THE IMPACT OF EMPLOYMENT INSECURITY ON PARTNERSHIP AND PARENTHOOD DECISIONS

EVIDENCE FROM COUPLES IN GERMANY AND AUSTRALIA

by

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Dissertation

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List of Abbreviations

ABS	Australian Bureau of Statistics
BiB	Bundesinstitut für Bevölkerungsforschung
BMAS	Bundesministerium für Arbeit und Soziales
BMI	Bundesministerium des Innern
BMFSFJ	Bundesministerium für Familie, Senioren, Frauen und Jugend
CFR	Completed Fertility Rate
FRG	Federal Republic of Germany
FWO	Fair Work Ombudsman
GDR	German Democratic Republic
HILDA	Household, Income and Labour Dynamics in Australia Survey
IfD	Institut für Demoskopie Allensbach
ILO	International Labour Organization
ISCED	International Standard Classification of Education (1997)
IW	Institut der deutschen Wirtschaft Köln
LAT	Living-apart-together Relationship
OECD	Organisation for Economic Co-operation and Development
PC	Productivity Commission
PQ	Person Questionnaire
SCQ	Self-Completion Questionnaire
SD	Standard Deviation
SOEP	Socio-Economic Panel Study
StBA	Statistisches Bundesamt
TFR	Total fertility rate

Introduction

The 1960s saw the heyday of the institutionalised life course in Western societies (Kohli 1985). Individuals' life courses were highly chronologically standardised, with the basic principle being the tripartition into childhood, active adulthood and old age. They were furthermore centred on the employment system. Men followed the "normal work biography" (Kohli 2007:258), with an early labour market entry and stable employment in the trade they were trained for until retirement, while women exited the labour market around the time of marriage to focus on homemaking (Deutscher Bundestag 2011). The employment system was marked by the standard employment relationship (Mückenberger 1985), usually defined as dependent full-time employment on a permanent contract. In the sphere of partnership and family, individuals followed the "normal family biography" (Kohli 2007:258), marked by early and almost universal marriage and childbearing, bringing about the title of the "Golden Age of Marriage" (Peuckert 2012:11). The smooth interplay between the two spheres was guaranteed by the highly specialised division of labour, with men focusing on employment and women on homemaking.

Since then, a range of macro processes has triggered a considerable change in life courses in Western societies with regard to both employment on the one hand and partnership and family on the other. In the sphere of employment, the (male) normal work biography was challenged by changes such as the educational expansion, the transformation from an industrial to a service economy, technological innovations and increased competition connected to globalisation processes (e.g. Blossfeld 2009; Brückner and Mayer 2005; Liefbroer 2009). As a consequence, the male-dominated employment sphere was firstly diversified by the integration of married women and mothers into the labour force. Secondly, the trends mentioned resulted in lengthier and more difficult labour market entries for young people, e.g. in the form of longer educational participation and difficulties in finding permanent employment (Blossfeld et al. 2005; Langhoff, Krietsch and Starke 2010). Thirdly, employment instabilities have in part also increased beyond the initial stage of labour market entry. In Germany, for example, this manifests itself in an increased unemployment risk and lower chances of reemployment, a reduced likelihood of upward job mobility, as well as an increased likelihood of downward mobility and a rise in self-employment (Diewald and Sill 2005; Kurz, Hillmert and Grunow 2006). Furthermore, many countries have witnessed a departure from the standard employment relationship and a spread of non-standard forms of employment, such as fixed-term contracts, temporary agency work and part-time work (Rodgers and Rodgers 1989; Schmid 2011).

The sphere of partnership and family in turn was marked by ideational change such as secularisation and individualisation, the women's movement and the contraceptive revolution (Brückner

and Mayer 2005; Kaa 1987; Liefbroer 2009). These changes entailed a pluralisation of living arrangements, manifesting themselves in increasing nonmarital cohabitation, decreasing marriage rates and rising divorce rates. Furthermore, fertility behaviour changed in the form of rising childlessness, an increasing age at first childbirth and a decrease in family size (Peuckert 2012). Still, for most people marriage or a stable partnership and having children remain important life goals (Huinink 1995; Nave-Herz 2013:72–76). Yet they have changed from being self-evident, unquestioned parts of young adults' life courses into subjects of a conscious decision-making process based on the current personal circumstances, such as the stage in the employment career, the financial situation and the stability of the partnership (Beck-Gernsheim 1998:89–90).

The changes in partnership and fertility patterns have far-reaching consequences for the individual as well as for society. Divorce often goes hand in hand with a deterioration in the economic situation, which is reflected, e.g. in a high poverty risk and long-term welfare dependence of lone parents (Geißler 2014:237; Wilkins 2016:40). It furthermore exhibits adverse effects on the physical and mental health of both partners as well as the development and psychological well-being of their children (Amato 2010; Arránz Becker 2015). The widespread postponement of childbearing is, in turn, not only associated with negative effects on the psychological well-being of those who postpone for too long and involuntarily remain childless (Strauß and Beyer 2004). What is more, particularly in Germany low fertility and the resulting shrinking and ageing population (StBA 2015b) challenge future society in many ways, e.g. regarding the financing of the social security systems, the provision of infrastructure and services, and labour productivity (BMI 2011; Deutscher Bundestag 2002).

Against the backdrop of the expected severe consequences of demographic change, it is particularly the low fertility rate that has raised the concern of researchers, politicians and the public in Germany. While during the second half of the 20th century, German family policy had treated fertility decisions as a matter of pure private choice, the early years of the 2000s saw a change of strategy in the sense that family policy now aims to support the realisation of couples' childbearing intentions (Boll et al. 2013:8–11). Yet this aim entails acknowledging the complex and close interrelation between the described changes in the employment sphere and the family sphere and the way couples accommodate the demands arising from these spheres. Life courses are still centred around the organisation of work and employment (Kohli 2007), and decisions in the private sphere are often subordinated to the employment situation. The changes in the labour market described above therefore alter the conditions under which individuals and couples make partnership and parenthood decisions. The erosion of the normal work biography and the increasing employment instabilities and insecurities go hand in hand with rising difficulties for men to fulfil their traditional

role as breadwinners. The integration of women into the labour market in turn entails that couples need to find ways to combine employment with housework and care. Both partners spend increasing years in education and wish to translate their educational attainment into a successful employment career. While couples used to centre the organisation of their private lives on men's employment careers, they now need to coordinate *two* employment careers with their private lives, e.g. their parenthood plans. This development potentially doubles the impact of the growing insecurities and irregularities in the labour market on partnerships.

Research Question and Contribution

Against this background, the thesis is concerned with the *overarching question of how employment insecurity affects partnership transitions*. Employment insecurity is understood broadly as "all forms of welfare-reducing uncertainty surrounding employment" (Dickerson and Green 2012:199). A special focus is given to *temporal insecurity*, which refers to uncertainty around the continuity of an individual's specific job or employment in general, and *economic insecurity*, referring to insecure financial situations and uncertain financial perspectives of workers (see also Kurz, Steinhage and Golsch 2005; Mills and Blossfeld 2005). These aspects are mainly investigated by means of *objective* measures, namely by comparing different forms of non-standard employment and unemployment to the standard employment relationship. Additionally, the thesis investigates the effects of workers' *subjective* perception of their employment situation on partnership transitions. In order to cover different stages of the partnership, the overarching research question is investigated with a special focus on the transition to first parenthood – as an important step in the consolidation of partnerships – and on partnership dissolution – reflecting the opposite process of the destabilisation of partnerships. Overall, the study addresses the following *research questions*:

- How does employment insecurity affect workers' partnership transitions, regarding both first parenthood and partnership dissolution?
- To what extent does the effect of employment insecurity on partnership transitions vary by gender?
- How does the specific employment constellation between the partners influence partnership transitions?
- To what extent is the effect of employment insecurity on partnership transitions moderated by different institutional settings, such as differing employment and welfare regimes on the one hand and different gender regimes on the other?

The case of Germany is at the centre of the thesis: a country that has traditionally been characterised by a strong conservative welfare state (Esping-Andersen 1990) and labour relations based on

trust and stability (Soskice 1991). Yet Germany has experienced a marked increase in non-standard employment and employment instabilities during the past decades (Diewald and Sill 2005; StBA 2016a). The study also compares the effects of employment insecurity on partnership transitions in East and West Germany. This accommodates the different gender regimes and family patterns which can be traced back to diverging historical experiences in the social market economy of the Federal Republic of Germany and the socialist German Democratic Republic. In order to explore the moderating effect of the employment system and the welfare regime, the study furthermore investigates the effects of employment insecurity on first childbirth in Australia, as a representative of the group of liberal welfare states (Esping-Andersen 1990) with an open employment system (Mills and Blossfeld 2013). In international comparison, Australia exhibits a particularly high level of non-standard employment (OECD 2015a). Among other gains, a look at Australia allows the assessment of Australian casual work, a particularly insecure form of employment that has almost no equal in the European context (Campbell and Burgess 2001).

A range of previous studies has already dealt with the effects of the changed labour market conditions on partnership transitions in Germany. Presumably owing to the intense public and scientific debate on the consequences of low fertility in the 2000s, the literature has mainly focused on childbearing decisions. However, the state of research exhibits a range of important *research gaps*:

1. In the field of fertility research, scientific attention was uniformly channelled towards a small range of employment situations, i.e. fixed-term contracts, part-time work and unemployment. No quantitative study for Germany has yet investigated the effects of temporary agency work or differentiated between fixed-term full-time work, fixed-term part-time work and permanent part-time work. This is an important shortcoming, as the characteristics of these forms of employment and the respective workers can be expected to differ markedly.
2. Furthermore, the literature has focused almost exclusively on individuals as actors. However, fertility decisions are usually joint couples' decisions (Klein 2003), and couples take into account both partners' employment situations in childbearing decisions (Kaufman and Bernhardt 2012). The partnership context thus needs to be given more consideration in empirical fertility studies.
3. Very few studies for Germany have thus far dealt with the effects of employment insecurity on partnership dissolution, and most of them have focused on comparing employment to inactivity or unemployment, while little is known about differing effects between the standard employment relationship and non-standard employment on the stability of partnerships. And what we know is mainly confined to insights about women.

4. Most research on partnership dissolution in Germany has furthermore focused on marriages, while virtually no study has investigated the effects of the employment situation on the stability of cohabiting unions. This is an important shortcoming in the face of the rising share of cohabiting unions and the growing number of children born within these partnerships.
5. No study has yet investigated the effects of employment insecurity on partnership transitions in Australia. Single-country as well as internationally comparative studies have widely focused on the European and North American context. However, insights about the effects of specific employment situations on partnership transitions in one country cannot simply be transferred to another, as the specific institutional configuration in that country acts as a moderator. Inferences are particularly unsuitable for Australian casual work, which differs considerably from most forms of employment found in Europe.

The *contribution* of the thesis lies in enhancing our knowledge about the effects of employment insecurity on partnership transitions in both theoretical and empirical ways. With regard to theory, the study contributes to the literature by connecting the investigation of first childbirth and partnership dissolution closely to the central principles of life course theory. It furthermore develops theoretical frameworks to understand the effects of employment insecurity on first childbirth and partnership dissolution on both the individual and couple levels. With regard to empirical insights, it is among the few studies to provide evidence on the effects of non-standard employment on partnership dissolution; it thereby contributes to what is so far rudimentary knowledge about the stability of cohabiting unions as opposed to marriages. Secondly, it provides a differentiated picture of the effects of various forms of employment insecurity on partnership transitions and is thereby the first quantitative, longitudinal study to assess the effects of temporary agency work, fixed-term part-time work and Australian casual work. In line with past research, the study separately investigates the effects for the female and male partners.[1] However, thirdly, it moves beyond this point by giving more consideration to the important role of the partnership situation and partnership dynamics for fertility decisions and partnership stability, thereby promoting the reader's understanding of the interrelatedness of partnership transitions. Finally, the study contributes to the knowledge about the moderating role of the institutional setting by comparing the effects of employment insecurity across countries and regions as well as over time. In this wake, the analysis sheds light on the fertility effects of employment insecurity in Australia – a country which has not yet been investigated regarding this subject.

[1] Owing to the strong focus on fertility decisions and gender regimes as well as data restrictions, the thesis investigates partnership transitions among heterosexual couples exclusively.

Outline of the Study

The thesis consists of two parts, namely the *Theoretical and Conceptual Framework* (Chapters 1-4) and the *Empirical Analysis* (Chapters 5-7). The *first part* introduces the reader to the central issues covered in the study and gives background information to the subsequent empirical chapters:

Chapter 1 links the thesis to the life course approach as a general theoretical framework. It highlights the complexity of life courses and explains how the study addresses central principles of life course theory such as human agency, timing, linked lives, historical time and place, and cumulative advantage. These broad theoretical considerations are complemented by more specific theory sections in the empirical chapters later in the thesis, which discuss theoretical approaches that are specifically tailored to link employment insecurity to first childbirth and partnership dissolution.

Chapter 2 compares the institutional and cultural backgrounds of Germany and Australia as the two countries under study in this thesis. The discussion also includes a differentiated perspective on intra-German differences by comparing East and West Germany. A special focus is placed on the employment systems, welfare regimes, gender regimes and family policy, as these areas are most relevant to the partnership transitions investigated in this study.

Chapter 3 then narrows the view to the link between the employment situation and workers' lives. By summarising the comprehensive state of research and providing my own analyses, the characteristics of non-standard forms of employment and unemployment are outlined and their effects on workers, i.e. on their financial situation, employment stability, health and partnership situation, are sketched. This information forms the basis for the theoretical considerations on how non-standard employment and unemployment can be expected to affect first childbirth and partnership dissolution, which are presented in the corresponding empirical chapters.

Chapter 4 presents the data and methodological approach applied in the empirical chapters in the second part of the thesis. While the analysis for Germany is based on the Socio-Economic Panel Study (SOEP), the analysis for Australia is conducted using data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey.[2] The chapter gives a general introduction to SOEP and HILDA and explains the reasons for using these two datasets. Furthermore, the data preparation is explained with regard to the construction of partnership histories, fertility histories, and the most central measures of employment insecurity, i.e. different forms of non-standard employment and

[2] This thesis uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Social Services (DSS) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this thesis, however, are those of the author and should not be attributed to either DSS or the Melbourne Institute.

unemployment. These measures form the common basis of all three empirical chapters in the second part of the thesis. Additional measures, which are only used in certain empirical chapters, are presented directly in the respective chapters. Furthermore, Chapter 4 explains the main method of analysis in this thesis, the discrete-time event history analysis.

The framework provided in the first part of the thesis creates the foundations for the *second part*, the *Empirical Analysis,* consisting of three chapters (Chapters 5, 6 and 7). Chapters 5 and 6 both investigate the effects of employment insecurity on first childbirth, yet with differing foci: Chapter 5 focuses on the situation in Germany by comparing the effects of employment insecurity on first childbirth in East and West Germany as well as looking at changing effects over time in West Germany (over the period 1985 to 2013). In so doing, it implicitly investigates the moderating effect of different gender regimes: East and West Germany have largely shared the same institutional framework for the past quarter of a decade, yet important differences as to gender arrangements persist. While East Germany is characterised by the dual breadwinner model, West Germany is marked by the modified male breadwinner model. Furthermore, particularly the West German gender regime has undergone considerable change during the past decades by departing from the traditional male breadwinner model, raising the question whether this change has affected the gender-specific effects of employment insecurity on first childbirth.

Chapter 6 takes on an internationally comparative perspective by investigating the effects of employment insecurity on first childbirth in Germany and Australia (over the period 2001 to 2013). This comparison is promising on the background that the two countries share the same gender regime in the form of a dominance of the modified male breadwinner model but at the same time markedly differ regarding the employment system and welfare regime. The focus is on a broad range of non-standard forms of employment, unemployment as well as subjective measures of employment insecurity.

While Chapters 5 and 6 deal with couples' decision for a first child as a step towards a stronger cohesion of the partnership, Chapter 7 is concerned with the opposite trend of the destabilisation of partnerships. The chapter investigates the effects of non-standard employment on partnership conflicts and on the risk of partnership dissolution in Germany (over the period 2001 to 2013). As the literature suggests differing effects for different partnership types, cohabitations and marriages are investigated separately. Furthermore, the chapter aims to identify some of the mechanisms underlying the effect of non-standard employment on partnership dissolution by investigating the mediating role of employment characteristics such as job insecurity or long-distance commuting.

The three empirical chapters can be read on their own account. In each chapter, the results of the empirical analysis are therefore embedded into a concise introduction and state of research,

theoretical considerations, a description of the data and methods, and concluding remarks. Yet the reader may want to return to earlier chapters for details and literature references on topics that were covered in depth in the first part of the thesis.

The two main parts of the thesis are followed by a concluding chapter. Initially, the main results of the preceding chapters are synthesised. Building on these insights, implications are formulated for directions in future research as well as for policies that aim at supporting partnership stability and the realisation of childbearing intentions.

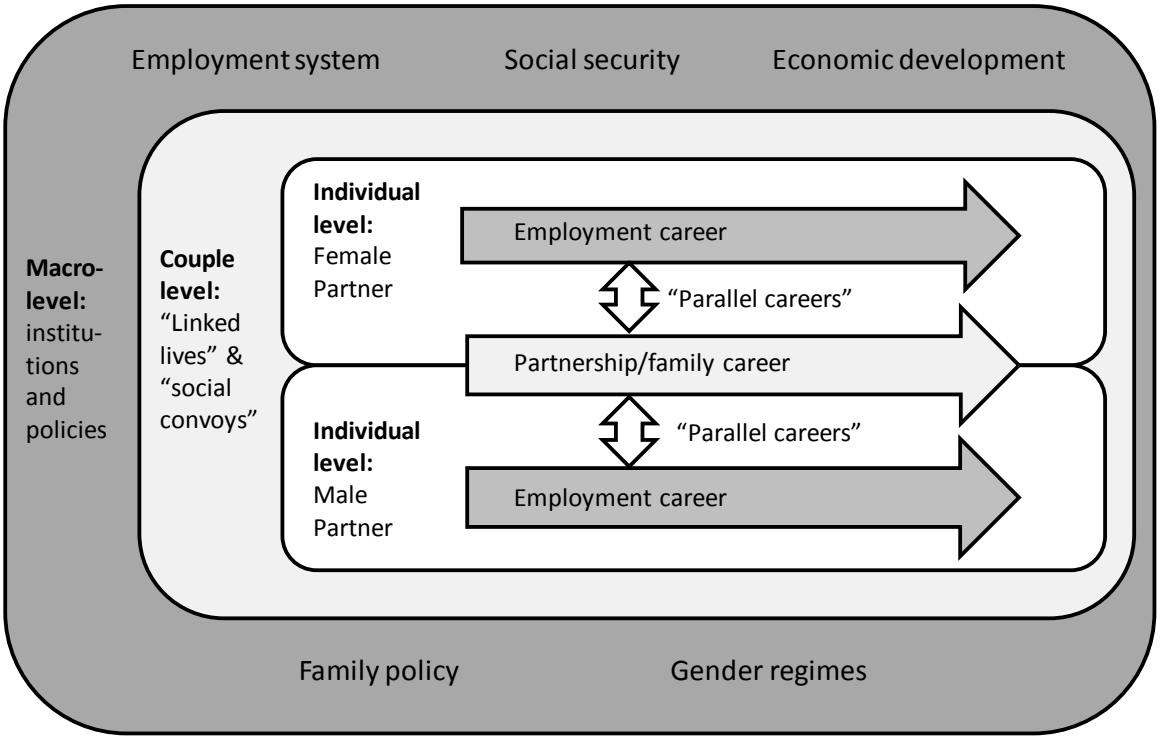
Chapter 1 General Theoretical Framework

The thesis investigates the effects of employment insecurity on partnership-related transitions in the life course. This chapter aims to give the reader a brief introduction to the life course approach as the general theoretical framework underlying this study. Firstly, the central characteristics of the life course and the major principles of life course theory are presented (Section 1.1), and then the issues addressed in this study are linked to life course theory (Section 1.2).

1.1 Linking Individual Life Courses, Partnerships and Social Institutions

Sociology regards the life course as a "sequence of activities, or states and events, in various life domains spanning from birth to death" (Mayer 2005:20). A central characteristic of the life course is the fact that it is a multi-level process: Firstly, individual life courses evolve in close connection to the life courses of other individuals and groups, and secondly, life courses are subject to the structuring influences of social institutions and organisations and their development over time (Mayer and Diewald 2007). Three levels are therefore of relevance in life course research, namely the micro level of the individual actor, the meso level of surrounding individuals and the macro level of institutions and policies. Figure 1.1 illustrates the multilevel structure of the life course with regard to the study's focus on the effects of employment on partnership transitions:

Figure 1.1: Multi-level model of the life course



Micro Level of the Individual Actor

On the level of the individual, the life course is a "multidimensional process" (Mayer and Diewald 2007:516), developing simultaneously in several interdependent life domains, like education, employment, partnership/family, health, place of residence or social activities. As time passes, the individual goes through a *career* in each of these domains, designating "the chain of stable periods and transition periods" (Willekens 1991:17). Careers are characterised by the sequence and timing of events occurring in the specific life domain, like the timing and number of children or the timing and nature of job changes. As the individual follows a career in several domains simultaneously, different domains, such as employment and partnership, can be described as "parallel career processes, which interact with each other and with their common environment" (Willekens 1991:14). Two careers in different domains can be interdependent in several ways: Firstly, events in one sphere can be dependent on either stages (status dependence) or transitions (event dependence) in the other sphere (Willekens 1991). Early transitions in one career might impede advancements in other careers, e.g. early parenthood can be detrimental for the working career. Late transitions, in turn, might reduce the opportunities for other transitions, like late marriage reduces the likelihood of parenthood (Hagestad and Call 2007). Furthermore, strain in one sphere can cause strain in another via the process of psychological *spillover*, impeding role performance in the other sphere (e.g. Edwards and Rothbard 2000; Greenhaus and Beutell 1985; Lambert 1990; Voydanoff 2004) and thereby affecting the further career pathway in the other sphere. Secondly, there can be resource dependence if two careers share the same resource. In this context, work and family can be seen as *conflicting careers*, as both are competing for the individual's time and energy (Willekens 1991).

An individual's career in a certain life domain can furthermore be characterised by processes of *cumulative advantage* (e.g. DiPrete and Eirich 2006). This concept refers to the fact that a favourable relative position of an individual turns into a resource that then produces further relative gains for the individual. Taking it the other way around, an initial disadvantageous position can entail further drawbacks that produce cumulative disadvantage. A well-known example of a process of cumulative disadvantage is the scarring effect of unemployment, designating the fact that workers with a previous unemployment history are at a higher risk of becoming unemployed again. Due to the interrelatedness of careers in different life domains, cumulative disadvantage can also appear across life domains. An example for this is the "loss spiral" between work pressure, work-home interference and exhaustion found by Demerouti, Bakker and Bulters (2004).

Regarding the question why certain individuals follow certain career pathways, life course theory stresses the importance of *human agency*. Individuals actively construct their life courses

through choices and actions based on the alternatives available to them, rather than being passively influenced by structural opportunities and constraints (Elder, Kirkpatrick Johnson and Crosnoe 2003). In other words, "[p]eople are goal-oriented within the constraints of historical and social time and of their links with significant others" (Liefbroer 2009:319). People's values, assessments and their planfulness are of relevance for their life course decisions (Elder et al. 2003).

The *life stage principle* (Elder 1994) or *principle of timing* (Elder et al. 2003) means that individuals' life courses are affected differently by events and experiences depending on when these happen in the life course. In particular, life courses are impacted by an individual's biological as well as social age. Furthermore, the timing of some life course transitions might be conditioned on other life course transitions. Individuals have perceptions as to the ideal order of biographical elements and, for example, regard marriage and/or childbearing as more easily postponable than education and labour market establishment (Birg, Flöthmann and Reiter 1991). The perceptions of ideal biographical orders are closely linked to the concept of social timing, i.e. social norms regarding age-appropriate life course stages and transitions and the order of biographical elements, as discussed below.

Meso Level of Couples

Besides the intra-individual interdependence of different careers, life courses are also interdependent on an interindividual level in the sense that two or more individuals' lives are interwoven (Hagestad and Call 2007). In Glen Elder's terms, individuals lead *linked lives,* which "refers to the interaction between the individual's social worlds over the life span – family, friends, and coworkers" (Elder 1994:6). Due to the interrelatedness of lives, transitions in one person's life often go along with transitions in the lives of others (Elder et al. 2003). The life course progress of others affects an individual's opportunities and constraints (Hagestad and Call 2007). For example, a father's career promotion might entail the relocation of his whole family to another region. Linked lives that "play out as dynamic ongoing relationships" have been termed *social convoys* (Moen and Hernandez 2009:259). Social convoys mediate the effect of the macro level of social forces on an individual's life chances and life quality. They can be supportive for the individual but they can also be the source of conflict and strain (Moen and Hernandez 2009).

In this sense, the couple can be seen as a particularly important social convoy: "Couples constitute fairly stable units of individuals who move in tandem along various family and employment trajectories and transitions" (Moen and Hernandez 2009:276). Partnership and parenthood decisions are joint decisions made by both partners (Klein 2003) within interacting partnership careers. The partnership careers of two individuals meet at some point in time and then continue (partly or wholly) together. This implies not only that both partners' partnership and family careers are linked,

but also that one partner's career in another domain, such as employment, can affect the other partner's life course. For example, one partner's unemployment affects the economic situation of the whole household and might require the other partner to enter the labour force or increase his or her working hours. Moreover, studies have demonstrated that stress and strain experienced by one individual can be transmitted to one's partner in the form of a *crossover process* (see e.g. Demerouti, Bakker and Schaufeli 2005; Westman 2001). It can furthermore be assumed that *cumulative (dis)advantage* occurs not only within an individual's life domain over time or between several life domains, as explained above, but also within a couple (Pausch et al. 2016). On the plus side, the two partners are able to support each other, pool the resources at hand and achieve economies of scale by living together. On the downside, demands and strains experienced simultaneously by both partners can create a double burden on the partnership.

Macro Level of Social Institutions

Another important principle of the life course approach is the importance of *historical time and place* (Elder et al. 2003). Individuals' life courses are affected by the time and the region or nation they live in over their lifetimes. This stresses the importance of past and current "national institutional configurations" (Mayer 2005:38–39), designating the particular institutional setting of the particular country. Similarly, Mills and Blossfeld (2005:6) point out that "institutional filters", i.e. institutional settings and social structures, determine the degree to which uncertainty affects the life courses of people in a specific country. The most relevant national institutions influencing the relation between the employment situation and partnership and fertility are the education and employment systems, the welfare regime and gender and family regimes. These nationally distinct institutional settings influence the behaviour of individuals and couples as they "manifest themselves as incentives or disincentives for particular organizational or individual adjustments during the life course" (Blossfeld 2009:296). Societal factors impact either people's values or the opportunity structure within which individuals operate or both (Liefbroer 2009). Social institutions have differing impacts on the life course within different periods and in different countries:

National differences in the *educational systems* and the transition from education to work, for example, trigger diverging employment careers between countries (Allmendinger and Hinz 1996). The specific *employment system* determines the access to the labour market for newcomers and marginal groups, the quality of employment, e.g. in the form of job security, wages and working time, the frequency of job changes and the duration of unemployment (similarly: Mills and Blossfeld 2005). In this context, countries differ not only in the extent to which social institutions foster the exposure of individuals to certain labour market risks, such as unemployment, but also in the extent

to which they shield individuals from the adverse consequences of these events through *social insurance* (DiPrete 2002).

A country's *gender regime* defines how the responsibilities for gainful employment, housework and care are distributed within couples and families and to what extent women and men can combine work and family. It furthermore determines to what degree partners are economically dependent on each other or rather individualised, and consequently to what extent and in what way men and women are influenced not only by their own but also by their partner's employment situation. Policies in the area of gender and family markedly affect the gender arrangements by giving incentives for a certain division of labour within the couple or family and by dividing the responsibility for care work among the family, the state and the market. Furthermore, family policies influence gender arrangements by targeting either individuals or families as entities. Particularly, countries differ in the extent to which policies target women either in their role as workers or as wives and mothers, for example by providing homemakers with derived rights to social benefits such as health care and pensions. Connected to this, they determine to what extent women are compensated for the risks and disadvantages of focusing on homemaking and being dependent on a male earner (see also Lewis and Ostner 1994). Policies thus influence the strength of the ties between linked lives by decreasing or increasing a person's dependence on other individuals.

Life courses are furthermore structured *by social norms*. In this connection, the principle of **"***social timing"* (Elder 1994) is important, referring to "the incidence, duration, and sequence of roles, and to relevant expectations and beliefs based on age" (Elder 1994:6). Age-related norms can be either formal or informal (Hagestad and Call 2007). On the basis of age norms, social timing labels certain transitions, such as labour market entry, marriage or the birth of a child as relatively early or late. Moreover, social timing affects the scheduling of trajectories in different areas of life (Elder 1994). Social norms thus prescribe which career has priority over other careers in which life stage and which transitions should be made within which age brackets. This is particularly important regarding the sequencing of competing careers such as education, work and family. In this context, the organisation of work and employment has been argued to be the decisive determinant of the overall structure of the life course (Kohli 2007).

Each historical time is connected to a specific arrangement of national institutions. Over time, the institutional configurations change as countries adapt their institutions to the changing environment. In this connection, Liefbroer (2009) identified three major groups of societal changes which have affected life course transitions from youth to adulthood in Western societies during the past decades (see also Introduction and Chapter 2): One important group are changes in the economic and social structure, such as the expansion of the educational system, the increase in

women's labour force participation and recent processes of labour market flexibilisation. A second set of important changes affecting people's partnership and fertility careers during the past decades have been technological innovations, such as the dissemination of reliable contraceptives and the spread of the mass media. Thirdly, cultural changes, such as a decrease in normative controls, individualisation processes and the re-emergence of feminism, have influenced people's value systems and the opportunity structures within which people operate. The "wave of social liberalism" (McDonald and Reimondos 2013:70) freed individuals from normative and institutional constraints and rendered them more responsible for the consequences of their actions. In this context, norms concerning the ideal sequence of biographical transitions have also been subject to change, e.g. regarding the question whether parenthood has to be preceded by marriage (Hagestad and Call 2007).

Like the institutional setting around them, life courses are subject to constant change. Since World War II, they have undergone considerable transformations, which are generally described as two consecutive phases (Mayer and Diewald 2007): The first phase, until the early 1970s, was characterised by increasing institutionalisation and standardisation of the life course. The second phase, which endures until the present day, is characterised by a process of de-institutionalisation, pluralisation and destandardisation. In this wake, the given embeddedness of life courses into the collective communal relationships of families, partnerships and status groups was replaced by the imposition of an individual, autonomous conduct of life. The standardised, "normative life course" (Kohli 2007:255) dissolved into more differentiated life course patterns, albeit the extent of destandardisation has been rather limited thus far (Kohli 2007).

1.2 Linking the Current Study to the Life Course Approach

The described configuration of individual life courses, couples' linked lives and historical time and place in the form of national institutions builds the background for the current study. Different aspects of the above framework are addressed in the different empirical chapters to follow in the second part of the thesis: The general topic is the *interrelation between the employment and the partnership career* by investigating the effect of employment insecurity on partnership transitions. The partnership career comprises processes of consolidation, i.e. forming a joint household, marriage, first childbirth and subsequent children, as well as processes of destabilisation and dissolution, in the sense of separation and divorce. In order to investigate the effect of employment insecurity on different stages of the partnership career, the study focuses on the transition to the first child on the one hand – as an example for a consolidation process in partnerships (Chapter 5 and Chapter 6) – and on partnership dissolution on the other hand (Chapter 7). The preceding steps of

consolidation, i.e. effects of employment insecurity on household formation, marriage and childbearing intentions, are considered in the literature review in Chapter 3.

The *principle of human agency,* stating that individuals actively construct their life courses through choices and actions to pursue their goals within the prevailing opportunities and constraints, underlies the theoretical understanding of the relation between employment insecurity and partnership transitions in this study. Regarding the aspect of the goals of the individual actor, it is assumed that a) individuals usually wish to live in a partnership and b) that childless individuals living together with their partner usually wish to have a child. Surely, this does not apply to every single individual. Nevertheless, partnership and parenthood are important instruments to satisfy elementary human needs, such as the need for personal foundation. In this respect, they cannot be substituted with other forms of social relationships and constitute important life goals (Huinink 1995, particularly chapter III). Survey research has repeatedly demonstrated that marriage and family are regarded as the ideal living arrangements by the majority of the German population (summarising: Nave-Herz 2013:72–74). Furthermore, the *desired* number of children reported in surveys is usually higher than the actual fertility rate, ranging around 1.75 children for women between 20 and 39 years (Höhn, Ette and Ruckdeschel 2006). Only a small number of people decide against children already at an early stage in life – rather, the comparatively high share of childlessness in Germany is largely due to a continuous postponement of the realisation of childbearing intentions (Boll et al. 2013:110; Kühn 2005). Moreover, the share of those who do not want children is much lower among partnered individuals than among singles. Particularly men's desire for a child often develops only in the context of an existing and enduring partnership (Eckhard and Klein 2006:39–42).

In accordance with the principle of human agency, it is furthermore assumed that partnership dissolution as well as the birth of a child are transitions which are preceded by a decision-making process. This is in line with the most widely perceived theoretical approaches to partnership dissolution and fertility, which also regard these transitions as a result of a decision-making process.[3] For childbearing decisions, this assumption can be disputed, as even modern societies witness a considerable number of unplanned births (Höpflinger 2012:98). However, the wide availability of contraceptive technology enables couples to exert almost complete control over their fertility. This does not necessarily imply that all couples choose to exert this control. Nevertheless, one can still

[3] For example, the Social Exchange Theory for partnership dissolution (Lewis and Spanier 1979), New Home Economics (Becker 1960, 1981; Becker, Landes and Michael 1977) for both dissolution and fertility, and bargaining theories (Ott 1989; Kohlmann and Kopp 1997), sociological theories like the Biographical Theory of Demographic Reproduction by Birg, Flöthmann and Reiter (1991), as well as social psychological approaches such as the Value-of-Children Theory by Hoffman and Hoffman (1973) for fertility decisions. However, for a critical discussion of whether parenthood decisions are actually (rational) decisions see Burkart (2002).

assume a decision-making process as, even if a pregnancy was unintended, the couple still has to make a decision regarding whether to carry the child to term or not. In the wake of the Second Demographic Transition, the share of unwanted births has decreased as a consequence of more reliable means of contraception and the legalisation of abortion (Kaa 1987). In fact, family researchers have observed a general change in the character of fertility decisions: While children used to be the natural, unquestioned consequence of partnership formation and marriage, parenthood has now become the subject of a more conscious and lengthy decision-making process (Beck-Gernsheim 1998:89–90; Nave-Herz 2013:80–81).

Due to the fact that this study investigates partnership transitions, the principle of *linked lives* runs through the whole study and is given special attention in the empirical analyses in Chapters 5, 6 and 7. The analyses accommodate partnership dynamics in several ways: Generally, all analyses are based on coupled individuals living together with their partner in the same household. The employment situation and other characteristics of both partners are considered simultaneously. Moreover, mutual influences of each other's employment situations are considered by investigating the effects of different employment constellations within couples on partnership transitions. Furthermore, the study design recognises that couples can be in different stages of their partnership and in different forms of partnerships: Firstly, the duration of the partnership is considered in all the analyses. Secondly, the analysis of the risk of partnership dissolution differentiates between cohabiting unions and marriages as two distinct forms of partnerships which might be stabilised or destabilised by different factors. Thirdly, competing outcomes of partnerships, such as getting married and dissolving, are considered simultaneously. The fact that the analyses recognise the individual person's ages and the duration of their partnerships also serves to accommodate the principle of *timing* of the life course approach.

Finally, the principle of *historical time and place* is addressed in this study by comparing the effects of employment insecurity on first childbirth in different institutional arrangements. Countries are large entities, exhibiting complex histories and distinctive structures (Blossfeld 2009). It is therefore necessary to restrict the comparison to only two or three countries in order to be able to focus on very specific institutions and policies which are relevant to the life course transition under study (Mayer 2009). The institutions that are the primary focus of this study are the gender regime on the one hand and the employment system and welfare regime on the other. The moderating role of the gender regime regarding the effect of employment insecurity on first childbirth lies at the heart of Chapter 5 by comparing East and West Germany. As explained in more detail in Chapter 2, even decades after reunification, these regions still diverge in their gender arrangements, with

East Germany being characterised by the dual breadwinner model and West Germany by the modified male breadwinner model. While differing in their gender arrangements, East and West Germans share most other national institutions, such as labour market regulations, social security and family policies, constituting an ideal background for the investigation of the effects of gender regimes on the link between employment and fertility. Chapter 5 furthermore addresses the role of historical time by investigating change in the effects of employment insecurity on first childbirth in West Germany from the mid-1980s to the early 2010s. This period has seen notable changes not only in the prevalence of employment insecurity but also of the gender regime in West Germany, shifting from the male breadwinner to the modified male breadwinner model. The chapter compares different cohorts of partnership formation and looks at whether the changing gender regime implies a change in the gender-specific connection of employment insecurity and childbirth.

In contrast, the moderating role of welfare and employment regimes is the focus of Chapter 6. This chapter compares the effects of employment insecurity in Germany and Australia. The two countries share a common basis in the area of partnership patterns, gender arrangements and family systems, for example both being characterised by the modified male breadwinner model. In contrast, the two countries show noticeable differences regarding other national institutions affecting fertility decisions, such as the educational system, the employment system and the welfare regime. The different institutional backgrounds of Germany and Australia on the one hand and East and West Germany on the other hand are explained in detail in the following chapter.

Chapter 2 Institutional Background

As the introduction to life course theory in the previous chapter has illustrated, individual life courses are strongly influenced by social institutions. Comparative life course research therefore requires a close look at the interplay among different institutions and policies which might influence the life course transition at interest in the respective countries. In other words, the specific national institutional configurations have to be considered. The current study compares the effects of employment insecurity on partnership transitions in Germany and Australia as well as in East Germany compared to West Germany. Therefore, the following section (Section 2.1) compares the institutional settings in Germany and Australia. The comparison of Germany (as a whole) with Australia is then followed by a closer look at intra-German differences regarding different partnership patterns, fertility behaviours and gender arrangements in East and West Germany (Section 2.2).

2.1 Institutional Arrangements in Germany and Australia

This section compares the institutional settings in Germany and Australia and thus provides background information to the empirical chapters (Chapter 5, 6 and 7). The focus is on the institutional characteristics most closely related to the research objectives of this study, i.e. the employment system and employment-related welfare policies on the one hand (Section 2.1.1), and partnership and fertility trends, gender regimes and family policies on the other (Section 2.1.2).[4]

2.1.1 Employment and Employment-Related Welfare

2.1.1.1 Employment System

Starting at the beginning of the employment career, it can be noted that young people's employment chances are affected by the country's specific *link between the educational system and the employment system*: Allmendinger (1989; Allmendinger and Hinz 1996) differentiates firstly between stratified and unstratified educational systems and secondly between standardised and unstandardised systems. In this sense, Germany's educational system can be classified as *stratified* as differentiations regarding the educational track take place at a comparatively young age (i.e.

