unemployed & She's Temporary	715	77	2.77	232	29	2.72
He's Unemployed & She's Unemployed	447	50	1.8	331	37	3.47
He's Unemployed & She's OLF	10301	442	15.92	1973	84	7.89
He's OLF & She's Permanent	14862	435	15.67	933	46	4.32
He's OLF & She's Temporary	1355	84	3.03	105	13	1.22
He's OLF & She's Unemployed	582	56	2.02	419	19	1.78
He's OLF & She's OLF	21083	438	15.78	973	25	2.35
Total n		2776			1065	

* % refers to the percentage of individuals who fall in the relevant category at least for a month.

5.4b. Model specification:

In this paper, in order to estimate the duration of partnerships, I use multilevel discrete-time event history analysis for recurrent events. There are two issues related to the choice of this modelling strategy. First, I use discrete time models instead of continuous time models. In social sciences most of the time event history data is collected in discrete time, by recording dates to the nearest interval such as month or year. BHPS has monthly records for events and transitions. Also discrete time models are more flexible since they allow introducing and analysing time-varying covariates easily. Second, I use multilevel models for recurrent events. Multilevel event history models refer those when there are multiple states observed for each individual. Events in partnership dissolution are repeatable, because in the dataset all the relationships of the respondents are observed. When modelling recurring events we cannot assume that the durations of partnership episodes coming from the same individual are independent. The hazard of an event in all episodes might be affected by some individual-specific unobserved factors, such as lack of commitment in romantic relationships. If the model fails to account for such individual-specific unobservables, there might be correlation between the episode durations from the same individuals. For these reasons I use a multilevel discrete time dataset structured in the person-period-episode format, where the duration (y) and the outcome (δ) of each partnership (i) is recorded for each individual (j). The response variable is the outcome of partnerships for each observable month (t). It is a binary indicator which takes the value '0' when the partnership is intact and '1' when dissolution takes place and I estimate it with logit models. The hazard function of logit models for recurrent events is written as:

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

Where $h_{ij(t)}$ is the probability that individual j has an event during interval t of episode i , given that no event has occurred before the start of t . The equation of multilevel discrete-time logit model can be written as below:

$$\text{logit}[h_{ij(t)}] = \log \left[\frac{h_{ij(t)}}{1-h_{ij(t)}} \right] = \mathbf{D}_{ij(t)} \alpha + \mathbf{x}_{ij(t)} \beta \quad (2)$$

In this equation $\left[\frac{h_{ij(t)}}{1-h_{ij(t)}} \right]$ 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 (no dissolution) is shown by $h_{ij(t)}$, and the failure (dissolution) by $1-h_{ij(t)}$. $\mathbf{D}_{ij(t)}$ is a vector of functions of the cumulative duration by interval t with coefficients α . The changes in the probability of an event during interval t are captured in the model by $\mathbf{D}_{ij(t)}\alpha$, which is the baseline hazard function. There are many alternatives to define the shape of the hazard functions. For the individual models, I specify the baseline hazard function as piecewise constant hazard which can be shown as:

$$\mathbf{D}_{ij(t)} \alpha = \alpha_1 D_1 + \alpha_2 D_2 + \dots + \alpha_q D_q \quad (3)$$

Where D_1, \dots, D_q are dummies for time intervals $t = 1, \dots, q$ and q is the maximum observed event time. In my models the time intervals 1 to 5 refer to each year after the start of the relationship and larger intervals are grouped together. For the couple models, I specify the baseline hazard function as $\log(t)$. When we introduce a random effect component in logit models in order to account for individual-specific unobserved heterogeneity the equation becomes:

$$\text{logit}[h_{ij(t)}] = \log \left[\frac{h_{ij(t)}}{1-h_{ij(t)}} \right] = \mathbf{D}_{ij(t)} \alpha + \mathbf{x}_{ij(t)} \beta + u_j \quad (4)$$

PARTNERSHIP DISSOLUTION

Where u_j has a normal distribution $N(0, \delta_u^2)$ and δ_u^2 is the ‘shared frailty’ term which accounts for unobserved heterogeneity among episodes within each individual. For every model I repeat a ‘no-frailty’ and ‘frailty’ discrete time logit analysis. Each pair of models is compared in terms of a likelihood ratio test (here it is a Chi^2 test with 1 degrees of freedom). When the likelihood ratio test is statistically significant, then there are unobserved individual-specific factors affecting partnership durations and the latter model gives better estimates. In the results section I only present the results from the no-frailty models. At the bottom of each model the likelihood ratio test is presented. Then, I discuss the frailty models and the implications of unobserved heterogeneity.

5.4c. Explanatory and control variables:

The main explanatory variables are employment status, and contract type, and each variable is tested in separate sets of models. Both of them are categorical variables where employment status includes ‘employed’, ‘unemployed’, ‘out of labour force’ and ‘student’, and contract type includes ‘permanent contract’, ‘temporary contract’ and ‘inactive’. Various contract types are bundled under temporary work, i.e. seasonal, temporary, casual, fixed term and other non-permanent contracts. In unemployment status the reference category is ‘employed’ whereas in temporary work models it is the ‘permanent contract’ category. Furthermore, employment status and contract type are disaggregated by a.) current duration, b.) skill level of the job, c.) education level and d.) work hours in order to analyse whether the impact of job insecurity varies across individuals with different characteristics.

Current duration in labour market insecurity spell: What is measured with *current duration* is the number of months passed since the unemployment or temporary work

spell started and this measure is introduced to detect how long it takes insecurity to trigger partnership dissolution. The unemployment durations are categorized as ‘the first three months’, ‘between the fourth and the twelfth months’, and ‘after twelve months’, whereas temporary work durations are divided into four groups which are ‘the first six months’, ‘between the seventh and the twelfth months’, ‘between the thirteenth and the twenty-fourth months’ and ‘after two years’. Duration in insecurity spell is time-varying variable and it is independent of the total length of the spell. It only indicates how long ago the insecurity spell started.

Skill levels: Employment spells in the unemployment models and temporary work spells in temporary contract models are disaggregated by occupational skill levels. Standard Occupational Classification (SOC-1990) is used in order to construct the skill levels. ‘Managers and administrators’ and ‘professional occupations’ are defined as *high skilled occupations*, ‘associate professionals and technicians’, ‘clerical and secretarial’, ‘craft and related’, and ‘personal and protective sector’ categories as *medium skilled occupations*, and, ‘sales occupations’ and ‘plant and machine operators’ and ‘other occupations’ as *low skilled occupations*.

Education level: The unemployed and the temporary workers are further disaggregated by the highest educational qualification completed which is divided into four categories; *high educational qualification* including the Higher Degree and the 1st Degree, *medium* including the Higher National Certificate/Diploma, Teaching Qualifications and the A levels, *low* including the O levels and CSEs, and *no qualification* referring to those with any of the above qualifications.

Work-hours: Finally, employment and contract indicator is disaggregated by work-hours: Those in employment are divided into part-time and full-time employees. Contract type

PARTNERSHIP DISSOLUTION

by work hours produced four categories: full-time permanent contract, full-time temporary contract, part-time permanent contract, and part-time temporary contract.

In couple models partners' employment statuses and contract types are matched with each other and added in the model as time varying categorical variables. All labour market variables are introduced into the models one month lagged ($t-1$) in order to avoid problems arising from the possibility that labour market transitions and partnership dissolutions take place in the same time interval. In addition to the labour market variables another main explanatory variable in the models is a measure of the baseline hazard function of partnership dissolution. A categorical variable of years in partnership is used in the models where men and women are introduced individually. The logarithm of number of years since the start of partnership is used for couple models. Aggregate level unemployment rate is also added into the models in order to capture the general economic circumstances in the country each year where there is an observation point.

Controls: A number of demographic control variables, which are found in the literature as predictors of partnership dissolution, are also introduced in the models (most of them discussed in the literature review). For the individual models dummies for premarital conception/childbirth, presence of young children in the household (0-3 years), previous divorce and being a teenager bride/groom are introduced, in addition to categorical measures of cohort and ethnicity and continuous measures of age and age square (measured monthly). In the couple models age difference between the partners, matched ethnicity and matched education qualifications are also introduced. The idea behind matching the characteristics is to address to the issue of dissimilarity between the spouses. It was argued above that the more dissimilar the partners are, the higher the risk of separation.

5.5. RESULTS

Tables 5.5 - 5.10 present the results from the multilevel discrete time event history analysis and the figures are the odds ratios for partnership dissolution. Tables 5.5a-b, and 5.6a-b are the results from unemployment models for men and women separately, Tables 5.7a-b and 5.8a-b-c-d are the results from temporary work models for men and women separately, Table 5.9 displays couple unemployment models and Table 5.10 shows the couple temporary work models.

5.5a. Men's and women's labour market insecurity and partnership dissolution

Unemployment: First I will summarize the results from individual unemployment models. To start with marital separations, as it can be seen in Table 5.5, individuals' own unemployment experience has a positive impact on the risk of marital dissolution for both men and women. When men (women) are unemployed they are around 60-70 per cent more likely to separate from their wives (husbands) compared to when they are in employment. This is consistent with the previous findings on the UK and implies that unemployment puts strain on marriages. Being out of labour force or a student does not affect married men's partnership dissolution, while married women who are out of labour force are less likely to separate than their counterparts in employment.

PARTNERSHIP DISSOLUTION

TABLE 5.5. MEN AND WOMEN'S UNEMPLOYMENT AND PARTNERSHIP DISSOLUTION

	MARRIAGES		COHABITATIONS	
	MEN 1a	WOMEN 1b	MEN 1c	WOMEN 1d
EMPLOYMENT STATUS - REF. CAT: EMPLOYED				
Unemployed	1.70*	1.64*	1.12	1.17
Out of labour force	1.21	0.81*	1.85*	1.49**
Student	1.72	1.79	1.46	1.64
Unemployment rate	1	1.02	1.04	1.01
NUMBER OF YEARS IN MARRIAGE - REF CAT: 1 YEAR				
2 years	2.36**	1.47	0.64**	0.97
3 years	3.00***	1.92**	0.9	1.13
4 years	2.75***	2.46***	0.64*	1.07
5 years	2.72**	2.38***	0.83	1.01
6-0 years	2.65***	2.31***	0.46***	0.68*
11-15 years	2.36**	1.94*	0.48*	0.45*
16-20 years	1.99	1.87*	0.27	0.56
21 and more years	2.43*	1.21	NA	NA
HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE				
High	0.98	1.17	1.04	1.71**
Medium	1.03	1.14	1.16	1.45*
Low	0.95	1.16	1	1.25
COHORT: 1960-1985 COHORT				
1940-1949 cohort	0.57***	0.58***	0.98	0.88
1950-1959 cohort	0.74**	0.81*	0.78	0.96
ETHNICITY - REF. CAT: WHITE				
Black	0.93	1.68	1.96*	1.09
Indian/Pakistani/Bangladeshi	0.23*	0.50*	1.35	0.94
Chinese and others	1.82*	1	0.5	1.7
Age	0.98	0.95	0.97	0.98
Age Squared	1	1	1	1
Premarital Conception/Childbirth (Yes)	1.69***	1.65***	NA	NA
Child younger than 4 years (Yes)	0.35***	0.52***	0.84	0.81
Had a divorce before (Yes)	1.73**	1.80***	0.74	1.25
Teenager at the time of marriage (Yes)	1.2	1.47***	1.61*	1.23
N of observation points	395574	542254	44736	59269
N of partnership	2033	2755	1349	1788
N of individuals	1777	2338	1044	1362
N of events	476	813	371	489
Mean obs. duration (Months)	222.6	231.9	43.3	43.8
Likelihood Ratio test of Rho = 0	ns	p<0.05	p<0.001	ns

Legend: * p<0.05; ** p<0.01; *** p<0.001, ns: not significant.

The results for cohabiting couples show that neither men's nor women's unemployment seem to have an effect on dissolution of partnerships. This might be due to some qualitative differences between marriages and cohabitations discussed in the literature. It has been suggested that cohabiters hold less traditional values and gender ideologies than married couples (Rindfuss and Heuvel, 1990), which might explain why unemployment does not increase the risk of separation for cohabiting men while it does so for married men. Oppenheimer (1994) suggested that individuals might prefer to cohabit as an adaptive strategy to the delay in marriages which arise due to growing economic uncertainties. If individuals are self-selected into cohabitation as a result of economic insecurity they are surrounded by, then unemployment within these relationships may not cause a sudden shock as it does to marriages. In other words, unemployment does not decrease the utility gained from staying in cohabitation when the expected utility from cohabitation is already low in the first place. Being out of labour force seems to have a strong and positive effect for dissolution of cohabitations.