[4] The focus of the current study is on national institutions affecting partnership transitions *within existing couples*. It has to be kept in mind that national institutions already affect the preceding processes of partnership formation. For example, the educational system as well as youth employment and housing policies strongly influence the timing of home-leaving and partnership formation. As González and Jurado-Guerrero (2006) have shown in their study on France, West Germany, Italy and Spain, country-specific effects on first childbirth diminish when looking only at partnered women. This suggests that national institutional settings primarily affect the likelihood of entering a stable partnership rather than the likelihood of first childbirth within partnerships.

around the age of 10). In contrast, Australia has an unstratified educational system, in the sense that all pupils are taught together for a longer period in secondary schools which provide the option to progress to tertiary education (Mills and Blossfeld 2013; Müller and Shavit 1998). Moreover, the national *standardisation* of education is traditionally low in Australia, meaning that qualifications attest to different skills in different schools and/or regions, while in Germany the qualifications tend to represent the same skill level irrespective of where they were awarded within the country (Müller and Shavit 1998).[5]

A third aspect is the *vocational specificity* of the educational system, relating to the share of workers entering the labour market with occupation-specific skills (Müller and Shavit 1998). In this regard, Germany is shaped by the dual system, which combines studies at the vocational training school with training at the workplace. This ensures a smooth transition from general education to employment for a large share of young adults. The close coupling of vocational certificates and occupational opportunities, however, has the disadvantage of a high degree of rigidity and a low level of job mobility in the labour force (Blossfeld 2009). In Australia, the vocational specificity of secondary education is only moderate, meaning a smaller share of students acquire specific vocational skills (Müller and Shavit 1998). Instead, occupation-specific skills are primarily acquired on the job. The advantage of this system is that workers are less restricted to an occupational field or a qualification obtained. On the downside, labour market entrants in such educational systems often have to try out several jobs until they find a good job match (Mills and Blossfeld 2013). All in all, these differences result in a comparatively strong link between the specific educational qualification and the occupational position in Germany and a weaker link in Australia (Mills and Blossfeld 2013; Müller and Shavit 1998).

The employment systems in both Germany and Australia – like most other industrialised countries – are historically characterised by the *standard employment relationship* as the central reference point of employment regulations and interpretations (Campbell, Whitehouse and Baxter 2009; Mückenberger 1985). Standard employment is usually defined as dependent, full-time employment on a permanent contract (e.g. Campbell et al. 2009; ILO 2015). The German Statistical Office further adds the criterion of full integration into the social security system and requires the employee to work directly for their employer (StBA 2015d). During the past decades, many countries have seen a process of labour market deregulation, which has manifested itself in the rise of non-standard forms of employment, i.e. forms of employment that deviate from the ideal of the standard employment relationship.

[5] Yet in the past decade there have been increasing efforts in Australia to harmonise education across states and territories, for example with the establishment of an Australian Curriculum.

In Germany, four different forms of employment are usually regarded as non-standard: fixed-term contract work, temporary agency work, part-time work and minijobs (StBA 2016b). Fixed-term contract work deviates from the standard employment relationship because the contract is not permanent but instead ends on a specific date or with a certain event. Temporary agency work lacks the criterion of a direct connection between employer and employee. Instead, it is characterised by a tripartite relationship between worker, temporary employment agency and host company. Part-time work, in contrast, is characterised by reduced working hours compared to full-time work. The distinction between full-time and part-time work is blurry, as there are no general rules regarding the number of weekly working hours that distinguishes one category from the other. According to the Act on Part-Time Work and Fixed-Term Employment (Sect. 2 par. 1), a person is employed part-time if the regular weekly working hours are less than those of a comparable full-time employee. The threshold for part-time work thus varies between companies and industries.[6] A minijob, also called marginal work, is, in turn, a specifically German subtype of part-time work that is exempted from most taxes and contributions to social security. While this has the benefit that the gross wage is almost equal to the net wage, on the downside minijobbers are not covered by unemployment insurance or health and long-term care insurance and often do not accumulate pension points. Another important feature of minijobs is that the usual wage may not exceed a certain amount.[7] At the beginning of the 2000s, this threshold was €322 (DM630); it was then raised to €400 in 2003 and to €450 in 2013.

In recent decades, several steps of labour market deregulation resulted in a rise in all four forms of non-standard employment in Germany. For example, the Employment Promotion Act 1985 for the first time permitted employers to hire new employees on fixed-term contracts without a specific reason (*sachgrundlose Befristung*). The First and Second Acts on Modern Services in the Labour Market, also known as Hartz I and II, which were both implemented in 2003, in turn aimed at promoting temporary agency work (Hartz I) as well as minijobs (Hartz II). Between 1991 and 2013, the share of non-standard employees of all dependent employees rose from 20% to 33%, with the increase being most pronounced in the mid-2000s (StBA 2016a).[8] As can be seen from Table 2.1, part-time work is the most widespread form of non-standard employment in Germany, with 25% of employees. The second most important form is fixed-term contract work, with 8% of

[6] However, the German Statistical Office takes a relatively restrictive approach and only counts part-time work with 20 hours or less as *non-standard* employment (Wingerter 2009).

[7] Until the Hartz II reform in 2003, marginal work was further restricted to less than 15 weekly working hours.

[8] These numbers include part-time workers with more than 20 working hours and are therefore higher than the numbers usually reported by the Federal Statistical Office. Including only part-time workers with 20 hours or less, the shares of non-standard employment would be 14% in 1991 and 23% in 2014.

employees, followed by minijobs with close to 8%. In contrast, temporary agency work accounts for a comparatively small share of the workforce (around 2%).

Table 2.1: Prevalence of non-standard forms of employment as a share of employees in Germany and Australia (in %, 2013)

Form of employment	Germany	Australia
Fixed-term contracts	8.0	10.4
Part-time work	24.7	26.0
Minijobs	7.7	--
Casual work	--	15.5
Temporary agency work	2.1	2.3
Total share non-standard employment	33.2	41.4

Source: Author's calculations based on StBA (2016a) for Germany and HILDA release 13 for Australia.
Notes: Shares refer to dependent employees aged 15-64 who are not in (full-time) education. Part-time workers for Germany are based on self-classification. In contrast, the Australian number comprises workers who usually work less than 35 hours per week. The categories are not mutually exclusive, which is why the total share does not equal the sum of individual shares.

In Australia, the total share of non-standard employment is higher than in Germany, amounting to 41% of employees. Except for the specifically German minijob, all aforementioned forms of employment can be found here as well. However, in addition to fixed-term contracts, agency work and part-time work, Australia exhibits a specific form of casual employment which has almost no equal in Europe.[9] For lack of a clear definition of casual work in Australia, the identification of casual workers is not straightforward (Wooden and Warren 2003). The most prominent characteristic of casual work is the extremely short duration of the employment contract: Every time they are called into work theoretically counts as a separate engagement, and they can be dismissed (or rather: not hired again) anytime (Campbell and Burgess 2001).[10] Nevertheless, many casuals work for the same employer for several months or even years, leading to the oxymoron of the "permanent casual" (Buchanan 2004:9). Due to these short contracts, casual workers usually lack any entitlements to paid leave (e.g. sick leave, annual leave, paid public holidays) and other benefits and rights (Campbell and Burgess 2001).[11] In compensation for these disadvantages, they usually receive a pay loading, which has been estimated to be around 20% of the wage of a comparable non-casual worker (Watson 2005).[12]

[9] The most similar form of employment in Europe are zero-hours contracts in the UK, which do not guarantee workers a minimum number of hours. However, this form of employment has been on the increase only very recently and still applies only to a small share of the workforce (2.9% of employees) (Pyper and Delebarre 2016).

[10] Although it has to be noted that casual workers can be protected against unfair dismissal after six months of work for the same employer on a regular and systematic basis.

[11] Against this background, the Australian Bureau of Statistics (ABS) usually applies a proxy measure by counting workers without entitlements to paid annual or sick leave as casual workers. In recent times, the ABS also takes on a parallel approach by asking respondents whether they would classify themselves as casual workers. The two approaches yield similar numbers of casual workers (Shomos, Turner and Will 2013:80).

[12] The level of the loading used to vary by the award or agreement applicable to the specific job. Yet since 2014, all casual employees covered by the national minimum wage or an award are entitled to at least a 25% pay loading (FWO 2016).

In the past, non-standard employment, particularly casual work, has also grown considerably in importance in Australia at the expense of the standard employment relationship. However, the rise took place earlier than in Germany and was most pronounced in the 1980s and 1990s (Shomos, Turner and Will 2013). Since the turn of the millennium, the share of casual, fixed-term and temporary agency work has remained rather stable (Wilkins and Wooden 2014), while part-time work has seen further increases (ABS 2016a). Looking at the current distribution of employment types in Australia (still Table 2.1) we see that, like in Germany, part-time work is the most common form of non-standard employment, amounting to 26% of employees. This places Australia among the OECD countries with the highest part-time rates (OECD 2013b). Moreover, around 15% of employees are found in casual work.[13] The relevance of fixed-term contracts[14] and temporary agency work is of a comparable level to Germany. One important characteristic of Australian non-standard employment is a comparatively high interdependence between the different forms of non-standard employment: The majority of part-time workers are employed on a casual basis, and the same is true for temporary agency workers (summarising: Laß Forthcoming). According to Pocock (2003), those who want to work with reduced working hours often do not have a choice but to accept a casual job for lack of permanent part-time positions.

The impact of non-standard employment on workers' lives has been highly debated and researched in both Germany and Australia. On the one hand, non-standard forms of employment are connected to specific opportunities, such as increased time for non-work obligations and an easier labour market (re)entry. On the other hand, in both countries non-standard employment is associated with higher risks of precariousness (see Chapter 3 for a detailed discussion).

While both countries exhibit high levels of non-standard employment, these forms of employment are embedded into very different *employment systems.* Germany is characterised by "closed employment relationships" (Mills and Blossfeld 2013:18): Workers who are already "inside" the labour market and have permanent contracts benefit from strong protection against dismissal (see Figure 2.1).[15] Labour relations are traditionally characterised by trust, reliability and stability (Mayer 1997; Soskice 1991). Employment stability in occupational positions has been comparably high and job mobility usually occurred in the form of upward moves ("one-way mobility") (Allmendinger and Hinz 1996:275–276). Only since the second half of the 1990s have career instabilities been on the

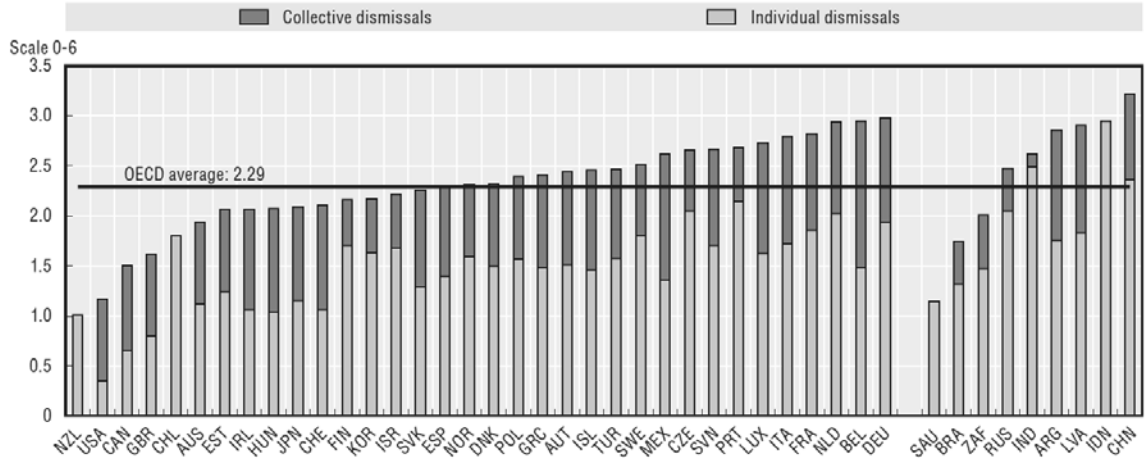
[13] This number relates to workers who are not in full-time education and below 65 years of age. Including all Australian workers, the share of casuals amounts to around one quarter of employees (Wilkins and Wooden 2014).

[14] Depending on the data source, the share of fixed-term contracts in Australia varies considerably, with the Australian Bureau of Statistics reporting much lower shares than the HILDA Survey. However, the shares provided by HILDA are considered to be more accurate (PC 2006).

[15] After working for six months for the same employer, workers are subject to the statutory protection against dismissal in Germany (Sect. 1 Employment Protection Act).

increase (Diewald and Sill 2005). However, in such a closed system, outsiders, like labour market entrants, migrants or women re-entering the labour market, find it difficult to attain positions with the same extent of protection. As a consequence, young workers are overrepresented among the non-standard employees, particularly among fixed-term contract workers and temporary agency workers (author's calculations based on StBA 2015a; Mischke and Wingerter 2012). The share of fixed-term contracts is particularly high among young academics, especially at universities, as well as among young unskilled workers (Kucera and Grau 2013). In contrast to permanent employment, German fixed-term contracts are relatively unregulated in OECD comparison, while temporary agency work is moderately regulated (OECD 2013).

Figure 2.1: Protection of permanent workers against dismissal in OECD countries (2012/13)



Note: Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of employment protection for regular workers against individual dismissal (EPR) and additional provisions for collective dismissal (EPRC) to the indicator of employment protection for regular workers against individual and collective dismissal (EPRC). The height of the bar represents the value of the EPRC indicator.
Source: OECD (2013:86)

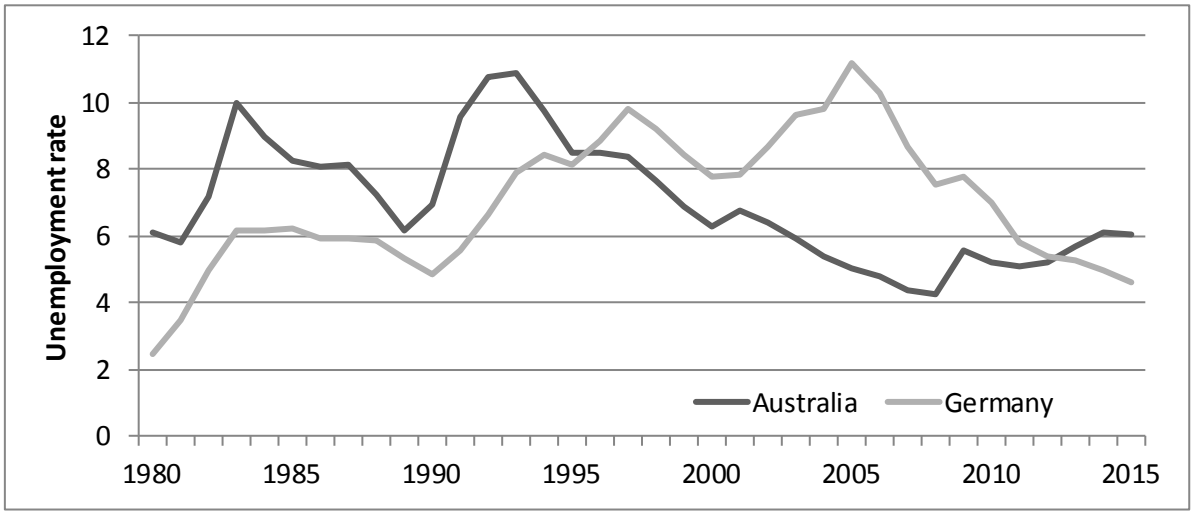
In contrast, Australia belongs to the group of countries characterised by "open employment relationship[s]" (Mills and Blossfeld 2013:18), based on the free market system. The employment system does not divide workers into insiders and outsiders (McDonald and Moyle 2010); however, employment protection is generally low in OECD comparison – for permanent as well as fixed-term and agency workers (OECD 2013). Job mobility is much higher or – to put it the other way around – job tenure is much lower than in closed employment systems like Germany (OECD 2016a).[16] Nevertheless, like in Germany, young people are overrepresented in certain forms of non-standard employment in Australia, particularly casual work and fixed-term contracts (Wooden and Warren

[16] For example, among German dependent employees aged 15 to 64, 42% of workers have a job tenure of ten years or more, while this applies to only 23% of employees in Australia. In contrast, 14% of German employees have a tenure of less than one year, compared to 20% of Australians. Germany's tenure is thereby above the OECD average, while Australia's tenure is below it (OECD 2016a).

2003). The question whether and in what way these forms of employment affect partnership and fertility transitions is therefore highly relevant in both countries.

Furthermore, Germany and Australia have seen very different developments of the general *unemployment* rate and long-term unemployment during the past decades. As can be seen in Figure 2.2, since the 1980s Germany's unemployment rate increased almost steadily for several decades, reaching its summit in 2005 with 11.2%. Despite the global financial crisis and the resulting economic recession in 2009, the unemployment rate then fell almost continuously to 4.6% in 2015. Long-term unemployment, defined as lasting more than one year, has continuously been on a level well above the OECD average in Germany (reaching its peak of almost 57% in 2007), but has also declined considerably during the past few years (OECD 2015c).

Figure 2.2: Unemployment rates in Germany and Australia (1980-2015)



Source: Author's illustration based on OECD (2016b).
Note: Unemployment rate of persons aged 15 years and over; as defined by the ILO guidelines.

Australia's unemployment rate took a similar upwards trajectory in the 1980s and early 1990s – albeit on a higher level than Germany – until its peak at 10.9% in 1993. Due to a long period of economic growth with only one economic downturn at the beginning of the 2000s, it then declined almost continuously to a minimum of 4.2% in 2008. Afterwards, the downwards trend was slightly reversed, and in 2015 unemployment amounted to 6.1% in Australia. Similar to overall unemployment, long-term unemployment declined until 2009 and then rose again. Nevertheless, Australia's long-term unemployment remains on a much lower level than Germany's and below the OECD average (OECD 2015c).

Like non-standard employment, unemployment is unequally distributed within the workforce and concentrated among younger workers[17] in both countries: While the average unemployment rate in Germany was 5.5% in 2014, 15- to 20-year olds had an unemployment rate of 8.8% and 20- to 25-year olds of 7.5% (StBA 2015e). In Australia, 15- to 24-year olds exhibited an unemployment rate of 13.6% in 2014, compared to an overall unemployment rate of 6.1% (ABS 2016a).

2.1.1.2 Employment-Related Welfare Policies

Germany and Australia are representatives of two different welfare state regimes that vary in the interplay between state, market and family (Esping-Andersen 1990). Germany is traditionally classified as a conservative-corporatist welfare state, which provides a comparatively high level of social security but at the same time aims to maintain status differences among the population. The state is the main provider of welfare, meaning that private insurance plays only a minor role. Nevertheless, in line with the principle of subsidiarity, families' capacity to support their members has priority over state support. Australia, in contrast, is the archetype of a liberal welfare state in Esping-Andersen's typology. Social support is usually modest, means-tested and universal. Commodification is stronger than in Germany so that the population is largely dependent on the labour market to secure their welfare.

For example, Germany and Australia differ in their levels of unemployment benefits. In international comparison, Germany's social provisions in case of job loss can be regarded as relatively generous (Gangl 2005). However, due to marked reforms of the unemployment benefits in the wake of the political program Agenda 2010 and the Acts on Modern Services in the Labour Market (particularly Hartz IV), the situation until 2004-05 and thereafer have to be differentiated. For the first twelve months after job loss,[18] the unemployment benefit (Unemployment Benefit I/*Arbeitslosengeld I*) is independent of financial assets and tied to the level of prior earnings: Childless persons receive 60% and parents 67% of their former net income. After this initial period, unemployed persons used to receive Unemployment Assistance (*Arbeitslosenhilfe)*, a means-tested benefit amounting to 53% of the former net income (57% for parents) in 2004.[19] In the wake of the Hartz IV reform, Unemployment Assistance was abolished, and the former recipients now receive Unemployment Benefit II (*Arbeitslosengeld II)*, a means-tested lump-sum payment.[20] This reform

[17] In contrast to Australia, where unemployment decreases rather steadily with age, older workers in Germany are also subject to a higher unemployment risk (compare ABS 2016a and StBA 2015e).

[18] Longer periods apply to workers aged 50 years or older. Shorter periods apply to workers who have contributed to unemployment insurance for less than 24 months within the past two years.

[19] The level of Unemployment Assistance was lowered several times prior to 2004.

[20] The level of Unemployment Benefit II is adjusted regularly. In 2016, the payment for single persons without children amounted to €404 per month plus rent and heating costs.

designated a change from the principle of the maintenance of the living standard to securing subsistence. In the wake of the reform, many of the original recipients of unemployment assistance experienced a cut-back in their benefits (Goebel and Richter 2007). Moreover, only those workers are entitled to Unemployment Benefit I who have contributed to unemployment insurance for at least twelve months within the past two years. Otherwise, they receive Unemployment Benefit II directly after job loss[21] (Sect. 142 Third Book of the Social Code).

In contrast, unemployment benefits (Newstart Allowance) are generally means-tested and lump-sum in Australia.[22] In OECD comparison, the gap between the average wage and the level of unemployment benefits is particularly large in Australia (Morris and Wilson 2014). This fact can be seen in a long political tradition of a focus on social security through wages rather than social benefits, which earned Australia the name of the "wage earners' welfare state". A sufficiently high wage is meant to provide enough savings to deal with problems such as short-term sickness and unemployment (Castles 1994):

> "The simplest way of locating the essential difference between Australia and most other nations is to say that, in Australia, wages policy, in large part, substituted for social policy, with the functional identity between the two being denoted by the peculiar (in terms of capitalistic criteria) importation into Antipodean wage-setting mechanisms of such concepts as the 'fair wage', the 'living wage' and a 'basic' or minimum wage (…)" (Castles 1994:123–124).

The traditional focus on welfare through work thus manifests itself in a comparatively high minimum wage in Australia: A national minimum wage of A$7.25 was introduced in 1993 and has been increased every year since then (WSI 2016). In 2016, it amounted to A$17.70 per hour (FWO 2016), placing Australia at the very top of all 37 countries considered in the minimum wage data base of the Institute of Economic and Social Research (WSI) (Schulten 2016). In contrast, in Germany, the question of whether to introduce a minimum wage was a highly debated issue among political parties, employer organisations, trade unions and economists throughout the past decade. Resistance was primarily based on fears regarding disadvantages for the economy and the destruction of jobs, as well as opposition to the intrusion into the autonomy of collective bargaining (Amlinger, Bispinck and Schulten 2016). Finally, in 2015 a national minimum wage of €8.50 came into effect in Germany (Sect. 1 Mindestlohngesetz). The level of the minimum wage places Germany in the lower top of the distribution of the considered countries.[23]

[21] With the exception of those who qualify for a short qualifying period (*kurze Anwartschaftszeit*). If the employee mainly had jobs which were set out for a duration of no more than six weeks and if the income remains below a certain threshold, the qualifying period is only 6 months rather than 12 months within the last two years.

[22] In 2016, a single person without children received A$523 per fortnight as Newstart Allowance, which increased to A$566 for single parents. Additionally, rent assistance is granted.

[23] Concerning the nominal minimum wage, Germany ranks ninth, below Australia, Luxembourg, France, the Netherlands, New Zealand, Great Britain, Ireland and Belgium, which all have national minimum wages above €9.00. However, according to purchasing power parity, Germany's minimum wage ranks fifth. Australia, where costs of living are high, swaps the top position with Luxembourg when considering purchasing power parity (Schulten 2016).

Australia's wage earners' welfare state logic is also visible in the employers' rather than the state's responsibility for certain types of benefits. For example, the conditions for combining work and family are primarily subject to negotiations between employers and employees in Australia (McDonald and Moyle 2010) (see Section 2.1.2.3 for the example of paid parental leave).

2.1.2 Partnership and Family

In the following, the partnership and family situations in Germany and Australia are compared. The first section (2.1.2.1) briefly summarises partnership and childbearing trends, while the second section (2.1.2.2) focuses on the two countries' gender regimes. Again, it should be noted that there are differences between East and West Germany regarding these issues (for details see Section 2.2). Finally, the developments in the area of family policies are sketched out (Section 2.1.2.3).

2.1.2.1 Partnership and Childbearing Trends

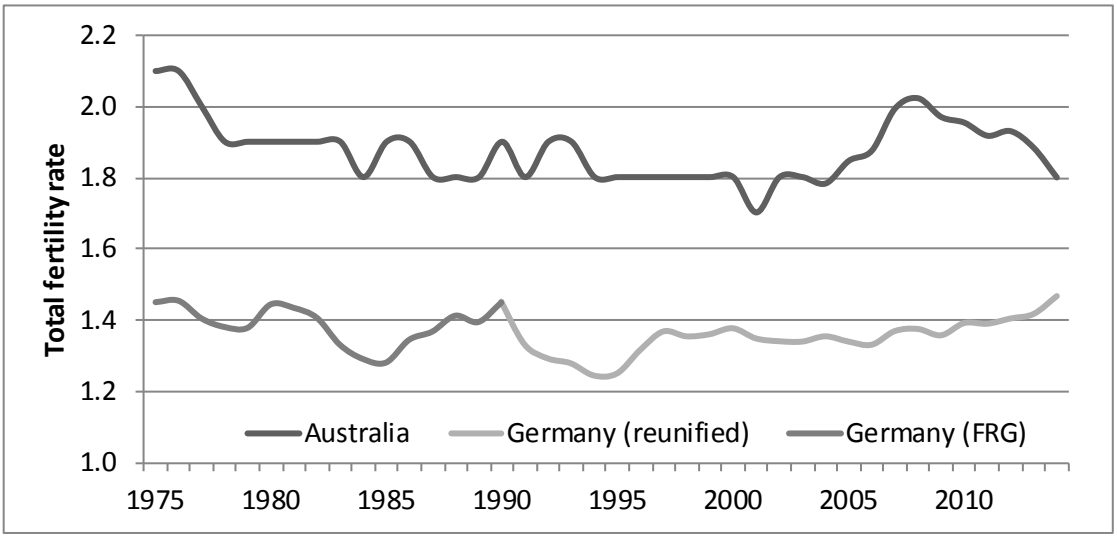
In the wake of the Second Demographic Transition (Kaa 1987; Lesthaeghe 1992), individuals' living arrangements have undergone considerable change in many industrial countries. In this context, both Germany and Australia have been subject to a declining marriage rate on the one hand and rising cohabitation and divorce rates on the other hand during the past decades (Hayes et al. 2010; Peuckert 2012:32, 101, 306). Moreover, childbearing behaviour has changed notably: Both countries have seen a decline in their fertility rate, a postponement of parenthood in the form of a rising age at first childbirth and increasing childlessness (ABS 2014; StBA 2013; Weston et al. 2004). In 2013, German mothers had their first child at an average age of 29.4 years, compared to Australian mothers at 28.6 years (AIHW 2015; StBA 2016c). Around 14% of women aged 45 to 49 are childless in Australia (in 2006), compared to around 20% of women of the same age group in Germany (in 2012) (ABS 2010; BiB 2016d). Furthermore, a rising share of children is born to unmarried parents, amounting to 33% of Australian children (ABS 2014) and 35% of German children in 2013 (BiB 2016f).

Despite similar overall trends, the *level* of fertility differs considerably between Germany and Australia (see Figure 2.3). Germany[24] has been among the low-fertility countries for decades, with the total fertility rate (TFR) ranging between 1.3 and 1.4 most of the time. However, in recent years we see a slight increase in the German TFR, culminating in the highest level since reunification at 1.47 in 2014. In contrast, Australia's fertility rate has continuously been on a higher level than Germany's. Moreover, the period since the millennium was marked by more variation in the TFR in

[24] This relates to the whole of Germany after reunification and West Germany before unification. In the former German Democratic Republic, fertility rates were on a higher level between 1975 and 1990 (see Section 2.2).

Australia, starting out on a comparatively low level of 1.7 in 2001, then almost reaching replacement level[25] in 2008 with 2.0 and then falling again to 1.80 in 2014.

Figure 2.3: Total fertility rates in Germany and Australia (1975-2014)



Source: Author's illustration based on ABS (2015), StBA (2016c) and StBA (2016e).

Opinion research in both countries demonstrates the importance of the employment and economic situation of the potential parents for the decision to have a child (see Table 2.2): According to the German survey "Monitor Familienleben" (IfD 2013), 60% of respondents agree that a secure job of one of the partners is a prerequisite for having children. Almost as many (57%) consider a good financial situation a prerequisite, 46% a situation in which both partners have finished training or studies and 43% even think that one income must suffice to maintain the family. A similar study (Weston et al. 2004) asked Australians about the factors they consider important in having children (still Table 2.2): 65% of men and 67% of women agreed that being able to afford to support a child is an important factor, rendering this item the most important one on the list. A further 53% of men and 57% of women consider the male partner's job security an important factor, and 34% of men and 38% of women the female partner's job security. Another 32% and 30%, respectively, stress the importance of the ability to buy, renovate or move home.

[25] The replacement level designates the fertility rate at which enough children are born to sustain the population level. In industrial countries, with very low child mortality, the replacement level is slightly above 2 children per woman.

Table 2.2: Factors considered important in childbearing decisions

Germany			Australia		
Rank	**Prerequisites for the birth of a child**	**%**	**Rank m/f**	**Factors considered important in having children**	**% m/f**
1	Both partners want to have a child	86	1/1	Afford to support child	65/67
2	Both partners feel mature enough for a child	77	1/3	Female partner would make a good parent	65/58
3	Both partners feel sure to have found the right partner	66	3/2	Male partner would make a good parent	63/60
4	One of the partners is in a secure job position, e.g. has a permanent contract	60	5/4	Male partner's job security	53/57
5	Good financial situation	57	6/5	Female partner's age	49/56
6	Both partners have finished training/studies	46	7/6	Uncertain that relationship will last	47/47
7	One income suffices to maintain family	43	9/9	Male partner's age	42/42
8	Availability of childcare	39	11/7	Finding good affordable childcare	40/46
9	Financial support from state	28	14/12	Female partner's job security	34/38
10	One of the partners willing to cut back on the job or to stop work altogether	25	15/17	Ability to buy/renovate/move home	32/30

Source: Germany: IfD (2013:29); respondents aged 16-45; Australia: Weston et al. (2004:126); respondents aged 20-39, author's selection from 28 items.

Both surveys also highlight the importance of the partnership quality and stability for having children: 66% of Germans state that both partners should feel sure to have found the right partner. Among the Australians, in turn, 47% believe that uncertainty about the stability of the partnership is a factor that has to be considered before having a child.

2.1.2.2 Gender Regime

Several approaches have extended the traditional perspective on the welfare state by looking at the gendered relationship between unpaid work, paid work and welfare. Early approaches such as the one by Lewis and Ostner (Lewis 1992; Lewis and Ostner 1994) centred on the role of the welfare state in shaping gender relations.[26] More recent approaches, e.g. by Pfau-Effinger (2000, 2009)[27]

[26] The authors distinguish between three different types of welfare states, namely *strong male breadwinner states*, *modified male breadwinner states* and *weak male breadwinner states*. In *strong male breadwinner states*, married women are excluded from the labour market and expected to undertake the care work at home. In *modified male breadwinner* countries, this strict division of labour is blurred to some degree; women are acknowledged both in their roles as wives and mothers and as workers. In *weak breadwinner* (also called *dual breadwinner)* states, women are defined as workers rather than wives and mothers. In this sense, Germany was classified as a strong male breadwinner state, while Australia was not included in the typology.

[27] Pfau-Effinger (2000, 2009) provides a typology of family models which takes into account cultural values regarding the relationship between family members and the employment system, the suitable environment for raising children and the adequate gender division of labour within families (Pfau-Effinger 2009). With regard to European societies, Pfau-Effinger (2009) identifies at least six different models: Firstly, the *family economy model*, in which both men and women work together in their agricultural or crafts business. Second, the *housewife model of the (male) breadwinner family*, in which

have extended the narrow focus on the welfare state by highlighting the role of cultural values in structuring gender relations. In accordance with recent approaches, in this study the term gender regime is used in a comprehensive way to describe both the dimension of institutional principles and regulations as well as the dimension of social norms, values and practice (see also Betzelt 2007). Furthermore, the gender regime has both a public and a private (domestic) dimension (Betzelt 2007). As will become clear in this chapter, the different dimensions of the gender regime do not necessarily have to be congruent but can diverge from each other and develop at different paces.

Three different regimes are particularly relevant in the German and the Australian case: Firstly, the *(traditional) male breadwinner model*, in which men are employed full-time and women are not employed but focus on homemaking, and secondly the *modified male breadwinner model* (also called "new traditional family", "male breadwinner/female part-time carer" or "one-and-a-half-earner" model), in which men are employed full-time and women are secondary earners (usually employed part-time) and primary carers at the same time. And thirdly there is the *dual breadwinner model* (also called "dual (full-time) earner model"), in which both partners are employed full-time. In this sense, Germany and Australia have both traditionally been characterised as male breadwinner regimes (Broomhill and Sharp 2005; Pfau-Effinger 2000:111). During the past decades, the gender regimes in both countries were subject to marked changes, mainly towards the modified male breadwinner model. While the discussion of the political dimension of the gender regime is embedded in the next section on family policies (Section 2.1.2.3), the rest of this section focuses the current state of the gender regime in the dimension of social norms, values and practices. In order to account for the public and the private side of the gender regime, a close look has to be taken both at the sphere of employment and the sphere of housework and care.

Developments in the sphere of employment suggest that both countries have departed from the male breadwinner model during the past decades. On the part of social norms, both countries have witnessed increasing support for an egalitarian involvement of men and women in employment in the population (Egmond et al. 2010; Peuckert 2012:415). On the part of social practice, this change is reflected in an increasing number of women participating in the labour market: 72% of

men are primarily responsible for gainful employment and women are primarily responsible for homemaking and care work. The third model in Pfau-Effinger's typology is the *male breadwinner/female part-time care-provider model*, in which men are integrated continuously into gainful employment while new mothers might interrupt their employment for a few years and then combine employment and care work by means of part-time work. The fourth model is the *dual-(part-time) breadwinner/dual-(part-time) care-provider model*, in which both partners work part-time and share the caring responsibilities. The fifth model is the *dual-breadwinner/external care model*, in which generally all men and women are expected to work full-time with the help of external childcare institutions. Finally, there is the *dual-breadwinner/extended family care model*, in which care work is mainly taken over by extended family networks while both parents work. According to this typology, (West) Germany was characterised by the *housewife model of the (male) breadwinner family*, while Australia has not been included in the typology.

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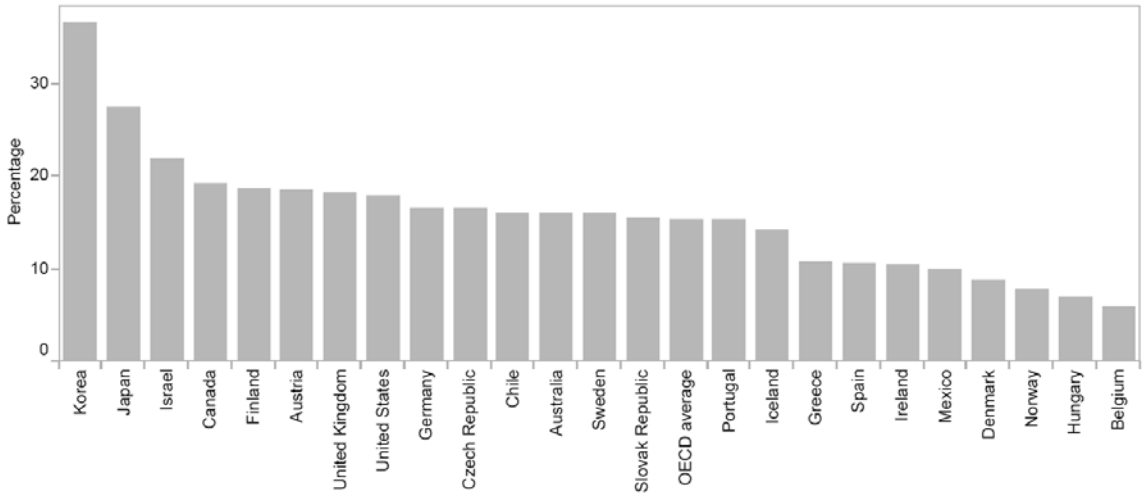
women aged 25 to 54 in Australia (2009) and 78% in Germany (2011) are employed, exceeding slightly the OECD average of 71% (OECD 2015d). While maternal employment remains much lower than overall women's employment, working for pay is now the norm even for the majority of women with children: Although still below the OECD average of 65% (OECD 2015d), close to two thirds (62%) of mothers with children aged 15 or less were employed in Australia in 2011 (Baxter 2013a). In Germany, the share of employed mothers is slightly higher, amounting to 67% in 2011 (OECD 2015d). Thus, from a cross-sectional perspective, the male breadwinner model is only followed by a minority in both countries, as in most families both parents work. From a longitudinal perspective, however, it still applies to most families at specific points in time, namely when the children are very young, while maternal employment increases with the age of the youngest child (Brennan 2007; Peuckert 2012:453–454).[28]

Women and men in both countries also differ considerably regarding their working hours, as many women only work part-time (OECD 2015b): In 2014, 37% of employed women worked part-time in Australia, representing 71% of all part-timers. In Germany, a similar share of female employees (38%) worked part-time, making up an even larger share of the total part-time (80%). It follows that in both countries, male part-time work is the exception. Among mothers with children under 18 years, part-time workers are the majority, with 59% of working mothers in Australia and 70% in Germany (Baxter 2013b; Peuckert 2012:454). In both countries, particularly among families with children, we therefore see a dominance of the *modified male breadwinner model*, characterised by a full-time working male and a part-time working female (Egmond et al. 2010; Peuckert 2012:458–459). While this gender arrangement is dominant in many industrialised countries, the polarisation of working hours between the sexes is particularly pronounced in Australia, with men working very long hours and women particularly short hours (Charlesworth et al. 2011).

The unequal positions of men and women in the labour market can also be seen in the countries' gender wage gaps: In 2011, Germany exhibited a gender wage gap for full-time employees of 16.6% and Australia of 16.0%, meaning that full-time working women earn around 16% less than male full-time workers (OECD 2014b). As can be seen from Figure 2.4, both countries are above the OECD average regarding the gender inequality of wages.

[28] In Australia, only 54% of the mothers with children aged 0 to 4 are employed (PC 2014b:12). In Germany, it is 32% of mothers with children aged 0 to 2 and 61% of children aged 3 to 5 (Peuckert 2012).

Figure 2.4: Gender wage gap in the OECD countries (2011)

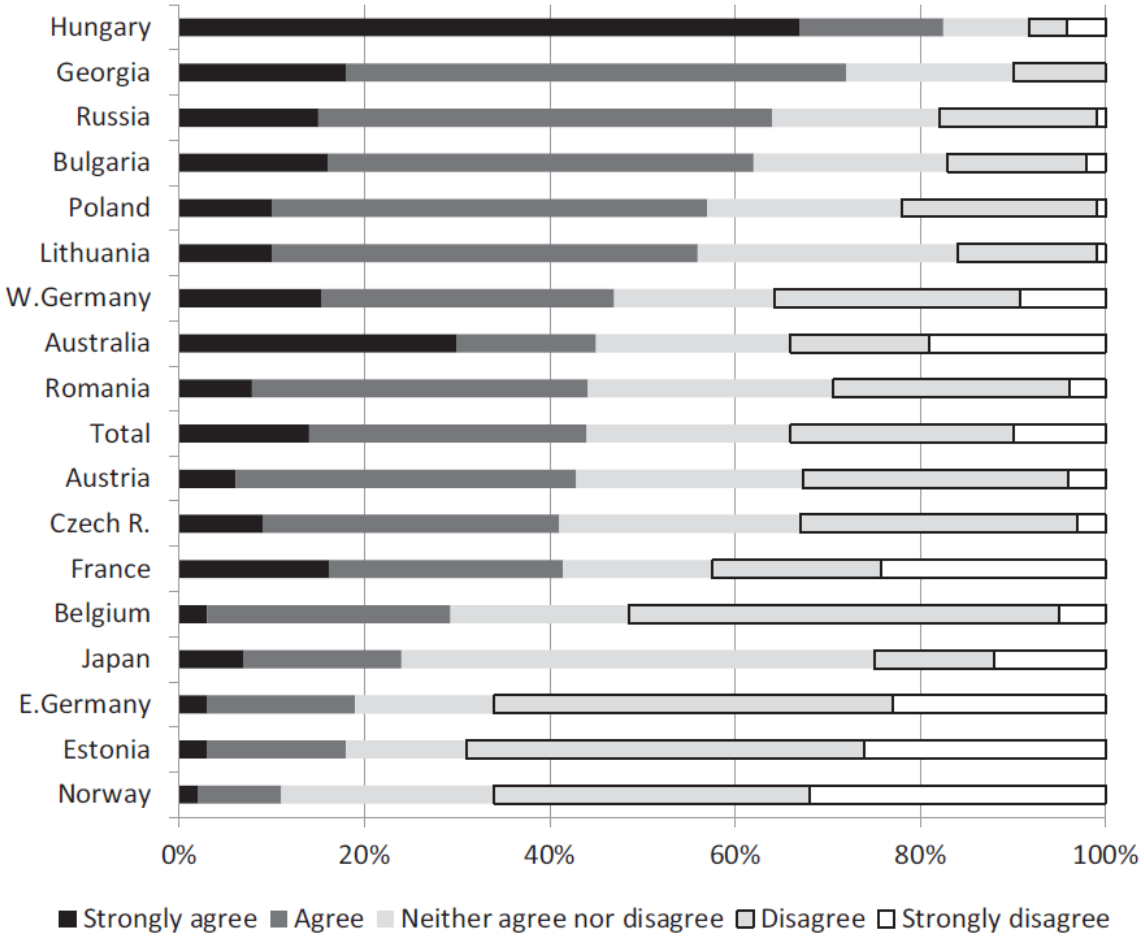


Source: OECD (2014b).
Note: The gender wage gap signifies the difference between male and female median wages divided by the male median wage.

However, the wages of full-time earners provide only part of the picture, as a large group of women works part-time, and even among full-time workers large differences regarding working hours are apparent. Therefore, a measure of the differences in hourly wages seems more appropriate to capture gender differences in pay. In Germany, the hourly gender pay gap in 2011 was 22% (StBA 2016f) and therefore higher than the full-time wage gap. In contrast, in Australia the gap reduces when accounting for working hours, to an hourly gender wage gap of 12% in 2012 (albeit this number excludes managers) (ABS 2013a). Studies on graduates' earnings in Germany and Australia show that gender differences in wages to some degree already exist among the starting salaries of graduates, even when comparing male and female graduates in the same field (Otto et al. 2014; Todd and Preston 2012). The gender wage gap can thus be expected to play a role for couples when determining the division of labour.

Looking at *gender arrangements within the home*, there has been less development towards gender equality than in the sphere of employment: While in both countries mothers are generally expected to be in paid employment, at the same time it is still assumed that young children should be cared for in the home, particularly by their mothers (Luci 2011; Probert 2002). As can be seen in Figure 2.5, a large share of West Germans and Australians believe that women should stay at home if their children are young: Almost half of each country's population (46% of West Germans and 45% of Australians) think that "a pre-school child is likely to suffer if his/her mother works", which puts them above the average of the countries surveyed.

Figure 2.5: Attitudes towards employment of mothers of pre-school children by country



Source: Buber-Ennser and Panova (2014:9) based on wave 1 of the Generations and Gender Survey (2004-2011).
Note: Agreement with the statement "A pre-school child suffers if his/her mother works".

Not only are attitudes about motherhood still comparatively traditional in both countries, but women also do most of the housework and childcare (Craig and Mullan 2009, 2011; Peuckert 2012:481). This applies particularly to routine childcare tasks, such as feeding, bathing and dressing the child and taking the child to school, sports, etc. (Craig and Mullan 2011). Even among couples who equally divided gainful employment and housework in the beginning of their partnership, the birth of the first child initiates a "traditionalisation of the division of labour" (e.g. Peuckert 2012:241), with the women then doing all or most of the care and housework. The opposing demands directed at women in the employment and the family sphere demonstrate considerable ambiguities as to mothers' roles in the two countries. Both West Germany and Australia exhibit a "cultural lag" (Nave-Herz 2013:75), i.e. an unequal development in the sphere of employment on the one hand and the family sphere on the other with regard to gender roles.

On the part of the men, the adherence to traditional roles regarding childcare and homemaking is slowly challenged by the new concept of "active" fatherhood (Laß and Heddendorp 2017; Possinger 2009) or the "father as nurturer instead of father as provider" (Baxter, Hewitt and Haynes

2008). Fathers frequently express the wish and are expected to take on a more prominent role in parenting than in the past. However, so far this change seems to have taken place mainly on the level of attitudes: While men in Germany show more openness towards a stronger involvement in the family, the factual division of labour is often still very traditional as women are still mainly responsible for most of the housework and care (Laß and Heddendorp 2017). For example, while the share of fathers taking paid parental leave has continuously increased over the past years from 21% in 2008 to 32% in 2013, fathers usually take a much shorter period of leave than mothers (StBA 2016d). For most German men, being a good father is still connected to the role of breadwinning and does not include a (permanent) departure from full-time employment (Possinger 2009).

Similarly, Probert (2002) stresses that today's Australian fathers express a stronger interest in closer emotional ties with their children than in the past; however, they do not adapt their working hours or employment careers in order to accommodate for children. And as Baxter et al. (2008) find, if they do indeed get more engaged at home, they increase their participation in childcare but leave women to do the main share of housework: "[O]ur data suggest that men's role as parent is tightly circumscribed and does not encompass additional housework associated with children. (…) Rather, it seems that the transition to parenthood increases the gender gap in time on housework" (Baxter et al. 2008:12). Parental Leave Pay is taken up almost exclusively by mothers in Australia (99.4%), although theoretically it can be transferred to the father or another primary carer (Baird and O'Brien 2015). However, fathers' wishes to get more involved with childcare are reflected in the fact that the recently introduced Dad and Partner Pay (DAPP) was taken up by 36% of eligible fathers in its first year of existence (2013)[29] (Martin et al. 2014). Due to the fact that this benefit comprises only a two-week period, it can only be regarded as a small step towards a more equal gender division of labour in the home.

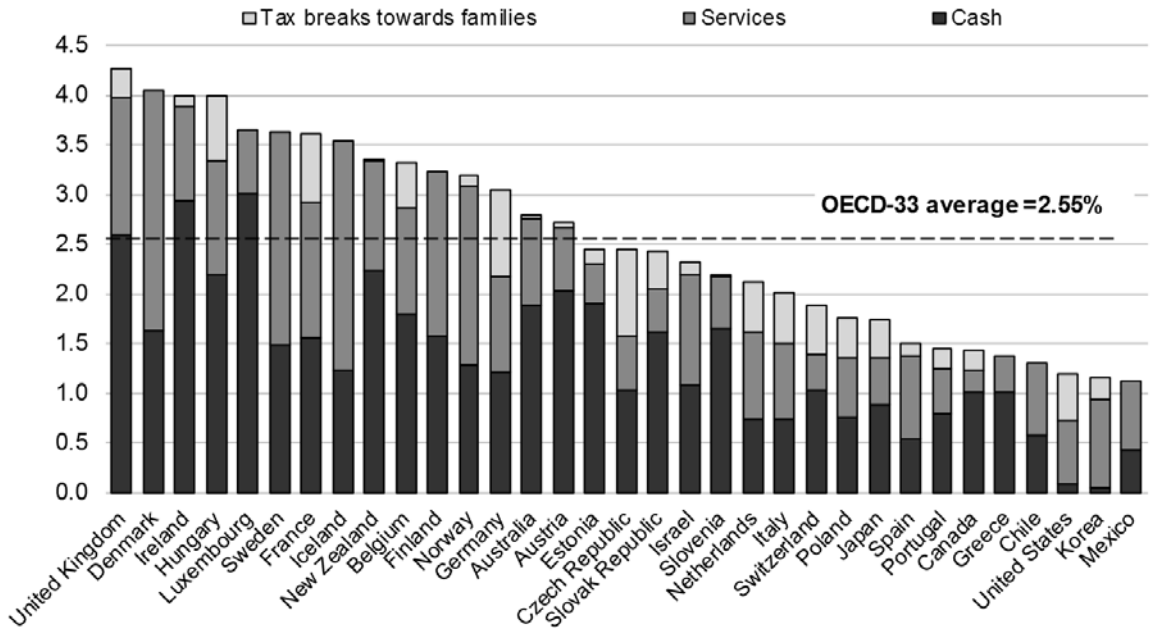
Moreover, Egmond et al. (2010) show that the development towards egalitarianism in Australia has stalled during the first decade of the 21st century, as gender role attitudes seem to have become more traditional again. Support for family arrangements that diverge from the male breadwinner model and for combining motherhood with paid employment has decreased. This trend towards a re-traditionalisation of gender roles in Australia might be connected to a period of increasing political support for the male breadwinner model during the liberal government from 1996 to 2007, as is explained in more detail in the next section.

[29] Accounting for the fact that 23% of fathers did not know that Dad and Partner Pay existed, the share of eligible fathers taking up DAPP rises to 50% of those who knew about the benefit (Martin et al. 2014).

2.1.2.3 Family Policies

Comparing overall public spending on family benefits in OECD countries, Germany and Australia rank very similarly, with 3.1% and 2.8% of GDP spent on families, placing them slightly above the OECD average (see Figure 2.6). However, the proportions contributed by cash, services and tax measures differ considerably, with Germany's comparatively strong emphasis on tax breaks and Australia's focus on cash benefits.

Figure 2.6: Public spending on family benefits in OECD countries (% of GDP, 2011)



Source: OECD (2014c).

Table 2.3 provides an overview of the most important family benefits in Germany and Australia. In line with the focus of the comparative empirical chapter (Chapter 6) on first childbirth, the overview is confined to benefits relevant to parents with children of pre-school age: The anticipated financial situation in the years directly after childbirth can be expected to be most relevant for the decision to have a child (see also Abiry et al. 2014). The table shows that both countries offer considerable support to young families by means of regular tax or cash benefits, birth-related payments, parental leave, childcare and support for low-income families. In contrast to Germany, benefits in Australia are usually means-tested; however, compared to other OECD countries, the thresholds are relatively generous, so that over 80% of families with children receive direct cash assistance (Gray, Qu and Weston 2008).

Table 2.3: Family benefits important to families with pre-school children in Germany and Australia (2001-2016)

Germany	Australia
Tax/cash benefits	
Kindergeld and Kinderfreibetrag (child benefit and child tax credit) • Either monthly payment for children under 18 years and for older children if in education or unemployed (in 2016: €190 for the first and second child, €196 for the third child and €221 for each additional child) • Alternatively (for higher incomes): tax allowance (in 2016 up to €7,248 per year) **Entlastungsbetrag für Alleinerziehende (tax allowance for single parents) (since 2004)** • Additional tax allowance for single parents if entitled to Kindergeld or Kinderfreibetrag (in 2016 €1,908 plus €240 per additional child per year) **Haushaltsfreibetrag (household allowance) (until 2004)** • Tax allowance for single parents of €2,340 • Replaced by Entlastungsbetrag	**Family Tax Benefit - Part A** • Payment to parents of a dependent child or secondary student under 20 years, amount depending on income, number and age of children (in 2016 max. A$6,928 per year) **Family Tax Benefit - Part B** • Additional assistance for single-income families with a dependent child under 16 years, or full-time secondary student until 18 years (in 2016 max. A$4,409 per year)
Birth-related payments	
Mutterschaftsgeld (maternity allowance) • Six weeks before and eight weeks after the birth of a child • Replacement of net income before the start of maternity leave by health insurance	**Maternity Allowance (until 2004)** • Lump-sum payment for each newborn to assist parents with the costs of a new baby (e.g. A$843 in 2004) • Replaced by maternity payment **First Child Tax Refund (2002-2004)** • Tax refunds of up to A$2,500 per year for five years for mothers after first childbirth • Replaced by maternity payment **Maternity payment ("Baby Bonus") (2004-2014)** • Lump-sum payment for new mothers • Started at A$3,000 per new child, with major increases in 2006 (to A$4,000), and 2008 (to A$5,000). • Not combinable with Parental Leave Pay. • Replaced by the Newborn Upfront Payment and Newborn Supplement **Newborn Upfront Payment and Newborn Supplement (since 2014)** • Payment after the birth or adoption of a child of max. A$2,127 for a first child or A$1,064 for other children (in 2016) • Not combinable with Parental Leave Pay.
Parental leave	
Elternzeit (unpaid leave) • Three years with job guarantee; can be taken individually or parallel by both parents • Not conditioned on length of tenure **Erziehungsgeld (paid parental leave) (until 2006)** • Monthly payment of €307 (until 2003) or €300 (from 2004) for 24 months after the birth of a child **Elterngeld (paid parental leave) (since 2007)** • Financial support for non-working parents and parents who work less than 30 hours after the	**Unpaid leave** • Twelve months with job guarantee • Since 2011 both partners individually entitled to 52 weeks unpaid leave; effectively doubling the max. duration • Conditioned on having worked for the same employer for twelve months **Parental Leave Pay (since 2011)** • Financial support for primary carers of newborn or recently adopted children (usually the mother but

Germany	Australia
birth of their child for up to 14 months (including two non-transferable partner months) at 67% of the net income before the birth of the child (min. €300 and max €1,800) • Since 2015: ElterngeldPlus, doubles duration of Elterngeld if parents work part-time	transferable to another primary carer) who were previously employed • Payment at national minimum wage level (A$673 per week in 2016) for up to 18 weeks • Can be supplemented to wage replacement level by employers **Dad and Partner Pay (since 2013)** • Payment at national minimum wage level for two weeks (non-transferable) for the father of a newborn or recently adopted child or the birth mother's partner
Childcare	
Tax Deductibility of Childcare Costs • Deduction of two-thirds of childcare costs per year and child under 14 years (limit at €4,000 per year in 2016) **Provision of Childcare at Reduced Costs** • Parental contributions to childcare fees considerably reduced by state (parents only cover around 14% of childcare costs (in 2006)) **Betreuungsgeld (care allowance/cash-for-care) (2013-2015)** • Payment of €100 (2013) or €150 (from 2014) per month to parents of a one- or two-year old child who do not claim a childcare place	**Child Care Benefit (CCB)** • Parents who are employed, studying, training, or looking for work may be eligible for up to 50 hours of subsidised care per week per child; other families can claim up to 24 hours • Hourly rates for a non-school aged child differ between A$4.24 for approved care and A$0.71 for registered care (in 2016) **Child Care rebate (CCR) (since 2004)** • Additional childcare subsidy for those who receive CCB for approved care for work-related reasons. • Tax deduction covering 30% (until 2008) and then 50% of out-of-pocket childcare expenses for approved childcare up to initially A$4,000 (until 2008), in 2016 at A$7,500 per child and year **Jobs, Education and Training Child Care Fee Assistance** • Helps with the cost of approved childcare for eligible parents undertaking an approved activity, such as studies, paid work or participation in a labour market program • Pays most of the gap in out-of-pocket costs not covered by CCB
Benefits and social assistance for low-income or unemployed parents	
Kinderzuschlag (children's allowance) (since 2005) • For low-income families between certain income thresholds • Intended to prevent welfare dependence (Unemployment Benefit II) and child poverty • Max. €140 per child per month (in 2016) **Arbeitslosengeld I (Unemployment Benefit I)** • Increase from 60% of former net income to 67% if the recipient has at least one child **Arbeitslosenhilfe (until 2004)** • Increase from 53% of former net income to 57% if the recipient has at least one child **Arbeitslosengeld II/Sozialgeld (from 2005) (Unemployment Benefit II/social assistance)** • Families receiving social support are paid between €237 and €324 extra per child and month, depending on their age (in 2016)	**Parenting Payment** • Social assistance payment for low-income parents: for singles with a child below the age of 8 (fortnightly payment of A$737 in 2016) or partnered persons with a child below the age of 6 (A$476) **Low Income Family Supplement** • Annual A$300 payment (in 2016) to families who did not earn more than A$60,000 in the previous financial year.

Sources: Author's compilation based on Baird and O'Brien 2015; Bonin et al. 2013; Bradshaw and Finch 2002; Brennan 2007; Department of Human Services 2016; Drago et al. 2011; IW 2010; Parliament of Australia 2009; Schilling 2008 and Bundeselterngeld- und Elternzeitgesetz.

Note: Approved child care services, for example long day care, family day care or vacation care, have government approval to pass on Child Care Benefit as a reduction in childcare fees. In contrast, registered care is provided by individuals who are officially registered as carers, such as relatives, friends or nannies (Department of Human Services 2016).

As can be seen from the years in brackets signifying newly introduced or abolished benefits, in both countries there has been considerable change regarding the nature of family benefits over the past 15 years. With an increasing number of women participating in the labour market (see above) and both governments being concerned about the (comparatively) low birth rate (Boll et al. 2013; Heard 2006), the restructuring of benefits mainly revolved around the combination of work and family and/or supporting parents in realising their childbearing intentions.

During the past decade, Germany has taken several steps towards stronger political support for working parents. In particular, a major reform of the parental leave scheme in 2007 replaced the former *Erziehungsgeld* by the *Elterngeld*. This entailed a change in the level of benefits – from a lump-sum payment of around €300 to an income replacement of 67% of the former net income. The aim was to create a better compensation for the income loss which working parents experience if they decide to interrupt or reduce employment to care for their newborn. At the same time, the duration of the payment was reduced from 24 to 12 months in order to give incentives for caring parents to re-enter the labour market earlier than before. The option of two additional partner months, which are granted only if both partners take part of the parental leave, moreover aims to foster men's active role in parenting (Deutscher Bundestag 2006). The rise in the share of fathers taking up parental leave pay as mentioned above demonstrates that the *Elterngeld* proved quite effective regarding this aim. The regulations for unpaid parental leave were stable during the period of observation: Unpaid leave including a job guarantee can be taken for up to three years. This does not apply, however, to parents on fixed-term contracts whose contracts expire during the period of leave.

Moreover, Germany has considerably extended the availability of formal childcare for children under three years. In 2005, the *Tagesbetreuungsausbaugesetz* (Day Care Expansion Act) determined the creation of 230,000 additional childcare places for under-three year olds until 2010. The subsequent *Kinderförderungsgesetz* (Law for the Support of Children) aimed at creating childcare places for one third of under-three year olds until 2013, accompanied by the introduction of a legal entitlement to a public childcare place for all children aged one and over in 2013 (IW 2010). The extension of public childcare services resulted in a large increase of the utilisation of formal childcare: Between 2008 and 2014, the percentage of children under three years attending public childcare rose from 17.6% to 32.3% (Deutscher Bundestag 2015). Nevertheless, the demand for childcare is still partly unmet.[30] Childcare in Germany is comparatively cheap for parents: According to

[30] In 2014, 41.5% of parents with children under three years needed a place for their child, designating a gap of 9.2 percentage points or 185,000 places. However, this gap has decreased over the past years, as in 2012 it still amounted to 13 percentage points (Deutscher Bundestag 2015).

calculations by Schilling (2008), parental contributions amounted to only 14% of childcare costs in 2006, while public spending accounted for almost 80%.[31] Parents' out-of-pocket costs for childcare as a percentage of the average wage are below the OECD average in Germany (PC 2014a based on OECD data for 2012).

While increased efforts to support working parents were evident in Germany during the past decades, some policy support for the male breadwinner model persists. Above all, this applies to the tax splitting for married couples, which gives the largest tax benefits to single-earner couples. Also, non-working spouses are included in public health insurance free of charge. Moreover, the introduction of the entitlement to childcare in 2013 was accompanied by the launch of the *Betreuungsgeld*, a cash-for-care benefit for those parents who do not make use of public childcare for their one- or two-year olds. This family benefit was only short-lasting, however, as it was ruled unconstitutional by the Federal Constitutional Court in 2015.[32]

In Australia, policy developments in the areas of gender equity and the combination of work and family have not been straightforward in the past decades. During the liberal government from 1996 to 2007, the country experienced a reverse movement when changes in the tax-benefit system re-established support for male breadwinner families and impeded maternal employment (Brennan 2007). The focus on women as mothers rather than workers was also reflected in the Australian debate about paid parental leave: During the first decade of the 21st century, Australia was one of only two industrialised countries (besides the USA) without a national system of paid maternity leave (Brennan 2007). A major concern was that homemaking women should not be disadvantaged regarding family benefits compared to working women. Therefore, the government was strongly opposed to a state-funded parental leave scheme for working parents. Instead, paid parental leave was completely up to negotiations with the employers. This meant that mainly highly qualified women had access to paid parental leave, while those employees with a weaker bargaining position did not receive it:

> "Hardly any women in Australia have access to fourteen weeks paid leave as recommended by the International Labor Organisation (ILO). Further, access to paid maternity leave is highly inequitably distributed. Up to 65 percent of female managers and 54 percent of professional women have access to paid maternity leave, but only 18 percent of clerical, sales, and service workers and less than half of 1 percent of casual workers have an entitlement to paid maternity leave (…)" (Brennan 2007:44).

In order to cope with rising public pressure for the introduction of paid parental leave, in 2004 the government introduced the Maternity Payment (later renamed Baby Bonus), a cash payment for all parents of newborns. Nevertheless, paid parental leave remained a highly debated issue (Baird

[31] The rest was covered directly by the private organisations running the childcare facilities.

[32] The Federal Constitutional Court decided that the federal government lacked the legislative competence to establish the Betreuungsgeld, as measures such as this are within the jurisdiction of the federal states.

and O'Brien 2015), which under a new government finally resulted in the introduction of Parental Leave Pay in 2011. Australian policy has thus undergone a remarkable transformation in this respect, from treating parental leave as primarily the responsibility of households and employers to embedding it as a state social policy (Baird and O'Brien 2015). Still, compared to other OECD countries, the parental leave provisions in Australia are not particularly generous, with a payment of 18 weeks at national minimum wage level (A$673 per week in 2016). Moreover, as mentioned, Parental Leave Pay has a strong gender bias with the overwhelming majority of recipients being mothers. A paternity leave payment, called Dad and Partner Pay, was added in 2013, providing fathers with two weeks leave at the national minimum wage.

It has to be added that there is a long-established entitlement to *unpaid* parental leave of 52 weeks with a job guarantee in Australia. However, employees must have completed at least 12 months of service with their employer in order to be eligible, which does not apply to many fixed-term, casual and part-time workers (Baird and Whitehouse 2012). This regulation creates an eligibility gap in the sense that some (particularly non-standard) workers are eligible for Parental Leave Pay but not for unpaid parental leave (Baird and Whitehouse 2012). Furthermore, like in Germany, the job guarantee during parental leave does not apply to fixed-term contracts which end during the period of leave, nor to many casual workers due to their short-term employment relation.[33]

Similar to Germany, Australia has seen considerable change in the area of childcare provision during the past decades. Government spending on childcare and the number of children using formal childcare services has increased considerably: While in 1996 24% of children between age zero and four used some form of formal care, in 2005 the share was up to 35%. The share of children in this age group using long day care rose from 13% to 24% (Brennan 2007). Nevertheless, many parents still experience difficulties in finding childcare which suits their needs regarding location, price, quality and hours, and long waiting lists exist in some areas or age groups (PC 2014b).[34] By means of benefits paid directly to parents – the Child Care Benefit, the Child Care Rebate and the Jobs, Education and Training Child Care Fee Assistance – the Australian government takes over most of the costs of childcare. Nevertheless, more than one third of childcare fees are paid by parents.[35] The out-of-pocket costs of childcare for parents amount to 27% of the average wage in Australia, well above the OECD average of 17% (PC 2014b). The comparatively high costs of childcare, the lack

[33] Casual employees need to have a reasonable expectation of continuing employment with the employer on a regular and systematic basis had it not been for the birth or adoption of a child (Chapter 2, Part 2-2, Division 5 Fair Work Act 2009, version of 12th July 2016).

[34] Estimates point to currently about 165,000 Australian parents (full-time equivalents) who are unable to work or to work more hours due to difficulties with access to or the cost of suitable childcare (PC 2014b).

[35] This is the share of the direct costs of childcare. It has to be added that the government pays around A$800,000 per year directly as subsidies to the service providers, which indirectly reduces the fees for parents.

of available places in some areas, a reduced assistance with childcare costs for high-income families, combined with the characteristics of Australia's tax and transfer system, provide strong incentives for the secondary earner to stay out of the workforce or work only a few hours (PC 2014b). This setting therefore reinforces the traditional male breadwinner model for families.

In both countries, parents are entitled to part-time work to help balance work and family commitments. In Germany, the passage of the Act on Part-Time Work and Fixed-Term Employment in 2001 has entitled all workers who have been with their employer for six months or more to reduce their working hours (BMAS 2015).[36] Furthermore, workers on parental leave are entitled to part-time work between 15 and 30 hours, but they also must have worked for their employer for six months. In Australia, a right to part-time work was only introduced with the Fair Work Act in 2009: It entitles parents and certain other groups of workers (such as carers or workers with disabilities) who have been with their current employer for at least 12 months to request flexible work arrangements, such as part-time work or working from home (FWO 2013). However, in both countries employers can refuse the request on reasonable business grounds. In Germany, small businesses are furthermore excluded from the regulation. Therefore, despite the legal provision, it might be difficult in practice to urge the employer to create a part-time position after childbirth in both countries.

2.2 A More Differentiated Look at Germany: Comparing East and West

In the above comparison of the institutional settings in Germany and Australia, the former country was treated as uniform regarding its social institutions. Forming a single country since 1990, the Eastern and the Western parts of Germany share a broad institutional basis, e.g. as regards the welfare system, labour regulations and family policies. Nevertheless, as a consequence of the different experiences in the Federal Republic of Germany (FRG) and the German Democratic Republic (GDR), some differences between East and West Germany prevail even decades after reunification.

This applies firstly to *labour market conditions*. Since reunification, the economic conditions in East Germany have been worse than in West Germany,[37] albeit over time there has been a considerable adjustment. Wages are still lower in the East, although the difference diminishes when considering purchasing power (Geißler 2014). Further, unemployment has persistently been higher in the East than in the West. East German women's employment chances were particularly affected, as their unemployment rate by far exceeded even that of East German men throughout the 1990s

[36] Yet the application for part-time work has to be filed three months before the reduction of the working hours, practically extending the waiting period to nine months.

[37] However, an exclusive focus on the economic division across the East-West axis in Germany falls short of accounting for other, possibly even more marked differences. Germany's economy also varies considerably on the North-South axis, with the Northern regions' economy faring worse than that of the Southern regions (Booth 2010).

(Booth 2010). Furthermore, fixed-term contracts, temporary agency work and involuntary part-time work are more prevalent in the East (Rengers 2015; StBA 2012, 2015a), although part-time work and minijobs in general are more widespread in the West (StBA 2015a).

The two regions also differ regarding their *partnership patterns*. The first marriage rate used to be higher in the GDR than in the FRG, but it dropped considerably in the wake of reunification. From 1991 onwards, the Eastern first marriage rate slowly recovered and is now level with that of West Germany (BiB 2016h). Furthermore, in both parts of the country, the age at first marriage has steadily increased over the past decades. However, while in the past women in the East tended to get married earlier than in the West, the pattern reversed around the turn of the millennium. In 2014, the average age at marriage for women was 31.1 years in the East and 29.9 years in the West (BiB 2016c). The West German divorce rate has seen a steady increase from the 1960s[38] to the early 2000s and showed a slight decline since then. In contrast, similar to the first marriage rate, the GDR's divorce rate had been consistently higher than that of the FRG, but dropped after reunification.[39] The East German divorce rate then quickly recovered and is currently slightly lower than in West Germany (BiB 2016g). Furthermore, the share of cohabiting unions has increased in both parts of the country during the past decades, but it is considerably higher in the East: In 2014, cohabiting unions made up for 13% of all couple households in the West and 19% in the East (author's calculations based on BiB 2016a, 2016b).

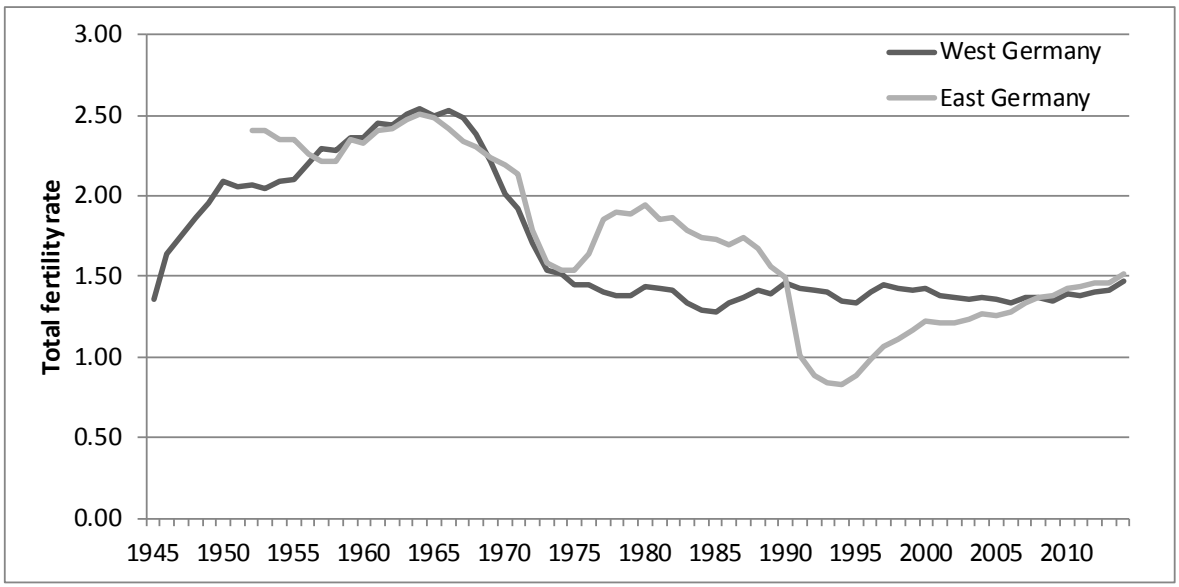
Major differences between East and West are evident furthermore in the area of *gender arrangements, fertility and childcare*. Already since the 1970s, East and West Germany have seen very different fertility behaviours (Figure 2.7): West Germany's TFR has exhibited a high level of stability, ranging around 1.3 and 1.4. In contrast, East Germany underwent a considerable change in fertility behaviour as a result of pronatalist policies in the GDR, the reunification with the FRG and the subsequent transformation process. Due to a postponement in childbearing, the TFR dropped from 1.5 in 1990 to an all-time low of around 0.8 in 1994. Afterwards, it rose again, reaching the West German level of around 1.4 in 2007 and remaining on a slightly higher level since then (StBA 2013). The approaching of the two regions' fertility rates, however, conceals persisting differences in fertility behaviour (Goldstein and Kreyenfeld 2011): The age at first birth is considerably lower in East than in West Germany. Moreover, childlessness is less widespread in the East than in the West: While 21% of West German women aged 45 to 49 are childless, this applies to only 11% of East German women (BiB 2016e for 2012). This is due to a more pronounced family orientation in East Germany, which supports universal motherhood. In contrast, West German women have a higher likelihood

[38] With the exception of a dip at the end of the 1970s, which can be attributed to the introduction of a new divorce legislation, causing a delay in the processing of divorces (BiB 2016g).

[39] This can be attributed at least partly to the adoption of the West German divorce legislation (BiB 2016g).

of having more than two children. Furthermore, there are marked differences regarding the share of children born to unmarried parents: In the Western states, 29% of children are born out of wedlock, compared to 59% of children in the Eastern states (BiB 2016f).

Figure 2.7: Total fertility rates in East and West Germany (1945-2014)



Note: From 2011 calculations based on population according to extrapolation of the Census 2011. West Germany: from 1990 without Berlin; East Germany: from 1990 including Berlin.
Source: Author's illustration based on BiB (2016i).

Childbearing and care are embedded into different gender regimes and perceptions of motherhood in the two regions. As mentioned, West Germany has traditionally been characterised by the male breadwinner regime: Men were responsible for gainful employment, while women focused on homemaking and care (for children as well as elder relatives). Women who were combining work and family and made use of external childcare were regarded as bad mothers (*Rabenmütter*) (Luci 2011; Ruckdeschel 2009). This gender regime was at its peak during the 1950s and 1960s in West Germany. Since that time, the rising employment participation of women, particularly in the form of part-time work, has established the modified male breadwinner model as the dominant gender arrangement in West Germany. Men are still focused on gainful employment, even though their role as carer is emphasised more strongly than before (Nave-Herz 2013:187). Women, in turn, still do most of the care work; however, they also act as secondary earners (Peuckert 2012:460, 481). Yet the idea of motherhood is still very traditional in the sense that women are still expected to cease employment and stay home if they have very small children (Nave-Herz 2013:188).

In contrast, in the GDR the dual breadwinner model, in which both partners work full-time regardless of whether they have children, was strongly politically encouraged. Men and women were obliged to work, and the employment of mothers was supported by the large-scale availability of formal childcare. Before reunification, nine in ten mothers were employed, the majority of them

full-time, and most women returned to the labour market at the latest one year after childbirth (Peuckert 2012:410).

This gender regime is still reflected in East Germans' behaviour and gender role attitudes today: Although between 1990 and 2007 the share of dual full-time working couples decreased from 65 to 41% in East Germany, it is still almost double that of West Germany. Most East German women wish to work full-time or near full-time and earn enough to support themselves independently (Peuckert 2012:411). East German women who work part-time often do so only because they were unable to find full-time work. In contrast, West German women mainly state that they chose part-time work to reconcile work and family more easily (StBA 2004, 2012). What is more, part-time working East German women work around 30 hours per week, compared to 20 hours in West Germany (Peuckert 2012:410). Motherhood and employment are not seen as mutually exclusive in East Germany as they traditionally are in the West. Employment of mothers with small children is not regarded as harmful for the child but as possibly beneficial (Nave-Herz 2013:188). Consequently, East German women still return much more quickly to the labour market after childbirth than their Western counterparts (Grunow and Müller 2012). This pattern is sustained by a more supportive infrastructure in the sense that the offer of external childcare for small children is still larger than in West Germany (Nave-Herz 2013:188) and public childcare and school hours are still orientated at the full-time principle (Pfau-Effinger and Sakac Magdalenić 2009). On the whole, the main features of the East German gender regime have been preserved until today (Peuckert 2012:410).

Overall, East Germany is characterised by the dual breadwinner model (with certain changes towards the modified male breadwinner model), while West Germany has undergone a shift from the male breadwinner model to the modified male breadwinner model in recent decades.

2.3 Summary

This chapter has compared the social institutions in Germany and Australia and furthermore shed light on important differences between East and West Germany in this respect. The overview has demonstrated that Germany and Australia differ considerably regarding their employment systems and welfare regimes, but exhibit a similar gender regime. East and West Germany, in turn, share the same employment and welfare regime (overall) but exhibit long-lasting differences in economic conditions, partnership patterns, gender arrangements and fertility.

Comparing the employment systems of Germany and Australia, both countries have experienced considerable growth in non-standard employment during the past decades, albeit the increase took place earlier and was more pronounced in Australia. Besides the common non-standard

employment types part-time work, fixed-term contracts and temporary agency work, each country also exhibits a nation-specific non-standard form of employment: the German minijob and Australian casual work. The change in employment types is embedded into a closed employment system in Germany and an open employment system in Australia. While the former fosters stability and continuity for labour market insiders and assigns a marginal position to outsiders, the latter triggers and at the same time facilitates moves between jobs. The different educational systems entail a close link between educational attainment and occupational position in Germany, while the link is rather loose in Australia, and training is often acquired on the job. During the past decade, Australia exhibited a favourable economic development leading to a very low unemployment rate. The downward trend has stalled in recent years, however. Germany has experienced the opposite development: Starting out with a high level of (long-term) unemployment, it has seen a continuous improvement of the situation on the labour market.

The respective employment systems and economic conditions have to be seen in the specific combination with the countries' welfare regimes. Germany is in the group of conservative-corporatist welfare states, which provide a high level of social security while maintaining status differences within the population. High employment protection is thus combined with a high level of social security in case of unemployment. However, this entails that insecure forms of employment are often channelled towards marginal groups on the labour market and that long-term unemployment is high. Australia in contrast belongs to the group of liberal welfare states, in which social support is usually lower, means-tested and universal. However, Australia has a long-standing tradition of providing social security through wages policy, which brought about the title of the "wage earners' welfare state" and manifests itself, e.g. in a remarkably high national minimum wage in international comparison. In Australia, a low employment protection and low social protection during unemployment are therefore cushioned by a favourable labour market and comparatively high wages.

Regarding the comparison of fertility, gender regimes and family policy in Germany and Australia, both countries have experienced a considerable change in fertility behaviour marked by an increasing postponement of parenthood as well as rising childlessness. However, the Australian fertility rate has continuously remained on a higher level than Germany's. Both countries are furthermore experiencing a period of transition regarding their gender regime. The dominant living arrangement for families with children nowadays is the modified male breadwinner model, in which men focus on gainful employment and women act as secondary earners while at the same time focusing on homemaking and caring. Although women's employment participation has increased considerably, mothers are still mainly responsible for childcare, especially when the children are

young, rather than being able to share the care work with their partners or using formal childcare. In both countries, men's role in parenting has come into public focus; however, their actual involvement in care- and housework is still quite limited.