Employment variables are further disaggregated according to the characteristics of unemployment spells and respondents. One of the main objectives of my analysis is to capture how long it takes for insecurity to affect partnerships. Models in Table 5.6a show the odds ratios of the risk of marital separation for three periods in unemployment compared to being in employment. For men, unemployment has an instant impact; men are more likely to separate from their wives in the first three months of unemployment where the reference category is being employed. The effect is statistically significant and strong with an odds ratio of 2.5. After the fourth month unemployment does not seem to increase the dissolution risk for men's marriages. Although the odds ratios for the second and third periods are statistically insignificant, there is a monotonically decreasing risk of

PARTNERSHIP DISSOLUTION

dissolution as the time spent in unemployment increases. This finding suggests that unemployment for married men has an immediate and severe impact instead of having an accumulative impact increasing over time, thereby supporting the sudden shock hypothesis rather than the exhaustion hypothesis. For women, in contrast, unemployment seems to have an accumulative impact. The risk of divorce increases from the first period to the third period and it is strong and significant after 12 months (third period). The contrasting relationship of unemployment duration and dissolution risk between the sexes could be attributed to the fact that men's unemployment is related to more significant financial strains on the family and stress caused by this.

TABLE 5.6a. CURRENT DURATION OF UNEMPLOYMENT AND PARTNERSHIP DISSOLUTION

	MARRIAGES		COHABITATIONS	
	MEN 3a	WOMEN 3b	MEN 3c	WOMEN 3d
REFERENCE CATEGORY: EMPLOYED				
1 st - 3 rd months of unemployment	2.52**	0.7	1.19	0.56
4 th - 12 th months of unemployment	1.63	1.74	1.09	1.74
After the 12 th month in unemployment	1.4	2.35*	1.09	1.13
N of observation points	395574	542254	44736	59269
N of partnership	2033	2755	1349	1788
N of individuals	1777	2338	1044	1362
N of events	476	813	371	489
Mean obs. duration	222.6	231.9	43.3	43.8
Likelihood Ratio test of Rho = 0	ns	p<0.05	p<0.001	ns

Legend: * p<0.05; ** p<0.01; *** p<0.001, ns: not significant

Note: Unemployment rate, Number of years in marriage, Highest educational qualification, Cohort, Ethnicity, Premarital conception/childbirth, Presence of young children, Previous divorce, and Being a teenager at marriage time are also included in the model. The odds ratios for control variables are very similar to the values in Table 5, hence not reported here.

In terms of education qualification of the unemployed, results in Table 5.6b show that only among married unemployed men education level matters for the risk of separation. Highly and medium educated men are more likely to have marital instability in comparison to employed men. For the lower educated unemployed men this is not the

case. This might be related to relatively harder consequences of unemployment on educated men’s well-being. The experience of unemployment can be particularly frustrating for the highly educated married men due to the higher opportunity costs attached to being joblessness. Lower educated unemployed men do not seem to be particularly vulnerable in terms of how joblessness affects their marital stability.

TABLE 5.6b. EDUCATION QUALIFICATION AND PARTNERSHIP DISSOLUTION

	MARRIAGES		COHABITATIONS	
	MEN 4a	WOMEN 4b	MEN 4c	WOMEN 4d
REFERENCE CATEGORY: EMPLOYED				
High education & Unemployed	2.74*	3.59	0.4	3.59
Medium education & Unemployed	2.92**	1.76	1.38	1.76
Low education & Unemployed	1.73	0.76	1.07	0.76
No qualification & Unemployed	1.06	2.05	1.14	2.05
N of observation points	395574	542254	44736	59269
N of partnership	2033	2755	1349	1788
N of individuals	1777	2338	1044	1362
N of events	476	813	371	489
Mean obs. duration	222.6	231.9	43.3	43.8
Likelihood Ratio test of Rho = 0	ns	p<0.05	p<0.001	ns

Legend: * p<0.05; ** p<0.01; *** p<0.001, ns: not significant

Note: Unemployment rate, Number of years in marriage, Highest educational qualification, Cohort, Ethnicity, Premarital conception/childbirth, Presence of young children, Previous divorce, and Being a teenager at marriage time are also included in the model. The odds ratios for control variables are very similar to the values in Table 5, hence not reported here.

The current duration in the unemployment spell is related to the risk of cohabitational dissolutions neither for men nor for women. There are no significant differences between the cohabiting men’s and women’s partnership dissolution in terms of skill level, education level and contract type, either.

Temporary work: The same models are repeated for the temporary work, this time by differentiating between the contract types of employees. Table 5.7 presents the results for married men and women. Working with a temporary contract as opposed to permanent contract does not increase the risk of marital separation for men. In line with the

PARTNERSHIP DISSOLUTION

unemployment models, here too, unemployed men and women are more likely to go through separation compared to being in permanent employment. Different from the unemployment models, 'student' and 'out of labour force' categories are combined in temporary work models. When compared to permanent contract holders, married women who are inactive (student or out of labour force) are not less likely to separate. The negative odds for economically inactive women disappear when they are combined with full-time students and compared to permanent employees as the reference category. (In the unemployment models the odds of separation for women out of labour force compared to those in employment is significantly lower whereas full-time students had higher but insignificant odds ratios).

As to cohabiters, temporary work seems to have a stronger and positive effect on the timing of separations for men. Men working with temporary contracts are approximately twice more likely to separate from their cohabiting partners than those working with permanent contracts. The inactive men and women (that is students and those who are out of labour force) are also more at risk of cohabitational separation as opposed to those in permanent work. The fact that temporary work is related to separations in cohabitations but not in marriages might be explained by two factors. First, cohabitation, compared to marriage, is considered as a relatively less committed form of partnership. The insecurity faced during temporary employment seems to be severe enough to end cohabiting partnerships however not strong enough to end marriages. A second reason is that, married men might be selected into higher quality temporary jobs, such as fixed-term contracts, whereas cohabiting men might be concentrated in casual sectors of non-permanent employment. As a result temporary employment is more detrimental for cohabitating unions than it is for marriages.

TABLE 5.7. MEN AND WOMEN'S TEMPORARY WORK AND PARTNERSHIP DISSOLUTION

	MARRIAGES		COHABITATIONS	
	MEN	WOMEN	MEN	WOMEN
	6a	6b	6c	6d
EMPLOYMENT STATUS - REF. CAT: PERMANENT				
Temporary work	1.6	1.28	2.04**	1.17
Unemployed	1.74*	1.73*	1.36	1.34
Inactive	1.35	0.87	1.96**	1.70***
Unemployment rate	1.02	1.02	1.03	1
NUMBER OF YEARS IN MARRIAGE - REF CAT: 1 YEAR				
2 years	2.15**	1.53	0.68*	0.96
3 years	2.62***	1.89**	0.9	1.11
4 years	2.59**	2.44***	0.7	1.08
5 years	2.23*	2.42***	0.91	0.94
6-0 years	2.59***	2.45***	0.48**	0.69*
11-15 years	2.19*	2.13**	0.41*	0.46*
16-20 years	1.97	1.90*	0.33	0.39
21 and more years	2.55*	1.34	NA	NA
HIGHEST EDUCATIONAL QUALIFICATION: REF. CAT.: NONE				
High	0.83	1.13	1.03	1.80***
Medium	0.91	1.13	1.25	1.41*
Low	0.89	1.17	0.95	1.27
COHORT: 1960-1985 COHORT				
1940-1949 cohort	0.58***	0.58***	1.03	0.97
1950-1959 cohort	0.74*	0.84*	0.79	1.03
ETHNICITY - REF. CAT: WHITE				
Black	1.15	1.75	1.34	1.14
Indian/Pakistani/Bangladeshi	0.28	0.50*	0.91	0.96
Chinese and others	2.25**	1.11	0.43	1.94
Age	0.97	0.95	0.95	0.98
Age Squared	1	1	1	1
Premarital Conception/Childbirth (Yes)	1.52***	1.61***	NA	NA
Child younger than 4 years (Yes)	0.36***	0.52***	0.85	0.83
Had a divorce before (Yes)	1.93**	1.80***	0.82	1.28
Teenager at the time of marriage (Yes)	1.32	1.47***	1.54*	1.2
N of observation points	359825	532727	40752	58947
N of partnership	1983	2747	1291	1795
N of individuals	1734	2331	1014	1371
N of events	431	810	342	491
Mean obs. duration	207.5	228.5	40.5	43.3
Likelihood Ratio test of $\rho = 0$	ns	$p < 0.05$	$p < 0.001$	ns

Legend: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; ns: not significant.

PARTNERSHIP DISSOLUTION

In Tables 5.8a-b-c the models which aim at focussing on different aspects of temporary work are presented. First, as to the time spent in temporary work, the duration variable is significant only for men (Table 5.8a). When compared to married men in permanent work, being in a temporary contract for 13 to 24 months has a large and positive effect on separation. In this period, married men with temporary contract are four times more likely to separate from their wives than men with permanent contract. Albeit being insignificant, the odds are lower in the first year of temporary employment (first and second periods in model 7a). This might be related to the arguments about whether or not temporary jobs are stepping stones for entering the secure labour force or trap individuals in precarious employment. Upon the expectations of switching to a secure employment in a short time, temporarily employed men may not feel job insecurity initially. However, those who stay in temporary employment for more than a year might be the ones who feel trapped in precarious employment. It might be only then when disappointment, discouragement and financial hardship put pressure in the relationship. For cohabiting men, there is a similar, delayed effect of duration, but the impact of temporary work triggers only after spending two years or more in these contracts (Model 7c).

TABLE 5.8a. CURRENT DURATION OF TEMPORARY WORK AND PARTNERSHIP DISSOLUTION

	MARRIAGES		COHABITATIONS	
	MEN 7a	WOMEN 7b	MEN 7c	WOMEN 7d
REFERENCE CATEGORY: PERMANENT CONTRACT				
1 st - 6 th months of temporary work	0.83	1.45	1.61	0.97
7 th - 12 th months of temporary work	0.8	1.26	2.36	1.84
13 th - 24 th months of temporary work	4.06**	0.96	1.2	0.88
After two years in temporary work	1.77	1.31	3.02**	1.14
N of observation points	359825	532727	40752	58947
N of partnership	1983	2747	1291	1795
N of individuals	1734	2331	1014	1371
N of events	431	810	342	491
Mean obs. duration	207.5	228.5	40.5	43.3
Likelihood Ratio test of $Rho = 0$	ns	p<0.05	p<0.001	ns

Legend: * p<0.05; ** p<0.01; *** p<0.001; ns: not significant

Note: Unemployment rate, Number of years in marriage, Highest educational qualification, Cohort, Ethnicity, Premarital conception/childbirth, Presence of young children, Previous divorce, and Being a teenager at marriage time are also included in the model. The odds ratios for control variables are very similar to the values in Table 7, hence not reported here.

The occupational skill level of temporary employees is an insignificant indicator for both married and cohabiting individuals' partnership stability (results not presented). A lower level of education has a positive impact on the risk of separation for men, but it is not related to women's partnership dissolution. Married men with temporary contracts who have no educational qualification are 3,4 times and cohabiting men with temporary contracts who have O levels or CSE's are 2,6 times more likely to separate compared to men in permanent employment. This indicates that temporary employees with lower human capital are more vulnerable than permanent workers in terms of partnership stability.

PARTNERSHIP DISSOLUTION

TABLE 5.8b. EDUCATIONAL QUALIFICATION OF TEMPORARY EMPLOYEE AND PARTNERSHIP DISSOLUTION

	MARRIAGES		COHABITATIONS	
	MEN 8a	WOMEN 8b	MEN 8c	WOMEN 8d
REFERENCE CATEGORY: PERMANENT CONTRACT				
High*Temporary employee	(dropped)	1.45	1.55	1.37
Medium*Temporary employee	2.34	1.11	1.96	1.4
Low*Temporary employee	0.7	1.53	2.63*	1.2
No qualification*Temporary employee	3.41**	1.04	2.51	0.59
N of observation points	359825	532727	40752	58947
N of partnership	1983	2747	1291	1795
N of individuals	1734	2331	1014	1371
N of events	431	810	342	491
Mean obs. duration	207.5	228.5	40.5	43.3
Likelihood Ratio test of Rho = 0	ns	p<0.05	p<0.001	ns

Legend: * p<0.05; ** p<0.01; *** p<0.001; ns: not significant

Note: Unemployment rate, Number of years in marriage, Highest educational qualification, Cohort, Ethnicity, Premarital conception/childbirth, Presence of young children, Previous divorce, and Being a teenager at marriage time are also included in the model. The odds ratios for control variables are very similar to the values in Table 7, hence not reported here.