These developments and ambiguities in gender roles are reflected in current family policy in both countries: Since the turn of the millennium, both Germany and Australia have seen growing support for working mothers, particularly in the area of childcare and paid parental leave (albeit in Australia this resulted only very recently in the introduction of Parental Leave Pay). Moreover, both countries have recently introduced benefits targeted at supporting fathers' more active role in parenting. Nevertheless, in both countries the support of an equal division of labour between partners is not straightforward, as some benefits and conditions persist that act as incentives for secondary earners to restrain their working hours or stay out of the labour force altogether.

The more refined investigation of Germany's social institutions in Section 2.2 has shown marked differences between East and West Germany even decades after reunification. While sharing the same welfare regime and employment system, some differences regarding the economic conditions and labour market chances persist: Unemployment is higher in East Germany, and fixed-term contracts as well as temporary agency work are more widespread. Part-time work is much more prevalent in the West, but also more often undertaken voluntarily. Nevertheless, economic conditions have adapted to each other considerably during the past decades in the two regions. In contrast, as a consequence of different experiences made during the times of GDR and FRG, important differences prevail regarding gender arrangements and fertility patterns in East and West Germany. The dominance of the modified male breadwinner model applies particularly to the Western part of the country, while East Germany is traditionally characterised by the dual breadwinner model. Moreover, childlessness is less widespread in East Germany, women have their first child at an earlier age and motherhood and gainful employment are generally regarded as combinable. In contrast, in West Germany motherhood of small children and gainful employment are traditionally seen as mutually exclusive.

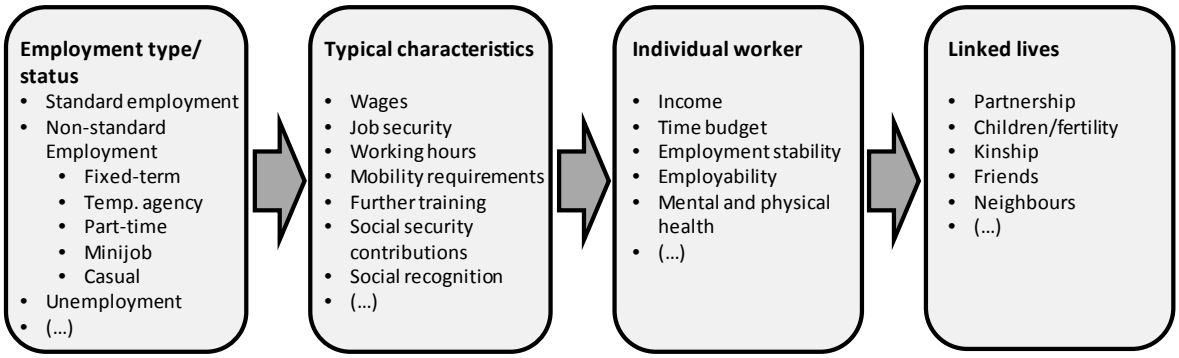
The insights from this chapter provide the basis for the theoretical considerations regarding the gender-specific and nation-/region-specific effects of employment insecurity on first childbirth and partnership dissolution that are elaborated in the respective empirical chapters (Chapters 5, 6 and 7).

Chapter 3 Linking the Employment Situation and the Lives of Workers

Like many Western countries, Germany and Australia have seen a departure from the standard employment relationship during the past decades (see Chapter 2). The increase in non-standard forms of employment triggered a public and scientific debate on the chances and risks associated with these forms of employment for workers. In this context, a large number of studies have investigated the "risks of precariousness" (Keller and Seifert 2011:141) in the areas of earnings, employment stability, employability/health and social security. In contrast, what has been less considered is the question to what extent non-standard employment also affects the linked lives of workers (see Chapter 1), above all their partnerships and families.

Figure 3.1 illustrates the relationship between the employment situation and the effects on workers and their linked lives with others. The first thing to be noted is that the formal employment type does not directly affect individuals' living conditions or their relationships to others. In contrast, there are certain employment characteristics which are typically associated with a certain type of employment, such as a specific wage level, high/low job security, or a specific number of working hours. In this context, it further has to be noted that "non-standard employment" is an umbrella term for a very diverse range of employment types – from minijobs to temporary agency work – which are connected to very specific job characteristics.

Figure 3.1: Linking forms of employment, (job) characteristics and workers' lives[40]



The specific job characteristics in turn affect the individual workers, e.g. their financial situation, employment trajectory and their mental and physical health. The job characteristics thus act as mediators between the formal employment type and the lives of workers. It has to be noted, however, that workers in the same form of employment can be heterogeneous, e.g. regarding their educational level, phase in the employment career or household context, so that not all workers are affected in the same way by a specific form of employment. The situation of the individual

[40] It should be noted that reverse effects of the individual and partnership situation on the choice of employment also exist but are not shown, as the focus of the study is on the effects of the employment situation on workers' private lives.

worker can in turn be expected to affect their linked lives, particularly their partnership and family situation.

Against this background, this chapter gives an overview of the specific job characteristics connected to non-standard forms of employment and the state of research concerning their effects on the individual workers and their partnership situations. One aspect that has to be kept in mind in this context is that the judgement whether non-standard forms of employment are beneficial or disadvantageous for workers depends on the reference category: Non-standard employment might prove inferior in some respects if compared with the standard employment relationship, but might still be superior if compared to the alternative of unemployment (or educational participation or self-employment). In this study, the main point of reference is the standard employment relationship, which is justified on the grounds that the starting point of the considerations is the decline in standard employment favouring non-standard employment in recent decades. However, the discussion is complemented by insights into the situation of unemployed workers.

Due to the large amount of existing literature in this area, some restrictions had to be made regarding the inclusion of topics and studies into this overview on the links between employment situations and workers' lives: Firstly, the main focus is on work-related aspects which can be expected not only to affect the individual worker but also to influence either their fertility choices or their partnership quality and stability, as these outcomes are the focus of the empirical part of this thesis. The knowledge about the specific characteristics of different employment types and statuses builds the foundation for generating hypotheses regarding the effects of these employment situations on first childbirth and partnership dissolution in the theory sections of Chapters 5, 6 and 7. Secondly, multivariate, longitudinal studies are generally given preference as they can account for the heterogeneity of workers in different forms of employment on the one hand and for the order of cause and effect on the other hand. However, these results are supplemented with evidence from descriptive or qualitative studies wherever suitable.

Thirdly, the literature overview is confined to Germany as the focal country under study and enhanced with evidence for Australia. The Australian situation is summarised rather briefly as an overview of the state of research on the effects of non-standard employment on workers and their partnership and family situations in Australia can be found in Laß (Forthcoming). The confinement of the literature review to the two countries under study in this thesis is justified on the grounds that the same form of employment can be connected to different employment conditions in different countries. Moreover, the specific national institutional configuration moderates the effect of the employment situation on workers' lives, and therefore results from other countries cannot

simply be transferred to Germany or Australia (see Chapter 1). This is in line with comparative literature, which has shown differing effects of employment insecurity on partnership and family transitions for different countries (e.g. Blossfeld et al. 2005; Golsch 2005; Schmitt 2012a). Finally, the vast amount of studies in certain areas, such as the wages of non-standard employees, means that this overview can make no claim to completeness. The intention is not to list every single study ever conducted in this area, but to describe the characteristics and outcomes of certain forms of employment on the basis of empirical evidence.

The discussion of the previous literature is furthermore complemented by some new descriptive analyses for Germany. Most of the available studies focus on a single form of employment, i.e. only on fixed-term contracts or temporary agency work. The additional analyses are based on a more refined classification of employment situations by differentiating between standard employment, permanent part-time, fixed-term part-time, fixed-term full-time, temporary agency work, minijobs and (wherever suitable) unemployment. Descriptive results are presented for all of these subgroups based on the same dataset and items so that they can be directly compared between the different employment situations. The data for these analyses were taken from the year 2012 of the Socio-Economic Panel (SOEP) Study (v.30).[41] They were weighted using cross-sectional weights in order to achieve representativeness for the German population. The analysis includes all employees and unemployed persons between the age of 16 and 65.[42] The unweighted case numbers on which the analyses are based can be found in Appendix Table A 1. For more information on the SOEP and the operationalisation of the different forms of employment, see Chapter 4.

The following sections summarise the specific characteristics of non-standard employment and unemployment and their effects on workers regarding the financial situation (Section 3.1), job security and stability (Section 3.2), further benefits and strains (Section 3.3), employability and health (Section 3.4) and early partnership transitions (Section 3.5).

[41] The year 2012 was chosen as this is the most recent year for which the employment situation can be considered in the multivariate analyses in the empirical Chapters 5, 6 and 7. It is in addition the most recent year in which the question regarding the importance of a happy relationship was asked, which is only included in the survey every four waves. An alternative approach to choosing a single survey year that is often seen in the literature is to analyse a pooled sample encompassing several waves. While this has the advantage of multiplying the sample size, this approach is not straightforward as many respondents are observed for several waves and would therefore be included multiple times in the descriptive analysis.

[42] Similar to the operationalisation in Chapter 7, persons in education, the self-employed and civil servants are excluded.

3.1 Financial Situation

An important part of the debate on the risks of non-standard employment focuses on the question of whether these forms of employment are connected to financial disadvantages. In this context, Table 3.1 gives the average monthly gross *labour income* and the *hourly wages* for the different forms of employment in Germany. It becomes apparent that standard employees have considerably higher monthly earnings than workers in any other form of employment. Fixed-term full-time workers have the second highest income; nevertheless, there is a gap of several hundred Euros compared to standard employees. Temporary agency workers have the third highest monthly income, but it is closer to the income of permanent part-time workers than to that of standard workers.[43] Due to the reduced working hours, all forms of part-time work are connected to lower monthly earnings than standard workers; however, the average income is considerably larger among permanent part-time workers than among fixed-term part-time workers. Minijobs are furthermore tied to a maximum monthly income (€400 in 2012, see also Chapter 2), which is why they exhibit by far the lowest mean income. Comparing men's and women's incomes, we see that women earn less than men in most forms of employment, except for fixed-term part-time work and minijobs.

Table 3.1: Monthly earnings and hourly wage by form of employment (means in €, 2012)

	Monthly gross income				Hourly wage			
Form of employment	**Men**	**Women**	**All**	**n**	**Men**	**Women**	**All**	**n**
Standard	3,349	2,674	3,105	5,461	17.48	14.66	16.46	5,460
Fixed-term full-time	2,757	2,061	2,446	558	13.96	11.46	12.84	558
Permanent part-time	1,850	1,437	1,479	1,255	17.39	13.77	14.13	1,256
Fixed-term part-time	891	1,051	1,018	229	11.37	10.03	10.31	230
Minijob	349	371	366	811	7.69	9.26	8.92	811
Temporary agency	1,947	1,542	1,789	247	11.00	10.18	10.69	239
Total average	3,063	1,874	2,470		16.53	13.14	14.84	
Total n	4,297	4,264	8,561		4,294	4,260	8,554	

Source: Author's calculations based on SOEP (v.30).
Notes: Question: What did you earn from your work last month? Hourly wages calculated by dividing gross monthly income by usual weekly working hours x 4.333.

The raw differences in monthly earnings are partly due to differences in working hours (see also Section 3.3). Comparing workers' hourly wages (still Table 3.1), we see that standard employees also earn the highest hourly wages.[44] However, the wages of (male) permanent part-time workers

[43] Previous literature underpins the result of lower monthly earnings for fixed-term workers (Auer and Danzer 2016) as well as temporary agency workers (Jahn and Rudolph 2002a; Sczesny et al. 2008; Schlese, Schramm and Bulling-Chabalewski 2005; Rudolph 2006). However, Kvasnicka and Werwatz (2002) stress that the income disadvantage of agency workers is mainly confined to the period in temporary agency work, while afterwards agency workers can gain income advantages when they transition into direct employment.

[44] Previous literature confirms that all forms of non-standard workers receive lower hourly wages (e.g. Wingerter 2009).

are relatively close to those of standard workers. In contrast, hourly wages are particularly low for agency workers, fixed-term part-time workers and minijobbers.

Theoretically, the gap in hourly wages could be due to the form of employment, but it could as well be the result of differences in workers' characteristics, above all educational level and labour market experience (Mincer 1974). In order to establish whether non-standard workers are disadvantaged on the basis of their form of employment, multivariate analysis is needed which controls for other characteristics that influence workers' wages. In this context, the literature provides ample evidence that workers in all forms of non-standard employment experience a wage penalty even when taking other wage-relevant factors into account. This has been shown for fixed-term contract workers[45] (Brehmer and Seifert 2008; Giesecke and Groß 2004, 2007; Hagen 2002; Mertens, Gash and McGinnity 2007; Mertens and McGinnity 2005b; Schäfer 2010), temporary agency workers (Brehmer and Seifert 2008; Dütsch 2011; Kvasnicka and Werwatz 2002; Schäfer 2010), and both part-time workers and minijobbers (Anger and Schmidt 2008; Brehmer and Seifert 2008; Schäfer 2010). Comparing the different forms of non-standard employees, fixed-term part-time workers and minijobbers experience the largest wage penalty (Schäfer 2010).[46] Many employers shift the flat-rate tax they have to pay for minijobbers onto the workers by lowering the wage for the amount of the tax (Bäcker 2007).

All four types of non-standard workers are furthermore found more often in the *low-pay sector* than standard workers (Bäcker 2007; Brehmer and Seifert 2008; Kalina and Weinkopf 2006; Weinkopf 2009; Wingerter 2009), and this result also remains robust upon controlling for wage-relevant characteristics (Kalina and Weinkopf 2008).[47] For agency workers, it is particularly the starting wage which is often below subsistence level (Promberger 2005, 2007).

Besides the regular pay, some forms of non-standard employment also have less access to other types of *monetary benefits*. For example, temporary agency workers have been shown to less often receive special payments such as holiday pay or Christmas bonus (Kvasnicka and Werwatz 2003). Similarly, minijobbers are less likely to receive holiday pay, sick pay and paid public holidays: Often, they are only paid for the hours they work or have to make up for the hours lost due to public holidays or sickness (Bäcker 2007; Benkoff and Hermet 2008; Kalina and Weinkopf 2006, 2008;

[45] Nevertheless, Mertens and McGinnity (2005b) find that the wage gap between fixed-term and permanent workers becomes smaller in multivariate longitudinal models, which can be explained by the fact that a large part of the wage differential is due to a shorter job tenure and unobserved characteristics of the workers. The wage gap for fixed-term workers also differs by educational level, wage quantile and sector (Giesecke and Groß 2004, 2007; Mertens, Gash and McGinnity 2007; Mertens and McGinnity 2005a).

[46] Schäfer (2010) finds a wage penalty of 19% for fixed-term part-time workers, 17% for permanent minijobbers and 47% for fixed-term minijobbers.

[47] For minijobbers it was further shown that the high risk of low pay applies to all levels of educational qualification (Kalina and Weinkopf 2006).

Weinkopf 2009). Moreover, many minijobbers are not paid for preparing and post-processing their work, for overtime, and for the time they take to get acquainted with the work processes when they start a new job, e.g. by reading materials in their leisure time (Benkoff and Hermet 2008).

Besides the current income level, another aspect affecting workers' financial situation is the *reliability of the income*. In this context, it has been shown that fixed-term contract workers are subject to larger earnings volatility than permanent workers (Auer and Danzer 2016), increasing uncertainty as to the level of income that one can achieve with a fixed-term position. Minijobbers' earnings can be unreliable as they are often called into work at short notice and similarly are sent back home quickly if there is less work to do than expected (Benkoff and Hermet 2008). Furthermore, the level of employment stability influences the reliability of one's income, which is comparatively low among temporary agency and fixed-term workers (see Section 3.2).

The income disadvantages of part-time workers and particularly minijobbers have long-lasting effects for their *social security*: They acquire less entitlements in the pension system, which can lead in the long run to old age poverty (Bäcker 2007; Bleses 2010; Keller and Seifert 2009). Furthermore, minijobbers do not attain an entitlement to health or unemployment insurance. One might assume that the economic disadvantages of part-time workers and minijobbers are mitigated by the fact that they are often only secondary earners and financially secured by a breadwinning partner. This, however, is not always the case: For two thirds of part-time workers, their employment is their main source of income (Puch 2009; StBA 2004). Moreover, due to a change in the law of maintenance in 2008, which strengthens individuals' responsibility for their own livelihood, part-time workers and minijobbers are nowadays exposed to the risk of a long-lasting reduction in their living standard in case of divorce (Ehrhardt 2008).

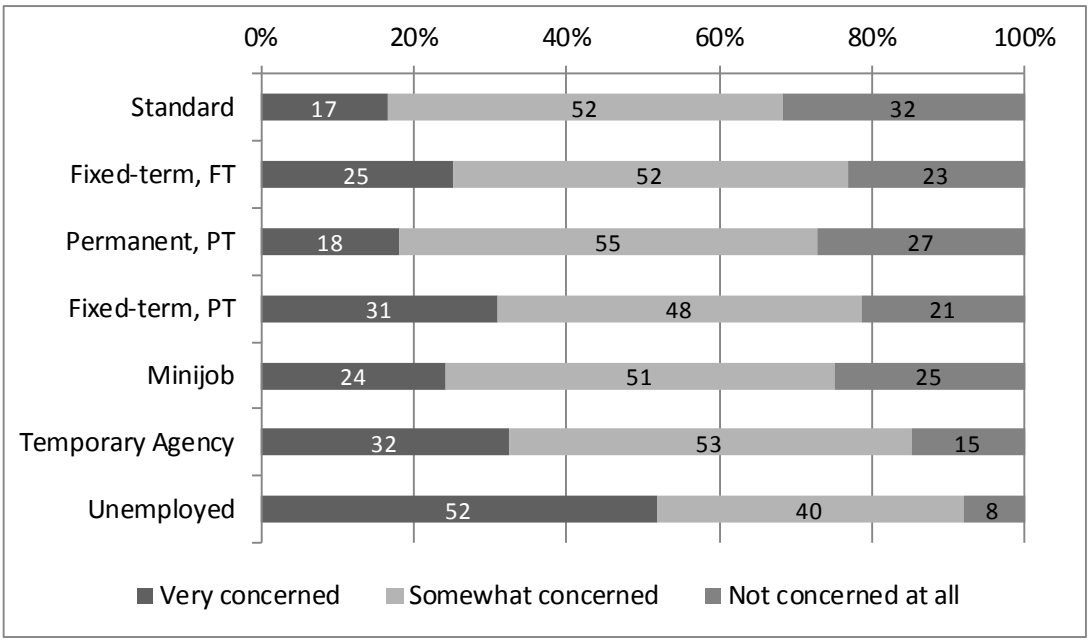
Due to the lack of earnings, the financial situation of the *unemployed* is often much worse than that of standard workers: As explained in Chapter 2, unemployment benefits (Unemployment Benefit I), and even more so welfare payments for the unemployed (Unemployment Benefit II) are usually considerably lower than labour incomes in Germany.[48] Consequently, unemployed persons have a particularly high poverty rate, amounting to 59% compared to 15% in the general population and 8% among employed persons (BMAS 2013:461). Furthermore, many unemployed have difficulties paying their bills or have to incur debts (Brinkmann 1984).

While the income level gives an impression of workers' objective economic conditions, it is equally important to investigate how workers themselves perceive their economic situation. Figure 3.2 provides workers' subjective perception of their financial situation in the form of concerns

[48] Although it has to be noted that a considerable number of workers receive wages below subsistence level and are entitled to additional welfare payment (*Aufstocker*).

about one's economic situation. Among standard employees, we find the highest share of workers who are not at all concerned about their economic situation. In contrast, fixed-term workers (part-time and full-time), temporary agency workers and especially the unemployed are comparatively often very concerned about their economic situation. Comparing this distribution by gender (see Appendix Table A 2) shows a difference in the perception between male and female fixed-term workers: Among both fixed-term full-timers and part-timers, women are more often very concerned about their economic situation than men.

Figure 3.2: Concern about the economic situation by employment situation (2012)



Source: Author's calculations based on SOEP (v.30); n (men) = 4,577; n (women) = 4,906.
Note: Question: What is your attitude towards the following areas – are you concerned about them? - Your own economic situation.

Other studies have also highlighted the subjective economic insecurity connected to fixed-term contracts and agency work: Auer and Danzer (2016) find for fixed-term workers that a much larger share is very concerned about their economic situation than permanent workers. Temporary agency workers, in turn, state less often that their income meets their own expectations and more often that their income situation puts a strain on them (Grobe and Dörning 2009). They are also less satisfied with their wages, their household income and their standard of living (Dütsch 2011; Schlese, Schramm and Bulling-Chabalewski 2005). Many unemployed, particularly the long-term unemployed, also report great financial difficulties (Brinkmann 1984).

In Australia, all forms of non-standard employment are also connected to lower weekly earnings (Louie et al. 2006). However, in multivariate analyses, wage disadvantages were only confirmed for casual workers so far: As mentioned (Chapter 2), casual workers are usually entitled to a pay loading of around 20% to compensate them for the lack of entitlement to paid leave. However, the

available studies (Booth and Wood 2008; Green, Kler and Leeves 2010; Green and Leeves 2013; Watson 2005) show that if casual workers receive a wage premium at all, it is much lower than 20%. Evidence on casual workers' subjective perception of their economic situation is mixed: On the one hand, casual workers, particularly women, are more satisfied with their pay than permanent workers (Green et al. 2010; Wooden and Warren 2004). On the other hand, casuals were found to experience more financial difficulties and a lower satisfaction with their financial situation (Buchler, Haynes and Baxter 2009). In contrast to Germany, no wage disadvantages were found for fixed-term contract work in Australia (Green et al. 2010; Watson 2005). There is also no difference in financial well-being between fixed-term and permanent workers (Buchler et al. 2009). For temporary agency workers, the scarce evidence hints at a small wage premium (Green et al. 2010; Watson 2005). Evidence on the wages of Australian part-time workers is mixed: While Rodgers (2004) does not find a significant difference in hourly wages of full-time and part-time workers, Booth and Wood (2008) find a wage premium for part-time workers. In contrast, Chalmers and Hill (2007) find a scarring effect of part-time work in the sense that it negatively affects future wages. Regarding unemployment, the unemployment benefit (*Newstart Allowance*) is relatively low and means-tested in Australia (see Chapter 2). In this context, Phillips and Nepal (2012) find that households for which *Newstart* is the main source of income exhibit a poverty rate of 75%, compared to an overall poverty rate of 14%.

3.2 Employment Stability and Mobility

Job security and a permanent employment contract are the two job characteristics which are the most highly valued by workers in Germany (Nübling et al. 2015). It is therefore not surprising that the employment careers of non-standard workers are another issue which has received a lot of attention in prior research. Are non-standard positions bridges from unemployment or inactivity into standard employment? Or are they labour market traps, characterised by continuous non-standard employment or alternating phases of unemployment?

For certain groups of workers, such as academics and the lowly qualified, *fixed-term contracts* have become the "normal" way of labour market entry (Rudolph 2006). Yet studies suggest that about three quarters of fixed-term workers have accepted the fixed-term contract only involuntarily due to a lack of alternative options, while actually preferring permanent employment (summarising: Giesecke 2006). It is therefore an important question to what extent this form of employment functions as a bridge into permanent employment. In this connection, Boockmann and Hagen (2005) and Mertens and McGinnity (2005b) both find that around 40% of fixed-term workers are in permanent employment the next year, and almost three quarters of these were taken over by their

former employer.[49] The chances of being taken over permanently by the employer vary by region; they are around 25% in West Germany and 17% in East Germany according to Bellmann and Alda (2004).[50] Compared to the other forms of non-standard employment, the transition rate to standard employment is highest among fixed-term contract workers (Brzinsky-Fay, Protsch and Schulze-Buschoff 2007). Nevertheless, compared to workers who were already in standard employment in their last job, the transition rate into a standard job is lower for workers who were on a fixed-term contract before (Gensicke et al. 2010).

In addition, fixed-term contract workers are subject to a higher risk of unemployment than permanent workers (Auer and Danzer 2016; Boockmann and Hagen 2005; Brehmer and Seifert 2008; Giesecke and Groß 2003, 2007; Kurz et al. 2005; McGinnity, Mertens and Gundert 2005; Scherer 2004).[51] However, over time the unemployment risks of labour market entrants on fixed-term and permanent contracts converge and are on a similar level after five years (McGinnity et al. 2005). Nevertheless, workers who became unemployed due to the end of a fixed-term contract have to search longer than others for a new job – on average 10.1 months – which is even longer than for workers who got dismissed (Bielenski et al. 2003). This may be due to the fact that many fixed-term workers are notified at the last minute about whether their contract will be renewed, which prevents them from preparing themselves for the situation of job loss and thinking about alternatives (Linne and Voswinkel 1989). Fixed-term workers, moreover, have a high risk of remaining in fixed-term work and subsequently getting several fixed-term contracts (Bielenski et al. 2003; Boockmann and Hagen 2005; Brzinsky-Fay et al. 2007; Giesecke and Groß 2003, 2007), leading to "chains of temporary employment" (Giesecke and Groß 2003). The risk of repeatedly receiving fixed-term contracts is highest among younger workers (Giesecke and Groß 2007).[52]

Similar to fixed-term work, *temporary agency work* is often taken on involuntarily due to a lack of employment alternatives or in the hope of improving the chances for direct-hire employment (Galais, Sende and Moser 2014; Kraemer and Speidel 2004a). The standard employment relationship is the point of reference for many temporary agency workers (Kraemer and Speidel 2004a, 2004b), and the hope of getting a direct contract from a host company is particularly pronounced among the younger workers. Agency workers are more likely to look for a new position or change their occupation than comparable direct workers (Kvasnicka and Werwatz 2003). The deregulation

[49] The share of fixed-term workers changing into *standard* employment is lower, however, amounting to 24% within one year and 46% within five years (Brzinsky-Fay, Protsch and Schulze-Buschoff 2007).

[50] The chances of being taken on permanently by the employer also vary by other factors, such as firm size (Bellmann and Alda 2004).

[51] The difference between the unemployment risk of permanent and fixed-term workers is particularly large in the public sector (Giesecke and Groß 2006).

[52] This risk is also particularly high in the public sector (Giesecke and Groß 2006, 2007).

of temporary agency work in the wake of the *Hartz* reforms was connected to the hope that agency work would function as a bridge for the unemployed into regular employment (Lehmer and Ziegler 2010). However, the effectiveness of agency work regarding this aim is debated: Promberger (2006), for example, finds that only 15% of temporary agency workers per year receive a direct job with a former host company. Jahn and Rudolph (2002b) in turn state that 29% of agency workers find direct employment within one year. Rudolph (2006) stresses that agency work often has an important bridging function from unemployment to permanent employment: The pool of temporary agency workers consists to a large extent of workers who were formerly unemployed or inactive, and many succeed in subsequently finding direct employment. However, when directly comparing the unemployed who took up agency work and those who did not and kept searching, Kvasnicka (2008) finds that the first group does not have higher chances of finding direct employment. In contrast, Lehmer (2012) finds a bridging effect of agency work for long-term unemployed, but his results also show that the bridging function is dependent on good macroeconomic conditions.[53] Furthermore, Gensicke et al. (2010) find a reduced chance for temporary agency workers to change to standard employment compared to workers who were already in standard employment in their last job (albeit the effect is statistically insignificant). Moreover, if temporary agency workers change jobs, they have a high risk of being hired as agency workers again, meaning that this employment type often cements itself (Gensicke et al. 2010; Lehmer and Ziegler 2010). Additionally, agency workers are employed on a fixed-term contract more often than comparable direct-hire workers (Kvasnicka and Werwatz 2003).

Another prominent characteristic of German temporary agency work is a very low average duration of the employment contract and a high labour turnover (2006; Antoni and Jahn 2009; Brenke and Eichhorst 2008; Jahn and Rudolph 2002b; Kvasnicka 2003; Lehmer and Ziegler 2010; Promberger 2005, 2006, 2007; Rudolph 2006; Sczesny et al. 2008). To put it in numbers, close to half (49%) of the contracts of temporary agency workers that ended in the first half of 2015 lasted less than three months; more than a quarter (29%) even less than one month (BA 2016). Temporary agency work is strongly dependent on the season and the business cycle (Jahn and Rudolph 2002b; Rigotti and Galais 2011). The short employment duration means that agency workers are often not protected against dismissal because this protection is only effective after six months' tenure (Weinkopf 2009). It also implies that many agency workers are not entitled to the more generous Unemployment Benefit I and directly receive Unemployment Benefit II in case of unemployment: Estimates point to every second agency worker who directly receives only Unemployment Benefit II after job loss, while this applies only to every seventh standard worker (Keller and Seifert 2009). In

[53] Lehmer (2012) finds that before the economic crisis in 2008, temporary agency work improved the employment chances for long-term unemployed men and women, while afterwards this was no more the case for men.

this context, it is important to mention that temporary agency workers have a higher risk of unemployment in general (Brehmer and Seifert 2008; Dütsch 2011) and a higher risk of getting dismissed by the employer (Promberger 2005, 2007).

Compared to fixed-term and temporary agency work, evidence on the job mobility of *part-time workers* is scarce. In general, part-time work can be assumed to have a positive effect on employment stability due to the fact that it enables employees who are unable to work full time – be it because they have other responsibilities, such as caring for children and older relatives or studying, or because they have health restrictions – to remain in or take up employment. The most important motive for women to work part-time is the larger scope for combining work and personal/family obligations, while for men it is school or other forms of training (StBA 2015e). Indeed, Brzinsky-Fay et al. (2007) find that part-time work is particularly stable compared to other forms of non-standard employment: Even after five years, more than half of part-time workers are still in this form of employment. Moreover, part-time work is not generally connected to a higher risk of job loss: Labour market entrants starting their career on a part-time basis and those starting on a full-time basis have equal risks of subsequent unemployment (Kurz et al. 2005). The employment stability of part-time workers depends not so much on the characteristic of reduced working hours but on the question of whether the employment is fixed-term or not: While permanent part-time workers do not differ from standard workers in their risk of being unemployed in the next year, fixed-term part-time workers have an elevated risk of subsequent unemployment (Brehmer and Seifert 2008). However, part-time workers also have a reduced transition rate into standard employment compared to those who were already in standard employment in their last job (Brzinsky-Fay et al. 2007; Gensicke et al. 2010). Generally, as Bothfeld and O'Reilly (2000) show, the share of part-time workers who change to full-time work is very low.[54] The low transition rate to full-time or standard employment can be (partly) explained by the fact that, as mentioned, many part-time workers prefer to work reduced hours due to other obligations and restrictions.

Minijobs also exhibit a high degree of stability, albeit not as high as part-time jobs: After five years, 36% of minijobbers are still in this form of employment (Brzinsky-Fay et al. 2007). They have a low transition rate to standard employment, indeed the lowest of all types of non-standard employment (Brzinsky-Fay et al. 2007; Gensicke et al. 2010). As for part-time work, it can be assumed that many minijobbers are not interested in standard employment. That said, it also has to be noted that a considerable share of minijobbers is indeed looking for more working hours (see Section 3.3).

[54] However, many women enter part-time work from inactivity, which means that part-time work often functions as entry port to the labour market for them. Nevertheless, a high share of these women later reverts to inactivity. In contrast, among men, a large group works part-time between phases of training (Bothfeld and O'Reilly 2000).

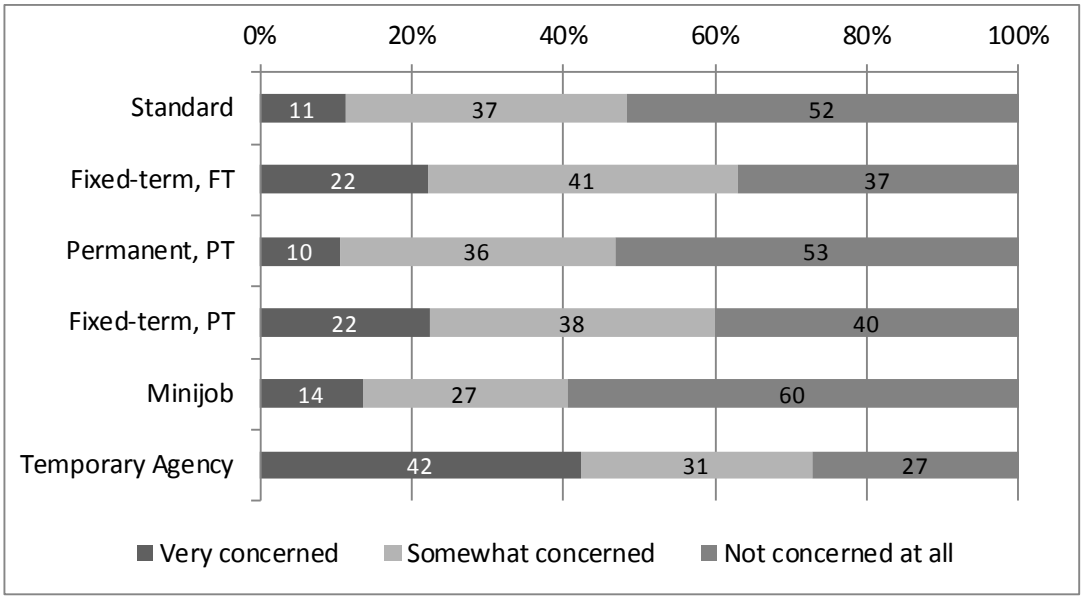
Many unemployed persons take up minijobs to earn some additional income besides unemployment benefits and to keep contact to companies. However, it can be doubted that minijobs work as bridges from unemployment into regular employment due to the fact that most unemployed wish to work full-time and they are often overqualified for the simple tasks which are usually covered by minijobs (Rudolph 2006). Moreover, employers only reluctantly hire unemployed persons for minijobs; they prefer pensioners, housewives and students (Benkoff and Hermet 2008). Minijobbers also have a high risk of exiting the labour force when they exit the job (Gensicke et al. 2010). Furthermore, minijobs generally have a high labour turnover (Benkoff and Hermet 2008; Kalina and Voss-Dahm 2005), and workers are often easily replaceable (Benkoff and Hermet 2008). They are also subject to a high risk of dismissal as they often only have a short-term contract (*Aushilfsvertrag*) or are not provided with a written employment contract at all (Benkoff and Hermet 2008).

As the high incidence of long-term *unemployment* in Germany (see Chapter 2) shows, a considerable share of workers finds it difficult to get back into the labour market after job loss. In international comparison, the chances of a fast return to work are particularly low in Germany (Gangl 2005). Unemployed workers' chances of moving specifically into standard employment are also comparatively low: According to Boockmann and Hagen (2005), 22% of the unemployed are in permanent employment in the next year, compared to around 40% of fixed-term contract workers (see above).

The objective degree of stability of non-standard employment is reflected in workers' perceptions of their job security. In this context, Figure 3.3 presents the results concerning the perceived job security of employees in different forms of employment. It becomes clear that subjective job security is very low among temporary agency workers: 42% of them are very concerned about their job security, compared to only 11% in standard employment. Fixed-term workers – full-time as well as part-time – are also comparatively often very concerned about their job security. Respondents in permanent part-time work and in minijobs are most often not concerned at all. There are hardly any gender differences regarding concern about job security in different forms of employment.[55]

[55] Fixed-term part-time working men are less often very concerned about their job security than women in the same form of employment (see Table A 3 in Appendix). However, this result has to be interpreted with care due to the very low number of fixed-term part-time working men in the sample.

Figure 3.3: Concern about job security by form of employment (2012)



Source: Author's calculations based on SOEP (v.30); n (men) = 4,045; n (women) = 4,320.
Notes: Question: What is your attitude towards the following areas – are you concerned about them? - Your job security.

Previous studies have also found certain forms of non-standard employment to be connected to high job insecurity. In their extensive qualitative study of fixed-term workers, Linne and Voswinkel (1989:227) find that this form of employment is connected to job insecurity in general and to insecurity about being taken on permanently by the current employer. The situation near the end of the fixed-term contract can put particular psychological strains on the workers, as employers often withhold until the last moment the information on whether they will renew someone's contract. Moreover, it is often non-transparent to the workers how they should behave to ensure getting their contract renewed. Other quantitative studies have also found that fixed-term workers are more often very concerned about their job security (Auer and Danzer 2016; Jahn 2013). For temporary agency workers, previous studies have also found higher subjective job insecurity (Bornewasser 2010; Dütsch 2011; Grobe and Dörning 2009; Jahn 2013; Kraemer and Speidel 2004b; Schlese et al. 2005). Agency workers more often feel strained by the threat of job loss and by the low chances of upward mobility (Dütsch 2011). They perceive themselves to be easily replaceable by another agency worker if they do not meet the expectations of the host company (Rigotti and Galais 2011). Moreover, they report a higher risk of being demoted at their current place of employment (Dütsch 2011; Schlese et al. 2005).

In Australia, a few studies have also dealt with the question whether non-standard employment functions as a bridge into employment or instead as a labour market trap. Comparing casual work to unemployment, male casual workers have a higher chance of changing into a permanent job than unemployed men, while the opposite is true for women (Buddelmeyer and Wooden 2011). Compared to fixed-term workers, casuals have a higher likelihood of remaining in the respective

form of employment and lower chances of changing into standard/permanent employment (Buddelmeyer and Wooden 2011; Buddelmeyer, Wooden and Ghantous 2006; Watson 2013). Fixed-term workers' chances of changing into permanent employment are thus larger than those of both casuals and unemployed, rendering fixed-term work the "most effective pathway to permanent employment" (Buddelmeyer and Wooden 2011:128) in Australia. Casual and temporary agency workers were furthermore found to have lower job security than other workers (Aletraris 2010; Green and Leeves 2013), and casual workers have a higher risk of involuntary job loss (Wilkins and Wooden 2013).

3.3 Further Work-Related Benefits and Strains and Job Satisfaction

This section deals with the question whether non-standard employment is connected to specific benefits and strains – beyond income and job security – which might in turn affect workers' partnership and family lives. In this context, Table 3.2 presents the usual weekly *working hours* of employees in different forms of employment. As a consequence of the income limit, minijobbers on average have the lowest number of working hours (around 11 hours per week), followed by fixed-term and permanent part-time workers (23 and 24 hours). Standard employees and fixed-term full-time workers, in contrast, exhibit long average working hours (44 and 43 hours). Temporary agency workers also work full-time on average; however, the average of 40 hours is slightly lower than for standard employees.[56]

Table 3.2: Usual weekly working hours by form of employment (means, 2012)

Form of employment	Men	Women	All Employees	n
Standard	44.4	42.1	43.6	5,460
Fixed-term full-time	44.6	41.4	43.2	558
Permanent part-time	24.9	24.5	24.5	1,256
Fixed-term part-time	18.8	24.6	23.4	230
Minijob	11.5	11.1	11.2	811
Temporary Agency	42.1	35.6	39.7	239
Total (mean)	42.1	31.9	37.0	
Total (n)	4,294	4,260	8,554	

Source: Author's calculations based on SOEP (v.30).
Note: Question: And how many hours do you generally work, including any overtime?

Looking at gender differences, it becomes clear that women on average work about ten hours less than men. Comparing men and women within the same form of employment, the difference in working hours is usually small. A notable exception is the substantial difference between male and female temporary agency workers: While male agency workers work only two hours less than male

[56] This is due to the fact that in this study the category of temporary agency workers comprises part-time as well as full-time workers (see Chapter 4).

standard workers, female agency workers work more than six hours less than women in standard employment. This demonstrates that temporary agency work for men is predominantly full-time, while many female agency workers work part-time.

Part-time work and minijobs are therefore beneficial for workers in the sense that they provide an increased time budget for private activities. As mentioned (Section 3.2), the combination of work and private obligations is the most important motive for taking up part-time employment. However, part-time work is still not always a deliberate choice for workers as it often does not match the working hours preference: A considerable share (13% of women and 20% of men) only work part-time because they were not able to find a full-time position (author's calculations based on StBA 2015e), and this share is much higher in East Germany (Rengers 2015).[57] On average, part-time workers and even more so minijobbers would like to extend their working time by a few hours (Wanger 2011). One quarter of minijobbers work in this form of employment involuntarily in the hope of finding employment outside minijobs (Rudolph 2006). Furthermore, the time budget for private activities can be negatively affected by the unpredictability of working times: Many (fixed-term) part-time workers and minijobbers work on an on-call basis (Fischer et al. 2015). Sometimes, minijobbers receive their rosters only at short notice, sometimes they are called into work outside their scheduled times or they are scheduled only for very few hours at a time (Benkoff and Hermet 2008). Regarding the working time of agency workers, it has been shown that they more often have to work in shifts (Jahn and Rudolph 2002b). This can be difficult to adapt to physically if shifts also change from one host company to the next (Rigotti and Galais 2011).

The long working hours of agency workers and fixed-term contract workers might partly be explained by *high commitment* at work: As mentioned, agency work is often taken over involuntarily in the hope of getting a direct contract from a host company. To this aim, agency workers often put particularly high effort into their work (Galais et al. 2014). They might also perceive themselves in a competitive situation with other agency workers to be taken over by their host company (Galais et al. 2014). A similar result has been found for fixed-term contract workers: In the hope of getting a permanent contract, fixed-term workers feel under pressure to demonstrate their motivation and ability, e.g. by working overtime and avoiding absence from work even when they are sick. Moreover, some perceive themselves in a competitive situation for permanent jobs with their fixed-term colleagues whose contracts end at the same time (Linne and Voswinkel 1989).

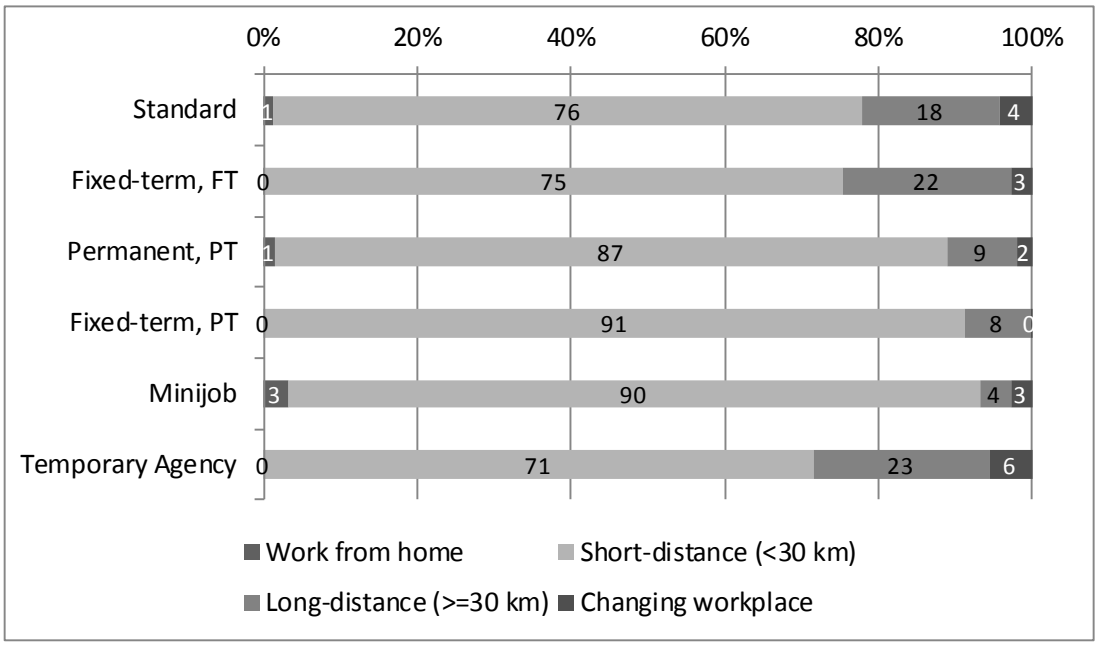
Other strains can result from the *work itself*, particularly for agency workers and minijobbers: The specific tasks agency workers fulfil are often undemanding, repetitive and monotonous, and

[57] Furthermore, even if part-time work is chosen for family reasons, this cannot be considered a free choice due to the fact that alternative options for childcare are often lacking (Wanger 2011).

workers have less autonomy and less influence on the work routine (Grobe and Dörning 2009; Jahn and Rudolph 2002b; Wieland and Krajewski 2002). Often, the jobs do not match the agency workers' qualifications but are slightly below their qualification level (Galais et al. 2014; Grobe and Dörning 2009). For minijobs it has also been emphasised that tasks are often monotonous and highly specialised (Benkoff and Hermet 2008) and that minijobbers are often overqualified for these simple tasks (Rudolph 2006). Besides psychological strains, agency workers were also found to experience more physical strains than direct-hire workers through their work: Agency workers are more often subject to negative environmental influences at work, are less often informed about health and safety risks at the workplace, more often have to work in tiring or painful postures, and have a higher risk of occupational accidents (Jahn and Rudolph 2002b; Kvasnicka and Werwatz 2003).

Another strain can arise from a job's *mobility requirements*: Figure 3.4 demonstrates differences between the forms of employment regarding the commute to work. Among the fixed-term full-time workers and the temporary agency workers, we find a relatively high share of long-distance commuters (22 and 23%).[58] Moreover, agency work has the highest share of employees with changing workplaces (6%). Yet high mobility requirements also apply to a comparatively high share of standard workers with 18% long-distance commuters and 4% with changing workplaces. In contrast, all types of part-time positions are connected to low regional mobility.

Figure 3.4: Commuting to work by form of employment (2012)



Source: Author's calculations based on SOEP (v.30); n (men) = 4,127; n (women) = 4,411.
Note: Question: How far (in kilometres) is your job from your place of residence? Answer categories: _ km; Difficult to say, location of workplace varies; Workplace and home are in the same building.

[58] Previous studies (Kvasnicka and Werwatz 2003; Wieland and Krajewski 2002) also found that agency workers often have to commute long distances to work.

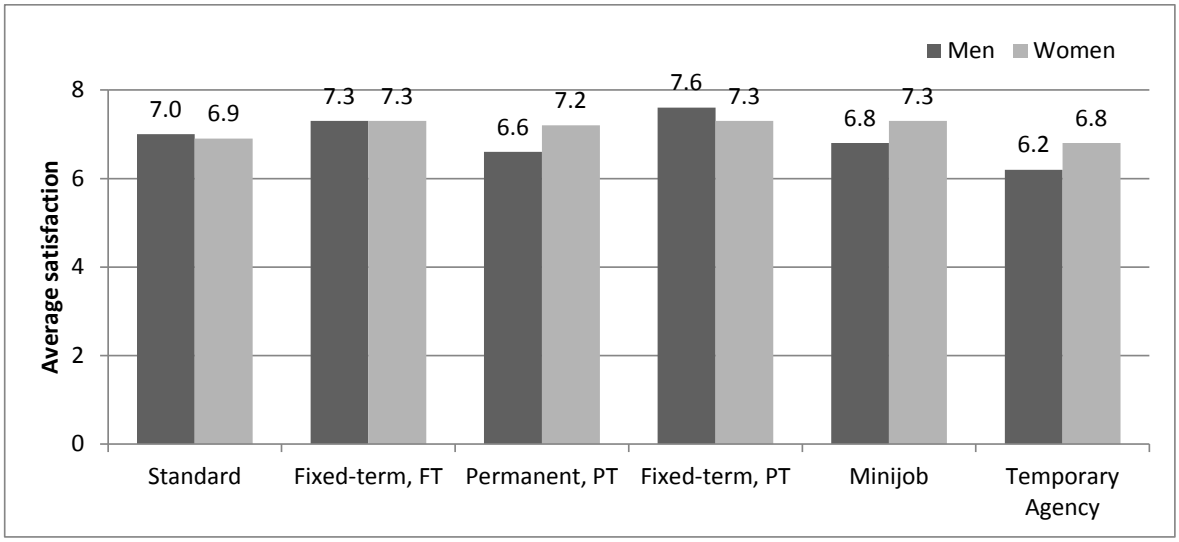
Looking at gender differences regarding commuting (see Appendix Table A 4), it becomes clear that male employees are more often subject to long-distance commuting and changing workplaces than female employees. Moreover, there seems to be a difference in the job characteristics between male and female temporary agency workers: The share of long-distance commuters is especially high among male agency workers, while female agency workers are not more subject to this type of mobility than average.

The longer commute of agency workers is connected to the frequent changes of host companies and working sites. Generally, the working life of agency workers is marked by the repeated change of a range of conditions, such as workplace, sector, social environment, working hours and tasks (Rigotti and Galais 2011; Wieland 2000; Wieland and Krajewski 2002). This entails that agency workers also have to deal with strains in the area of *social integration and recognition* at the workplace: Due to their low status in the social hierarchy of the host company and their marginal position as "outsiders" or "newcomers", they often experience a lack of social recognition (Dörre, Kraemer and Speidel 2004; Wieland 2000; Wieland and Krajewski 2002). Agency workers also often report a negative working atmosphere (Wieland and Krajewski 2002). However, Dütsch (2011) finds in multivariate analyses that the lack of recognition is mainly due to the lower qualification and the type of tasks that temporary agency workers fulfil rather than their form of employment.

The specific benefits and strains arising from the different forms of employment culminate in workers' *overall job satisfaction* (Figure 3.5). Job satisfaction is particularly high among fixed-term workers (full-time and part-time). Furthermore, women in permanent part-time work or in minijobs are comparatively satisfied with their jobs, while men in these forms of employment are rather dissatisfied. Among both genders, temporary agency workers show the lowest job satisfaction.

The result of reduced job satisfaction among agency workers is backed by previous studies coming to the same conclusion (Dütsch 2011; Jahn 2013; Schlese et al. 2005). According to Jahn (2013), this negative effect is largely due to the low job security of agency workers. For fixed-term contract workers, Chadi and Hetschko (2013) do not find a significant difference in job satisfaction from permanent workers in bivariate analyses. However, the job satisfaction of fixed-term workers is significantly lower once job characteristics and length of tenure is taken into account. This is due to the fact that many fixed-term workers have a short tenure, meaning they are still in the happy period ("honeymoon period") directly after a job change.

Figure 3.5: Job satisfaction by form of employment (2012)



Source: Author's calculations based on SOEP (v.30); n (men) = 3,963; n (women) = 3,952.
Note: Question: How satisfied are you today with the following areas of your life? – Your job (if employed)
Scale from 0 (completely dissatisfied) to 10 (completely satisfied).

Job satisfaction of non-standard workers has also been the focus of many studies in Australia. In this context, casual workers (Buddelmeyer, McVicar and Wooden 2015; Green et al. 2010; Wooden and Warren 2004) as well as temporary agency workers (Aletraris 2010; Buddelmeyer et al. 2015; Green et al. 2010; Wooden and Warren 2004) were found to have lower job satisfaction, while the effect is stronger for men than for women. However, regarding the effect of fixed-term contracts on job satisfaction, the existing studies (Buddelmeyer et al. 2015; Green et al. 2010; Wooden and Warren 2004) arrive at different conclusions, in part finding no effect, in part a positive effect on job satisfaction. Furthermore, no differences in job satisfaction were found between part-time and full-time employees, as long as the working hours match workers' preferences, while under- and overemployment negatively affect job satisfaction (Wooden, Warren and Drago 2009).

3.4 Employability and Health

Another important aspect is the consequences of non-standard employment and unemployment for workers' long-term employability. This relates to two aspects, firstly the preservation and extension of qualifications and skills via further training and secondly the effects of employment on workers' health. Regarding the first aspect, studies show that all types of non-standard workers have lower chances of participating in *formal training* than standard workers (Baltes and Hense 2009; Bellmann et al. 2013; Brehmer and Seifert 2008; Expertenkommission Finanzierung

Lebenslangen Lernens 2004; Linne and Voswinkel 1989; Reinowski and Sauermann 2008).[59] The gap regarding further training is particularly large for fixed-term part-time workers (Expertenkommission Finanzierung Lebenslangen Lernens 2004). It is also very large for minijobbers, who were shown to have a lower likelihood of participating in training than unemployed workers, while part-time workers and fixed-term contract workers have a higher likelihood than the unemployed (Bellmann et al. 2013).

A lack of participation in training can be due either to a lack of opportunities and/or to a lack of interest: On the one hand, employers can be expected to be less inclined to invest in the human capital of workers who might not stay permanently or work only few hours. Employees themselves, on the other hand, might not be willing to train in a position they are only filling temporarily. Workers' perception of their training opportunities clearly points to a lack of opportunities rather than a lack of interest: Workers in all forms of non-standard employment are less satisfied with their training and learning possibilities than standard workers (Bellmann et al. 2013). Furthermore, agency workers are often dissatisfied with their career opportunities at the workplace (Grobe and Dörning 2009) and often fear a blockage of their training aspirations (Dörre et al. 2004; Kraemer and Speidel 2004b).

The previous sections have demonstrated that some forms of employment, particularly temporary agency work but also fixed-term contracts and minijobs, are connected to specific psychological strains and stressors, such as job insecurity, economic concerns, lack of social integration or monotonous tasks. Moreover, temporary agency work was shown to also be connected to physical strains. Therefore, the question arises whether non-standard employment also affects the *health* of workers, thereby reducing their employability in the long run. Job insecurity, for example, has been shown to have adverse health outcomes, mainly mentally but also physically, and can be as harmful as job loss itself (Sverke, Hellgren and Näswall 2006). As discussed below, bad health conditions in turn increase the risk of unemployment and prolong the subsequent job search.

There is some indication of negative health effects of *fixed-term contracts*: Rodriguez (2002) finds that fixed-term workers have a higher likelihood of reporting poor health than standard employees, but only those working full-time. Moreover, entering permanent employment from unemployment is more beneficial for health than entering fixed-term work (Gash, Mertens and Gordo 2007).

[59] The results have to be qualified in that a reduced access to training is not always causally linked to the form of employment: According to Dütsch (2011), the lower access to training for agency workers is due to the comparatively low qualifications and the simple tasks of temporary agency workers.

Several studies have shown a worse mental health of *temporary agency workers* compared to direct workers (Dütsch 2011; Grobe and Dörning 2009). Moreover, temporary agency workers exhibit worse physical health conditions (Dütsch 2011; Wieland and Krajewski 2002), and the extent of physical problems rises with employment duration (Wieland and Krajewski 2002). However, the causality between health and agency work can be debated: On the one hand, the evidence presented in the previous sections points to the fact that the specific mental and physical strains linked to temporary agency work can deteriorate workers' health. On the other hand, as Dütsch (2011) stresses, it is also possible that agency workers were in bad health before and took up agency work precisely because they could not find direct employment due to their health problems.

The causal link between *part-time work* and health can also go both ways: On the one hand, part-time work can be connected to stressors such as financial difficulties or lack of career opportunities. On the other hand, part-time work might be less demanding due to the reduced working hours and therefore be taken up by workers with lower health. The latter case, however, seems to apply to only a minority, as less than 8% of male and 3% of female part-time workers report working part-time due to a medical condition (StBA 2015e). Rodriguez (2002) shows that permanent part-time workers and permanent full-time workers do not differ significantly in their health status.

The connection between *unemployment* and health is a well-researched area (see e.g. Paul and Moser 2009 for a meta-analysis). Unemployment is linked to a range of strains that can cause psychosocial stress, such as low income, loss of time structures and contacts at the workplace, and reduced social prestige (Kroll and Lampert 2012). It has been shown in various studies that unemployment deteriorates health considerably (Paul and Moser 2009). It mainly has adverse effects on mental health, but it also negatively affects physical health (Paul and Moser 2015). In international comparison, the effect of unemployment on mental well-being is particularly pronounced in Germany (BMAS 2013). Furthermore, the negative health effects become stronger the longer the unemployment lasts (Paul and Moser 2009). Moreover, unemployment is associated with health-relevant behaviour, such as smoking and sports (BMAS 2013).[60] Unemployment was furthermore shown to be associated with an increased mortality risk (Grobe 2006). In contrast, a change from unemployment into employment goes in line with an improvement in health (Paul and Moser 2009). Nevertheless, it has to be added that the causality also goes the other way in the sense that bad health increases the risk of unemployment and prolongs the time needed to find a new job. This effect is, however, small compared to the effect of unemployment on health (Paul and Moser 2009).

[60] However, Schunck and Rogge (2012) find that unemployment and smoking are not causally linked but the connection is due to unobserved differences between employed and unemployed persons.

For Australia, the literature has also pointed to reduced access of temporary agency, casual and part-time workers to employer-provided training (Connell and Burgess 2002; Draca and Green 2004; Hall 2004). Regarding the mental health of workers, Richardson, Lester and Zhang (2012) show in bivariate analyses that many non-standard forms of employment are connected to significantly reduced mental health compared to standard workers. However, in multivariate, longitudinal analyses there remains only a significant negative health effect for men with fixed-term contracts and a positive health effect of full-time casual work for women.[61] Green and Leeves (2013) find indirect negative effects of casual work on life satisfaction via higher financial insecurity and job insecurity. Regarding part-time work, Wooden et al. (2009) show that life satisfaction is not affected so long as the working hours match workers' preferences, while under- and overemployment both negatively affect life satisfaction. In contrast, Booth and van Ours (2009) show for the specific subgroup of coupled persons of middle age that women have a higher life satisfaction when working part-time, while men have a higher satisfaction when working full-time.

3.5 Partnership Formation and Childbearing Intentions

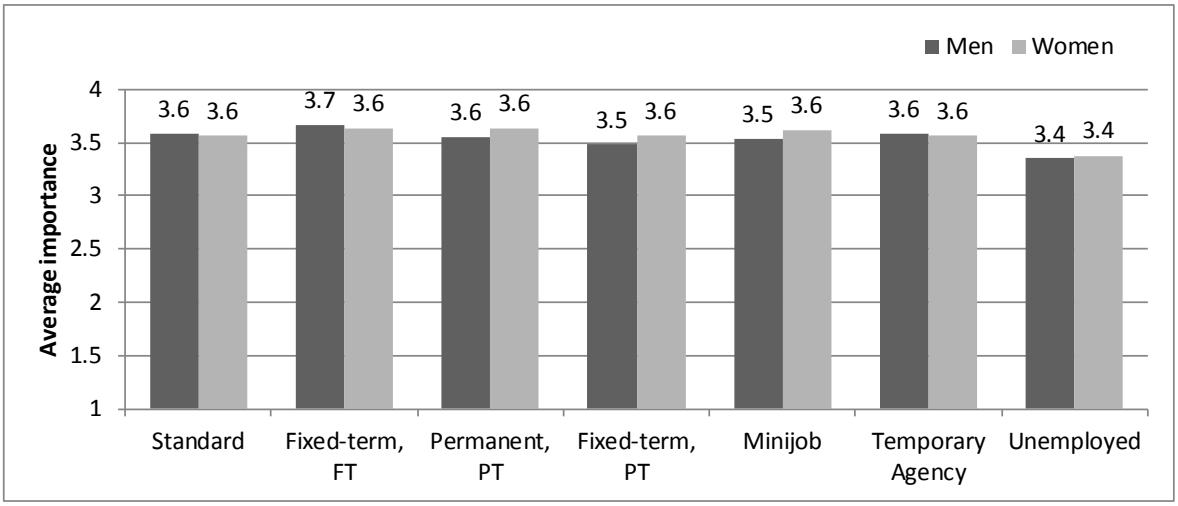
This section deals with the partnership situation of workers in different forms of employment and in unemployment. Here, the focus is on *early stages* in the partnership, i.e. moving in together, getting married and childbearing intentions. The state of research on the effects of the employment situation on *subsequent* partnership transitions, i.e. first childbirth and partnership dissolution, is summarised directly in the respective empirical chapters (5, 6 and 7). This serves to more closely link the previous research and the research gap regarding these transitions to the empirical analyses presented in these chapters.

A range of studies has demonstrated that temporary forms of employment, i.e. fixed-term contracts and temporary agency work, reduce workers' capacities to make *(long-term) life plans*, such as moving out of their parents' homes, getting married or buying a car. Entering into such engagements is considered as risky by workers in these employment positions (Dörre et al. 2004; Kraemer and Speidel 2004a, 2004b; Linne and Voswinkel 1989). The same has already been stated for the unemployed by Fryer and Payne (1986): Due to the fact that it is unknown how long unemployment and consequently the low income will last, long-term planning is inhibited for the unemployed. This suggests that institutionalisation processes of partnerships, such as moving in together with the partner and marriage, are negatively affected by these employment situations.

[61] It should be noted, however, that Richardson, Lester and Zhang (2012) control for a range of characteristics which can be expected to mediate the effect of non-standard employment on mental health, namely household income, financial stress and the wish to change working hours. Health effects of non-standard employment via these channels were therefore cancelled out in the analysis.

To start with, Figure 3.6 shows the importance of a happy partnership for workers in different forms of employment. It becomes apparent that there are no notable differences regarding the average value of a happy marriage/relationship between employment types or genders: All groups of employees place a value between 3.5 and 3.7 out of 4 points on a happy marriage/relationship. Compared to dependent employees, unemployed persons place a marginally lower value on a happy marriage/relationship (3.4 points). These results underpin the point made in Chapter 1 that a (happy) partnership can be assumed to constitute an important and universal life goal.

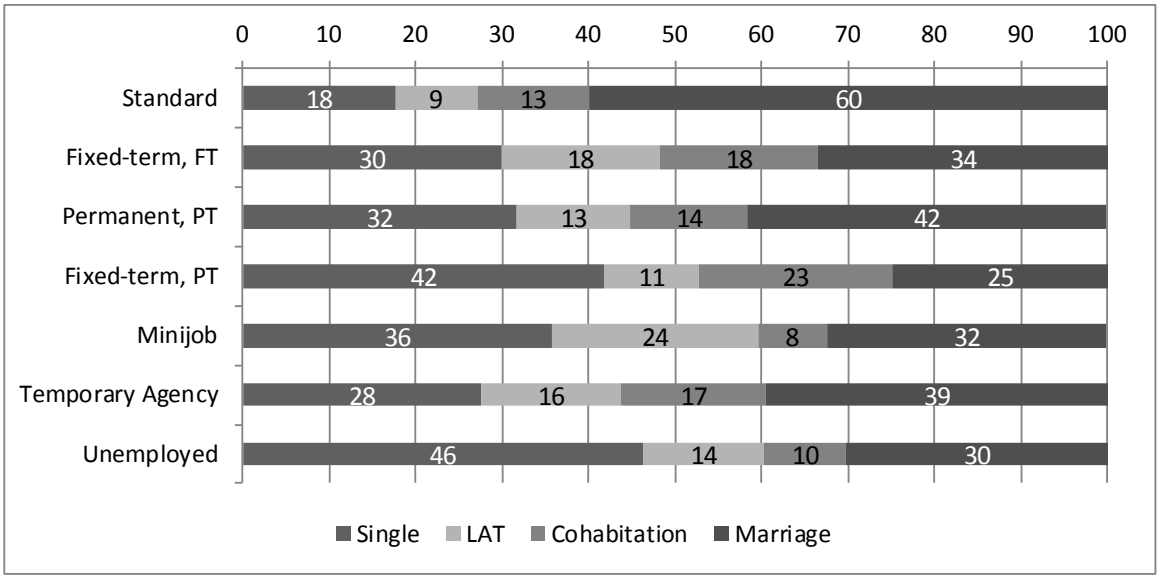
Figure 3.6: Importance of a happy marriage/relationship by form of employment (2012)



Source: Author's calculations based on SOEP (v.30); n (men) = 4,746; n (women) = 4,714.
Notes: Question: Different things are important to different people. How important are the following things to you? Very important, important, less important or not at all important? - Having a happy marriage/relationship. Scale recoded: 1 = "not at all important"; 4 = "very important"; ordinal scale treated as quasimetric to calculate averages.

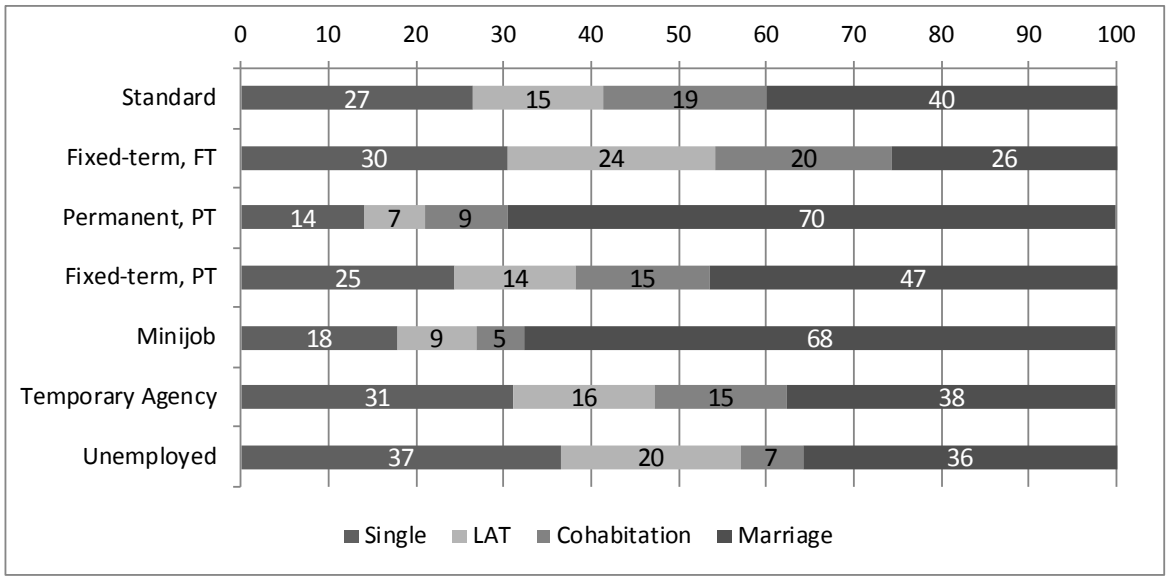
In contrast to the universally high importance of a partnership, the *partnership status* varies significantly by employment situation, as shown in Figure 3.7 for men: In all forms of employment and also among the unemployed, the majority of men are in some form of relationship. However, unemployed men (46%), fixed-term part-time workers (42%) and minijobbers (36%) particularly often do not have a partner. In contrast, among the standard workers, we find by far the lowest share of singles (18%). Furthermore, among the fixed-term part-time workers, the share of married persons is particularly low (25%), while the majority of standard employees (60%) and also a large share of the permanent part-time workers (42%) are married. Another interesting aspect is the high share of cohabiting unions among the fixed-term workers, part-time as well as full-time. In contrast, the share of respondents in living-apart-together relationships (LAT), i.e. with a partner outside the household, is particularly high among minijobbers.

Figure 3.7: Partnership status of men by form of employment (2012)



Source: Author's calculations based on SOEP (v.30); n = 4,591.

Figure 3.8: Partnership status of women by form of employment (2012)



Source: Author's calculations based on SOEP (v.30); n = 4,926.

Figure 3.8 above shows the same distribution for women. Again, the majority of employees and also of the unemployed are in some type of relationship. However, the rest of the picture is quite different from the one for men: In the standard employment relationship, the share of singles is higher among women than among men, and accordingly, the share of married persons much lower. In contrast, in forms of employment with reduced working hours, the share of partnered persons is higher among women than among men. The largest shares of partnered women are found in permanent part-time work (86%) and minijobs (82%). These groups are also the ones that show the highest shares of married women (more than two thirds each). The highest share of singles can be found among the unemployed (37%) and the temporary agency workers (31%). In contrast, among

the fixed-term full-time workers, we see the highest share of cohabiting unions as well as LAT relationships. The partnership status and the degree of the institutionalisation of the partnership thus vary not only with the employment type/status but also between genders when comparing the same type of employment.

While these descriptive results give a first impression of the partnership situation of non-standard and unemployed workers, some of the differences found will most likely be due to the socio-demographic characteristics of workers in different forms of employment, such as the distribution of age or educational level. Multivariate, (and preferably) longitudinal analysis is needed to establish whether the differences are causally linked to the employment situation. So far, only few studies have dealt with the effects of the employment situation on partnership formation processes in the German context. The available studies focus on part-time work and fixed-term contracts, while no quantitative study has yet dealt with the effects of temporary agency work.

Regarding the *transition to first cohabitation*, Golsch (2005) finds a significant negative effect of part-time work, unemployment and inactivity for women. Educational participation and fixed-term contracts do not exert a significant influence on first cohabitation. In contrast, concern about one's job security positively affects the likelihood of moving in together with the partner. For men, part-time work and fixed-term contracts seem to be connected to a reduced likelihood of first cohabitation, albeit the effects are insignificant. Educational participation, unemployment, inactivity and concern about job security do not have significant effects on entry into cohabitation either, albeit the coefficients point to small negative effects. Unfortunately, Golsch (2005) does not take into account whether the individual actually has a partner (outside the household) when studying entry into cohabitation. The effects of the employment situation on finding a partner and forming a separate household with this partner thus cannot be disentangled. In contrast, Kopp et al. (2010:Chapter 8) focus on *partnered* respondents when investigating the effect of "biographical insecurity" on the transition to cohabitation. In this context, biographical insecurity designates a combination of periods before entry into the labour market, periods before finding employment, and commuting to work. They find that biographical insecurity significantly reduces the likelihood of forming a joint household. However, as biographical insecurity encompasses three different aspects, it is not possible to tell which of the insecurity indicators is driving these results. Furthermore, Kopp et al. (2010) do not provide separate results by gender.

Concerning the *transition to first marriage* for women, educational participation was shown to have a negative effect (Kurz et al. 2005; Scherger 2007). Entry into employment – be it full-time or part-time – in turn positively affects first marriage (Scherger 2007). Compared to full-time employment, part-time work is more beneficial for the transition to marriage (Kurz et al. 2005). Moreover,

Kurz et al. (2005) find a positive effect of women's unemployment on marriage, while Scherger (2007) does not find an effect. In contrast, economic inactivity and fixed-term contracts do not significantly affect women's transition to marriage (Kurz et al. 2005). With regard to men, educational participation, unemployment, economic inactivity and part-time work (at labour market entry) were all shown to delay marriage (Golsch 2005; Kurz et al. 2005; Scherger 2007; Tölke 2005). Compared to individuals who are not yet in employment, however, a first part-time or full-time job both has a positive effect on men's likelihood to marry, although the effect is more pronounced for full-time work (Scherger 2007). In contrast, no effect was found for fixed-term contracts (Kurz et al. 2005; Tölke 2005). One shortcoming of the studies on the transition to marriage is that they usually analyse singles, persons in LAT relationships and cohabitors as a joint sample, so that the results cannot be tied to a specific departure state. However, Golsch (2005) analyses the effect of the specific employment constellation on marriage with an exclusive focus on cohabiting unions. The study finds that the "secure traditional family" (male partner has a secure full-time position and female partner is a homemaker), has the highest transition rate from cohabitation to marriage.

The empirical evidence suggests that the employment situation affects not only the actual transition to marriage but already the *intention to get married* for individuals in cohabitations. In this context, Baron et al. (2014) find that the more time a person has spent on a fixed-term contract as a share of their total working career, the lower the wish to get married. They also demonstrate that this effect is partly mediated by reduced partnership stability. In contrast, the perception of precarity, i.e. the question to what degree the respondents consider fixed-term contracts problematic for partnership and family transitions, does not affect the intention to get married. Unfortunately, the study does not investigate possibly different effects for men and women.

There has also been a range of multivariate studies concerned with the effects of different forms of employment and unemployment on *childbearing intentions*. Baron et al. (2014) show (in a joint model for both men and women) that extensive experience with fixed-term contracts, measured as a share of the employment experience, does not affect the intention to have a child. In a later analysis which differentiates by gender, Baron and Schulze-Oeing (2015) find a positive effect of extensive experience with fixed-term contracts for men, and no effect for women. In contrast, childbearing intentions do not seem to be much influenced by unemployment: Compared to a permanent job, Pailhé (2009) does not find a significant effect of unemployment or inactivity on the intention to have a first child for either women or men. Similarly, Buhr and Kuhnt (2012) show that unemployment does not lead to a reduction of the realistically expected number of children. However, overcoming unemployment leads to a significant increase in the expected number of children.

Berninger (2012) does not find an effect of women's unemployment on their desire for a first child. However, for men she finds a positive effect of unemployment on childbearing intentions.

Berninger, Weiß and Wagner (2011) analyse the effect of the satisfaction with job security on childbearing intentions for West German couples. They put a special focus on the question whether the effect on childbearing intentions is mediated by partnership conflicts and partnership quality. In their study they do not find a direct effect of job security satisfaction on childbearing intentions. However, they find an indirect effect in the sense that job security satisfaction has a weak, positive effect on constructive conflict behaviour for both genders. Moreover, for men they find a weak, negative effect on the frequency of conflicts. A higher partnership quality (caused by less frequent conflicts and positive conflict behaviour) in turn has a positive effect on childbearing intentions.

With regard to Australia, to the author's knowledge no quantitative study exists that investigates the effects of different forms of employment on partnership formation or childbearing intentions. However, Risse (2010) shows that employed women in general have higher childbearing intentions than non-working women.

3.6 Summary

This chapter aimed to provide the reader with an overview of the specific characteristics of non-standard employment and unemployment and the effects of these employment situations on the individual worker, i.e. regarding their financial situation, employment stability, employability and health, as well as early stages of their partnerships. The chapter was confined to the situation in Germany as the focal country under study in this thesis, and complemented by short summaries of the evidence on Australia.

Regarding the link between employment situation, (job) characteristics and their effects on workers, it has to be stressed that non-standard employment comprises a diverse group of employment types with very different characteristics. Furthermore, employment conditions are also heterogeneous within the standard employment relationship. Nevertheless, the descriptive analyses and the literature overview have demonstrated that – compared to standard employment – the different forms of non-standard employment and unemployment entail characteristic benefits and strains which might affect workers' economic and occupational situation, their health and their partnership situation.

Part-time work and minijobs are connected to low working hours and are also often available at the place of residence. This maximises the time available for other activities, i.e. for housework,

studies or activities with the partner, family and friends. However, particularly in the case of minijobs, this benefit is to some extent offset by unforeseeable and fragmented working times. Another characteristic is the high employment stability of part-time work and minijobs, comprising a low transition rate to standard employment on the one hand and to unemployment on the other hand. This stability is beneficial for the large group of workers wishing to work reduced hours, but it also reflects low chances of escaping these forms of employment for those workers who would prefer to work full-time. On average, part-time workers and minijobbers would prefer longer working hours, demonstrating that many of them are underemployed. Another important drawback of part-time work in general and minijobs in particular is the fact that they are connected to a considerably lower income compared to standard employment. Minijobbers experience the largest wage discrimination of all non-standard workers. Although in many cases part-timers and minijobbers are secondary earners backed by a breadwinner in the household, the lower income is still reflected in increased concerns about the economic situation, particularly among the fixed-term part-time workers. The reduced working hours furthermore come at the cost of less integration into the social security system, particularly in the case of minijobs, which do not provide an entitlement to health care, unemployment benefits or old age pension.

In contrast, fixed-term full-time work and temporary agency work usually do not provide employees with more free time than standard employment. Fixed-term full-time employees work about the same hours as standard employees, and temporary agency workers – at least in the case of men – only a few hours less. A central characteristic of both fixed-term contracts and agency work is their temporary nature in the sense that their employment usually terminates after a certain period or task, which is why workers in both forms of employment are subject to strain from job insecurity. In the hope of receiving a permanent or direct contract, some fixed-term and agency workers are overly committed to their jobs, e.g. by working longer hours or when they are sick. Moreover, they are often subject to long-distance commuting and changing workplaces. Furthermore, both types of employees are more concerned about their economic situation, which aligns with a lower and presumably more variable income compared to standard employment.

On the plus side, fixed-term contract workers have the highest chances of all non-standard workers of changing into a standard employment relationship. For many workers, fixed-term contracts thus function as a bridge into permanent employment. However, they also have a high chance of remaining in fixed-term employment in the form of “chains of temporary employment” or becoming unemployed. And those fixed-term workers who become unemployed take longer than other workers to find a new job. Taking into account the fact that fixed-term workers often

have short tenure and are therefore still in the honeymoon period right after the start of a new job, fixed-term workers are also less satisfied with their jobs than permanent workers.

Whether temporary agency work serves as a bridge to regular employment remains a matter of perspective; however, the share of workers who get a direct contract from a former host company seems to be relatively low. Rather, they have a high risk of being hired as agency workers again or becoming unemployed. Unemployment is particularly problematic for agency workers since – as a consequence of their low employment duration – they are often not entitled to Unemployment Benefit I. Agency workers are furthermore often subject to specific strains such as shift work, lack of social integration and approval, monotonous tasks and physical strains. Furthermore, their working life is characterised by frequent changes of a whole range of employment conditions, such as workplace, social environment or working hours. All in all, temporary agency workers show the lowest job satisfaction.

It was furthermore shown that all forms of non-standard employment are subject to a reduced access to further training, which lowers workers' employability in the long run. The employability of temporary agency workers and fixed-term contract workers is further reduced by a negative impact of these employment types on health, albeit it has to be noted that there might also be a reverse effect of health on the employment situation.

Non-standard employment in Australia has also been associated with specific benefits and strains. Starting out with fixed-term contracts, they proved in comparison to be the least problematic form of non-standard employment: Unlike in Germany and many other European countries, they are not subject to a wage penalty in Australia. They also have a relatively high chance of changing into standard employment. In contrast, public and scientific concern in Australia is directed towards casual work due to its high prevalence and the lack of entitlements to most benefits which permanent and fixed-term workers receive. Casual workers are disadvantaged regarding their wages, have lower financial well-being, less access to employer-funded training and lower job satisfaction. As a consequence of financial insecurity and job insecurity, casual work furthermore negatively affects life satisfaction. Casual workers also have a low likelihood of changing into standard employment, a high likelihood of remaining casuals and a comparatively high risk of involuntary job loss. By contrast, quantitative evidence on temporary agency work in Australia is relatively scarce, presumably due to the low prevalence and the focus of attention on casual work. However, agency workers were also shown to have reduced job satisfaction and less access to training. Australian part-time work often equals casual work – with the above-mentioned risks. Moreover, underem-

ployment, e.g. in the form of involuntary part-time work, was shown to reduce job and life satisfaction. Part-time work is furthermore connected to reduced access to employer-funded training and thus threatens long-term employability.