The work hours of permanent and temporary employees are related to partnership dissolution only for married women and cohabiting men (Table 5.8c). As can be seen in model 9b, full-time working women with temporary contracts are 75 per cent more likely to separate than women in full-time permanent employment. For women working full time, temporary work seems to have a destabilizing effect on marriages. However there is no such effect for part-time temporary employees. Married women in full time employment, who are more attached to the labour market (than part timers) either due to economic needs or preferences, are affected by the temporary nature of their work more than women with part-time work hours. On the contrary, among women with permanent contracts, part-timers are 30 per cent less likely to separate than full-timers. For part-timers the gains from staying in marriage are larger than they are for full-time permanent female employees. Finally, model 9c shows that cohabiting men with full-time temporary

employment have twice the more dissolution risk of their full-time permanent counterparts. This effect can be attributed to their insecure position in the labour market and the strains posed by this to their partnership.

TABLE 5.8c. WORK HOURS OF TEMPORARY EMPLOYEE AND PARTNERSHIP DISSOLUTION

	MARRIAGES		COHABITATIONS	
	MEN 9a	WOMEN 9b	MEN 9c	WOMEN 9d
REFERENCE CATEGORY: FULL TIME EMPLOYED WITH PERMANENT CONTRACT				
Full time & temporary contract	1.78	1.75*	1.98**	1.29
Part time &. permanent contract	1.46	0.67***	(dropped)	1.04
Part time &.temporary. contract	(dropped)	0.8	2.16	0.92
N of observation points	359825	532727	40752	58947
N of partnership	1983	2747	1291	1795
N of individuals	1734	2331	1014	1371
N of events	431	810	342	491
Mean obs. duration	207.5	228.5	40.5	43.3
Likelihood Ratio test of Rho = 0	ns	p<0.05	p<0.001	ns

Legend: * p<0.05; ** p<0.01; *** p<0.001; ns: not significant

Note: Unemployment rate, Number of years in marriage, Highest educational qualification, Cohort, Ethnicity, Premarital conception/childbirth, Presence of young children, Previous divorce, and Being a teenager at marriage time are also included in the model. The odds ratios for control variables are very similar to the values in Table 7, hence not reported here.

5.5b. Gendered impact of insecurity?

So far the analysis showed that unemployment experienced by either male or female spouse increased the risk of marital stability. It was also found that male temporary employees were more likely to separate from their cohabiting partners. Despite the rapid increase in female labour force participation men still earn a larger extent of household income, hence, their labour market stability might be related to marital stability to a greater extent. Hence, it is worth addressing the question of whether relationships are more vulnerable to male insecurity than they are to female insecurity.

Tables 5.9a and 5.9b show the interaction effect of insecure employment and gender. The results in Table 5.9a indicate that unemployment increases the likelihood of marital

PARTNERSHIP DISSOLUTION

dissolution (consistent with the previous findings), and men in the sample are less likely to separate from their wives. However, the interaction of unemployment with being male does not produce statistically significant odds ratios. Both male and female unemployment seem to be equally contributing to the risk of marital dissolution.

TABLE 5.9a. GENDER EFFECT OF UNEMPLOYMENT ON PARTNERSHIP DISSOLUTION

	MARRIAGES	COHABITATIONS
	10a	10b
Unemployed	1.75*	1.09
Men	0.86*	1.12
Unemployed*Men	0.98	1.09
N of observation points	728412	89878
N of partnership	4598	2892
N of individuals	4001	2279
N of events	1019	705
Mean obs. duration (Months)	158.41	31.07

Legend: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Note: Unemployment rate, Number of years in marriage, Highest educational qualification, Cohort, Ethnicity, Premarital conception/childbirth, Presence of young children, Previous divorce, and Being a teenager at marriage time are also included in the model. The odds ratios for control variables are very similar to the values in Table 5, hence not reported here. Only employed and unemployed observation points are included. Men are women pooled.

When men and women are pooled together the odds of cohabitational separation which was significant for male temporary workers become insignificant (Table 5.9b). The risk of marital dissolution among males again is slightly lower compared to women. There is no gender effect among the temporary employees in their likelihood for separating from their partners. It seems to be the case that, partnership stability among British couples is related to labour market insecurity in a gender-neutral way. Both male and female unemployment increases the risk of marital disruptions, yet, the separation risk of unemployed males is not statistically significant than the separation risk of unemployed females. Temporary work for males increases the risk of instability among cohabiting individuals; however, men in temporary jobs are not particularly more likely to separate

from their partners than do females in temporary jobs.

TABLE 5.9b. GENDER EFFECT OF TEMPORARY WORK ON PARTNERSHIP DISSOLUTION

	MARRIAGES	COHABITATIONS
	11a	11b
Temporary work	1.38	1.27
Men	0.92*	1.08
Temporary work*Men	1.07	1.45
N of observation points	630404	62953
N of partnership	4534	2461
N of individuals	3949	1998
N of events	819	446
Mean obs. duration (Months)	139.88	25.58

Legend: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Note: Unemployment rate, Number of years in marriage, Highest educational qualification, Cohort, Ethnicity, Premarital conception/childbirth, Presence of young children, Previous divorce, and Being a teenager at marriage time are also included in the model. The odds ratios for control variables are very similar to the values in Table 7, hence not reported here. Only employed observation points are included.

5.5c. Other determinants of men's and women's partnership dissolution

Various control variables which were argued to be related to partnership dissolution are also introduced to the models. The direction and significance of all control variables in the analysis are very stable therefore I will only refer to models 1a and 1b in table 5.5 to report the results. To start with marital dissolution, duration of relationship has a strong and positive effect. Time dummies show that men are more likely to separate from their partners each consecutive year after the first year, whereas for women there is an inverted U-shaped relationship between years in marriage and dissolution. The separation risk increases until the 5th year and then drops down gradually. Aggregate level unemployment rate is not related to dissolution of either marriage or cohabitation. There is no support for the idea that economic circumstances, measured as yearly unemployment rate, effects individuals' marital instability. Education qualification does not have any impact on the risk of separation. Men and women with different levels of

PARTNERSHIP DISSOLUTION

educational attainment do not differ in terms of likelihood of separating from their partners. There is a linear cohort effect, where the oldest cohort (1940-1949) is the least likely to separate. Individuals in this cohort are approximately 40 per cent less likely to separate which is followed by the middle cohort (1950-1959). Men in the middle cohort have 0.25 times, and women have 0.20 times less the odds of separation compared to the youngest cohort (1960-1985). With respect to ethnicity, it can be seen that black men and women, and women in the 'Chinese and others' category do not differ from their white counterparts in terms of separation risk. Indian/Pakistani/Bangladeshi individuals are remarkably less likely to separate from their partners whereas men in the 'Chinese and others' category are 80 per cent more likely to separate than whites. Other suggested determinants of partnership dissolution produced statistically significant and strong effects, too. As expected, premarital conception/childbirth is positively related with separation risk. Men and women who married in a 'shot-gun' manner or those who married after the birth of the child are approximately 65-70 per cent more likely to separate. Previous divorce is a strong predictor of marital separation. Men who have divorced before have 1,7 times more the odds of separation while the odds for divorced women is 1.8. Being a teenage bride is positively related to marital separation as well, however for men teenage marriages do not have any impact on partnership dissolution. Having a young child who is between the ages 0 and 3 has a preventive effect on separation. Young children not only require help and care from both of the parents but also are one of the marriage specific assets that increase the utilities gained from marriage. Parents of young children are therefore less likely to separate compared to childless individuals and those with older children.

Most of these control variables do not affect the timing of dissolution for cohabiters, but there are some striking outcomes (Table 5.5). One of them is women's educational achievement, which is positively related to risk of separation. Cohabiting women with highest educational qualification are 70 per cent more likely to separate from their partners compared to those with no qualification. The separation risk decreases gradually for women with medium and low level of education qualification, although the odds ratio for the low educated women is not statistically significant. Going back to the discussions on whether or not cohabitation is an adaptive strategy to cope with economic uncertainties, it could be argued that women with higher human capital are less likely to rely on cohabitation as a shield against economic hardship. Important determinants of cohabitational dissolution for men are ethnicity and age at the beginning of the relationship. Cohabiting black men are found to be twice more likely to separate as white men. Similarly those men who were teenagers at the beginning of partnership have higher dissolution risks. Another difference between the determinants of marital and cohabitational dissolution is the impact of the duration variable. Cohabiting men's separation risk is lower in the second year of partnership, and then the impact disappears until six years in the partnership when the risk gradually drops. For cohabiting women the duration effect kicks off only after the sixth year and then risk decreases gradually. This might be due to the fact that some individuals perceive cohabitation as an alternative to marriage. After the less committed partnerships dissolve, those who still remain partnered contribute to the model with longer durations.

5.5d. Couples' labour market insecurity and partnership dissolution

Unemployment: In this section the employment status of the partner is matched with the respondent and thus a joint employment status variable is created. Instead of individual

PARTNERSHIP DISSOLUTION

men and women, the models are run for couple-months with time-varying matched employment status as the main explanatory variable. Other matched couple demographics are also controlled for (see below). Table 5.9 presents the results for unemployment among married and cohabiting couples. As in the individual models, each model is lagged one month. The reference category is dual earner couples, where both he and she are in paid employment. To start with marriages, from the model 12a it can be seen that unemployed men, who have employed wives (he is unemployed and she is employed), have a great and statistically significant risk of marital separation. Couples composed of an unemployed husband and an employed wife are approximately six times more likely to separate than a dual earner couple. It is also worth noting that a similar effect is observed for inactive men who are partnered with employed women. These couples are approximately 2,5 times more likely to separate compared to the couples in the reference category. This is a strong indicator of the disruptive effect of inversed economic roles between the couples on the stability of marriages. When men fail to provide the principle source of income to the family and women perform the breadwinning role instead, the marriages are more likely to dissolve compared to dual earner couples.

TABLE 5.10. COUPLES' UNEMPLOYMENT AND PARTNERSHIP DISSOLUTION

	MARRIAGES	COHABITATIONS
	12a	12b
COUPLES' EMPLOYMENT STATUS: REF. CAT.: HE'S EMPLOYED & SHE'S EMPLOYED		
He is employed & She is unemployed	2.03	(dropped)
He is employed & She is Inactive	1.11	0.7
He is unemployed & She is employed	5.98***	(dropped)
He is unemployed & She is unemployed	(dropped)	(dropped)
He is unemployed & She is Inactive	1.12	1.37
He is Inactive & She is employed	2.51**	2
He is Inactive & She is unemployed	(dropped)	(dropped)
He is Inactive & She is Inactive	0.35	(dropped)
Unemployment rate	0.98	1.17*
Duration in log(months)	1.90***	2.18***
AGE DIFFERENCE: +-2 YEARS		
Man older	1.12	1.08
Women older	1.18	1.66
Premarital Conception/Childbirth (Yes)	2.08***	(NA)
Child younger than 4 years (Yes)	0.57**	0.94
Teenage bride	0.85	0.59
COHORT: 1960-1985 COHORT		
1940-1949 cohort	0.08***	0.05***
1950-1959 cohort	0.26***	0.37**
ETHNICITY: REF. CAT.: WHITE COUPLES		
Black couples	(dropped)	0.99
Indian/Pakis/Bang couples	0.24	0.23
Chinese and other couples	(dropped)	1.92
Mixed couples	3.60***	1.13
COUPLES' EDUCATION- REF CAT: BOTH FIRST DEGREE OR MORE		
Both A levels	1.09	1.52
Both O levels or CSE	1.08	3.37**
Both with no qualification	0.58	(dropped)
His education < Her education	1.06	(dropped)
His education > Her education	1.33	3.02
N of observation points	698160	43357
N of partnerships	2776	1083
N of individuals	2776	1074
N of events	227	61
Mean obs. Duration (months)	252.9	44.4
Likelihood Ratio test of Rho = 0	NA	NA

Legend: * p<0.05; ** p<0.01; *** p<0.001; NA: Not Applicable; d: dummy variable. (Frailty models do not converge)

PARTNERSHIP DISSOLUTION

Unfortunately due to small cell-sizes for female-unemployment and for multicollinearity it is not possible to assess whether or not dual-unemployment is related to marital separations. However it can be seen that female unemployment combined with male employment is not associated with an elevated risk of marital instability. The analyses indicate that it is male unemployment in married couples that increases the likelihood of separation.