Unemployed persons might have more time available for private activities (depending on the intensity of their job search). However, in both countries under study, they are subject to a particularly low income, which manifests itself in a high poverty rate and great concerns about the economic situation. Moreover, in Germany many unemployed have difficulties in re-entering the labour market, which is reflected in the high long-term unemployment rate. Furthermore, unemployment was frequently shown to impair health. Bad health conditions in turn increase the risk of unemployment and prolong the time needed to find a new job.

In sum, among the most important risks of non-standard employment (and unemployment) compared to the standard employment relationship are economic insecurity, in the form of a reduced and/or unforeseeable income, and temporal insecurity, in the form of uncertainty about the continuity of the specific job and/or the career development. While economic insecurity is most prevalent among part-time work and its subtype minijob, temporary forms of employment such as fixed-term contracts, agency work and casual work are characterised by a comparatively high level of temporal insecurity. This manifests itself in frequent job changes, chains of temporary employment or an increased risk of unemployment. Of course, it has to be noted that high temporal insecurity also often entails economic insecurity due to the fact that job loss is usually connected to a marked decline in income.

Regarding the partnership situation of workers in Germany, the chapter has shown that the partnership status is closely tied to the form of employment. Moreover, the connection is highly gendered: For men, the standard employment relationship is the employment type with the highest share of partnered employees and the highest degree of institutionalisation of the partnerships in the form of a joint household or marriage. Non-standard employment in turn goes in line with a larger share of singles and LAT relationships. For women, the opposite relation became visible: Standard employment, but also fixed-term full-time and temporary agency work are connected to a higher share of singles. In contrast, permanent part-time work and minijobs are to a large extent the realm of married women. The patterns of partnership status thus reflect the gendered division of labour in the form of the modified male breadwinner model, with the male partner focusing on gainful employment within a standard employment relationship and the female partner working less hours and taking care of housework and family work at the same time (see Chapter 2).

It was further shown that regardless of the form of employment and gender, a happy relationship is universally considered important, suggesting that the comparatively high shares of singles in

some forms of employment are not due to a lack of appreciation of relationships. Following up on this point, the literature overview has furthermore shown that some employment situations are connected to reduced chances of partnership formation in Germany. For women, the transition to cohabitation is negatively affected by part-time work, unemployment and economic inactivity. While evidence on the transition to marriage is mixed for women, the literature clearly shows that among men, situations that deviate from the standard employment relationship, i.e. educational participation, unemployment, economic inactivity and part-time work, decrease the likelihood of marriage. In contrast, childbearing intentions overall seem to be little influenced by the current employment situation. Temporary agency work has not yet been considered in quantitative studies regarding partnership formation and childbearing intentions.

The fact that the employment situation already influences partnership formation processes is a key result that has to be kept in mind for the interpretation of the subsequent empirical chapters of the thesis, which focus on the effects of the employment situation *within* established, cohabiting partnerships.

Chapter 4 Methodological Background

This chapter introduces the reader to the methodological background of the empirical analyses presented in the following chapters (Chapters 5, 6 and 7). Here, the focus is on characteristics and procedures that all three empirical chapters have in common, while peculiarities of the individual analyses are pointed out directly in the empirical chapters. The common element of all three empirical chapters is that longitudinal couple data from the German Socio-Economic Panel Study (SOEP) are at the core of the analyses. Therefore, in the first part of this chapter (Section 4.1), the steps of data preparation of the SOEP are described as to the construction of partnership and fertility histories and of the key independent variables, i.e. the employment types and statuses. Following this, the data used for the analysis regarding Australia, namely the Household, Income and Labour Dynamics in Australia (HILDA) Survey are introduced (Section 4.2). Another shared element of all empirical chapters is that the investigation of partnership transitions, i.e. the birth of the first child and partnership dissolution, is conducted by means of discrete-time event history analysis. Therefore, the structure of event-history datasets and the statistical method are explained in Section 4.3. All data preparation and analyses were conducted using Stata SE 13.1.

4.1 Preparation of the Socio-Economic Panel (SOEP)

The 30th version of the German Socio-Economic Panel (SOEP) (1984-2013) (DOI: 10.5684/soep.v30) provided the foundation for all analyses regarding Germany in this thesis. In this section, the basic structure of the SOEP is described (Section 4.1.1), and the construction of partnership and fertility histories using SOEP data is explained (Sections 4.1.2 and 4.1.3). Following this, the construction of the key independent variables is described (Section 4.1.4).

4.1.1 About the SOEP

The SOEP is a government-funded, nationally representative household panel survey under academic direction of the German Institute for Economic Research (DIW Berlin) (for more information see Giesselmann and Goebel 2014; Wagner, Frick and Schupp 2007). The SOEP started out in 1984 as a nationally representative survey of the population living in private households in West Germany. One sample (Sample A) contained the native population, while a second sample (Sample B) comprised migrants from the most important "guest worker" nations, i.e. Turkish, Spanish, Italian, Greek and (ex-)Yugoslavian households. All in all, the SOEP started with around 12,000 individual respondents in 6,000 households. An East German sample (Sample C) was added in 1990. In order to be able to gain insights for specific populations, some groups (like immigrants and East Germans) are oversampled in the survey. Attrition and the arrival of new groups of immigrants are addressed

by regularly adding new samples. By 2013, 12 different samples (A to K and M) existed, making up around 24,000 individual respondents in about 14,000 households. Besides the regular top-up samples, new persons can also enter the panel either by being born into a SOEP household or by moving in together with an original SOEP member. Sample members are followed if they move out of the household and the new household they set up or join becomes an SOEP household. Members can drop out of the study by refusal, loss of contact, moving abroad or death.

One of the advantages of the SOEP is that all household members from the age of 17 are surveyed.[62] This means that for a large number of (cohabiting) couples, information is directly available from both partners. Since 2001, the 17-year olds do not receive the usual Individual Questionnaire but an age-triggered Youth Questionnaire to collect retrospective information on childhood and school performance, living conditions and feelings as a teenager, etc. There is furthermore a special Short Questionnaire (Gap) to catch up with respondents who did not participate in the last wave. The SOEP has a strategy of mixed-mode surveying: Originally, the main interview modes were Paper-and-Pencil Interviews and Self-administered Questionnaires, to which Computer Assisted Personal Interviews were added in the late 1990s. At the time this study was conducted, 30 waves of data were available, with waves corresponding to calendar years. The interviewing period starts early in the year, and half of the sample has usually been surveyed by March.

The SOEP collects data on persons, households and families. The questionnaires cover several topics, which are repeated on a regular basis (often yearly but sometimes less frequently). The main focus of the SOEP is on the life course and well-being. Its main topics are demography, education and training, labour market position, income, housing, values, goals and participation, and life satisfaction. Some special topics rotate from wave to wave, e.g. social networks, leisure activities, and wealth. Retrospective questions are asked in order to cover the part of the life course before the respondent entered the panel, e.g. about employment history, marital history, family of origin, etc.

The SOEP was chosen for the current study due to the fact that it is the only nationally representative household panel study available for Germany running for a sufficiently long period of time and containing all the information needed regarding employment on the one hand and biographical transitions on the other hand.[63] The SOEP stands out through comprehensive prospective (instead of only retrospective) biographical information (especially partnership and fertility histories), detailed information on the employment situation, the representativeness and size of the sample and

[62] This is in contrast to surveys such as the US-American Panel Study of Income Dynamics (PSID), where only the head of the household is interviewed and has to give information on behalf of other household members (Frick et al. 2007).

[63] In contrast, the Panel Analysis of Intimate Relationships and Family Dynamics (Pairfam) and the Panel Arbeitsmarkt und Soziale Sicherung (PASS), two other German panel studies which might have been considered for analysis, had only five and six waves of data available respectively by the time this study was conducted and do not contain an equally broad scope of information in *both* the areas of partnerships/fertility and employment.

the far-reaching comparability with household panel surveys from other countries such as HILDA (see Section 4.2).

The data structure of the SOEP is comparatively complex. Besides wave-specific files on the person and household level, there are calendar/biography files containing data on different life histories (e.g. employment and partnerships) and population-specific files (e.g. for children or youth). The most important steps of data preparation comprised a) the reconstruction of the respondents' partnership histories and the matching of information from both partners, b) the reconstruction of fertility histories, and c) the construction of the independent variables, particularly respondents' employment situations. These steps are explained in detail in the subsequent sections.

4.1.2 Construction of Partnership Histories

The construction of each respondent's partnership history was necessary not only to establish the current partnership status and identify the current partner but also to ascertain how long the couple had been living together and, if applicable, how long it had been married. An important principle of preparing the partnership history (as well as the fertility history) was to give the information which was collected prospectively, i.e. updated on a yearly basis, priority over retrospective information, i.e. which was collected only once for the whole life course. This means that wherever available, data from the yearly Individual Questionnaires were used, and only if the respective event happened before the respondents entered the panel, was retrospective data from biography datasets taken to reconstruct the histories. For waves in which the respondent did not participate, information on past events was taken from the Gap Questionnaires. All available waves from 1984 to 2013 were used to reconstruct the partnership histories.

The partners were matched using the generated partner indicator, and the partnership type was established via the generated partnership status variable. In a certain number of cases, the partners disagreed about the existence of their partnership or their partnership type,[64] so that the information was cross-checked with other information from the respondents, e.g. whether they reported moving in together, getting married or a separation.

An important date that had to be reconstructed for all couples was the start of the partnership, designating the start of the risk period for both first childbirth and partnership dissolution in the event history analysis (see also Section 4.3). However, for the vast majority of couples, the date when they started the relationship is unavailable in the SOEP: Only from wave 2011 onwards were

[64] This was usually reflected in the codes "probably partner" and "probably spouse" on the generated partnership status variable.

respondents asked whether and when they have met a new partner. Therefore, the date of moving in together was generally taken as the starting point of the relationship,[65] and the duration of the partnership was calculated from this point (as the difference between the date of moving in together and the date of interview in the current wave). To reconstruct the date of moving in together for as many couples as possible, several sources of information had to be exploited, depending on whether or not the start of the cohabitation fell into the observation period:

Existing panel members entering a cohabitation during the observation period: The main source of information was an item battery in the Individual Questionnaire asking respondents about various possible changes in their family situation since the last interview,[66] including whether respondents have moved in with their partner, and if so in which month. Since 1985, all respondents receive this item battery every wave.[67] This information makes it possible to establish the date of moving in together with monthly precision, but (almost) exclusively for those couples where one of the partners was already a SOEP member before moving in together.[68] If the partners contradicted each other regarding the month of moving in together, the information from the female partner was used. This can be justified on the grounds that women recall the dates of partnership events more precisely than men (Reimondos, Evans and Gray 2011). If respondents entered a cohabitation but did not give information on the aforementioned question, data from the *pbrutto* dataset were used, where the dates of persons joining or leaving the household are recorded. Nevertheless, there was a number of respondents who moved together with a partner between panel waves but where the exact (monthly) timing of this event was not available, leading to the decision to model partnership duration on a yearly rather than monthly scale in this study.

Couples who jointly enter the panel: Couples who already lived together when entering the panel posed a challenge for the reconstruction of partnership duration. Only in very few waves near the beginning (1986-1990)[69] and end (2011-2013) of the SOEP period did respondents receive a retrospective question asking in what year they moved in together with their current partner. Wherever available, this information was exploited. However, contradictions regarding the year of moving in together could arise on the individual level as well as the couple level: Not only did both

[65] With the exception of the analysis of partnership dissolution for married couples in Chapter 7, for whom the date of the wedding was used as the starting point of the risk period.

[66] To be precise, the question asks about changes since December 31st two years before, which covers at least the entire period since the last interview for respondents who were interviewed annually.

[67] Except for the East German Sample C, who did not receive this item battery in their first wave (1990).

[68] From Sample D onwards, this question also allows capturing the date of moving in together for new couple households in those (rare) cases where they had moved in together only shortly before entering the panel: These respondents received the item battery on family changes already in their first wave and could thus report on life events in the year *before* entering the panel.

[69] In these early waves, this question was only asked to respondents in nonmarital cohabiting unions.

partners always receive this question, but the same persons also received it repeatedly from 1986 to 1990 as long as they were still cohabiting. Discarding couples with inconsistent answers would have biased the subsequent analysis due to the fact that errors regarding this information are not randomly distributed but more likely to occur for certain groups of respondents, such as people with complex relationships, men and lowly educated respondents (Reimondos et al. 2011). Therefore, the contradictions were solved by using the most reliable values: In the case of contradictions on the individual level, the values which were reported the first time the question was asked were considered to be most reliable, as recall is more precise the less time has passed. If the female and the male partner contradicted each other and both partners' information seemed plausible,[70] again the information from the female partner was used.

After combining all the prospective and retrospective information on moving in together, there were still a considerable number of couples for which the date of moving in together could not be established.[71] These couples had to be discarded for the analyses of first childbirth in Chapters 5 and 6. For the analysis of partnership dissolution in Chapter 7 they could be retained if they were married and their marriage date was available, as for married couples the time since the wedding designates the risk period for partnership dissolution. Furthermore, wave 1984 could not be included in the analyses in this study: As mentioned, the retrospective question on moving in together was asked only from 1986 onwards and the item battery on changes in the family situation since the last interview was introduced only in 1985. From this follows that the start of the partnership for couples who are observed in 1984 could only be established retrospectively in 1985 or 1986. This entails that by design no dissolution can be observed in 1984 for those couples for whom the partnership duration (later) becomes available.[72]

In order to establish the date of the wedding, one source of information came again from the annual item battery on family changes since the last interview in the Individual Questionnaire, which contains a question on whether the respondent got married, and if yes in what month. For those couples who enter the panel when they are already married, retrospective information from the Biography Questionnaire was used, asking respondents details about their present and former marriages, i.e. in which year the marriage was concluded, whether it still exists, and if not, in which year it ended. As in most cases at least one partner had completed the Biography Questionnaire,

[70] One plausibility check was the question about the starting year of the relationship, which some couples received in 2011 or 2012. Logically, this date should precede or be the same as the year of moving in together. Another check concerned the age of the respondents when moving in together.

[71] This was the case if the couple joined the panel already as a joint household later in the survey, i.e. was part of the new Sample C (East) in 1990 or of the Samples D-I.

[72] Furthermore, the question on fixed-term contracts was introduced only in 1985 (see Section 4.1.4), which further supports the decision to exclude this wave.

there were only very few married couples without information on their wedding date. On the downside, the biography data did not give the date of marriage on a monthly but only on a yearly basis, contributing further to the decision to model partnership duration in years in this study. Furthermore, inconsistencies between the partners and implausible marriage dates were apparent. Again, women's answers were given priority if the partners contradicted each other and both partners' answers were plausible. Consistency checks were conducted, e.g. regarding the resulting age at marriage.[73] Only few remaining cases without (consistent) marriage date had to be discarded for the analysis of partnership dissolution in Chapter 7.

Another central information is the outcome of the relationship. Depending on the focus of the analysis, this is either the birth of the first child (which is discussed in Section 4.1.3) or the dissolution of the partnership. In order to establish the dissolution of a partnership, this study draws primarily on changes on the generated partner status and partner indicator variables. If the partner status changes to "no partner" or the partner indicator changes, a separation of the couple is assumed. As these variables only capture partners who live in the same household, this approach means that a dissolution is always assumed to take place if one of the partners moves out of the household.[74] This information was cross-checked with information from the annual item battery on family changes, asking respondents whether they had separated from their spouse/partner since the last interview, and if so in what month. This check enabled the identification of couples who separated but kept living together for one or more additional panel waves.

Couples who split up and then later get back together form a specific challenge for the establishment of partnership duration. In order to render them most comparable to other couples, only the episode of the partnership until their first separation is included in the analysis.

The death of one of the spouses was distinguished from the event of separation. This event was treated as right-censoring. Other cases of right-censoring were couples dropping out of the

[73] According to German law, both partners generally must be at least 18 years old in order to get married. However, persons who are at least 16 years old can get married with special permission of the family court if the other partner is of full age (Sect. 1303 German Civil Code). Nevertheless, there were several couples in which the female partner was 15 years old at marriage, in very few exceptional cases 14 years. These cases were doubled-checked for consistency. After cleaning out inconsistent cases it was found that all the remaining couples had a migration background. A marriage of minors is acknowledged in Germany if the marriage was according to the law in the country where it was concluded. Therefore, the consistent cases were retained.

[74] This approach entails that couples who split up their household for reasons other than separation will be treated as separated. Yet there is no suitable alternative to this approach as the SOEP does not provide information on the identity of partners outside the household. In cases where the partner moves out and the respondent reports having a partner outside the household, it is thus impossible to determine whether this is still the same partner or a new person. The only alternative to this approach would be to rely entirely on self-reported separations. However, this does not seem useful on the grounds that separations often fail to be reported. Mitchell (2010), for example, finds that the risk of nonresponse is higher among persons who recently experienced a divorce.

study and the end of the observation period. Since the continuity or dissolution of the partnership can always only be established in the next wave, wave 2013 could not be included in the analysis.[75]

4.1.3 Construction of Fertility Histories

The construction of respondents' fertility histories for this study focuses on biological children,[76] whose years and months of birth are noted down in the SOEP's birth biography datasets. These datasets build upon questions from the retrospective Biography Questionnaire, asking respondents about the year of birth of all their children. Furthermore, the biography dataset takes into account new children born within the SOEP period. They can be identified via the household structure and are also usually reported in the annual item battery on changes in the family situation since the last interview, asking respondents whether they became a father or mother (again), and if yes, in what month. The information from the birth biography dataset was cross-checked with this original question and with the generated household type variable, indicating whether children are present in the household.[77]

The year and month of birth of the oldest child in the birth biography were taken as the time of first childbirth for each woman. This information was then backdated by nine months to establish the start of the pregnancy. This is the event of interest used in the analysis of first childbirth in Chapters 5 and 6. The exclusive focus on women's birth biography to establish the event of interest is due to the lack of information on the part of the men: Prior to 2001, men did not receive the question about children in their Biography Questionnaire. Therefore, the focus was placed on women's birth biography.[78]

While the birth of a child and therefore the start of a pregnancy can be reconstructed with precision as to month, the information on most of the time-varying independent variables is only available on a yearly basis, namely for the time of the interview. The event variable thus indicates whether a certain point in time (i.e. interview date) is followed by a pregnancy within the next

[75] This entails the exclusion of the Migration Sample M, which only entered the panel in 2013.

[76] Adoptions are not considered in this study due to the fact that the decision process is usually lengthier than the decision for a biological child. Therefore, it is not possible to establish a temporal or causal relationship between a specific employment situation and the decision to adopt a child.

[77] The birth biography was furthermore cross-checked with the generated labour force status variable, where some women who were assumed to be childless were coded as being on maternity/parental leave.

[78] Men might therefore already have children from former relationships, which is controlled for in the regression models. The opposite case, i.e. that the female partner gives birth to a child but the male partner continues to be coded as childless in the birth biography, also exists. However, data checks have shown that these cases most likely present errors in the birth biography data, since most of these "childless" men still report the birth of a child in the Individual Questionnaire. Therefore, a woman's first birth within a partnership is always also attributed to the male partner.

year.[79] Establishing this information usually requires three waves of data due to the period of pregnancy. In some cases, the birth of a child can already be reported in the wave after the independent variables are measured. However, in the majority of cases, this birth can only be reported two waves later (as the woman is still pregnant the wave after measurement of the independent variables). Therefore, the last two panel waves of each respondent are treated as right-censored if no birth is observed.[80]

4.1.4 Key Independent Variables

4.1.4.1 Standard and Non-Standard Employment

The key independent variables in the empirical chapters are different indicators of employment insecurity, above all non-standard forms of employment and unemployment. The point of reference is the standard employment relationship, defined as a full-time, permanent position without the involvement of a temporary employment agency. Non-standard employment in Germany comprises fixed-term contracts, temporary agency work, part-time work and minijobs (see Chapter 2). Table 4.1 below gives an overview of the questions drawn upon to identify the different types of non-standard employment in the SOEP. Generally, for individuals who have more than one job, the classification of employment types relates to the main job. This is due to the fact that comprehensive information on the nature of the job (e.g. contract type, involvement of a temporary employment agency) is collected only for the main job, while little is known about the nature of workers' side jobs (solely the number of working hours/days and earnings).

Fixed-term contract workers were identified via a question asking respondents about the type of their contract.[81] Standard workers are characterised by a permanent contract, while those who describe their contract as fixed-term are assigned to the category of fixed-term contract workers. In some waves between 1986 and 1994, only those respondents who reported a job change were asked this question. Therefore, in these waves the information from the previous year had to be carried forward for those who reported that they stayed with the same employer.

[79] Due to variations in the month of the yearly interviews as well as wave non-response, it is possible that more than one year passes between the last interview and the start of the pregnancy. However, in order to secure proximity between the measurement point of the covariates and the pregnancy, the event variable was only coded as 1 if a pregnancy starts within the next 12 months and as 0 otherwise.

[80] This entails that the most recent SOEP wave (2013) had to be discarded completely for fertility analysis, while for the second to last wave (2012) only those (very few) couples could be retained that report a birth in 2013.

[81] This question (as well as the questions on temporary agency work and minijobs) is not available in the Youth Questionnaire, which 17-year-old respondents receive rather than the Individual Questionnaire. However, due to the focus on couples in joint households, there are only very few 17-year olds in the sample, and all of them are still in education. As persons in education were assigned a separate category on the employment status variable (see Section 4.1.4.2), the questions regarding their employment are not relevant for classifying them.

Table 4.1: Identification of non-standard employment in the SOEP

Form of employment	Question in Individual Questionnaire	Asked since
Fixed-term contract work	Do you have a fixed-term or permanent employment contract? Permanent contract ( ) Fixed-term contract ( ) Not applicable, do not have an employment contract ( )	1985
Temporary agency work	Is this work through a temporary employment agency *(Zeitarbeit, Leiharbeit)*? Yes ( ) No ( )	2001
Part-time work	And how many hours do you generally work, including any overtime? ( ) hours per week	1984
Minijob	Is it "marginal" part-time work in accordance with the 400/800–euro rule *(Mini-Job, Midi-Job)*? Yes, Mini-Job (up to 400 euros) ( ) Yes, Midi-Job (400 to 800 euros) ( ) No ( )	2001

Source: Author's compilation from DIW Berlin/SOEP (2013).
Note: Wording of questions as of 2012 questionnaire; alterations in question wording over time.

There is a considerable number of workers who state that they do not have an employment contract. Firstly, this group comprises self-employed persons, who by definition do not have an employment contract (unless they are employees of their own businesses). As self-employed persons were assigned a separate category on the employment status variable, this was unproblematic (see Section 4.1.4.2). Secondly, a large number of civil servants (*Beamte*) state that they do not have an employment contract. This is the formally correct answer as this type of civil servant is indeed generally not provided with an employment contract. However, the answer "no contract" is not helpful if the aim is to determine whether the civil servant is in a long-term relation with their employer or not. For the empirical analysis of partnership dissolution in Chapter 7, this missing information was irrelevant as *Beamte* were assigned their own category on the employment status variable. This could not be done, however, for the analysis of first childbirth in Chapters 5 and 6 (see Section 4.1.4.2). Therefore, additional information on tenure with the employer was used to fill in the missing information on contract type: As German *Beamte* are usually hired for life after a few years, all *Beamte* who stated they have been with their current employer for at least five years[82] were assumed to be permanent workers. Those with a tenure shorter than five years cannot be classified with certainty, as they might already be hired for life or might still be on probation. Therefore, an additional category was created that included workers with insufficient information ("employee,

[82] The regulations vary between federal and state-level officials and from state to state, but overall five years can be seen as a maximum period after which the vast majority of *Beamte* will be hired for life.

missing details").[83] Thirdly, there is a large group of respondents who are dependent employees and not civil servants but who still state that they do not have an employment contract. In some cases, this might be due to respondents having verbal agreements with the employer instead of a written contract. However, as verbal agreements constitute employment contracts exactly like written contracts, an employee without employment contract is not a meaningful category. Therefore, this group is also assigned to the category for employees with missing details.

Temporary agency workers were identified via a question asking respondents if they work through a temporary employment agency.

In order to identify *part-time workers*, the SOEP offers the alternatives of setting a certain threshold regarding working hours or using the respondent's self-classification as part-time or full-time. The disadvantage of the self-identification strategy is that the same number of working hours considered to be part-time by one worker is considered to be full-time by the other. As mentioned (Chapter 2), the definition of full-time work (and therefore also part-time work) can differ by industry, occupation or firm. To ensure transparency and comparability between workers, it is thus useful to set a certain threshold of working hours. In this study, part-time work is uniformly defined as less than 35 usual weekly working hours (in the main job).[84] Respondents without valid information on their number of working hours were added to the category "employee, missing details".

Minijobs are characterised by the fact that the usual earnings may not exceed a certain threshold, which increased from DM630 (€322) in 2001 to €450 in 2016. In the SOEP, a question asking specifically about this type of employment was introduced in 2001,[85] and the wording of the question has changed in line with the earnings threshold since then. Respondents receive this question if they report less than 30 usual weekly working hours (in their main job). Every respondent stating "Yes, Mini-Job" was classified as minijobber. Midijobbers were assigned to the regular part-time category.

[83] An alternative to the creation of this missing category would have been to discard observations with missing information. This would have meant the loss of a considerable amount of information: Since the analysis in this study is often based on couple data, the information for the whole couple would have had to be deleted if only one of the partners had missing information on a variable.

[84] This threshold ensures that few full-time workers will be falsely classified as part-time. The vast majority of collective agreements in Germany currently stipulate at least 35 hours as (full-time) working hours, and the average working hours in collective agreements ranged from 39.6 in 1984 to 37.4 in 2012 (Bispinck and Schulten 2017).

[85] Before 2001 there was only a broader question asking if respondents were "marginally or sporadically employed".

4.1.4.2 Other Employment Statuses

To generate an employment status variable that fits all respondents, several more categories had to be created. The main basis for this classification was several generated variables provided in the SOEP, i.e. the employment status, labour force status and occupational position variables. Information from these variables was combined into a single employment type/status variable.

As mentioned, a separate category was created for *self-employed persons* (and family workers). Furthermore, for the analysis of partnership dissolution (Chapter 7), *civil servants (Beamte)* were assigned their own category.[86] Moreover, categories for the non-working population – "unemployed", "in education" and "inactive" – were constructed. In this context, it has to be noted that some respondents might fit several categories, e.g. unemployed respondents can pursue a course of study at the same time. For the assignment of respondents to a certain category, the following hierarchy was applied:

- employment (unless only a side job) trumps the non-working categories,
- unemployment trumps educational participation and economic inactivity,
- educational participation trumps economic inactivity and
- inactivity only applies if no other category fits.

Regarding *unemployment*, two different measures were used in this study: In the empirical chapters focusing exclusively on Germany (Chapters 5 and 7), the central criterion is whether a respondent is registered as unemployed with the Federal Employment Office. As it is possible to be registered as unemployed and be employed at the same time, persons were only classified as unemployed if they reported not to be employed (on a full-time, part-time or marginal/irregular basis). They can still have a side job and be classified as unemployed, however. In contrast, for the internationally comparative analyses (Chapter 6), unemployment was defined according to the definition of the International Labour Organization (ILO) (Thirteenth International Conference of Labour Statisticians 1982), meaning that persons are counted as unemployed if they have not worked within the past week, are actively looking for work and are available to start work straight away. HILDA follows the ILO approach and cannot be reclassified according to the SOEP concept of registered unemployment. In contrast, in the SOEP both the registered unemployed and the unemployed according to ILO can be identified, albeit the wording of the questions is slightly different to HILDA.[87] Therefore,

[86] In the analysis of first childbirth (Chapters 5 and 6), *Beamte* were not given their own category for two reasons: Firstly, the samples are relatively small so that creating another employment status category would have resulted in small cell sizes, particularly for the analysis of subgroups such as East Germans. Secondly, there is no comparable employment status in HILDA.

[87] Firstly, there are differences regarding the question on actively looking for work: In the SOEP, there is a general question about actively looking for work, while in HILDA respondents are asked to state exactly what steps they have taken to find

the ILO approach was chosen for both datasets for the internationally comparative analyses. The disadvantage of applying the ILO concept to the SOEP was that a large group of workers appeared who counted as employed according to the ILO concept but who just had a side job besides unemployment or homemaking. As mentioned (section 4.1.4.1), the SOEP does not collect comprehensive information on side jobs, so these cases had to be added to the category "employee, missing details". Generally, for those respondents who are in education and unemployed at the same time, unemployment trumps being in education. This is reasonable on the grounds that unemployed persons often start courses precisely because they cannot find employment.

People in school, at university, in an apprenticeship or in a traineeship were assigned the category "*in education"***.** Apprenticeships and traineeships were thus treated as a phase of education rather than gainful employment. This is useful on the grounds that these arrangements are by definition fixed-term, so they would contribute a large share of the fixed-term worker category. A complication arises from the fact that people can participate in a course of study and work at the same time (apart from an apprenticeship)[88]. It neither seems useful to classify all students who work besides studying as "employed", nor to assign all workers who pursue some kind of studies besides their jobs to the "in education" category. On objective grounds, however, it is difficult to determine which activity is the respondent's "main activity". Therefore, respondents are classified as "in education" if they attend a course of study and state that they are not employed (on a full-time, part-time or marginal/irregular basis); however, persons classified as in education may have a side job.

Respondents are classified as *inactive* if they state that they are not employed, not in education and not unemployed. They might for example be retired or homemakers. People classified as inactive can have side jobs.

work. In HILDA, persons who already found a job and are waiting to start within the next four weeks are also considered unemployed (even though not actively looking for work anymore). In the SOEP, there exists no equivalent question. Secondly, the question concerning the availability to start work differs regarding the reference period: While in HILDA respondents are asked retrospectively whether they would have been able to start work the week before, in the SOEP the question refers prospectively to starting work within the next two weeks.

[88] This applies to approximately 3% of the female and 2% of the male employees in the sample for the analysis of partnership dissolution (Chapter 7). The share is particularly large among the fixed-term part-time workers: 9% of the women and even 27% of the men in this category pursue some kind of studies, most frequently studies at university. Among the samples for the analysis of first childbirth (Chapters 5 and 6), the shares of respondents who are employed and in education at the same time are even larger due to the lower average age of the respondents.

4.2 Preparation of the Household, Income and Labour Dynamics in Australia (HILDA) Survey

This section introduces the reader to the Household, Income and Labour Dynamics in Australia (HILDA) Survey, whose 13th release (2001-2013) was the basis for the analysis of the effects of employment insecurity on first childbirth in Australia in Chapter 6. Starting out with an overview of the basic principles and structure of HILDA (Section 4.2.1), the section then explains the construction of partnership and fertility histories (Sections 4.2.2 and 4.2.3) and of the key independent variables, i.e. the employment types and statuses (Section 4.2.4).

4.2.1 About the HILDA Survey

The HILDA Survey is a household panel study which is representative of the Australian population.[89] It is funded by the Australian government and designed and managed by the Melbourne Institute of Applied Economic and Social Research (for more details see Summerfield et al. 2014; Watson and Wooden 2012). Having had its first wave of data collection in 2001, HILDA was designed in a similar vein to existing panel studies, especially the SOEP and the British Household Panel Survey (BHPS), which facilitates comparative analyses between these datasets. For example, in both SOEP and HILDA all adult household members are surveyed every year, and new household members are included in the study when they are born into or move into a SOEP/HILDA household. Moreover, the topics and questions asked in SOEP and HILDA are broadly comparable. The similarity to the SOEP and the fact that it is the only large, nationally representative and long-running household panel in Australia were the reasons for choosing HILDA as the basis for the analyses in this thesis.

In contrast to the SOEP, many new sample members in HILDA join the survey only temporarily: Only children born to original HILDA members and individuals who have a child with an original HILDA member become permanent HILDA members themselves. All other new household members, including partners, become temporary members, meaning they are only surveyed as long as they live with the original HILDA member and not followed if they move out. Household members are surveyed if they are at least 15 years of age. In its initial wave, 13,969 persons were interviewed in 7,682 households. In order to incorporate recent immigrants to Australia into the survey, a top-up sample was introduced in wave 11 (2011/12), in which another 4,009 interviewed persons from 2,153 households were added.

The timing of the fieldwork is orientated towards the Australian financial year, which lasts from 1st July in one year to 30th June the year after. Interviews commence soon after conclusion of the

[89] With the exception of people living in the most remote areas of Australia.

financial year, i.e. in July or August, and then continue until early the next year. In contrast to the SOEP, waves thus cut across calendar years in HILDA. The median interview month is usually September (compared to March in the SOEP). Currently, the general method of data collection is Computer Assisted Personal Interviews (CAPI).[90] However, in addition to the "normal" Person Questionnaire (PQ), respondents are asked to complete another instrument, the Self-Completion Questionnaire (SCQ), by pen and paper. This instrument collects a broad array of additional data, including information that respondents might feel uncomfortable providing in a face-to-face interview. One drawback of this additional tool is that some (currently around 13%) of those who fill in the PQ do not fill in the SCQ.

HILDA is available in two versions, the General Release and the In-confidence Release. In the General Release some variables have been omitted or changed before data distribution in order to reduce the risk that individual respondents can be identified. For example, very high incomes have been top-coded. The General Release is the basis of the present study, as the In-confidence Release is not available to overseas researchers.

4.2.2 Construction of Partnership Histories

The construction of the HILDA working dataset was conducted by use of the Stata add-on PanelWhiz (Hahn and Haisken-DeNew 2013). Partners were sorted together according to their partner IDs. The partner IDs are based on the household form, where one person from the household gives information on the relation of everyone within the household to everyone else. As this information might sometimes not be congruent with the respondents' views of their own partnership situation, it was cross-checked with information given directly by the respondents.

HILDA offers a wider range of information than the SOEP for reconstructing partnership histories as respondents are asked more details about their partnership retrospectively, e.g. when they moved in together with their current partner, if they had cohabited before marriage and if yes, for how long, etc. On the downside, this type of retrospective information is subject to recall bias, meaning that respondents might not remember well the specific dates of partnership events, particularly if it was a long time ago or if it was a rather "informal" event such as moving in together (as opposed to getting married). Generally, recall errors were minimised by cross-checking the answers of both partners and investigating outliers for plausibility.

The partnership status was established from a derived variable containing each respondent's partnership status, distinguishing between married, de facto (i.e. cohabiting), separated, divorced,

[90] Telephone interviews are conducted as a last resort and to reach respondents who move into areas not covered by the face-to-face interviewers.

widowed, and never married and not de facto. A certain number of couples disagreed on the existence of their partnership or their partnership type so that other information was exploited to establish the status quo of the partnership.

The duration of the partnership was constructed using information from several variables. For cohabiting unions, the start of the partnership was established through a question asking respondents when they began living with their current partner, providing both the year and the month of moving in together. The partnership duration was then calculated as the difference between the reported date of moving in together and the date of interview in the current wave. The information from both partners was compared to check for any inconsistencies, and in fact there were many cases in which the partners gave different dates/durations. In most cases, the dates only differed by one or a few months. This can be due to recall error on behalf of one of the partners (or both), having a different perception of what "living together" means or just technically different interview dates of the partners. However, some couples disagreed by more than a few months. In these cases, other available information was taken into account to determine which partner's information was correct. If there was no hint to decide which information was correct, the female partner's data was used due to the fact that women tend to recall partnership events better than men (Reimondos et al. 2011). Furthermore, the same person sometimes reported two different dates of moving in together for the same partnership, which usually designated couples who separated and then later got back together. In these cases, only the observations until the first separation were kept.

The date of marriage, in turn, was established through a question asking respondents in what month and year they were married. From this point in time, the duration of the marriage until the time of interview was calculated. Agreement between the partners on the date of marriage and thus marriage duration was much larger than for the start of the cohabitation. Again, in cases of disagreement other sources of information were checked and the female partner's information was used if both responses turned out to be plausible. In order to establish total partnership duration for marriages, the marriage duration was summed up with the period of premarital cohabitation, if applicable. Again, the information from the female partner was taken in situations of disagreement.

For those few cases who did not report the date of moving in together/marriage, the time living together could still be established if one partner joined HILDA later than the other. The year in which the second partner entered the panel was then assumed to be the year of moving in together. For a very low number of couples, partnership duration could not be established as the partners had joined HILDA together and gave insufficient information on their partnership history. These cases had to be discarded.

4.2.3 Construction of Fertility Histories

Unlike the SOEP, HILDA does not contain a birth biography dataset. Instead, information from several variables was combined to construct women's fertility histories. The starting point was a question asking respondents how many children in total they have ever had (i.e. given birth to or adopted).[91] Women who already reported children on this variable when they were first observed in HILDA were excluded straight away. In order to uncover any inconsistencies, this information was cross-checked with other child-related variables, such as the age of the youngest child in the household and the number of resident and non-resident children.

The next step was to establish the date of birth of the oldest child for those women who became first mothers during the period of observation. A difficulty arose from the fact that the children's month of birth was available only from 2009 onwards, and only for resident children. Since most children born after 2001 still lived with their mothers in 2009, almost all dates of birth for the relevant children could be obtained. Yet there were a few children for whom month of birth was unavailable, e.g. because the family left the survey before 2009 or the child moved out or died before 2009. In this case, the date of birth was estimated using alternative sources of information: For all children in the sample, the year of birth and the age last 30th June were available. This information was combined with annual information from the SCQ on whether the respondent or their partner had given birth to or adopted a child within the past 12 months, and if so, how long ago this happened. This procedure narrowed down the date of birth to a small window of only a few months. The earliest month possible was then taken as the date of childbirth.[92] Afterwards, this date was backdated by nine months to obtain the start of pregnancy.

In order to establish whether a certain point in time is followed by an event, i.e. a birth, or not, information on the next two panel waves usually had to be available (see Section 4.1.3). However, this data is unavailable if a) the couple splits up and the female partner leaves the survey, b) the couple leaves the survey together or c) the survey reaches the end of the observation period, which is waves 2012/13 and 2013/14 in this case. The problem of insufficient information on possible births around the time of partnership dissolution is larger in HILDA than in the SOEP: After separation, both partners generally continue to be surveyed in the SOEP, while in HILDA the female partner might be a temporary member who is not followed upon leaving the HILDA household.

[91] It is not possible to separate biological and adopted children in HILDA.

[92] Taking the earliest point in time precludes the possibility of reverse causation in the analyses on the effects of employment insecurity on first childbirth: It ensures that the employment situation is always measured before the start of the pregnancy so that a possible pregnancy can never influence respondents' employment behaviour.