The models for cohabiting couples do not yield any significant coefficient, partly because of the smaller sample sizes. Many of the joint employment categories with small cell sizes are dropped from the model as a result of multicollinearity. Since the partner effect of insecurity is also very interesting for the case of cohabitation, further longitudinal studies with larger samples are strongly recommended.

Temporary work: The same models are run this time by distinguishing the contract type of the employees and matching the couples by contract type and employment status (see Table 5.10). The reference category in these models is the couples where both of the partners work with permanent contracts. For married couples (model 13a) the general picture is consistent with the results from unemployment analysis, with some exceptions. When we look at unemployed and inactive men who are partnered with employed women, their chances of separation are greater than dual-permanent-contract couples. The coefficients for unemployed men married to women working on permanent-contract are found statistically significant, whereas the odds ratios for unemployed men married to women with temporary contracts are particularly large (11 times greater risk). It is safe to conclude that unemployed men who are partnered with women who work with either permanent or temporary contracts are at a larger risk of separation, which is in line with the reverse roles argument. A similar conclusion holds for inactive men married to

women with permanent contracts, who are approximately 3 times more likely to separate, but this is not the case for couples with inactive men and temporary-contract women.

We can imagine reversed roles also between men with temporary contracts who are married to women with permanent contracts, and expect higher separation risk for these couples. However, there is no significant risk of separation for them compared to dual-permanent-contract couples. It might be due to the fact that male temporary workers married to female permanent workers contribute to family budget substantially, even though they work with a fixed-term contract. Interestingly, male temporary employees whose wives are unemployed are approximately 15 times³⁶ more likely to separate compared to the couples in the reference category. Couples in this group are faced with severe labour market insecurity which is likely to cause heavy financial strain and stress to the relationship. (This argument could have been verified did the dual-temporary-contract couples produce similar odds ratios, however dual-temporary contract couples are dropped from the model due to multicollinearity).

As to cohabiting couples, Table 5.10 shows that, couples where one of the partners is in permanent work while the other is in temporary work' and 'he is in temporary work while she is inactive' have greater risk of separation compared to dual-permanent-contract couples. It is possible to suggest that both male and female temporary work has a positive effect on separation, and that those couples face a greater separation risk than dual-permanent-contract couples. However, due to lack of information for other partner combinations it is not possible to fully evaluate the effect of partners' contract type. Again, in order to study the relationship between temporary work and cohabitational dissolutions from a longitudinal perspective, larger samples are needed.

³⁶ The very large odds ratio is partly related to very small cell-size in this category.

PARTNERSHIP DISSOLUTION

TABLE 5.11. COUPLES' TEMPORARY WORK AND PARTNERSHIP DISSOLUTION

	MARRIAGES	COHABITATIONS
	13a	13b
EMPLOYMENT STATUS - REF CAT: HE'S PERMANENT & SHE'S PERMANENT		
He is Permanent & She is Temporary	1.54	4.38*
He is Permanent & She is Unemployed	1.75	(dropped)
He is Permanent & She is Inactive	1.06	0.59
He is Temporary & She is Permanent	1.1	3.94*
He is Temporary & She is Temporary	(dropped)	(dropped)
He is Temporary & She is Unemployed	14.65*	(dropped)
He is Temporary & She is Inactive	0.52	6.61**
He is Unemployed & She is Permanent	5.39***	(dropped)
He is Unemployed & She is Temporary	11.37***	(dropped)
He is Unemployed & She is Unemployed	(dropped)	(dropped)
He is Unemployed & She is Inactive	1.16	3.11
He is Inactive & She is Permanent	2.87**	(dropped)
He is Inactive & She is Temporary	2.68	(dropped)
He is Inactive & She is Unemployed	(dropped)	(dropped)
He is Inactive & She is Inactive	0.37	(dropped)
Unemployment rate	0.98	1.13
Duration log(months)	1.91***	2.40***
AGE DIFFERENCE: +-2 YEARS		
Man older	0.91	0.98
Women older	1.62	1.65
Premarital Conception/birth (d)	2.06***	(NA)
Child < 4 years (d)	0.56**	0.84
Teenage bride (d)	0.84	0.57
COHORT: 1960-1985 COHORT		
1940-1949 cohort	0.07***	0.03***
1950-1959 cohort	0.27***	0.42*
ETHNICITY: REF. CAT.: WHITE COUPLES		
Black couples	(dropped)	0.98
Indian/Pakis/Bang couples	0.22	0.27
Chinese and other couples	(dropped)	1.95
Mixed couples	3.33***	1.13
COUPLES' EDUCATION- REF CAT: BOTH FIRST DEGREE OR MORE		
Both A levels	1.1	1.33
Both O levels or CSE	1.13	0.22
Both with no qualification	0.63	2.49
His education < Her education	1.08	1.48
His education > Her education	1.35	1.93
N of observation points	687102	40340
N of partnerships	2776	1082
N of individuals	2776	1074
N of events	227	61
Mean obs. Duration (months)	252.9	36.8934
Likelihood Ratio test of Rho = 0	NA	NA

Legend: * p<0.05; ** p<0.01; *** p<0.001; d: dummies. (Frailty models do not converge)

5.5e. Other determinants of couples' partnership dissolution:

In couple models various control measures are introduced including those which aim at capturing the similarity of the partners with each other. The baseline hazard function is added in the model as the logarithm of the number of months since the beginning of the relationship and it reveals a positive, strong and statistically significant impact on couple's partnership dissolution. As the overall length of cohabitations in the sample is shorter, the duration effect is stronger for cohabiters. With respect to marriages, premarital conception/childbirth is again a strong predictor of separation and couples who became pregnant or had a child prior to marriage are twice more likely to separate. Presence of young children has a preventive effect, whereas the age of the bride at the beginning of the marriage is not significant in couple models. The cohort variable yields similar results as in the individual models; there is an increasing risk of separation for younger cohorts³⁷. In the literature it was argued that the more dissimilar the partners are, the higher the separation risk would be. In order to test this idea three similarity indicators are analysed; the age difference, ethnicity match, and educational similarity. Age difference and educational similarity do not seem to increase (nor decrease) the separation risk for married couples. However ethnically mixed couples are 3,6 times more likely to separate compared to white couples.

For cohabiting couples, in terms of demographic variables, neither presence of young children nor the age of the bride at the beginning of the relationship are related to separation. Age, ethnicity and educational differences are not significant either. It can be suggested that cohabiting couples are more liberal with respect to cross-ethnic unions.

³⁷ Due to the age differences, couples can fall into different cohorts within a partnership. Here the respondent's year of birth is used to construct the couple variable.

PARTNERSHIP DISSOLUTION

Only cohort seems to have an effect on cohabiting couple's partnership dissolution, with increasing risks for younger couples.

5.6. UNOBSERVED HETEROGENEITY AND RECURRENT EVENTS

There are three important issues revealed by the frailty models. First, unobserved heterogeneity is detected only for married women and cohabiting men in the unemployment and temporary work models. In other words, there are some individual-specific unobserved characteristics that affect the risk of recurrent partnership dissolutions for married women and cohabiting men, and these characteristics are controlled for in frailty models. The presence of such unobserved characteristics is not detected for married men and cohabiting women. Frailty models for couples do not converge; therefore it is not possible to assess whether or not and to what extent unobserved heterogeneity matters. Second, both 'no-frailty' and 'frailty' models produce very similar odds ratios and standard errors. In each pair of models, the odds ratios are either identical or the difference is at most 25 percentage points. Third, the only exception to the negligible change in odds ratios is the previous divorce variable.

To start with the first issue, even though the impact is small, the frailty models suggest that there are some unobserved factors that contribute to partnership dissolution of married women and cohabiting men. When these factors are controlled for the impact of unemployment falls around 4 per cent for married women. The impact of long term unemployment and higher educational degree increase slightly, however the odds ratios by work hours remain significant and stable. The unobserved characteristics might be related to women's labour force attachment and human capital. For cohabiting men, the impact of unemployment remains insignificant however the odds of dissolution after 12 months in unemployment become 0.25 points larger. Being out of labour force becomes a

greater and statistically more significant risk factor for cohabiting men's separation. Due to some unobserved factors, such as lack of commitment, some men might be more likely to stay in unemployment and have failed partnerships.

Secondly, even though unobserved heterogeneity *is* detected for women in the temporary work analysis, the coefficients from no-frailty and frailty models are almost identical. The effect of temporary work for cohabiting men decreases by 10 per cent. Once the unobserved factors are controlled for, in the first six months of the contract the dissolution risk gets larger whereas it gets smaller after two years in temporary employment. The impact of full-time temporary contracts also drops when a random error component is included in the model.

Finally, the only significant change across models is the odds ratio for previous divorce variable. In the marriage models with no random error component, previous divorce is a strong predictor of partnership dissolution. When an error term is introduced, the effect of previous divorce disappears. This might be related to the fact that some individuals are more likely to experience serial divorces, either due to selection or experiences throughout the relationship. Not only dissolved marriages themselves can be a result of self-selection, but it is possible to think that the psychological risks associated to separation and starting over decline with each separation.

5.7. CONCLUSION AND DISCUSSION

Previous research consistently indicated that male unemployment caused marital instability and there is also some evidence for female unemployment and divorce. In this chapter I re-examined this finding with more comprehensive work and family data and expanded the analysis to the issue of temporary work and partnership dissolution. By

PARTNERSHIP DISSOLUTION

conducting separate analysis for men and women in marital and cohabiting relations I examined the impact of each forms of labour market insecurity on separation. Most of the studies on this area modelled unemployment separate from partner's employment status. Only a few studies controlled for partner information (for example Blekesaune 2009) and their finding suggested that joint economic activity needed to be explored further. I performed a detailed analysis of couples' employment activities with dynamic variables and the results revealed that partners' employment s status could alter the impact of labour market insecurity significantly. When we are dealing with recurring events the durations of episodes coming from same individuals might be correlated due to some unobservable factors. In order to account for these factors I repeated two sets of analysis for each model, one ignoring unobserved heterogeneity and one accounting for it. The frailty models revealed that for women's marriages and men's cohabitations there were some unobserved characteristics effecting durations of episodes, however after controlling for unobserved heterogeneity the effect of unemployment and temporary work changed only marginally.

In the individual models I showed that both male and female unemployment had a negative impact on marital stability however it was not related to cohabitation outcome. This might be due to the differences in the nature of marital and cohabitational unions. The analysis further revealed that there was a temporal aspect to this relationship. Male unemployment triggers marital separations immediately, acting like a 'sudden shock', however female unemployment had an accumulated impact, leading to separation only after a year. Temporary work also has a destabilizing effect especially for men's partnership dissolution, irrespective of union type; however the effect is significant only for cohabiting women. The impact of temporary employment on marital separations is

rather long-term. It increases men's risk of marital dissolution in the second year and cohabitational dissolution after two years. This can be related both to the exhaustion of capacity to cope with insecurity, and to being trapped in precarious employment.

When I introduced joint economic activity into the models, instead of respondents' own work status, it became apparent that male unemployment does not cause instability in the partnership irrespective of the female partner's employment status. Unemployed men partnered with employed wives (either with permanent or temporary contract) had a large risk of separation, whereas such affect was not found for unemployed men partnered with inactive wives. This finding suggests that male unemployment can be detrimental to marital stability when it produces reversed roles between husband and wife. In the models where couples' matched contract type is used, it was showed that as long as the male works with permanent contract, her employment status did not affect the outcome of marriage. For economically less secure couples where one or both of the spouses are unemployed or work with temporary contract there was an elevated separation risk, compared to dual-permanent-workers.

This chapter is not without its shortcomings. Since the analyses are performed with life history data, the variables are restricted only to those available for the duration of partnerships (except for time constant variables such as sex and date of birth). For this reason some indicators which could have been relevant such as perceived job insecurity, financial strain, and satisfaction from partnership are excluded. I restricted the sample for those respondents with complete life histories and to relatively younger cohorts in order to avoid recall error as much as possible. However, some short spells which took place a long time ago could still be misreported or omitted, thereby being underrepresented alongside longer and more recent spells. Finally, due to a detailed categorization of joint

PARTNERSHIP DISSOLUTION

partner employment activity, some cells ended up having small sizes and caused multicollinearity. Especially in couple cohabitation models, some categories were dropped out from the models and their effect on partnership dissolution remained unspecified.

References (5):

- Amato, Paul R. 1996. "Explaining the intergenerational transmission of divorce." *Journal of Marriage and the Family* 58:628-40.
- Axinn, William G., and Arland Thornton. 1992. "The relationship between cohabitation and divorce: selectivity or causal influence?" *Demography* 29:357-74.
- Becker, Gery S. 1981. *A treatise on the family*. Cambridge: Harvard University Press.
- Becker, Gary S., Elisabeth M. Landes, and Robert T. Michael. 1977. "An Economic Analysis of Marital Instability." Pp. 1141 in *Journal of political economy*: University of Chicago Press.
- Bennett, Neil G., Ann Klimas Blanc, and David E. Bloom. 1988. "Commitment and the modern union; Assessing the link between premarital cohabitation and subsequent marital stability." *American Sociological Review* 53:127-38.
- Berrington, Ann, and Ian Diamond. 1997. "Marital Dissolution among the 1958 British Birth Cohort: The Role of Cohabitation." *Population Studies* 53(1):19-38.
- Bittman, Michael, Paula England, Nancy Folbre, Liana Sayer, and George Matheson. 2003. "When Does Gender Trump Money? Bargaining and Time in Household Work." Pp. 186-214 in *American Journal of Sociology*.
- Blekesaune, Morten. 2009. Unemployment and partnership dissolution. Chapter 12, pp 202-216, in Brynin M and J Ermisch (eds.) "Changing relationships." Routledge Advances in Sociology 45, Oxen, UK: Routledge.
- Blood, Robert O., and Donald M. Wolfe. 1960. *Husbands and wives: The dynamics of family living*. New York: The Free Press.
- Booth, Alan, and John N. Edwards. 1985. "Age at marriage and marital instability." *Journal of Marriage and the Family* 47(67-75).
- Bracher, Michael, Gigi Santow, S. Philip Morgan, and James Trussell. 1993. "Marriage dissolution in Australia: Models and explanations." *Population Studies* 47:403-25.
- Brenner, Sten-Olof, and Lennart Levi. 1987. "Long-term unemployment among women in Sweden." *Social Science & Medicine* 25(2):153-61.
- Brines, Julie. 1994. "Economic Dependency, Gender, and the Division of Labor at Home." *American Journal of Sociology* 100(3):652-88.
- Bumpass, Larry L., Teresa Castro Martin, and James A. Sweet. 1991. "The impact of family background and early marital factors on marital disruption." *Journal of Family Issues* 12:22-42.
- Bumpass, Larry L., and James A. Sweet. 1972. "Differentials in marital instability:1970." *American Sociological Review* 37:754-66.
- Burchell, Brendan. 1994. "Who is affected by Unemployment? Job insecurity and Labour Market influences on Psychological Health." in *Social Change and the experience of Unemployment*, edited by Duncan Gallie, Catherine Marsh, and Carolyn Vogler. Oxford: Oxford University Press.
- Burchell, Brendan. 1997. "Job security and psychological well-being: preliminary analyses of the British Household Panel Survey." in *JRF Work and Opportunity Workshop, 16-17 October*.
- Burchell, Brendan. 2011. "A Temporal Comparison of the Effects of Unemployment and Job Insecurity on Wellbeing." *Sociological Research Online* 16(1)9.
- Burgard, Sarah A., Jennie E. Brand, and James S. House. 2009. "Perceived job insecurity and

PARTNERSHIP DISSOLUTION

- worker health in the United States." *Social Science & Medicine* 69(5):777-85.
- Clarke, Lynda , and Ann Berrington. 1999. "Socio-demographic predictors of divorce." in *High Divorce Rates: the state of the evidence on reasons and remedies*, edited by Lord Chancellor's Department Research Report Series 2/99 1(1).
- Dekker, Sydney WA, and Wilmar B. Schaufeli. 1995. "The Effects of Job Insecurity on Psychological Health and Withdrawal: A Longitudinal Study." *Australian Psychologist* 30(1):57-63.
- DeMaris, Alfred , and William MacDonald. 1993. "Premarital cohabitation and marital instability: A test of the unconventionality hypothesis." *Journal of Marriage and the Family* 54:178-90.
- Dooley, David, Jonathan Fielding, and Lennart Levi. 1996. "Health and Unemployment." *Annual Review of Public Health* 17:449-65.
- Farber, Henry S. 1999. "Alternative and Part-Time Employment Arrangements as a Response to Job Loss." *Journal of Labor Economics* 17(4-2):S142-S69.
- Ferree, Myra Marx. 1990. "Beyond Separate Spheres: Feminism and Family Research." *Journal of Marriage and the Family* 52(4):866-84.
- Gallie, Duncan. 1991. "Social Change and Economic Life Initiative Surveys, 1986-1987: User Guide, Volume 3." Colchester: ESRC Data Archive.
- Gallie, Duncan, Jonathan Gershuny, and Carolyn M. Volger. 1994. "Unemployment, the Household, and Networks." in *Social change and the experience of unemployment*, edited by Duncan Gallie, Catherine Marsh, and Carolyn M. Vogler. Oxford: Oxford University Press.
- Glenn, Norval D., and Kathryn B. Kramer. 1987. "The marriages and divorces of children of divorce." *Journal of Marriage and the Family* 49:811-25.
- Goode, William J. 1966. "Family disorganisation." in *Contemporary Social Problems*, edited by Robert K. Merton and Robert A. Nisbet. Harcourt: Brace and World.
- Greenstein, Theodore N. 1996. "Gender Ideology and Perceptions of the Fairness of the Division of Household Labour: Effects on Marital Quality." Pp. 1029-42 in *Social Forces*: University of North Carolina Press.
- Greenstein, Theodore N. 2000. "Economic dependence, gender, and the division of labour in the home: A replication and extension." *Journal of Marriage and the Family* 62:322-35.
- Gupta, Sanjiv. 1999. "The Effects of Transitions in Marital Status on Men's Performance of Housework." *Journal of Marriage and the Family* 61(3):700-11.
- Hansen, Hans-Tore. 2005. "Unemployment and Marital Dissolution: A Panel Data Study of Norway." *European Sociological Review* 21(2):135-48.
- Haskey, John. 1992. "Pre-marital cohabitation and the probability of subsequent divorce: analyses using new data from the General Household Survey." *Population Trends* 68:10-19.
- Haskey, John. 1996. "The proportion of married couples who divorce: past patterns and current prospects." *Population Trends* 83:25-36.
- Heaney, Catherine A., Barbara A. Israel, and James S. House. 1994. "Chronic job insecurity among automobile workers: Effects on job satisfaction and health " *Social Science & Medicine* 38(10):1431-37.
- Inanc, Hande. 2010. "Labour Market Insecurity and Family Relationships." in *EQUALSOC State-of-the-Art Report*.
- Jackson, Paul R., and Peter B. Warr. 1984. "Unemployment and psychological ill-health: the moderating role of duration and age." *Psychological Medicine* 14:605-14.

- Jahoda, Marie. 1982. *Employment and Unemployment. A Social-Psychological Analysis*. Cambridge: Cambridge University Press.
- Jalovaara, Marika. 2003. "The Joint Effects of Marriage Partners' Socioeconomic Positions on the Risk of Divorce " *Demography* 40(1):67-81.
- Jensen, Peter, and Nina Smith. 1990. "Unemployment and marital dissolution." *Journal of Population Economics* 3:215-29.
- Kanter, Rosabeth Moss. 1977. *Work and Family in the United States: A Critical Review and Agenda for Research and Policy*. New York: Russell Sage Foundation.
- Kiernan, Kathleen. 1997. "The Legacy Of Parental Divorce: Social, Economic and Demographic Experiences in Adulthood." in *Centre for Analysis of Social Exclusion discussion paper no. 1. London School of Economics*.
- Lampard, Richard. 1994. "An examination of the relationship between marital dissolution and unemployment." in *Social change and the experience of unemployment*, edited by Duncan Gallie, Catherine Marsh, and Carolyn M. Vogler. Oxford: Oxford University Press.
- Lazarus, Richard S., and Susan Folkman. 1984. *Stress Appraisal and Coping*. New York: Springer.
- Levinger, George. 1976. "A social psychological perspective on marital dissolution." *Journal of Social Issues* 32:21-42.
- Maier, Richard, Andrea Egger, Alfred Barth, Robert Winker, Wolf Osterode, Michael Kundi, Christian Wolf, and Hugo Ruediger. 2006. "Effects of short- and long-term unemployment on physical work capacity and on serum cortisol " *International Archives of Occupational and Environmental Health* 79:193-98.
- Maré, David C. 2006. "Constructing Consistent Work-life Histories: A guide for users of the British Household Panel Survey." in *ISER Working Paper Number 2006-39*. Colchester.
- Marsh, Alan, and Jane Perry. 2003. "Family change 1999 to 2001." edited by Department for Work and Pensions.
- McLanahan, Sara , and Larry L. Bumpass. 1988. "Intergenerational consequences of family disruption." *American Journal of Sociology*, 94:130-52.
- Morgan , Philip S, and Ronald R. Rindfuss. 1985. "Marital disruption: Structural and temporal dimensions." *American Journal of Sociology*, 90:1055-77.
- Nordenmark, Mikael. 1999. "Employment Commitment and Psychological Well-being among Unemployed Men and Women." *Acta Sociologica* 42(135):135-46.
- Nordenmark, Mikael, and Mattias Strandh. 1999. "Towards a Sociological Understanding of Mental Well-Being Among the Unemployed: The Role of Economic and Psychosocial Factors." *Sociology* 1999(33):577-97.
- Oppenheimer, Valerie Kincade. 1988. "A theory of marriage timing." *the American Journal of Sociology* 94(3):563-91.
- Oppenheimer, Valerie Kincade. 1994. "Women's Rising Employment and the Future of the Family in Industrial Societies." *Population and Development Review* 20(2):293-342.
- Pope, Hallowell, and Charles W. Mueller. 1976. "The intergenerational transmission of marital instability: Comparisons by race and sex." *Journal of Social Issues* 32:49-66.
- Pronzato, Chiara. 2008. "BHPS Family File." edited by U. o. E. Institute for Social and Economic Research; distributed by The Data Archive, Colchester.
- Rindfuss, Ronald, and Audrey Van den Heuvel. 1990. "Cohabitation: A Precursor to Marriage or an Alternative to Being Single." *Population and Development Review* 16(4):703-26.
- Rook, Karen, David Dooley, and Ralph Catalano. 1991. "Stress transmission: The effects of husbands' job stressors on the emotional health of their wives." *Journal of Marriage and*

PARTNERSHIP DISSOLUTION

- the Family* 53(1):165-77.
- Ross, Heather L., and Isabel V. Sawhill. 1975. *Time of Transition: The Growth of Families Headed by Women*. Washington D.C.: The Urban Institute.
- Scherer, Stefani. 2009. "The Social Consequences of Insecure Jobs " *Social Indicators Research* 93:527:47.
- South, Scott. 1995. "Do you need to shop around? Age at marriage, spousal alternatives and marital dissolution" *Journal of Family Issues* 16:432-49.
- South, Scott, and Glenna Spitze. 1986. "Determinants of Divorce over the Marital Life Course." *American Sociological Review* 51(4):583-90.
- Starkey, James L. 1996. "Race Differences in the Effect of Unemployment on Marital Instability: A Socioeconomic Analysis." *Journal of Socio-Economics* 25(6):683.
- Teachman, Jay D. 1983. "Early marriage, premarital fertility, and marital dissolution: Results for Blacks and Whites." *Journal of Family Issues* 4:105-26.
- Thomson, Elizabeth, and Ugo Colella. 1992. "Cohabitation and marital stability: Quality or commitment?" *Journal of Marriage and the Family* 54:259-67.
- Vinokur, Amiram D., Richard H. Price, and Robert D. Caplan. 1996. "Hard Times and Hurtful Partners: How Financial Strain Affects Depression and Relationship Satisfaction of Unemployed Persons and Their Spouses." Pp. 166-79 in *Journal of Personality & Social Psychology*.
- Voydanoff, Patricia, and Brenda W. Donnelly. 1988. "Economic Distress, Family Coping, and Quality of Family Life." in *Families and Economic Distress: Coping Strategies and Social Policy*, edited by Patricia Voydanoff and Linda C. Majka. Newbury Park, CA: Sage.
- Warr, Peter. 1987. *Work, Unemployment, and Mental Health*. Oxford: Clarendon Press.
- West, Candace, and Don H. Zimmerman. 1987. "Doing Gender " *Gender and Society* 1(2):125-51.
- Wiens-Tuers, Barbara A., and Elizabeth T. Hill. 2002. "How Did We Get Here from There? Movement into Temporary Employment." *Journal of Economic Issues* 36(2):303-11.