4.2.4 Key Independent Variables

4.2.4.1 Standard and Non-Standard Employment

The reference category for the analysis of the effects of the form of employment on first childbirth in Australia is the standard employment relationship, defined as full-time work on a permanent contract without the involvement of a temporary employment agency. From this category, fixed-term contracts, temporary agency work, casual work and part-time work need to be distinguished as Australian forms of non-standard employment. Table 4.2 below gives an overview of the questions drawn upon to identify the different types of non-standard employment in HILDA. All questions relate to the main job.[93]

Table 4.2: Identification of non-standard employment in HILDA

Form of employment	Question in Person Questionnaire	Asked since
Fixed-term contract work & Casual work	Looking at SHOWCARD, which of these categories *best* describes your current contract of employment? Employed on a fixed-term contract ( ) Employed on a casual basis ( ) Employed on a permanent or ongoing basis ( ) Other *(please specify)* ( )	2001
Temporary agency work	Are you employed through a labour-hire firm or temporary employment agency? That is, the agency pays your wage? Yes ( ) No ( )	2001
Part-time work	Including any paid or unpaid overtime, how many hours per week do you *usually* work in your *main* job? *This includes any work done at the workplace and at home.* *Don't include time "on-call"; these are NOT considered usual working hours.* Hours per week ( ) Hours vary ( )	2001

Source: MIAESR (2014).

Fixed-term contract workers and *casual workers* were identified by a question asking respondents to describe their contract of employment. While the vast majority of respondents were able to classify themselves as permanent, fixed-term or casual, there were a few individuals who stated "other" on this question. These respondents were then asked to specify the nature of their contract. On the basis of these open answers, the majority of cases were backcoded to one of the contract

[93] In contrast to the SOEP, where the classification of the main job vs. side job is up to the respondent, HILDA explicitly defines the main job as "the job from which you usually get the most pay each week" (MIAESR 2014:39).

type categories by the Melbourne Institute prior to distribution of the HILDA data so that only very few cases remained in the "other" category (around ten cases for women and men each in the analysis sample). These non-attributal cases were excluded from the analysis.[94]

Temporary agency workers were identified via a question asking workers whether they are employed through a labour hire firm or temporary employment agency. *Part-time workers* were identified based on workers' usual weekly working hours. If they stated that their hours vary, they were asked to give the average weekly working hours over a usual 4-week period. Workers who usually/on average work less than 35 hours per week were then classified as part-time workers.

4.2.4.2 Other Employment Statuses

Among the working population, a separate category for *self-employed persons* (also comprising employees of their own businesses and unpaid family workers) was created. For the non-working categories, the same hierarchy was applied as in the SOEP (see Section 4.1.4.2): Employment generally trumps the non-working categories (except for full-time students who might be working besides studying), unemployment trumps educational participation and economic inactivity, educational participation trumps economic inactivity and inactivity only applies if no other category fits.

As mentioned, HILDA bases its definition of *unemployment* on the concept used by the ABS (ABS 2013b), which in turn follows the concept of the ILO. The ILO definition classifies persons as unemployed if they have not worked within the past week, are actively looking for work[95] and are available to start work straight away (see also Section 4.1.4.2).

Educational participation had to be identified slightly differently in HILDA than in the SOEP. While the main categorisation in the SOEP is based on students' self-classification as working or non-working, it is not possible to identify people according to their main activity in HILDA. The question whether the respondent is studying (full-time or part-time) is separate to the question of whether someone is in employment, and the two aspects do not get integrated into one activity variable. Moreover, if someone is employed, it is not possible to determine whether this employment is an apprenticeship in HILDA. It has to be combined with the question whether the person pursues a degree (full-time). For full-time students who work at the same time, it can be assumed that studying is their main activity (meaning they either just have a side job or they are in an apprenticeship). Therefore, the category "in education" comprises all people in school and everyone

[94] The open answers to this question are not accessible to users of the confidentialised General Release of HILDA.

[95] All answer categories (including looking in newspapers and the internet) were counted as active job search here to match the broader question in the SOEP.

else who states they are pursuing a degree full-time (unless they are unemployed at the same time). Moreover, all non-working students (part-time or full-time) were classified as “in education”.

4.3 Method of Analysis: Discrete-Time Event History Analysis

The samples used for the analyses generally consist of couples in joint households (either married or nonmarital cohabitations). The narrow focus on cohabiting couples is necessary as only if the couple forms a joint household are both partners surveyed so there is information on the characteristics of both of them. The key information drawn from the data is the question whether, and if yes, after what period couples transition to first parenthood or separate. With this type of data and the research question at hand, methods such as a standard OLS regression or logistic regression are inappropriate (Andress, Golsch and Schmidt 2013). One could think of estimating an OLS regression with the time until event occurrence, i.e. spell duration, as dependent variable. However, this method is unable to account for right-censored cases, i.e. couples who do not experience the birth of their first child or a partnership dissolution during the observation period. Furthermore, OLS regression is unable to integrate time-varying covariates. This is an important drawback as the study is particularly interested in the effects of the employment situation, which usually is not stable across the working life (let alone other important variables such as age). Additionally, OLS regression assumes that the error term in the regression is normally distributed, which is often not the case with spell durations. Another imaginable approach would be to estimate a logistic regression with an indicator of whether the couple experiences an event or not as dependent variable. This entails, however, a severe loss of information as the spell duration is not considered at all. Furthermore, logistic regression focuses on the unconditional probability of event occurrence instead of the conditional probability, meaning it always relates event occurrence to the whole sample instead of only to those couples that are still left over after a certain spell duration.

In order to investigate the effect of employment insecurity on first childbirth and partnership dissolution, discrete-time event history analysis (Allison 1982; Andress et al. 2013; Jenkins 1995; Yamaguchi 1991) is therefore applied. These models are specified in terms of the discrete-time hazard:

$$h(t) = Pr(T=t \mid T>=t)$$

The discrete-time hazard relates to the probability of an event occurring during interval *t*, conditional on the fact that the event did not occur before *t*. Discrete-time event history models make full use of the data at hand, i.e. both the spell duration and the question of whether an event occurs or not, and can account for right-censored cases as well as time-varying covariates.

The discrete-time event history analysis is preferred to the continuous-time event history analysis for two reasons: Firstly, many independent variables, e.g. the forms of employment, are available only on a yearly basis – more precisely for the time of the yearly interview – and not continuously. Secondly, only the discrete-time event history analysis is able to deal with left-truncated cases without biasing the estimation results (Guo 1993). Left-truncated cases are those cases for which the risk period started before the period of observation: Using the example of the analysis of first childbirth in Chapter 6, this refers to couples who moved in together before the year 2001 and then remained together long enough to reach the period of observation. The crucial aspect about left-truncated couples is that they constitute a positive selection of initially stable partnerships: Had they separated at the beginning of their partnership, i.e. before 2001, they would never have been included in the analysis sample. Furthermore, they did not have a child within the first years of their partnership because then they would also have been excluded from the sample. In the context of discrete-time event history analysis, the data can be prepared in a way to correct for this selection problem (Rabe-Hesketh and Skrondal 2012).

The data are prepared in the so-called person-period format (or in this case: couple-period), meaning the couple contributes one row of data for each year it is observed. The couple is included in the dataset until an event takes place (i.e. either the couple has a first child or dissolves) or until right-censoring (i.e. the couple leaves the study, one partner dies or the end of the observation period is reached). The structure of event history data is exemplified in Table 4.3:

Table 4.3: Example of a couple-year dataset

Couple_ID	Female_ID	Male_ID	Wave	Duration	Partnership status	Event (dissolution)	Censoring
1	11	12	2001	1	Marriage	0	0
1	11	12	2002	2	Marriage	0	0
1	11	12	2003	3	Marriage	0	0
1	11	12	2004	4	Marriage	1	0
2	15	16	2001	1	Cohabitation	0	0
2	15	16	2002	2	Marriage	0	1
3	20	22	2001	1	Cohabitation	1	0

Source: Author's illustration (hypothetical dataset).

A specific feature of discrete-time event history models is that after preparing the data in couple-period format, they become models for dichotomous responses. This enables the use of standard logit, probit or complementary log-log models for estimation (Rabe-Hesketh and Skrondal 2012:749). In this study, the analysis is conducted using logistic regression. The results are presented as hazard ratios, designating the effect of the covariates on the hazard. These can be interpreted similarly to odds ratios: In the case of metric variables, hazard ratios indicate by what factor the risk of an event changes if the value of the variable increases by one unit. In the case of dummy

variables, hazard ratios indicate by what factor the risk of an event is increased/decreased for cases in this category compared to cases in the reference category. Coefficients higher than 1 indicate a positive effect of the variable on the risk of an event, while coefficients between 0 and 1 indicate a negative effect.

In most cases competing risks models (e.g. Andress et al. 2013:283) are applied in this study, which simultaneously estimate the risks of mutually exclusive events: In the analysis of first childbirth, partnership dissolution has to be considered as an alternative outcome for partnerships. Couples are excluded from the sample at the point of separation, and it is assumed that they are no longer at risk of first childbirth. Of course, individuals can form new relationships with other partners, but then this constitutes a new couple and the risk period starts anew. In the analysis of partnership dissolution for cohabiting couples, marriage has to be considered as an alternative outcome to dissolution. In these cases, competing risks models in the form of multinomial logistic regressions are applied.[96]

[96] An alternative approach that is usually seen in empirical studies is to simply treat alternative events which are not the focus of the study as right-censoring. Results are usually similar; yet in contrast to the multinomial logistic estimator, this estimator is not entirely efficient (Andress, Golsch and Schmidt 2013:283).

Chapter 5

The Effects of Employment Insecurity on First Childbirth under Different Gender Regimes – A Comparison of East and West Germany

5.1 Background and State of Research

For the past decades, the German fertility rate has been among the lowest in Europe. A growing number of persons remain childless, and those who opt for parenthood start their families at ever later stages of life (see Chapter 2). Previous studies have shown that fertility behaviour depends on numerous factors, ranging from the structure of the family of origin, religion and cultural norms to social and family policy (summarising: Boll et al. 2013). Among these factors, the personal economic and employment situation proves to be one of the main determinants in Germany. A secure job and sufficient income are generally regarded as preconditions for starting a family (IfD 2013; Klein and Eckhard 2008). However, these preconditions have become more difficult to meet as young people face growing barriers to enter the labour market (see Introduction) and ever more frequently start their careers with insecure positions like temporary contracts (see Chapter 2).

This chapter focuses on the question of how employment insecurity affects first childbirth in Germany.[97] In this thesis, employment insecurity is understood as a broad term comprising different forms of insecurity surrounding employment, especially *temporal insecurity* – relating to insecurity about the current job or future employment – and *economic insecurity* – relating to financially insecure employment situations. Due to the anticipated negative long-term consequences of low fertility and demographic change, this topic has already received much attention in German research since the turn of the millennium (e.g. Brose 2008; Düntgen and Diewald 2008; Gebel and Giesecke 2009; Golsch 2005; Hofmann and Hohmeyer 2013; Kreyenfeld 2010; Kurz et al. 2005; Schmitt 2012b; Tölke and Diewald 2003b). Nevertheless, the available studies focus on a narrow range of indicators, mainly objective measures of insecurity such as fixed-term contracts, part-time work, unemployment and educational participation. Furthermore, the studies differ considerably regarding sample selection, period of observation and methodology, and consequently the results are to some extent inconsistent.

With regard to *fixed-term contracts*, Auer and Danzers' (2016) descriptive analysis shows the anticipation of problems concerning parenthood: Men and women on fixed-term contracts (aged

[97] A focus on *first* childbirth is justified on the grounds that the determinants of childbearing differ for children of different parities (Kohlmann and Kopp 1997). Moreover, the causal order between employment situation and fertility is less clear for second and higher parity births due to the fact that the employment situation is already influenced by the first child. For studies on the effects on higher parity births, see e.g. Bernhard and Kurz (2007), Brose (2008) or Kreyenfeld (2002).

24 to 29 years) state less often than their permanent counterparts that they are able to financially afford a child and that their work life is compatible with having children. However, multivariate analyses of the effect of fixed-term contracts on first motherhood have yielded mixed results: The majority of studies (Brose 2008; Gebel and Giesecke 2008; Golsch 2005; González and Jurado-Guerrero 2006; Kreyenfeld 2005; Kurz et al. 2005; Schmitt 2012c) do not find a significant effect of fixed-term employment compared to permanent employment. However, some other studies find a significant negative effect of a current fixed-term contract (Düntgen and Diewald 2008; Kind and Kleibrink 2013; Kreyenfeld 2008; Schmitt 2008b, 2012b) or a labour market entry on a fixed-term contract (Auer and Danzer 2016). In contrast, for men the available studies almost unanimously point to the absence of an effect of fixed-term contracts compared to permanent contracts: None of the available studies finds a significant effect of a current fixed-term position (Düntgen and Diewald 2008; Golsch 2005; Kind and Kleibrink 2013; Kurz et al. 2005; Schmitt 2008b, 2012b, 2012c) or a (long time on a) fixed-term contract at labour market entry (Auer and Danzer 2016; Tölke 2005; Tölke and Diewald 2003a, 2003b) on first fatherhood.

There is also contradictory evidence regarding the effect of *part-time work* for women: While Kurz et al. (2005) find a positive effect, Düntgen and Diewald (2008), Brose (2008) and Kreyenfeld (2008) identify a negative effect of part-time work on first motherhood.[98] Other studies, such as Schmitt (2008b, 2012b, 2012c), Kreyenfeld (2005) and Golsch (2005) do not find a significant effect of part-time work for women. For men, many of the available studies (Düntgen and Diewald 2008; Schmitt 2008b, 2012b; Tölke and Diewald 2003b for Germany as well as Kurz 2005 and Tölke 2005 for West Germany) find a significant negative effect of part-time work on first childbirth.[99] However, in Schmitt (2008b, 2012b) the effect disappears if controlling for income, suggesting that it is particularly the low earnings connected to part-time work which are detrimental for first fatherhood. Furthermore, in Tölke and Diewald (2003b) and Tölke (2005), the effect loses significance if only men with partnership experience are considered. Similarly, the effect is reduced and loses significance in Kurz (2005) as soon as the partnership status, i.e. the presence of a partner in the household, is controlled for. These results suggest that part-time work negatively affects partnership formation for men and then indirectly influences first fatherhood via the likelihood of having a partner.

[98] In this connection, Kreyenfeld (2008) shows that it is particularly women with a high educational level who postpone childbirth during part-time work.

[99] Tölke and Diewald (2003a) also find a negative effect of part-time work within the first three jobs after labour market entry on the likelihood of being a father at the age of 35, but the effect is insignificant. Similarly, Kurz, Steinhage and Golsch (2005) and Golsch (2005) find an insignificant negative effect of part-time work. The lack of statistical significance might partly be attributed to the low sample size of men working part-time.

Furthermore, the available studies show marked gender-specific effects of *unemployment* on first childbirth.[100] For women, the evidence is again contradictory: Schmitt (2012b), González and Jurado-Guerrero (2006), Scherger (2007) as well as Özcan, Mayer and Luedicke (2010) (only for East Germany) find a significant positive effect of unemployment on first motherhood. In contrast, Düntgen and Diewald (2008) report a significant negative effect. However, the majority of studies (Brose 2008; Gebel and Giesecke 2009; Golsch 2005; Kreyenfeld 2005, 2008, 2010; Kreyenfeld and Konietzka 2005; Kurz et al. 2005; Schmitt 2008b, 2012c) do not find a significant effect of women's current unemployment on first childbirth. For men, empirical evidence unanimously points to a negative effect of unemployment on first fatherhood: A range of studies report a significant negative effect (Tölke and Diewald 2003a, Kurz et al. 2005 and Kurz 2005 for Germany as well as Tölke and Diewald 2003b and Tölke 2005 for West Germany). Many other studies also find a negative, but insignificant, effect (Düntgen and Diewald 2008; Golsch 2005; Özcan et al. 2010; Schmitt 2012c). Schmitt (2012b) initially finds an (insignificant) negative effect of unemployment on first fatherhood, which turns into a positive effect after controlling for income. This result points to the fact that after the economic insecurity of unemployment is (at least partly) canceled out, the positive effect of the increased available time for childcare connected to unemployment becomes visible. Furthermore, the detrimental effect of unemployment attenuates and loses significance if only men with partnership experience are considered and the partnership type is controlled for (Tölke 2005; Tölke and Diewald 2003b), suggesting that it is primarily partnership formation which is hampered by men's unemployment.[101]

One aspect that all studies agree upon is that *educational participation* significantly decreases the likelihood of first childbirth for both genders (Brose 2008; Düntgen and Diewald 2008; Golsch 2005; Kreyenfeld 2005, 2008, 2010; Kreyenfeld and Konietzka 2005; Kurz et al. 2005; Kurz 2005; Özcan et al. 2010; Scherger 2007; Schmitt 2008b, 2012a, 2012b, 2012c). This is true both for episodes of education directly following school and for further education interrupting the employment career (Tölke 2005; Tölke and Diewald 2003a, 2003b). Overall, the effect seems to be more pronounced for women than for men.

Fewer studies have dealt with *subjective measures of insecurity*, such as concern about job security or about the economic situation (Düntgen and Diewald 2008; Golsch 2005; Kind and Kleibrink 2013; Kreyenfeld 2005, 2008, 2010; Kreyenfeld and Konietzka 2005). Overall, they do not

[100] The effect of unemployment has furthermore been shown to vary by unemployment duration (e.g. Düntgen and Diewald 2008; Schmitt 2012a), educational level (Schmitt 2012a, 2012b; Kreyenfeld 2005, 2008, 2010) and personality traits (Schmitt 2012c).

[101] However, Tölke and Diewald (2003b) concede that controlling for partnership type poses the problem of reverse causality, as couples might decide to get married exactly because they intend to have a child.

find an additional effect of these subjective measures if controlling for the objective employment status. However, subjective job insecurity seems to be detrimental for specific groups, such as women in East Germany and highly educated women, while lowly educated women seem to speed up first childbirth when experiencing job insecurity.

On the background of this to some extent inconclusive state of research, this chapter aims to contribute to the literature on the effects of employment insecurity on first childbirth in at least three ways: Firstly, by investigating more refined indicators for employment insecurity, secondly by more thoroughly considering the interplay of gender regimes and employment insecurity, and thirdly by taking into account the mediating role of partnership dynamics for childbearing decisions.

Firstly, with regard to insecure forms of employment, the available studies are mainly confined to fixed-term contracts and part-time work. However, no study has differentiated between part-time and full-time hours *within* the group of fixed-term workers[102] or between fixed-term and permanent contracts *within* the group of part-time workers. This is a significant shortcoming as the job characteristics (see Chapter 3) as well as workers' characteristics (Gerlach et al. 2015) differ within these groups. The lack of a more refined analysis of these forms of employment in previous studies is partly due to low case numbers, particularly with regard to fixed-term part-time workers. The sample size problems were magnified by the fact that many of the earlier studies (e.g. Bhaumik and Nugent 2002; Golsch 2005; Kurz et al. 2005; Kurz 2005; Tölke 2005; Tölke and Diewald 2003a, 2003b) mainly or exclusively investigated the period before the millennium and thus a period before the most marked increase in non-standard employment in Germany (see Chapter 2). The present chapter takes advantage of 29 waves of the Socio-Economic Panel Study (1985-2013) to investigate a more differentiated spectrum of employment types by looking at permanent full-time, permanent part-time, fixed-term full-time and fixed-term part-time work. It also investigates subjective insecurity in the form of concern about job security and concern about the economic situation.

Secondly, the present study pays more attention to the interplay of employment insecurity and the gender regime for childbearing decisions by a) comparing East and West Germany and b) looking at changes in the gender-specific effects of employment insecurity over time in West Germany. Most of the available studies either investigate Germany as a whole (and only control for whether the person lives in East or West Germany) or focus on West Germany exclusively. However, the Eastern and Western parts of Germany demonstrate notable differences in attitudes regarding gender roles and motherhood: While East Germany is historically characterised by the dual breadwinner model and simultaneity of motherhood and employment, West Germany was traditionally

[102] Schmitt (2008b, 2012b) explicitly analyses fixed-term full-time work; however, no study differentiates between fixed-term and permanent among part-time workers.

characterised by the male breadwinner model and the attitude that employment and motherhood are mutually exclusive (see Chapter 2). These differences can be expected to strongly moderate the effects of employment insecurity on first childbirth. However, only very few studies have conducted explicit East-West comparisons (notable exceptions are Düntgen and Diewald 2008; Gebel and Giesecke 2009; Schmitt 2012c). Moreover, West Germany has seen a change during the past decades from the male breadwinner model to the modified male breadwinner model, suggesting changes in the gender-specific effects of employment insecurity over time. To the author's knowledge, the only study in the field that includes a cohort comparison is Scherger (2007).[103] Scherger's results suggest that over time, West German women increasingly condition their first motherhood on a successful entry into the labour market. In contrast, there is no indication for a change in the relation between employment and first fatherhood. Now and then, the resources that come with employment positively affect first parenthood for men. In this sense, women are thus adapting their behaviour to that of men. The study by Scherger (2007) demonstrates that cohort comparisons are useful due to a changing relationship between education, employment and motherhood. However, it focuses only on leaving the educational system and entering first employment and does not differentiate between more and less secure employment situations. Therefore, in this chapter comparative analyses are conducted regarding the effects of employment insecurity for earlier partnership formation cohorts compared to later cohorts.

Thirdly and most importantly, this chapter contributes to the literature by taking on an explicit couple perspective and taking account of the dynamics of partnership formation and dissolution: It is a) among the very few studies isolating the effects of employment insecurity on first childbirth from those on partnership formation processes. Moreover, it is the first study for Germany on the topic that simultaneously b) jointly analyses the transition to the first child and partnership dissolution, c) takes partnership duration into consideration and d) analyses the effect of specific secure and insecure employment constellations within the couple on first childbirth.

Much of the past research has looked at the fertility effects of employment insecurity from an individual's perspective, focusing on the characteristics of women (or sometimes men) exclusively (e.g. Düntgen and Diewald 2008; Kreyenfeld 2008, 2010; Kurz et al. 2005; Tölke 2005; Tölke and Diewald 2003a, 2003b). Fewer studies have taken into account the fact that the decision to start a

[103] Worth mentioning in this context is also the study by Kreyenfeld (2010), which looks at change over time in the uncertainty-fertility nexus for women. However, the study does not conduct a cohort comparison but compares the effects in two different periods (1984-1989 and 1990-2006). Shortcomings of this comparison are not only the narrow window of the first period but also the fact that some women are analysed in both periods. The study does not find any significant differences in the fertility effects of employment insecurity across periods, albeit the direction of the effect of unemployment has changed from negative to positive over time. Kreyenfeld (2010) suggests that this result could be due to a change in non-working women's self-classification in the sense that in the earlier period, only the work-oriented women would classify themselves as unemployed while the others would consider themselves to be housewives.

family is usually a joint decision within a couple by including characteristics of both partners in the analysis simultaneously. Those studies that do include characteristics of the partner usually limit these to very few variables and insert them in parallel with the characteristics of the focal person in the analyses (Bhaumik and Nugent 2005; Brose 2008; Gebel and Giesecke 2009; Kreyenfeld 2005; Kreyenfeld and Konietzka 2005; Kurz 2005; Schmitt 2012a, 2012c). However, these studies also have an explicit focus on the individual actor: Partnered and unpartnered individuals are usually investigated in a joint sample (exceptions are Kreyenfeld 2005 who runs a separate analysis for women living with a partner and Tölke and Diewald 2003a and 2003b, who place a special focus on men with partnership experience[104]). Such a sample selection is problematic as employment insecurity already affects partnership formation processes (see Chapter 3) and the risk of partnership dissolution (see Chapter 7). However, most people regard a stable partnership as a precondition for parenthood (e.g. Klein and Eckhard 2008; see also Chapter 2). Analysing the effect of employment insecurity jointly for partnered and unpartnered individuals therefore blends the direct effect of employment insecurity on childbearing (within couples) and the indirect effect which is mediated by partnership formation and stability. The current study focuses only on couples in joint households and is therefore able to cancel out the indirect effect on a selection into stable partnerships.

Another aspect of partnership dynamics which has been fully neglected in previous studies is the fact that couples are not only at risk of having a first child but also of separating. After separation from the partner, the likelihood of having a first child drops considerably, since, as mentioned, people consider a stable partnership a precondition for children. This fact is accommodated in this study by modelling childbirth and partnership dissolution as competing risks and estimating the likelihood of these events in a joint model. Moreover, the focus on coupled individuals allows for the inclusion of partnership duration in the analysis. Partnership duration is a very important determinant of childbirth, possibly more important than an individual's age (Klein 2003). However, due to the dominant focus on individuals on the one hand and the complex data preparation that is required to establish partnership duration with the SOEP data on the other (see Chapter 4), virtually none of the preceding studies on employment insecurity and fertility has taken partnership duration into account (with the exception of a very crude measure in Schmitt 2008a[105]).

[104] The focus on men with *partnership experience* is a step forward from studies analysing just all men. However, the division is not as clear-cut as one would wish it to be as the sample still includes men who are single after a separation and therefore does not allow clear inferences as to the effect of employment insecurity on fertility within partnerships.

[105] Schmitt's (2008a) study has a clear focus on the individual, as it jointly analyses singles and respondents of all partnership types (including dummies for partnership type) and uses the individual age as the risk period. However, for married couples, the study distinguishes between three different categories of marriage duration. While this is a step in the same direction as in this chapter, Schmitt's specification cannot fully grasp the effect of partnership duration: For cohabiting unions, duration is not considered at all, and for marriages phases of premarital cohabitation are disregarded. Furthermore, marriage durations of four years or more are all in the same category. Counting only marriage duration poses

Moreover, partnership dynamics are also considered to the extent that the interplay of employment situations between the partners, i.e. specific employment constellations, is investigated. Due to the fact that couples base their fertility decisions on both partners' employment characteristics (Kaufman and Bernhardt 2012), it can be expected that the effect of the employment position of one partner varies with respect to the employment position of the other. Building on the concept of cumulative (dis)advantage (see Chapter 1), it can be assumed that employment insecurity experienced by both partners causes particularly problematic conditions for parenthood. In order to investigate this assumption, a closer look at specific constellations of (secure and insecure) employment positions within the couple is necessary. However, employment constellations have thus far only been investigated in very few fertility studies for Germany: Schmitt (2008c, 2012a, 2012b) analyses the effect of different income constellations on first childbirth, while Golsch (2005) investigates the impact of certain secure and insecure employment constellations. Schmitt finds that traditional arrangements, in which the male partner is the main earner, are more likely to have a first child than other constellations. A similar finding arises from Golsch's study which proves that traditional arrangements, in which the male partner is in secure full-time employment and the female partner is a homemaker, have the highest likelihood of childbirth. González and Jurado-Guerrero (2006) find a positive effect of a constellation in which the male partner is employed and the female partner is unemployed. These results underline the gains from an investigation of employment constellations for fertility research; nevertheless, the studies mentioned also leave large room for extensions: Only Golsch (2005) focuses explicitly on insecure employment; however, due to low sample size, that study was unable to distinguish between different types of insecure employment positions, rendering "insecure families" a collecting category for all types of insecurities on the male's or the female's part. This study accommodates this research gap by considering specific constellations of (secure and insecure) employment positions within the couple with regard to two different aspects of insecurity, i.e. economic and temporal insecurity. The following research questions are the basis of this chapter:

- How does employment insecurity of the male and the female partner affect first childbirth among couples in Germany?
- How do the gender-specific effects of employment insecurity vary between East and West Germany?
- To what extent have the effect of employment insecurity and the moderating role of gender changed over time in West Germany?

an endogeneity problem as many couples marry *because* they plan to have children. Accordingly, Schmitt (2008a) finds that the hazard of first childbirth is highest after two to three years of marriage duration.

- To what extent does the effect of employment insecurity of one partner depend on the employment situation of the other, i.e. does the specific employment constellation within the couple affect first childbirth?

The rest of the chapter is structured as follows: Section 5.2 provides the theoretical framework guiding the analysis. Section 5.3 then briefly describes the method of analysis, the sample, variables and the analytical strategy. The results of the descriptive and multivariate analyses are presented in Section 5.4, and Section 5.5 summarises the findings.

5.2 Theoretical Framework and Hypotheses

This section contains the theoretical considerations and hypotheses regarding the effects of employment insecurity on first childbirth. As mentioned, the focus is on two different types of insecurity: *temporal insecurity* regarding the continuity of the current job or employment in general and *economic insecurity* regarding a financially precarious employment position. In the empirical analysis, economic and temporal insecurity are measured via objective and subjective indicators: On the one hand, several employment situations, namely fixed-term contracts, part-time work and unemployment are investigated, and on the other hand, the analysis focuses on the perceived job insecurity and the perceived economic situation. The theoretical link between employment type, employment insecurity and first childbirth is firstly discussed gender-neutrally on the level of the individual (Section 5.2.1). Secondly, the considerations are augmented to the couple level by discussing gender-specific effects of employment insecurity within different gender regimes and in different employment constellations (Section 5.2.2).

5.2.1 The Individual Perspective: Linking Forms of Employment, Employment Insecurity and First Childbirth

Chapter 3 of this thesis gave an overview of the specific characteristics of non-standard employment and unemployment and their effects on workers regarding income, employment stability and other outcomes. In this section, the insights from that chapter are combined with arguments from several fertility theories to make predictions regarding the effects of non-standard employment and unemployment on first childbirth. The specific fertility theories were chosen not only because they are broadly referenced in the literature but also based on the fact that they incorporate employment (and employment insecurity) in different ways and therefore contribute different pieces of the puzzle.

While New Home Economics around Gary Becker (1960) stresses the monetary costs of children and therefore the importance of sufficient income for childbearing, the concept of opportunity

costs, developed by Mincer (1963), points to the fact that not only factual income but also forgone income due to time spent on childcare is relevant. The Biographical Theory of Demographic Reproduction by Birg et al. (1991) extends the concept of (monetary) opportunity costs to *biographical* opportunity costs, relating to the fact that the choice of a biographical transition, such as the birth of the first child, entails the loss of other biographical options. Friedman, Hechter and Kanazawa's (1994) Uncertainty Reduction Theory of Parenthood, in contrast, stresses that individuals experiencing a high level of uncertainty in the sphere of employment might counteract this by long-term binding decisions such as the birth of a first child. Finally, bargaining theories (Kohlmann and Kopp 1997; Ott 1989) raise our attention to the fact that fertility decisions are usually made by two individuals who decide on the basis of certain decision rules, which can be influenced by the partners' bargaining power (and thus earnings position).

In the following, these arguments are combined with the insights about the characteristics of different forms of employment and unemployment from Chapter 3 to make predictions regarding the effects of insecure employment situations on first childbirth.[106] Firstly, the effects of part-time work, as an indicator of economic insecurity, are discussed, and secondly the effects of fixed-term contracts, as an indicator of temporal insecurity. Thirdly, the effects of unemployment and fixed-term part-time work, indicating an accumulation of both economic and temporal insecurity, are considered.

5.2.1.1 Economic Insecurity: Part-Time Work

The starting point of microeconomic fertility theories is the assumption that fertility behaviour takes place on the basis of a rational cost-benefit analysis with the aim of generating the largest benefit for the household (Höpflinger 2012). In this context, New Home Economics (Becker 1960) views children as durable consumer goods which are only acquired if the couple has enough *financial resources* to support the child. Studies show that children are indeed very costly: In 2008, German parents with one child below 18 years spent on average €584 per month on consumption for their child (StBA 2014a). In addition, this expenditure has increased over time, up from €496 in 1998 (Münnich 2006). What is more, the overall costs of children can be expected to be much higher, as the stated numbers do not yet include childcare expenses or opportunity costs resulting from forgone earnings. Moreover, children become more expensive with age and also incur costs beyond their 18th birthday, particularly if they go to university. As a result of the educational expansion, an increasing share of school-leavers proceed to tertiary education (Geißler 2014), raising the average

[106] As the specific characteristics of the different employment situations are explained in detail and with extensive references to the respective empirical studies in Chapter 3, no specific studies are cited directly in this chapter with regard to these aspects.

costs of children over time. Even though the state supports parents with a considerable share of the costs of children through family benefits (e.g. Diekmann et al. 2008; see also Chapter 2), many parents find it hard to maintain a decent standard of living: The risk of poverty is particularly high among families with small or several children and among lone parents (Gerlach and Laß 2012). The central importance of a sufficient income is magnified by the fact that, in contrast to other "consumer goods", children cannot be disposed of if they turn out to be too costly (Birg et al. 1991). Therefore, it can be assumed that a foreseeable capacity to bear the cost of children in the long run is an important factor in childbearing decisions. In contrast, if the financial situation is insecure, couples can be expected to postpone childbearing.

Besides this direct effect resulting from the cost of children, economic insecurity also reduces the couple's capacity to make other partnership-specific investments which can be regarded as preconditions for having children. Particularly in West Germany, first childbirth is closely tied to getting married (Eckhard and Klein 2006; Nave-Herz 2013). However, weddings are usually costly and are therefore less likely if couples are in economically insecure situations. A similar argument can be stated for investments in adequate housing, e.g. in the form of home ownership, or a family car. Besides being regarded as preconditions for childbearing, partnership-specific investments also increase the cohesion of the partnership (see Chapter 7). Low partnership-specific investments, in turn, act to destabilise partnerships and thereby indirectly make childbirth less likely because, as mentioned, most people regard a stable partnership as a precondition for having children. Furthermore, a low or insecure income can create economic stress, thereby increasing arguments and conflict within the partnership and reducing partnership quality and stability (see also Chapter 7).

In the case of part-time work, the financial capacity to make partnership-specific investments, such as a wedding, buying a home and having children is limited: In Germany, all forms of non-standard employment, but particularly part-time work and its subtype minijobs, are linked with lower earnings than standard employment. This gap applies not only to overall monthly earnings but also to hourly wages. Part-time work and minijobs have furthermore been shown to be comparatively long-lasting and connected to fewer training opportunities, entailing negative long-term career consequences.

While the low income and income perspectives connected to part-time positions thus clearly points to a negative effect on childbirth, it has to be kept in mind that on the plus side, this form of employment is connected to lower working hours and is often located near the place of residence, providing employees with more time for private activities. This aspect is important considering the fact that work and family are in a *relationship of competition* (Düntgen and Diewald 2008; Willekens 1991). Personal resources like time, attention and energy are limited and have to be distributed

among the different spheres of life. Therefore, employees might reduce their involvement in one sphere in order to accommodate the requirements of another sphere (Lambert 1990). The anticipation of competing demands between the work and family spheres might lead individuals to seek jobs that offer a good combination of employment and care already before the start of the pregnancy, even if these positions provide less economic security. Due to the low availability of childcare for young children, particularly in West Germany, part-time work is usually used as a solution to the problem of competition for time between work and family in Germany (Heddendorp and Laß Forthcoming). Generally, all workers who have worked for their employer for six months or more are legally entitled to reduce their working hours to part-time. Therefore, at first sight it seems unnecessary to seek a part-time position already *before* pregnancy. However, the entitlement to part-time work might be difficult to enforce in practice as employers can refuse the request for part-time work for business reasons and it generally does not apply to small businesses (BMAS 2015). Therefore, individuals working part-time might consider this a particularly good opportunity to have a first child because they can be sure to have a suitable position waiting for them after childbirth. The result would be a positive relationship between (permanent) part-time work and first childbirth, even though it is connected to less economic security.

Moreover, based on the expectation that at least one partner always has to reduce their working hours or even quit employment for a certain period after childbirth – due to the competition situation – theory has countered the positive fertility effect of a secure and sufficient income discussed above by the concept of *opportunity costs* (Mincer 1963). The opportunity costs of children are indirect costs which result from the fact that caring for children consumes time which cannot be spent on gainful employment and therefore induces the loss of potential income. The opportunity costs of children are lower if the income before childbirth is low or unreliable, suggesting a positive effect of economic insecurity on first childbirth. Family policy only substitutes part of the opportunity costs of childcare: Until 2006, paid parental leave (*Erziehungsgeld*) was paid as a small lump-sum, and usually could not compensate for the lost income of a full-time worker. Therefore, most couples experienced a considerable income decline if one of the partners ceased work in order to care for a child.[107] The higher the former income, the larger these opportunity costs. The reform of the parental leave scheme in 2007 has attenuated the opportunity costs of childcare: The new *Elterngeld* usually replaces 65-67% of the former net income. Still, some additional regulations[108]

[107] The marked decline in household income after the birth of a child resulting from lost earnings on the one hand and raised living costs due to a new family member on the other hand was termed the "economic rollercoaster" *(ökonomische Achterbahn)* (BMFSFJ 2006) and constituted one of the main reasons for introducing the *Elterngeld*.

[108] For workers earning less than €1,000, the *Elterngeld* replaces up to 100% of the former income, and the minimum level is always €300. However, since 2011, the *Elterngeld* is credited towards Unemployment Benefit II and other social benefits, meaning that recipients without labour income do not gain from parental leave payment.

ensure that the income loss is smallest among the low-income workers. Furthermore, the maximum level of the benefit is capped at €1,800 per month, meaning that the opportunity costs increase for those with higher earnings. Therefore, based on the opportunity cost argument, we can expect a positive effect of part-time work on first childbirth compared to full-time employment.

All in all, the theories discussed in this section argue partly in favour of a negative effect of part-time work on first childbirth and partly in favour of a positive effect. Due to the cost of children, the lower income of part-time work compared to full-time work is detrimental for childbearing decisions; however, as a result of the competition for time and energy and the connected opportunity costs of childcare, part-time work should exert a positive effect on first childbirth for the partner who takes over the care work. On the basis of the gender arrangements in Germany, this leads to different predictions regarding the effect of part-time work for men and women. This aspect is discussed further in Section 5.2.2.

5.2.1.2 Temporal Insecurity: Fixed-Term Contracts

Besides the specific economic situation, the prospect of the *future development of the working career* is also of relevance for childbearing decisions: According to Oppenheimer's Theory of Marriage Timing (1988), individuals are more prone to make long-term commitments (like marrying and having children) if their future career development is foreseeable. This relates not only to the income needed to nurture a child – in the sense of economic security as discussed above – but also to other work-related factors:

> "(…) work structures life in many ways (…) Hence, if the nature of adult work roles appears very uncertain, so does the fabric of one's future life. For example, will work involve traveling extensively, reducing time spent together at home? Will the family have to move often because of job transfers? Does the job entail frequent overtime work on nights and weekends or working night shifts? (…)" (Oppenheimer 1988:574).

Therefore, a situation of temporal insecurity should lead workers to postpone childbirth until a secure, permanent position is reached and the couple can make life plans more easily. This strategy is also advisable according to Birg et al.'s Biographical Theory of Demographic Reproduction (1991). This theory highlights the fact that having children not only entails *monetary* opportunity costs but also comes with *biographical* opportunity costs in the sense that one's biographical options are reduced considerably after the birth of a child. For example, the couple becomes less flexible regarding location of workplace and working hours. Workers who exit the labour market for a period of parental leave can experience a career penalty (Aisenbrey, Evertsson and Grunow 2009). Against this background, people will seek first to establish a secure and successful working career before the birth of their child.

From the perspective of temporal security, fixed-term contracts have to be classified as comparatively insecure: They exhibit not only an elevated risk of unemployment but also a high risk of repeating themselves in "chains of temporary employment" (e.g. Giesecke and Groß 2003:162). This especially applies in East Germany, where the transition rate from fixed-term to permanent employment is particularly low. Moreover, the long-term employability and career development of fixed-term contract workers are impaired due to lower access to formal training. Furthermore, under the current parental leave scheme, employment breaks on fixed-term contracts due to childbirth often result in subsequent job loss: Generally, all employees are entitled to three years of unpaid leave with a job guarantee. This does not hold, however, for fixed-term contracts that terminate during the leave period. As the vast majority of fixed-term contracts have durations of less than two years and many are even shorter than one year, it can be assumed that many fixed-term workers lose their job entitlements during parental leave. Therefore, fixed-term contracts can be expected to exert a negative influence on first childbirth due to the unforeseeable future employment career and/or reduced career opportunities.

Another argument for a negative effect of temporal insecurity on first childbirth stems from the fact that the competition for time and energy between work and family can be more pronounced in temporary positions. Fixed-term jobs are often used as screening tools by employers before hiring workers permanently and can therefore constitute stepping stones to permanent employment. However, many fixed-term workers experience pressure to demonstrate competence and motivation in order to be considered for a permanent contract. They might feel obliged to accept overtime and weekend work and be afraid to miss work due to sickness or other obligations. Also, permanent workers who experience subjective job insecurity might overcommit to their work in order to avoid being dismissed. These situations are difficult to combine with care work.

Moreover, temporal insecurity might negatively impact the likelihood of childbirth by *decreasing partnership quality*. This might firstly be due to reduced time spent with the partner and fewer joint leisure activities resulting from the high workload. Secondly, job insecurity puts a psychological strain on the worker and can cause stress (Linne and Voswinkel 1989; Sverke et al. 2006). As Friedman et al. (1994) have argued in their Uncertainty Reduction Theory, people generally strive for certainty and experience states of uncertainty as unpleasant. The negative mood caused by job insecurity can spill over from the work context to the private lives of employees and negatively affect partnership quality (Hughes, Galinsky and Morris 1992). Moreover, studies have demonstrated that stress and strain are not only transmitted intra-individually from one sphere of life to the other, but also inter-individually from one partner to the other in the form of a crossover process (see Chapter 1). Thus, the partner can also be negatively affected by the uncertainty caused by

temporary employment. Both spillover and crossover can create tensions and arguments with the partner and can eventually result in partnership dissolution (see Chapter 7).

The aforementioned arguments – unforeseeable career and inability to make life plans, overachievement at work, and negative mood spillover and crossover resulting in reduced partnership quality – all point to a negative effect of temporal insecurity on first childbirth. Yet the literature has also frequently cited a contrasting argument: From a theory of action perspective, employees might try *to compensate for a dissatisfying situation* in the work sphere by seeking higher satisfaction in the family sphere (Edwards and Rothbard 2000; Lambert 1990). Employees experiencing temporal insecurity could react to this situation by getting more involved in family life and speeding up childbearing. As mentioned, according to the Uncertainty Reduction Theory of Parenthood (Friedman et al. 1994) people generally strive to reduce uncertainty. This can be achieved most thoroughly by a stable employment career, marriage or parenthood. These commitments embed people in long-lasting social relations, and this in turn generates certainty. If certainty cannot be achieved via a secure employment career, people are presumably more likely to start a family in order to gain certainty. Similarly, Tölke and Diewald (2003a) reason that a lack of satisfaction or success in the work sphere should lead to seeking these aspects in the family sphere. These theoretical considerations gain support from survey research: Klein and Eckhard (2008) find that a considerable proportion of childless people (33% of men and 39% of women) consider parenthood an alternative to gainful employment.

5.2.1.3 Accumulation of Economic and Temporal Insecurity: Fixed-Term Part-Time Work and Unemployment

Unemployment can be seen as a particularly insecure employment situation due to the fact that it combines economic insecurity with temporal insecurity. Becoming unemployed is usually connected to a considerable income decline and a high poverty risk. On the plus side, this situation provides workers with more time for childcare (albeit this depends on the effort put into the search for a new job). In this sense, there are no opportunity costs to childcare, as no employment has to be interrupted or reduced. This picture changes when extending the concept of opportunity costs beyond monetary aspects to biographical opportunity costs in the sense of forgone biographical opportunities. Childbearing during unemployment can reduce one's employment chances, due to less flexibility concerning working hours and less regional mobility. Therefore, even though unemployment provides enough time resources, it may not be seen as a good opportunity for childbearing due to the irreconcilability of childcare and (quickly) re-entering the labour market. The biographical opportunity costs of childbirth can be expected to be particularly pronounced in West Germany: Even though the general labour market chances are better than in East Germany, the

irreconcilability of work and family is more pronounced, which means biographical opportunities should be reduced more strongly by children in the West than in the East.

Unemployment is furthermore connected to an increased level of temporal insecurity: The relatively high level of long-term unemployment in Germany (OECD 2015c) suggests that many workers have difficulties to quickly find another job. The unforeseeable future employment career impedes long-term planning and thus should negatively affect first childbirth. Furthermore, unemployment puts specific strains on workers, such as insecurity about future employment, financial difficulties, low social integration and reduced self-esteem. The fact that unemployed persons usually do not know how long the period of unemployment will last can be particularly prohibitive for making long-term life plans such as parenthood. Furthermore, the strains connected to unemployment can indirectly affect childbirth through negative mood spillover and crossover to the partner, causing conflicts within the couple relationship and reducing partnership quality. However, as mentioned, stressful situations might also lead workers to seek a compensation strategy in the sense that they withdraw from the labour market and focus on partnership and children.

Also in the case of fixed-term part-time work, high levels of economic and temporal insecurity accumulate: Like permanent part-time work, fixed-term part-time work is connected to a reduced income and low hourly wages, but also to more time for childbearing. And like fixed-term full-time work, it is connected to a high degree of job insecurity due to the temporary nature of the contract.

5.2.2 The Dyadic Perspective: Work and Family in the Partnership Context

The previous section discussed several channels through which employment insecurity can affect the risk of first childbirth. So far, the discussion has been kept gender-neutral and focused on the individual actor. However, this theoretical view has to be complemented by a gender and a couple perspective, since most fertility decisions are made not individually but jointly by both partners (Klein 2003) and on the basis of both partners' employment situations (Kaufman and Bernhardt 2012). Therefore, the insights from Section 5.2.1 have to be combined with the insights from Chapter 2 concerning the prevailing and changing gender regimes in East and West Germany (Section 5.2.2.1). Furthermore, the role of the specific employment constellation within the couple for the decision for a first child is discussed (Section 5.2.2.2).

5.2.2.1 Employment Insecurity and Fertility Decisions under the Gender Regimes of East and West Germany

Chapter 2 has highlighted that – as a consequence of different historical experiences in the FRG and GDR – the gender arrangements differ by region in Germany: While in West Germany, the modified male breadwinner model dominates, the dual breadwinner model prevails in East Germany. Moreover, within West Germany, gender arrangements have undergone a change from the male breadwinner model to the modified male breadwinner model over the past decades. The different gender regimes entail different predictions as to the gender-specific effects of employment insecurity.

West Germany

In the 1950s and 1960s, West Germany was strongly marked by the *male breadwinner model.* Gender roles were highly differentiated, with the male partner focusing on employment and the female partner on housework and care work. Therefore, employment insecurity can be expected to have had opposite effects on first parenthood for men and women: As men were expected to take over the role as sole earner indefinitely after the birth of a child and therefore needed a sufficient and reliable income, economic insecurity should have been detrimental for fatherhood. Similarly, temporal insecurity can be expected to have had a negative effect if experienced by the male partner because he needed a foreseeable, secure career to be sure he would be able to nourish his family in the long run.[109] In contrast, women were expected to leave the labour force for good around the time of childbirth to focus on homemaking, entailing the loss of their income. Therefore, a lower or less reliable income of the female partner equalled lower opportunity costs in the form of forgone earnings after childbirth. This means that economic insecurity should have exerted a positive effect for the female partner. A similar case can be made regarding temporal security: In the male breadwinner model, women (and only women) have the role as homemaker and full-time parent as a socially accepted alternative role to gainful employment available (Offe and Hinrichs 1977). An employment position entailing temporal insecurity can cause stress and strain. Therefore, women can be expected to have followed the strategy of compensation and reacted to a dissatisfying employment situation by a withdrawal from the labour market and by speeding up family formation under the male breadwinner regime.

However, in the period of observation in this study (1985 to 2013), West Germany had departed from the male breadwinner model towards a dominance of the *modified male breadwinner* model. Under this gender regime, economic insecurity should still be more detrimental for men

[109] Although it has to be added that under the favourable economic conditions of the era of the "economic miracle", the standard employment relationship was widespread among men, and thus economic and temporal insecurity were rather rare phenomena for them.

than for women: Although women are now usually employed even if they have children, men are still expected to be the main earners. Moreover, women still (have to) exit the labour market for a certain period following the birth of a child. The emergence of the new role model of the active father suggests that the competition for time between work and family is increasingly becoming a problem also for men. However, so far most men still see themselves in the role of the (full-time) breadwinner (see Chapter 2). Therefore, positions entailing economic insecurity should still be regarded as unsuitable for first fatherhood. Similarly, temporal insecurity can still be expected to have a negative effect if experienced by the male partner because – as the main earner of the family – he needs foreseeable income and career perspectives.

In the modified male breadwinner model, women's earnings can be expected to play a stronger role than in the traditional male breadwinner model but are still less important in childbearing decisions than men's. As the competition for time between work and family is very pronounced for women, they might seek a position that can easily be conciliated with care work but is at the same time connected to economic insecurity, such as part-time work. The opportunity costs of childbearing are lower if the employment position is not connected to a high income, so that this situation might still speed up family formation for women. Yet since 2007 parental leave payments are tied to prior labour income, which reduces the opportunity costs of childbirth for women and even provides an incentive to first seek a well-paid position before childbirth. On the whole, under the modified male breadwinner model a positive effect of economic insecurity in the form of part-time work is assumed for the female partner.

Similarly, the predictions regarding temporal insecurity for women are not as straightforward as for men in the modified male breadwinner model: On the one hand, women are still the main caregivers and the role as homemaker and mother is still a socially accepted alternative role to gainful employment while the children are small. Therefore, some women might still pursue the compensation strategy and speed up family formation under conditions of temporal insecurity in the workplace. On the other hand, most women want to re-enter the labour market after parental leave, which should lead them to first seek a secure position to return to. This is especially important because, as a consequence of the irreconcilability of childcare and employment, women's labour market chances are reduced by childbearing. Temporary forms of employment and unemployment should thus lead women to postpone childbearing even if (in the case of unemployment or fixed-term part-time work) they might provide more time for childcare.

Albeit the modified male breadwinner model can be regarded as the dominant gender arrangement in West Germany during the observation period, the male breadwinner model has long retained some of its attractiveness for families: The concept of motherhood is still very traditional

in the West, and family policies have only recently started to more strongly support the conciliation of work and family. It therefore remains an open question whether the male breadwinner logic is still visible in the gendered link between employment and childbearing at the beginning of the observation period. Therefore, in an additional analysis, the effect of employment insecurity on first childbirth is compared between West German couples who formed before or in the first half of the observation period ("early cohorts") and those who formed in the second half of the observation period ("late cohorts").[110]

East Germany

Under the gender arrangement of the *dual breadwinner model*, the effects of employment insecurity on first childbirth can be expected to be similar for men and women. They both seek an uninterrupted full-time career, and motherhood is not seen as irreconcilable with an early re-entry into the labour force. Due to the fact that East German women had particularly poor employment chances after reunification, a secure position before childbirth might be even more important for them than for men. Therefore, the arguments stated for men in West Germany should apply to men and women in East Germany: Economic as well as temporal insecurity should be regarded as detrimental to family formation and therefore cause a postponement of first childbirth.

Hypotheses

In sum, for women, employment types connected to economic insecurity, i.e. permanent part-time work, can be expected to positively affect first childbirth in West Germany but not in the East. In contrast, subjective economic insecurity as measured by concern about the economic situation can be expected to negatively affect women's childbearing behaviour in both regions: This measure only reflects the assumed negative effect of a low or unreliable income and does not include the benefits of more time for childcare, which are embedded in part-time work. Forms of employment connected to temporal insecurity, subjective temporal insecurity and unemployment are also expected to negatively affect first motherhood in both regions. The predictions for women are therefore:

H1-West: In West Germany, forms of employment connected to economic insecurity, namely permanent part-time work, exert a positive effect on first childbirth for the female partner.

[110] The focus on change over time in *West* Germany is not meant to say that there has not been any change in the East German gender regime. In fact, as pointed out in Chapter 2, the modified male breadwinner model has become more frequent in the East on the level of social practice. Yet this seems to be due at least in part to structural constraints, like a lack of full-time employment, while on the level of attitudes, the dual breadwinner model is still dominant. Furthermore, the investigation of change over time in East Germany was simply not possible with the dataset at hand: East Germans constitute a comparatively small share of the sample and hence it was not possible to divide this group any further.

H1-East: In East Germany, forms of employment connected to economic insecurity, namely permanent part-time work, exert a negative effect on first childbirth for the female partner.

H2a-b: In East and West Germany, temporary forms of employment, namely a) fixed-term full-time work and b) fixed-term part-time work, exert a negative effect on first childbirth for the female partner.

H3: In East and West Germany, subjective perceptions of insecurity, namely a) economic insecurity, as measured by concern about the economic situation, and b) temporal insecurity, as measured by concern about one's job security, exert a negative effect on first childbirth for the female partner.

H4: In East and West Germany, unemployment exerts a negative effect on first childbirth for the female partner.

In contrast, for men it can be expected that in both East and West Germany all types and indicators of employment insecurity negatively affect childbearing. The predictions for men are therefore:

H5: In East and West Germany, forms of employment connected to economic and/or temporal insecurity, namely a) permanent part-time work, b) fixed-term full-time work and c) fixed-term part-time work, exert a negative effect on first childbirth for the male partner.

H6: In East and West Germany, subjective perceptions of insecurity, namely a) economic insecurity, as measured by concern about the economic situation, and b) temporal insecurity, as measured by concern about one's job security, exert a negative effect on first childbirth for the male partner.

H7: In East and West Germany, unemployment exerts a negative effect on first childbirth for the male partner.

Looking at the joint German sample for the period of 1985 to 2013, it can be assumed that the pattern of the modified male breadwinner model prevails: East Germans account for only a small share of the sample so that the West German strategy of linking employment and childbirth should prove to be dominant.

5.2.2.2 Decision-Making in the Partnership Context: The Effect of Employment Constellations

Section 5.2.1 highlighted that employment insecurity, in the form of economic and temporal insecurity, affects first childbirth via lower income and insecure income prospects, lower opportunity costs, an unforeseeable employment career, reduced partnership quality and (increased or reduced) competition for time and energy. Section 5.2.2.1 then added a gender perspective to these considerations: Under the modified male breadwinner model, the arguments point to a negative effect of temporal insecurity for both men and women and of economic insecurity for men. In contrast, in the case of economic insecurity of the female partner, different forces, i.e. income on the

one hand and opportunity costs and time budget on the other, work in opposite directions so that all in all, a positive effect of economically insecure positions like part-time work on first motherhood was assumed. However, what has not been considered so far is that the decision for a child is not made in an isolated way by either the male or the female partner but rather is a joint decision, and that each partner also takes into account the other's employment situation (Kaufman and Bernhardt 2012; Klein 2003). The question that follows is whether the effects of employment insecurity for men and women also depend on the other partner's employment situation. Whose employment situation has more weight in fertility decisions? Can one partner's secure employment situation compensate for the other partner's insecure situation? Do the effects of employment insecurity multiply if both partners are in an insecure employment situation? Answering these questions requires a closer look at how different fertility theories model the decision-making process within the couple.

New Home Economics (Becker 1981) focuses on the whole household as actor and assumes a cooperative and consensual decision-making process between the members of the household: The household acts as an entity, pursuing the goal of maximising utility for the whole household. Costs as well as benefits are shared equally by every household member. In this context, the highest utility can be reached by a specialised division of labour, in which the partner with the higher income potential focuses on gainful employment and the other on homemaking. Based on New Home Economics, an unequal employment position of the two partners, i.e. one partner has a full-time position and the other partner is not employed or works only part-time, should therefore bring about the highest likelihood of first childbirth. Due to the usually higher income potential of the male partner, a constellation in which the male partner has the full-time position and the female partner is non-working should be particularly beneficial for childbearing.

In contrast, *bargaining theories* (e.g. Kohlmann and Kopp 1997; Ott 1989) assume individual actors pursuing individual interests within the couple. If the partners disagree on the timing of parenthood (or the question whether to generally have a child), they have to bargain with each other to reach a decision. Which partner wins out over the other depends on the partners' relative bargaining power. In the literature, different bargaining rules for fertility decisions have been described (Thomson 1990; summarising: Bauer and Jacob 2010; Bauer and Kneip 2013; Corijn, Liefbroer and de Jong Gierveld 1996): The *egalitarian rule* suggests that the partners have equal weight in fertility decisions and a compromise has to be sought. The *patriarchal rule* applies if important life decisions, such as the question of having a child, are made solely by the male partner. In contrast, the *sphere of interest rule* or *matriarchal rule* implies that the female partner has more weight in the decision-making process for a child because she is more affected by pregnancy, birth

and childcare. Finally, the *power rule* suggests that the partner with the greater resources has more say in the couple's decisions. As it is usually the man who has, e.g. the greater earnings power, the power rule would suggest that, on average, it is the male partner who decides – similar to the patriarchal rule. The different bargaining rules suggest different weights of the employment situations of the male and the female partner in determining the timing of childbirth: If the patriarchal rule or the power rule applies, it should be the male partner's employment situation that matters, while the sphere of interest rule suggests a greater importance of the employment situation of the female partner. If the egalitarian rule applies, the two partners' characteristics should matter equally in determining the timing of childbirth.[111]

Another argument stems from the *concept of cumulative (dis)advantage* (see Chapter 1). In relation to couples' employment situation, cumulative disadvantage suggests that if both partners are in insecure employment, the strains connected to this situation multiply in the couple context and further decrease partnership quality and the likelihood of parenthood: If both partners experience economic insecurity, they are less likely to be able to afford the costs of a child. If both partners have to commute long-distance or work very long hours, family time is considerably reduced. If both partners feel their jobs are insecure or worry about their economic situation, it is even more difficult to make life plans. Therefore, it can be expected that in a situation in which both partners are in an insecure employment position, the probability of first childbirth is lowest.

In summary, the different approaches make different predictions regarding the interplay of the employment situations of both partners in fertility decisions:

New Home Economics

According to New Home Economics, a situation in which one partner, preferably the male, has a full-time position and the other is not employed has the highest risk of first childbirth. Furthermore, a constellation in which one partner works full-time and the other works part-time should have a higher risk of childbirth than a double-full-time constellation.

[111] The question which decision rule is applied to fertility decisions is at least partly dependent on the society's gender regime: As Stein, Willen and Pavetic (2014) suggest, under the male breadwinner model men's employment situation should have more influence. In the course of a change towards a more egalitarian division of labour, women's employment situation can be expected to gain increasing relevance in childbearing decisions. However, as the sample in the current study is not large enough for comparative East-West analyses or cohort comparisons regarding the effects of employment constellations, testing the assumption of varying bargaining rules under different gender arrangements is beyond the scope of this work.

Patriarchal rule

According to the patriarchal rule, economic and/or temporal insecurity of the male partner should exert a negative effect on first childbirth, regardless of the employment situation of the female partner.

Sphere of interest rule

According to the sphere of interest rule, temporal insecurity of the female partner should exert a negative effect on first childbirth, regardless of the employment situation of the male partner. Furthermore, economic insecurity (in the form of part-time work) of the female partner should exert a positive effect, regardless of the employment situation of the male partner.

Egalitarian rule

According to the egalitarian rule, temporal insecurity should have a negative effect if either partner is affected.

Cumulative disadvantage

According to the concept of cumulative (dis)advantage, a situation in which both partners are in an insecure employment position (both with regard to economic or temporal insecurity) should exert a particularly negative effect on first childbirth.

In the empirical analysis, it is tested on an exploratory basis which theory or decision rule best describes the effect of employment constellations on fertility. The focus is on part-time work as an indicator of economic insecurity and fixed-term contracts as an indicator of temporal insecurity, but constellations with other employment statuses are also taken into account.

5.3 Data and Methods

This section provides a brief overview of the data and the applied methods (Section 5.3.1), the variables used in the analysis (Section 5.3.2) and the analytical strategy (Section 5.3.3). More details on the construction of the dataset, the key variables and the methods can be found in Chapter 4.

5.3.1 Data, Sample and Methods

Data for the following analysis stem from the 30th version of the German Socio-Economic Panel Study (SOEP) for 1985 to 2013.[112] The sample consists of couples in joint households (marriages and nonmarital cohabitations) who are childless when they are first observed. The restriction to cohabiting couples is necessary because both partners are only surveyed if they live in the same household. Another criterion is that the couples have to be within the relevant age range, which is 16 to 45 years for women and 16 to 60 years for men. The maximum age for women was chosen as it usually marks the end of the fertile period in fertility research (Hoßmann, Lettow and Münz 2009).[113] All in all, the sample consists of 2,822 couples, 2,366 in West Germany and 456 in East Germany. During the observation period, 45% of the couples had their first child (1,260 births). In East Germany, this share (46%) was slightly higher than in West Germany (44%). Moreover, 23% of the couples separated during the period of observation (653 dissolutions). Here, the shares are similar in East and West (24% vs. 23%).

The research questions are addressed using discrete-time event history analysis. As the focus of the analysis is on couples, partnership dissolution has to be considered as an alternative outcome to first childbirth. Couples drop out of the sample at the point of separation, and it is assumed that they are no longer at risk of first childbirth. Therefore, competing risks models in the form of multinomial logistic regressions are applied which simultaneously estimate the risk of the birth of a first child and of partnership dissolution. Data for the multivariate analysis are unweighted; however, differences in the selection probabilities, e.g. according to region, country of origin or income, are

[112] Although the SOEP started out in 1984, it was not possible to include the first wave due to the fact that the date of moving in together as well as the question on fixed-term contracts is unavailable in that wave (see Chapter 4).

[113] There are close to no first births observed in the sample after the age of 45 for women. With regard to men, strict biological limits to first fatherhood do not exist, albeit concerns about health risks of late fatherhood for the child have been raised in the literature (Zerle, Cornelißen and Bien 2012). Moreover, older men are usually in relationships with older women, which reduces their chances of becoming fathers: Less than 1% of observations in the dataset are contributed from men older than 60 with childless female partners below the age of 45. Also, with an increasing age of the male partner the likelihood increases that he already has children: In the dataset, only one couple in which the male partner is older than 60 is observed with a birth, and in this case the male partner already had older children.

accommodated by controlling for various sociodemographic characteristics in the regression models. This approach yields unbiased results as long as the selection probability is not directly determined by the variable of interest (Andress et al. 2013:57).

5.3.2 Variables

5.3.2.1 Dependent Variable

The dependent variable is an event variable indicating either the birth of the first child or the dissolution of the partnership within the next year.[114] As the birth biography of many men is incomplete in the SOEP, the first childbirth of the female partner is considered to be the first child for the current partnership.[115] In order to avoid reverse causality, the time of birth was backdated by nine months to approximate the time of the decision for the child. A couple is considered as separated either if one partner moves out of the joint household or at least one partner reports a separation and/or reports being single, even though the former partners might still live in a joint household.

5.3.2.2 Key Independent Variables

The key independent variables are different objective and subjective measures of employment insecurity, representing two different dimensions, namely economic insecurity and temporal insecurity (see Section 5.2.1).

Objective Measures of Employment Insecurity

Figure 5.1 shows the operationalisation of the objective indicators of employment insecurity, namely different forms of non-standard employment and unemployment. The reference category is the standard employment relationship, defined as full-time work (designating economic security), and a permanent contract (designating temporal security). [116] The usual definition of standard employment, as from the Federal Statistical Office (StBA 2015d), also requires a direct relationship between employer and employee, i.e. excludes temporary agency work. As the question about temporary agency employment was only asked in the SOEP from 2001 onwards, this information is not available for the whole period of observation considered in this chapter and therefore had to be left out. In addition, minijobs could not be analysed as a separate category as the question on

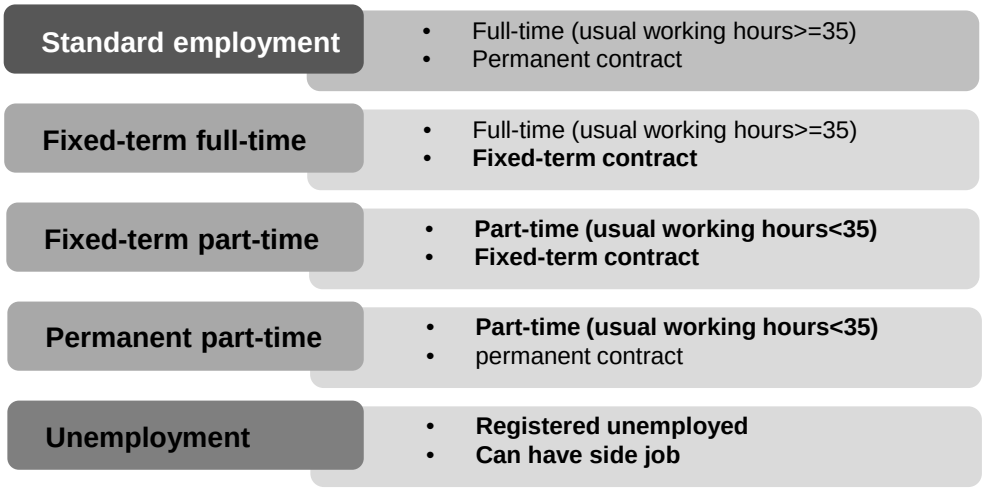
[114] Adoptions are not considered as they usually constitute lengthy processes in which the time of the decision for the adoption of the child cannot be reconstructed.

[115] If there are no children in the household and no information on fatherhood is known from the biography, it is assumed that also the male partner is childless. For 2% of the observations, however, there are children in the household that can only be attributed to the male partner. Therefore, earlier fatherhood is controlled for in the multivariate analyses.

[116] In the case that a worker has several jobs, the classification of the form of employment refers to the main job.

marginal work/minijobs was also introduced only in 2001. They are combined with the other part-time workers for the analysis in this chapter.[117]

Figure 5.1: Operationalisation of non-standard employment and unemployment



Note: Characteristics departing from the standard employment relationship are in bold letters.

Fixed-term positions and part-time work differ from the standard employment relationship particularly in their higher degree of temporal or economic insecurity (see Section 5.2.1). In order to investigate whether an accumulation of temporal and economic insecurity has an additional effect, the characteristic of the permanency of the contract and the working hours were combined to fixed-term full-time, fixed-term part-time and permanent part-time work. In this context, part-time work is defined as less than 35 weekly working hours. *Fixed-term full-time workers* are therefore employees with 35 or more usual working hours and with a fixed-term contract, while *fixed-term part-time workers* are those fixed-term workers with less than 35 usual working hours. Consequently, *permanent-part-time workers* are those with a permanent contract and working less than 35 hours per week.[118] Furthermore, a separate category for *self-employed persons* (and unpaid family workers) was created.

Unemployment is another important indicator of employment insecurity in this study. In this chapter, the central criterion for identifying the unemployed is whether a respondent is registered as unemployed with the Federal Employment Office. People in school, at university, in an apprenticeship or in a traineeship are assigned to the category *"in education".* In contrast, respondents

[117] However, the effects of temporary agency work and minijobs on first childbirth are analysed in Chapter 6 of the thesis, which is only based on the more recent SOEP waves from 2001 onwards. Offical statistics furthermore suggest that the prevalence of agency work was much lower before that period: In 1998, there were approximately 220,000 agency workers (Wingerter 2009), compared to 563,000 in 2006 and 666,000 in 2015 (StBA 2016a).

[118] There were a number of dependent employees with insufficient information to assign them to one of the employment categories. Therefore, a category "employee but missing details" was added.

are classified as *inactive* if they are not employed, not in education and not registered as unemployed. They might, for example, be in early retirement or homemakers. Due to the low number of inactive respondents in East Germany, the categories "unemployed" and "inactive" have to be combined for the separate analysis of East Germany.

Besides individual forms of employment, the effect of different employment constellations between the partners is analysed. Due to the large number of possible combinations between the forms of employment and the limited case numbers, several employment situations have to be combined according to certain characteristics. In order to reflect the two forms of employment insecurity, i.e. temporal and economic insecurity, the employment situations are categorised

a) according to working hours, reflecting economic insecurity in the form of part-time work
b) according to the permanency of the contract, reflecting temporal insecurity in the form of fixed-term contracts.

a) Working hours constellations

To create the working hours constellations, four possible employment situations of the female partner are combined with the same employment situations of the male partner: "full-time employment", "part-time employment", "educational participation" and "unemployment/inactivity". Self-employed respondents are assigned to the full-time or part-time category, depending on their usual working hours. Unemployment and inactivity are combined to secure a sufficient cell size. Moreover, constellations in which neither partner is employed, i.e. both partners are unemployed/inactive or one partner is unemployed/inactive and the other is in education, are combined to "other constellations" due to the rareness of these constellations. Yet there is a sufficient number of couples in which both partners are in education to conduct separate analyses for this category. The constellation in which both partners are employed full-time is the reference category in the analysis.

b) Permanency constellations

For the construction of the permanency constellations, again four different categories for each partner are combined: "Permanent employment", "fixed-term employment", "otherwise active" and "unemployed/inactive". The category "otherwise active" comprises the self-employed and persons in education. Combining these two situations might not result in a particularly meaningful category; however, due to the limited sample size the number of possible constellations must be kept low, and these employment situations are not the focus of the current study. Couples in which neither partner is in dependent employment, i.e. both are otherwise active or unemployed/inactive

are assigned to the category "other constellations". The constellation in which both partners are employed on permanent contracts is the reference category in the analysis.

Subjective Indicators of Employment Insecurity

The two different forms of employment insecurity are also represented by two subjective measures: Concern about job security represents temporal insecurity, while concern about the economic situation symbolises economic insecurity. The structure and answer scales of the two questions are identical:

How concerned are you about the following issues? **- Your own economic situation** **- Your job security** Answers: (1) Very concerned, (2) Somewhat concerned, (3) Not at all concerned

Source: DIW Berlin/SOEP (2013).

The models each include dummy variables for "very concerned" and "somewhat concerned", with "not at all concerned" as the reference category.[119] While concern about job security is obviously employment-related, it might be questioned to what extent concern about one's economic situation actually measures employment-related insecurity. An individual's economic situation is also determined by other factors than labour income, such as assets, state benefits or the labour income of others in the household (particularly the partner). Nevertheless, for most people labour income is a strong determinant of one's economic circumstances, which is reflected in the high poverty rate of unemployed persons (see Chapter 2). Moreover, this question is the closest available to a measure of employment-induced economic insecurity in the SOEP.[120]

5.3.2.3 Further Variables

Besides the indicators of employment insecurity, several other variables are included in the models that reflect individual and couple characteristics which have been shown to be relevant for fertility decisions (for a comprehensive overview, see, e.g. Boll et al. 2013). Among the *individual characteristics*, age, educational level, country of birth, religiousness, health and income are considered. In initial models, these characteristics are included separately for only one of the partners, and in subsequent models they are inserted in parallel for both partners. In a third group of models, con-

[119] Concern about job security had a considerable number of missing values, so that additionally a missing dummy was included in the models. This was unnecessary for concern about the economic situation as there were only few missing values.

[120] There is an alternative question in the SOEP on one's satisfaction with the personal income; however, it was introduced only in 2006 and can therefore not be used in this study, which focuses on a much longer period of observation.

stellations of the individual characteristics of both partners are inserted. The *couple-level characteristics* comprise partnership duration, region, prior children of the male partner and period.[121] The couple characteristics are always included in the same way in the models.

Individual Characteristics

- *Age:* The partners' ages, particularly that of the female, are among the key determinants of the timing of childbirth. Statistics generally show an inverted u-shaped, or "bell-shaped", relation between age and fertility (see for example BiB 2015). In order to accommodate this relation, age is inserted in a quadratic specification.[122] In the constellation models, the age of the female partner and the age constellation of the partners is included. Couples with the "same age" (age difference up to one year) are distinguished from a "slightly older male partner" (more than one year and up to five years older), a "much older male partner" (five years or more) and an "older female partner" (more than one year). Due to the fact that an older female partner is relatively uncommon, all constellations with an older female have to be combined. The male partner's age is left out in the constellation models in order to avoid collinearity.
- *Educational level:* This characteristic not only signifies a certain income potential – and therefore the opportunity costs of childcare – but also certain values and ideas which might affect parenthood (Kreyenfeld and Konietzka 2008). Therefore, the effect of the educational level (particularly that of women) has been the subject of many prior fertility studies (e.g. Blossfeld and Huinink 1991; Kreyenfeld 2002; Kreyenfeld and Konietzka 2008; Wirth 2007). In the current study, the educational level is considered in terms of the International Standard Classification of Education (ISCED) 1997, which takes into account schooling as well as university degrees and vocational qualifications. The ISCED level is broadly summarised to "low education" (ISCED 0-2), "medium education" (ISCED 3-4) and "high education" (ISCED 5-6). In the constellation models, the constellation of the educational levels of both partners is included. Five different constellations are distinguished: "both low education", "both medium education", "both high education", "hypergamous" (male partner more highly educated than female) and "hypogamous" (female partner more highly educated than male).[123]
- The *country of birth* should be included in the analysis as studies show that migrants often exhibit a different fertility pattern to the native population as they bring the family values of their

[121] Many prior studies have also controlled for marital status and usually find a significant positive effect of marriage on first childbirth, especially for West Germany. However, here we encounter a potential endogeneity problem: In Germany, marriage and childbearing are very closely linked (Eckhard and Klein 2006); many couples get married because the decision to have a child has already been made. Therefore, the following analysis does not control for marital status.

[122] This means that age and the square of age are included simultaneously.

[123] As there are a considerable number of missing values for ISCED, a dummy variable for missing individual educational level or missing educational constellation was included in the analyses.

origin culture to the new country (e.g. Milewski 2010). Therefore, the individual models distinguish between native and foreign-born persons. The constellation models compare "both partners native" with "female partner foreign-born", "male partner foreign-born" and "both partners foreign-born".

- *Religiousness* and having a religious denomination have frequently been shown to be associated with higher fertility (e.g. Frejka and Westoff 2008; Vatterrott 2011). Therefore, an indicator for religiousness is included which has unit value if the respondent attends church or religious events at least once a month. The specific denomination is not considered. The constellation models distinguish between "both religious", "female partner religious", "male partner religious" and "both unreligious".[124]
- *The state of health* is controlled for in order to ensure that this characteristic does not act as a third variable influencing the employment situation and fertility at the same time. As discussed in Chapter 3, the causality between health and the employment situation goes both ways: While some employment situations, above all unemployment, negatively affect health, a bad health status might also affect a person's employment situation, e.g. the number of hours he or she is able to work. At the same time, bad health might put a strain on partnership quality and on one's ability to give birth or care for a child. Health was measured via satisfaction with health on a scale from 0 (completely dissatisfied) to 10 (completely satisfied).[125] For the constellation models, the 11-point scale is dichotomised at the mean of the distribution: 0 to 7 counts as low satisfaction, 8 to 10 as high satisfaction, and the resulting constellations are "both satisfied", "male partner dissatisfied", "female partner dissatisfied", "both dissatisfied".
- *Income:* A final step of the analysis includes the level of income to test whether this characteristic explains part of the effects of employment insecurity. More precisely, a measure of gross labour income (as the sum of the income from the main job and the side job,[126] divided by 100 for better readability) is inserted in a quadratic specification. In order to render income comparable over time, the income values are deflated using the national consumer price index

[124] The question on attendance of religious events is asked only biannually in the SOEP. However, it can be assumed that values such as religiousness change only slowly over time. Therefore, the values for religiousness were interpolated between the waves with valid information and carried forward and backward across the first and last waves. There is, however, a small proportion of respondents who never received the question on religiousness due to their short time in the panel. Preliminary analyses show that the missingness of this item is related to the risk of partnership dissolution (since a separation often entails leaving the panel). Including a missing dummy for religiousness might therefore have distorted the results of the analysis. Therefore, those few cases who never answered the question on religiousness were discarded.

[125] This information is not available for parts of the Sample J in 2011 so that a few cases had to be dismissed. An alternative item would be the self-defined health status. However, this question was introduced in the SOEP only in 1992 and therefore cannot be used for the analyses in this chapter, which focus on a longer observation period.

[126] The SOEP provides generated income variables where missing values have been imputed.

(StBA 2014b) (base year: 2010). In the constellation models, the couple's income, i.e. the sum of both partners' labour incomes (again divided by 100), is included.

Couple Characteristics

- *Partnership duration* is a central independent variable as it serves as the risk period in the event history analysis. According to Klein (2003), partnership duration is a stronger predictor for first childbirth than individual age. He argues that the relation between age and first childbirth is partly mediated via processes of partnership formation and development, which are concentrated in the third decade of life. Despite its importance, partnership duration has been neglected in previous SOEP studies on first childbirth, presumably due to the unavailability of this information for many couples. In his study, Klein (2003) finds that the risk of first childbirth rises steeply during the first few years of partnership duration, then slowly declines. Accordingly, partnership duration is modelled via the sickle function, entering the model in a linear and logarithmised form. It is measured from the time of moving in together.
- *Region:* Previous studies have found large differences in gender arrangements and fertility behaviour between the Eastern and the Western parts of Germany which still have not converged decades after reunification (see Chapter 2). Therefore, in the model for Germany as a whole, a dummy variable is included which indicates couples living in East Germany. Moreover, separate analyses are conducted for East and West Germany in order to investigate possible differences in the effects of employment insecurity on first childbirth.
- *Prior children:* As the question whether a couple is childless or has their first child is judged with respect to the female partner's birth history, prior children of the male partner are controlled for in the models. However, in the SOEP men's birth biography is available only from 2001 onwards. For those who did not fill in the birth biography, fatherhood can only be established if the child lives in the same household (or had lived there in a preceding panel wave). Therefore, a dummy variable is added to the models which has unit value if there is already a child of the male partner in the household.
- *Period:* In order to capture change in the fertility behaviour over time, the period is controlled for in the joint analysis of Germany and in the comparisons of East and West. A dummy variable is included that indicates the time after the millennium. This distinction is able to capture the changing childbearing trends in East Germany after reunification – at first a marked postponement of childbirth and then a recuperation in more recent years. Moreover, it also corresponds to the fact that many changes in labour law towards labour market deregulation as well as changes in family policies towards a stronger support for the combination of work and family have taken place in the 2000s (see Chapter 2).

5.3.3 