APPENDIX B - SUMMERY RESULTS
PARTNERSHIP DISSOLUTION * MAN AND WOMEN * MAIN VARIABLES

	Ref. category	MARITAL DISSOLUTION		COHABITATIONAL SPLIT UP	
		MEN	WOMEN	MEN	WOMEN
UNEMPLOYMENT					
Unemployed	<i>Employed</i>	(+)*	(+)*	No effect	No effect
OLF	<i>Employed</i>	No effect	(-)*	(+)*	(+)**
Student	<i>Employed</i>	No effect	No effect	No effect	No effect
1 st -3 rd months	<i>Employed</i>	(+)**	No effect	No effect	No effect
4 th - 12 th months	<i>Employed</i>	No effect	No effect	No effect	No effect
After the 12 th month	<i>Employed</i>	No effect	(+)*	No effect	No effect
Low skilled*employed	<i>High skilled*emp.</i>	No effect	No effect	No effect	No effect
Medium skilled*employed	<i>High skilled*emp.</i>	No effect	No effect	No effect	No effect
High education*unemployed	<i>Employed</i>	(+)*	No effect	No effect	No effect
Medium education*unemployed	<i>Employed</i>	(+)**	No effect	No effect	No effect
Low education*unemployed	<i>Employed</i>	No effect	No effect	No effect	No effect
No education*unemployed	<i>Employed</i>	No effect	No effect	No effect	No effect
TEMPORARY WORK					
Temporary work	<i>Permanent work</i>	No effect	No effect	(+)**	(+)*
Unemployed	<i>Permanent work</i>	(+)*	(+)*	No effect	No effect
Inactive	<i>Permanent work</i>	No effect	No effect	(+)**	(+)**
1 st - 6 th months	<i>Permanent work</i>	No effect	No effect	No effect	No effect
7 th - 12 th months	<i>Permanent work</i>	No effect	No effect	No effect	No effect
13 th - 24 th months	<i>Permanent work</i>	(+)**	No effect	No effect	No effect
After 24 months	<i>Permanent work</i>	No effect	No effect	(+)**	No effect
Medium skilled*temporary	<i>High skilled*temp.</i>	No effect	No effect	No effect	No effect
Low skilled*temporary	<i>High skilled*temp.</i>	No effect	No effect	No effect	No effect
Permanent work	<i>High skilled*temp.</i>	No effect	No effect	No effect	No effect
High education*temporary	<i>Permanent work</i>	dropped	No effect	No effect	No effect
Medium education*temporary	<i>Permanent work</i>	No effect	No effect	No effect	No effect
Low education*temporary	<i>Permanent work</i>	No effect	No effect	(+)*	No effect
No education*temporary	<i>Permanent work</i>	(+)**	No effect	No effect	No effect
Full time temporary	<i>Full time</i>	No effect	(+)*	(+)**	No effect
Part time permanent	<i>Full time</i>	No effect	(-)***	dropped	No effect
Part time temporary	<i>Full time</i>	dropped	No effect	No effect	No effect

PARTNERSHIP DISSOLUTION

APPENDIX C - SUMMERY RESULTS PARTNERSHIP DISSOLUTION * MEN AND WOMEN * CONTROL VARIABLES

	Ref. category	MARITAL DISSOLUTION		COHABITATIONAL SPLIT UP	
		MEN	WOMEN	MEN	WOMEN
2+ years	<i>1 year</i>	(+)	(+)	(-)	(-)
Unemployment rate	<i>NA</i>	No effect	No effect	No effect	No effect
High education	<i>No qualif.</i>	No effect	No effect	No effect	(+)**
Medium	<i>No qualif.</i>	No effect	No effect	No effect	(+)*
Low	<i>No qualif.</i>	No effect	No effect	No effect	No effect
1940-1949 cohort	<i>1960-1985</i>	(-)***	(-)***	No effect	No effect
1950-1959 cohort	<i>1960-1985</i>	(-)**	(-)*	No effect	No effect
Black	<i>White ethnicity</i>	No effect	No effect	(+)*	No effect
Indian/Pakistani/Bangladeshi	<i>White ethnicity</i>	(-)*	(-)*	No effect	No effect
Other	<i>White ethnicity</i>	(+)*	No effect	No effect	No effect
Premarital Conception/Birth	<i>No</i>	(+)***	(+)***	N/A	N/A
Young child (<4)	<i>No</i>	(-)***	(-)***	No effect	No effect
Previous divorce	<i>No</i>	(+)**	(+)***	No effect	No effect
Teenager at the time of union	<i>No</i>	No effect	(+)***	(+)*	No effect

APPENDIX D - SUMMERY RESULTS
 PARTNERSHIP DISSOLUTION * COUPLES * MAIN VARIABLES

	Ref. Category	MARITAL	COHABITATIONAL
		DISSOLUTION	SPLIT UP
UNEMPLOYMENT			
He's employed & She's unemp.	<i>Both employed</i>	No effect	dropped
He's employed & She's OLF	<i>Both employed</i>	No effect	No effect
He's unemp. & She's employed	<i>Both employed</i>	(+)***	dropped
He's unemp. & She's unemp	<i>Both employed</i>	dropped	dropped
He's unemployed & She's OLF	<i>Both employed</i>	No effect	No effect
He's OLF & She's employed	<i>Both employed</i>	(+)**	No effect
He's OLF & She's unemployed	<i>Both employed</i>	dropped	dropped
He's OLF & She's OLF	<i>Both employed</i>	No effect	dropped
TEMPORARY WORK			
He's Perm & She's Temp	<i>Both perm. work</i>	No effect	(+)*
He's Perm & She's Unemp	<i>Both perm. work</i>	No effect	dropped
He's Perm & She's OLF	<i>Both perm. work</i>	No effect	No effect
He's Temp & She's Perm	<i>Both perm. work</i>	No effect	(+)*
He's Temp & She's Temp	<i>Both perm. work</i>	dropped	dropped
He's Temp & She's Unemp	<i>Both perm. work</i>	(+)*	dropped
He's Temp & She's OLF	<i>Both perm. work</i>	No effect	(+)**
He's Unemp & She's Permanent	<i>Both perm. work</i>	(+)***	dropped
He's Unemp & She's Temporary	<i>Both perm. work</i>	(+)***	dropped
He's Unemp & She's Unemp	<i>Both perm. work</i>	dropped	dropped
He's Unemp & She's OLF	<i>Both perm. work</i>	No effect	No effect
He's OLF & She's Perm	<i>Both perm. work</i>	(+)**	dropped
He's OLF & She's Temp	<i>Both perm. work</i>	No effect	dropped
He's OLF & She's Unemp	<i>Both perm. work</i>	dropped	dropped
He's OLF & She's OLF	<i>Both perm. work</i>	No effect	dropped

PARTNERSHIP DISSOLUTION

APPENDIX E - SUMMERY RESULTS PARTNERSHIP DISSOLUTION * COUPLES * CONTROL VARIABLES

	Ref. Category	MARITAL	COHABITATIONAL
		DISSOLUTION	SPLIT UP
		UNEMPLOYMENT	
Unemployment rate	<i>NA</i>	No effect	(+)*
Log(Duration)	<i>NA</i>	(+)***	(+)***
Man older than woman	(+)/(-) 2 years	No effect	No effect
Woman older than man	(+)/(-) 2 years	No effect	No effect
Premarital Conception/Birth	<i>No</i>	(+)***	NA
Young child (<4)	<i>No</i>	(-)**	No effect
Teenager at the time of union	<i>No</i>	No effect	No effect
1940-1949 cohort	<i>1960-1985 cohort</i>	(-)***	(-)***
1950-1959 cohort	<i>1960-1985 cohort</i>	(-)***	(-)**
Black couples	<i>White couples</i>	dropped	No effect
Indian/Pak/Bang couples	<i>White couples</i>	No effect	No effect
Chinese and other couples	<i>White couples</i>	dropped	No effect
Mixes couples	<i>White couples</i>	(+)***	No effect
Both with A levels	<i>Both >= first degree</i>	No effect	No effect
Both with O levels or CSE	<i>Both >= first degree</i>	No effect	(+)**
Both with no qualifications	<i>Both >= first degree</i>	No effect	No effect
His educ. > Her educ.	<i>Both >= first degree</i>	No effect	No effect
Her educ. < His educ.	<i>Both >= first degree</i>	No effect	No effect

6

CONCLUSION

This thesis provides a systematic and extensive analysis of labour market insecurity and its link to family relationships in Great Britain. In the last three decades, British employment relations went through a significant transformation. With the deregularization of the economy starting in the late 1970s, there has been a weakening of employment protection. This gave rise to record levels of unemployment, increased volatility in entry to and exit from the labour market, as well as a shift towards non-standard forms of employment and away from full-time permanent careers. Increased risk of unemployment and rising share of atypical jobs resulted in the intensification of a feeling of insecurity in the British workforce. As in the rest of industrial societies, family life and gender relations in the UK also transformed during the last four decades. The age at marriage and first parenthood rose significantly. The share of cohabitations as a first partnership also increased. More and more children were born outside of legal marriages. Divorce became more common. There has been an upward trend in the share of dual-earner and dual-career couples. These transformations drew researchers' attention to the changing relationship between work and family over the life course.

This thesis investigated the extent to which insecurity in the labour market influences family outcomes in the UK. Its objective was to illuminate four general issues. (1) How similar or different are the effects of unemployment and temporary work on family outcomes? (2) Are women's family outcomes affected by insecurity to a greater or a lesser extent than men's? (3) Does partner's labour market status affect the impact of an

CONCLUSION

individuals' insecurity on their family outcomes? In particular, what are the implications of joint insecurity within couples? (4) Does insecurity affect marriages and cohabitations in a similar way? In this final chapter, I first summarize the findings from each empirical chapter in Section 6.1. Then, in Section 6.2 I discuss to what extent this thesis provides an answer to the four general issues discussed above. Limitations of this work and avenues for further research are considered in Section 6.3

6.1. MAIN FINDINGS

6.1a. Partnership Formation

The second chapter revealed that labour market insecurity had a significant effect on young individuals' partnership formation process. It was found that unemployment and temporary work were substantial obstacles to men's transition into first marriages. Men are about 30 per cent less likely to marry when they are unemployed or working in temporary work, compared to being in (permanent) employment. Similarly, among unemployed adults men delay partnership formation to a greater extent than do women. Women's partnership formation process is affected by whether or not they have an experience in temporary employment. Unemployed women do not differ from employed ones in terms of the timing of partnership formation; however, those who have temporary work spells in their careers postpone transition into partnered lives. Moreover, among temporary workers women are more likely to postpone marriage, meaning that they are more vulnerable than men to insecurity which arises from non-permanent employment.

Among unemployed men, those who have been jobless for at least a year in particular have delayed entry into marriage. Long-term unemployment is related to an interruption in human capital accumulation, with a drop in future wages and an increase in the risk of

future unemployment. For this reason, unemployment spells which last at least a year pose serious uncertainty when it comes to young men's life course, therefore causing a delay in their marriages. On the other hand, women have a higher likelihood to marry during the first 6 months of unemployment. When they face unemployment, some women may prefer to reduce the insecurity they face in the labour market by marrying. Those who remain single have longer spells of unemployment as they keep searching for a job. While the duration of unemployment has different implications for men's and women's marriage timing, there is no such duration effect of temporary employment on timing of partnership formation.

Educational level does not affect the likelihood of men postponing partnership formation. However, among unemployed women those with no education are twice as likely to marry compared to those with some education. Women's partnership formation behaviour in times of insecurity varies depending on where they stand on the educational ladder. Among temporary workers, low education or low skill does not have a significant influence on partnership timing. This being said, women whose work situation involves double precariousness, namely those working on temporary contracts with part-time hours, are particularly vulnerable. They are almost 95 per cent less likely to start a cohabiting union compared to women who work full-time hours on temporary contracts.

This chapter provides support for the relationship between labour market integration and the partnership formation of young adults. When they are experiencing labour market insecurity, young individuals tend to delay long-term binding decisions regarding marital life. Unemployment for men and temporary work for women are the main sources of uncertainty for those who are single.

6.1b. Transition into Parenthood

The third chapter investigated the relationship between insecurity and timing of having a first child among individuals in their reproductive years and in partnerships. The analysis revealed a strong association between male unemployment and early fatherhood. Early fatherhood is found among young, single and cohabiting unemployed men. Young, non-married unemployed men are more likely to have their first child than their employed counterparts, which is in line with the theory of out-of-wedlock fatherhood discussed in Chapter Three. As is also found in chapter two, poor employment opportunities discourage young men from marriage. When unemployed men are surrounded by women onto whom they can shift the cost of childbearing, they become fathers.

There is also a relationship between the experience of unemployment and transition into motherhood. However, this is only the case when the analysis follows women starting from the age of 14. Unemployed women who are in a cohabiting or marital partnership are not more likely to become mothers than employed ones. Therefore, unemployment and motherhood is concentrated among single women. Unemployed women's early fertility behaviour can be seen as a strategy to reduce uncertainty which they face in their work careers. This is the case especially for unemployed women with no educational qualifications. Women for whom a stable career in paid work is unavailable tend to consolidate their parent role.

Temporary work does not have any direct effect on individuals' transition into parenthood. Among temporary workers, there is variation in the timing of parenthood depending on the educational qualification of the respondent. Male temporary employees who have completed at least their 1st Degree delay transition into fatherhood; however, both male and female non-permanent contract holders with no educational qualifications

become parents sooner. This can be related to whether temporary jobs are stepping stones for secure jobs or dead end jobs. For the highly educated male workers, it seems to be the case that temporary work is a stepping stone with which they expect to eventually settle on a secure career. These men delay having a child until they secure a job in the primary market. On the contrary, for unqualified temporary workers non-permanent employment may signify entrapment. Since they cannot see a way out until when they can postpone becoming a parent, they may prefer to focus their life plans on the family domain.

This chapter also examined couples' timing of transition into parenthood by using partners' matched work histories. The analyses showed that when the female spouse is out of the labour force, the couple is more likely to become parents. Female inactivity is a very strong predictor for the timing of couples' parenthood for couples. Conversely, role reversal is a delaying factor of parenthood; couples with an unemployed male spouse and an employed female spouse are less likely to become parents compared to dual-wage earners.

6.1c. Well-being within Family

The fourth chapter of this thesis concentrated on the well-being of individuals in partnerships and analysed how coupled men's and women's well-being is affected by transitions into unemployment and temporary work. Well-being within family is defined in a broad way to include partnership satisfaction, life satisfaction, psychological well-being and vulnerability to depression. The results showed that there is a drop in well-being outcomes when respondents switch from permanent employment to unemployment. Especially married men's well-being remains poor even after one year in unemployment, which suggests that married men do not get better at coping with the deteriorating effect

CONCLUSION

of joblessness. For cohabiting individuals, the negative impact of joblessness diminishes after a year. As to temporary employment, the analysis showed that there is no deteriorating effect when it comes to this type of work. On the contrary, there is a slight improvement in married women's well-being upon switching to temporary employment. The positive effect is significant after controlling for many important factors which could affect women's well-being, such as financial difficulty or motherhood status. Hence, the positive impact of temporary work can be attributed to a possible flexibility that non-permanent jobs give married women.

Some groups in particular suffer from the negative externalities of insecurity in the labour market. For example, among unemployed women those who do not have social support experience a sharper drop in their well-being compared to those who do have support. Among temporary employees, those who expressed subjective insecurity and those who are low-skilled also suffer from insecurity to a greater extent.

The labour market activity of one spouse within a household does have an influence on the well-being of the other. The insecurity experienced by one of the spouses can cause stress on the other spouse, either directly or indirectly. The analyses which predicted the well-being outcomes depending on partners' labour market status indicate that there is a crossover effect between spousal insecurity and an individual's own well-being. The effect is a direct one for men whose wives are unemployed. Regardless of wife's well-being, the unemployment of wives hampers the well-being of husbands. However, there's an indirect negative effect of wives' temporary employment on husbands' well-being. Only when wives' well-being is controlled for does the negative effect for men appear. Wives' well-being is directly related to male labour market insecurity, and there is a strong negative impact of husbands' insecurity on wives' well-being.

Insecurity may be more damaging for well-being when it is concentrated in couples. This chapter also examined the consequences of dual-insecurity in partnerships. Dual-insecure couples display poorer well-being outcomes compared to dual-permanently employed couples. However, contrary to expectations it is the combination of male insecurity with a female spouse in permanent employment that has the largest negative impact on men's well-being. It seems to be the case that men's well-being is undermined to a larger extent as a result of role reversal, compared to joint partner insecurity.

6.1d. Partnership Dissolution

The fifth chapter focussed on partnership stability and analysed the risk of separation depending on the experience of insecurity throughout partnership. Unemployment is a risk factor of separation for married couples. Both male and female unemployment are associated with the ending of marriages, but joblessness does not lead to cohabitational dissolution. Temporary work is also related to an increased risk of separation. Male temporary employees are more likely to separate from their cohabiting partners, compared to permanent employees.

The relationship between unemployment and marital instability can be attributed to a substantial drop in married individuals' well-being as a result of unemployment, which is found in chapter four. However, switching to temporary work is not associated with a poorer well-being outcome. Hence, it is not possible to link non-permanent employment and men's cohabitational separations through psychological stress.

Male unemployment triggers separation fairly quickly. Men are the most likely to separate from their wives within the first three months of joblessness. On the contrary,

CONCLUSION

female unemployment becomes a threat to marital stability only after a year. Male unemployment has a sudden shock effect on marriages, whereas female unemployment is characterized by an accumulated risk of separation.

Couple dynamics are also analysed in chapter five, which indicates that role reversal is a strong predictor of partnership instability. Unemployed men as well as inactive men who are married to employed women are more likely to separate compared to dual-earners. When men are not able to perform, the male breadwinner role marriages come under great pressure. The impact of temporary work on married couples is based on experiencing joint partner insecurity. When one of the spouses is a temporary worker while the other is unemployed, they have a large risk of separating.

6.2. KEY ISSUES

6.2a. Insecure work paths: Unemployment vs. Temporary Work?

Due to the changes in employment relations in the last decades, it has been argued that temporary employment has become a significant source of insecurity in the labour market. Moreover, it is argued that anticipation of job loss can be as stressful as unemployment itself. Therefore, temporary workers may be as vulnerable as the unemployed to the impact of insecurity. This thesis aimed at addressing this issue and investigated the extent to which the family outcomes of individuals are influenced by unemployment and temporary work. The effects of these two forms of labour market insecurity on different family outcomes, which are spread over the life course, were analysed. The results show that unemployment has a clear influence over all family transitions and well-being outcomes concerned. Temporary work does not have a direct

impact on parenthood timing and men's well-being; however, some types of temporary employees seem to be more vulnerable than others.

Unemployment is associated with a delayed entry into marriage, an increased risk of transition into parenthood, poorer well-being and a greater risk of marital dissolution. The effect is particularly strong for males. Unemployed men form their first marital partnerships later than employed men. Most notably long-term unemployment which lasts at least a year causes a significant postponement in men's partnership formation. Conversely, among young and non-married men those who have been unemployed are more likely to become fathers compared to employed men in the same group. Unemployment in the UK seems to discourage young men from forming marital unions, yet encourages them to father children 'out of wedlock'. It has severe negative externalities for partnered men's well-being and life satisfaction. Similarly, wives of unemployed men also suffer from poorer well-being and lower levels of life satisfaction. Unemployment increases the likelihood of marital separation. In short, the experience of joblessness may significantly alter individuals' family outcomes at every stage of life.

Temporary work is not consistently associated in a negative way with the family outcomes considered in this thesis. For men, the experience of temporary work causes a delay in partnership formation, a decline in their wives' well-being and a decrease in the stability of cohabiting partnerships. Women in temporary work, like men, delay partnership formation. However, unlike men, married women's well-being is better off when they are working on a temporary basis rather than on a permanent one. This may be related to the rather flexible nature of temporary jobs that married women do, which facilitates balancing work and family life.

CONCLUSION

Although temporary employment does not have a direct effect on transition into parenthood, it does have an effect when it is disaggregated by education level. Temporary workers with a 1st Degree or Higher Degree postpone parenthood, while those who have no qualifications become parents earlier, when compared to permanent employees. Similarly, among men temporary jobs in general do not cause a decline in their level of well-being. However, when subjective insecurity and skill-level are taken into account, the adverse impact emerges. Among male temporary employees, those who report lower levels of subjective job security and those with lower skills are more likely to report lower levels of well-being and life-satisfaction. It seems that, when temporary contracts are treated as a homogeneous category, they do not have an apparent impact on some family outcomes. However, when temporary employment is combined with other factors creating vulnerability it does affect family outcomes.

The experience of unemployment and working on a temporary basis are two distinct forms of labour market insecurity. They both lack career-long secure employment prospects and entail a sense of insecurity. However, they differ from one another in their nature. Unemployed individuals usually face financial difficulties, lack networking and training opportunities, undergo time-consuming job search processes, and may be stigmatized. Temporary employees may also be sometimes devoid of training opportunities, may need to go through job search processes and may be stigmatized, yet temporary jobs provide them with an income and networking opportunities. The thesis showed that experience of unemployment and temporary employment both have important implications for family life in the United Kingdom. With a few exceptions, the impact of the two forms of labour market insecurity is similar in direction. Joblessness has a strong impact on the male and female life course, and well-being in the family. The

impact of temporary work is relatively restricted: it tends to influence family relationships only among the most vulnerable groups.

6.2b. Men's and Women's Family Outcomes: Is insecurity gendered?

Most of the earlier studies on labour market insecurity and family outcomes were concerned only with the consequences of men's insecurity. As discussed earlier, women have become more integrated into the labour market over the last four decades in Britain. Yet, a great many of them have been concentrated in atypical jobs. While unemployment mostly remained a male phenomenon over the period, temporary jobs, especially those with casual arrangements, have been heavily dominated by females. These changes raised speculations over how insecurity was distributed between the sexes. Some suggested that, as a result of a significant increase in female labour force participation, male and female careers have converged, hence men and women have become equally vulnerable to the insecurity they face in the labour market. However, since women mostly occupy atypical jobs some argued that women were more prone to the negative externalities of labour market insecurity.

This thesis attempted to engage in this debate by focussing on the family outcomes of insecure employment over male and female life courses. The detailed analyses revealed that there were considerable similarities in the way unemployment was related to the timing of parenthood and risk of partnership dissolution. Both men and women become parents quicker when they are unemployed, and are more likely to separate from their marital partners. Moreover, the level of risk for men and women is not statistically different. Yet, there is a gendered impact when it comes to insecurity on partnership formation and well-being within families: unemployed men are more likely to postpone

CONCLUSION

marriage compared to unemployed women. On the contrary, among temporary employees, men enter into marital unions earlier than women. During early adult years, unemployment seems to have a more substantial impact on the male life course and cause a delay in partnership formation, whereas temporary jobs affect females' transition into partnered life to a larger extent. Women with a history of non-permanent employment postpone their entry into marriage more than men with similar work histories.

Unemployment causes a drop in well-being and life satisfaction among coupled individuals for both men and women. However, a comparison of unemployed men and women shows that men's well-being and life satisfaction are affected by insecurity to a larger extent than women's. Even though temporary employment has no direct negative impact on men's well-being in marital and cohabiting unions, there is an interaction effect with gender: among those working on temporary contracts, men report lower levels of subjective well-being compared to women.

The analyses show that there is a level of convergence of male and female work careers. The impact of insecurity on family outcomes shares many similarities between the sexes. However, there is also some support for the gendered nature of insecurity. Men seem to be more vulnerable to the negative externalities of unemployment than women. By contrast, in early adult years women's partnership formation behaviour is related to temporary employment, more so than men's. This may be linked to the type of temporary jobs that single and married women occupy. Single women may have relatively lower quality temporary jobs compared to partnered women. In addition, temporary work may be providing some flexibility to married women; therefore, the well-being of coupled women does not suffer from temporary work.

6.2c. Insecurity within couples: Is individual-level information sufficient?

Studying family outcomes in the couple context is crucial for a number of reasons. First, the impact of insecurity experienced by one member of the couple may be compensated by the other with a secure job. Additionally, secure employment of one member of the couple may give the freedom to the other to search for the best career options which may involve a period of joblessness or temporary employment. Therefore, analysing the impact of insecurity only at the individual level, rather than at the couple level, may provide an incomplete picture.

Second, when labour market insecurity is concentrated in couples the negative impact of insecurity on individuals' family lives may be even more severe. Couples where in which both partners are either unemployed or working on a temporary basis be expected to be more vulnerable than couples in which only one partner or neither is involved in insecure employment. Indeed, studies showed that unemployment tends to concentrate in couples. If this is the case, the issue of dual-unemployment, and more broadly the issue of dual-insecurity, needs to be taken into account in family studies. This being said, when both partners are, for instance, unemployed the experience of unemployment may become less stigmatizing, and hence less frustrating. Individuals may gain better knowledge of the social security system when both themselves and their partners are unemployed, thereby equipping themselves with more extensive public benefits. The impact of dual-insecurity may not be as straightforward as one may expect, and requires acute attention.

Third, the source of insecurity, whether coming from the male or female spouse, may also be crucial with regards to its impact on family lives. Since men usually provide a larger share of the household income, insecurity in their work careers may have a greater impact

CONCLUSION

on the timing of family events and general well-being. In addition to this, when men fail to fulfil the provider role and depend on a securely employed spouse, this may be perceived as role reversal and leads to normative conflict and tensions within the couple. Most of the empirical studies in the literature examined unemployment and temporary work at the individual level, ignoring the labour market activity of the spouse. A majority of these were concerned only with the consequences of male insecurity. The only exception in this case has been fertility studies which assumed that the parenthood decisions of couples depended only on women's labour supply. More recently, some investigators took an interest in the labour market insecurity of both sexes, yet in isolation from one another. Only a handful of studies analysed both of the spouses' labour market status, and this thesis builds upon this approach. Especially due to data restrictions regarding information on both partners' labour market activities, longitudinal studies addressing family matters mostly failed to study insecurity in the couple context. This thesis has made use of the rich partner information provided in the BHPS, and has sought to fill the gap in the literature in this regard.

The individual-level analysis in Chapter Three showed that male and female unemployment brought forward the timing of parenthood. There is a strong relationship between non-married male unemployment and early fatherhood. When the matched couple information was used, female inactivity was found to be the strongest factor explaining the timing of parenthood. Irrespective of male spouse's labour market status, the likelihood of having a first child is very high among couples in which the female spouse is inactive. Whether the male spouse is employed or unemployed does not matter for couples' timing of parenthood, as long as the female is out of the labour force. Additionally, there is also support for the delaying effect of role reversal women with

permanent jobs whose partners are unemployed are much less likely to become mothers compared to similar women whose partners have permanent jobs. In short, individual-level analyses in this thesis showed that unemployment increased the risk of out-of-wedlock fatherhood only. However, carrying out the analysis at the couple context revealed that unemployed men delayed fatherhood when they were partnered with women who had permanent jobs.

Chapter Four examined the changes in individuals' well-being depending on the changes in their and their partners' labour market statuses. The results showed that unemployment caused a drop in individuals' own well-being; while temporary work had a similar effect for males who were either low-skilled or expressed subjective job insecurity. However, an analysis of couples showed that there was also a 'spillover' effect of one partners' labour market insecurity on the well-being of the other, especially from men's labour market insecurity to the well-being of wives. In line with previous studies, male insecurity had an adverse impact on wives' well-being among married and cohabiting couples alike. On the contrary, female unemployment (as opposed to female employment) caused an improvement in husbands' partnership satisfaction. Men in permanent jobs expressed more satisfaction with their partnership when their wives moved from permanent employment to unemployment. This was also the case when wives became inactive. This may be related to the fact that men are more satisfied with their partnerships when their role as the main-breadwinner is consolidated. These results show that the experience of insecurity not only had an impact on individuals' well-being, but also on their partners' well-being. Moreover, it was found that the spillover effect of partners' insecurity was not caused by a drop in partners' own well-being. In other words, the employment status of

CONCLUSION

the partner had a direct influence on individuals' level of well-being (except for the effect of wives' temporary work on the well-being of their husbands).

The analysis of couples further indicated that men's well-being was affected to a larger extent by role reversal, rather than by dual-insecurity. Unemployed men whose spouses worked either in permanent or temporary jobs reported the sharpest drop in life satisfaction and well-being, and they had the largest risk of feeling depressed. For females, irrespective of their own labour market status, male unemployment resulted in a deterioration of well-being. Male temporary work caused a decline in wives' well-being only in the case of role reversal, i.e. when she had a permanent job. The couple analysis showed that dual-insecurity, or in other words vulnerability, was not as detrimental to individuals' well-being as role reversal caused by male insecurity. It is worth noting that all these analyses controlled for experiencing financial difficulty; hence, the impact of couples' joint labour market activity on well-being is net of financial constraints. The well-being of individuals within partnerships seems to be subject to complying with gender roles, rather than to joint economic vulnerability.

Finally, Chapter Five looked into the relationship between insecurity and partnership dissolution, and found that male and female experience of unemployment increased the risk of marital dissolution. When the analysis was carried out at the couple level, the issue of role reversal emerged once again. Male unemployment increased the risk of separation when accompanied by an employed female spouse. Not only male unemployment, but also male inactivity, has a similar impact on marital stability, which reinforces role-reversal theory. Chapter Five further found some support for the dual-insecurity hypothesis. Men working on a temporary basis partnered to unemployed women face an elevated risk of partnership dissolution. Couple analysis revealed that male

unemployment brought about instability in partnerships as a result of role reversals, whereas female unemployment led to separation if it caused dual-insecurity in the partnership.

6.2d. Is cohabitation similar to marriage under insecurity?

Over the last four decades, cohabitation has become more widespread among couples in the UK. The share of individuals whose first form of partnership is cohabitation grew substantially. Not only this, but also cohabitation in later stages of life has become more common. Some argued that the increasing incidences of cohabitation were a result of increasing uncertainties that individuals experience in the labour market. When individuals go through insecurity in their working lives, rather than getting married they may prefer to start their partnered lives in cohabiting unions, thanks to the flexible nature of cohabitation. Similarly, the experience of insecurity may encourage some cohabiting individuals to enter into parenthood as a mechanism to reduce the impact of uncertainty in the work sphere. If certain individuals are indeed selected into cohabiting unions because they consider cohabitation as an adaptive strategy in times of insecurity, then it may be expected that the family outcomes of couples in cohabitations differ from those in marriages. The well-being of cohabiting individuals would be less vulnerable to the negative impact of insecurity, and their relationship would be more stable compared to married individuals. On the contrary, if cohabitation in the UK is just an alternative to marriage, it could be expected that individuals' marital and cohabitational outcomes would resemble each other in times of insecurity. This thesis thoroughly investigated the effects of unemployment and temporary work on family outcomes in both marriages and cohabitations. The analyses showed that labour market insecurity affects a larger proportion of marriage-related outcomes, and not as many cohabitation-related ones.

CONCLUSION

In terms of partnership formation, the insecurity hypothesis predicted that, as a result of labour market insecurity, individuals were less likely to form marriages and more likely to start cohabiting. The results showed that the experience of unemployment for men and the experience of temporary work for both sexes caused a postponement of marital unions. However, the timing of cohabitation was mostly unrelated to labour market insecurity. Only women's temporary work slowed the transition into cohabitations. It is worth noting that, when the aggregate unemployment rate is high, there is a slight decrease in the likelihood of marriages and a slight increase in the likelihood of cohabitations. These findings suggest that cohabitation seems to become an attractive option when there is a sense of uncertainty in the economy. However, there is no support for cohabitation being an adaptive strategy based on individuals' own experience of insecurity.

The relationship between transition into parenthood and insecurity differs substantially among married and cohabiting individuals, particularly for men. Among married couples, unemployment itself does not affect the timing of family formation, with the exception of unemployed men whose partners are in permanent employment. However, among cohabiting young men those who are unemployed are more likely to become fathers compared to similar men who occupy a paid-job. This finding is consistent with previous studies which reported that early fatherhood was common among non-married young unemployed men in the UK. It seems that unemployment discourages British men from marriage, yet encourages them to father children at early ages. This may be related to the fact that they are not considered as marriageable by women in their community, but still attract those who do not want to delay motherhood.

The experience of unemployment hampers men's well-being in marital and cohabiting unions alike. One may assume that cohabitation is simply an alternative to marriage, and this would be why the well-being of both married and cohabiting men are affected by insecurity. However, studies have shown that unemployment has a negative impact on single men's well-being as well. Moreover, the well-being of women in marriages is more vulnerable to unemployment than is the case for those in cohabitations. Unemployment does not affect cohabiting women's level of well-being. What is interesting is that the spillover effect is present only among married couples. Both wives' and husbands' labour market transitions influence the well-being of their partner. No such effect is observed among cohabiting couples. It is more plausible to conclude that marriages and cohabitations differ from one another in terms of how the well-being of individuals and their partners are affected by insecurity in each form of partnership. It can also be suggested that, since some individuals may cohabit as a response to insecurity in the first place, their well-being does not suffer from the negative externalities of insecurity. The findings in Chapter Three provide some support for the idea that cohabitation is an adaptive strategy in times of insecurity.

Finally, labour market insecurity increases the risk of separation for both married and cohabiting individuals. Unemployment seems to be a risk factor for the stability of marriages, whereas temporary work has some disruptive impact on cohabitations. The results show that, among married individuals, those who are unemployed are more likely to separate from their spouses compared to those who are in employment. Among the cohabiters, only men's temporary work is associated with separations.

CONCLUSION

6.3. LIMITATIONS OF THE THESIS AND FUTURE RESEARCH

It is important to note that there are a number of data limitations to the analyses that have been presented. First, temporary work is defined in a very broad manner by ignoring different types of non-permanent employment. Due to the issue of small cell size, all types of non-permanent employment are grouped together. In the UK, fixed-term contracts are regarded as relatively more secure than casual and seasonal contracts as well as agency work, which are shorter-term arrangements. By grouping all these under temporary employment, this thesis fails to assess the implications of heterogeneity in the temporary labour force in terms of contract type. If prospective studies could distinguish the types or duration of temporary contracts, they could shed some light on the issue of whether or not different types of temporary contracts have different implications for family outcomes.

Second, three out of four of our empirical chapters rely heavily on retrospective information. This raises the issue of potential recall errors regarding labour market and family transitions which took place a long time ago. More specifically, short spells and unpleasant experiences, such as unemployment, are more likely to be misreported or omitted by respondents, these events being potentially underrepresented. Although far from being a perfect remedy, the data is restricted to a relatively young sample, thereby using retrospective data covering a maximum period of 36 years³⁸.

Third, the thesis used 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-

³⁸ The sample includes individuals who were born in 1940 onwards. Work histories are constructed after the age of 15. Since the first wave of the panel is conducted in 1991, the oldest respondents in the sample provide information on the last 36 years of work and family lives.

censoring. As a result, important time varying variables which 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. Only in Chapter Four, which investigated well-being in the family, was the wider information from the panel waves used.

Finally, although the thesis aimed at contributing to the literature with a detailed analysis of insecurity in the couple context, in some cases it was impossible to get meaningful cell sizes for categories of joint economic activity. The problem was particularly prominent for cohabiting couples, which resulted in the omission of certain categories from the model since they did not contain sufficient variation in the outcome variable.

Nevertheless, the thesis showed the usefulness of a longitudinal approach and the importance of studying labour market insecurity in the couple context as well as at the individual level. Moreover, it showed that work histories in early adult years also have crucial effects on family life, especially for early parenthood. Future studies need to build on this approach.

Last but not the least, temporary work and its impact on family lives has mostly been an underexplored area in the literature, but this thesis provided a detailed analysis of the issue. Even though temporary employment is not as widespread in the UK as it is in Continental Europe, the thesis showed that non-permanent employment had a significant impact on family life in Britain. Future research is required concerning the family consequences of temporary work, particularly in terms of its similarities and differences with, and its link to, unemployment.

CONCLUSION
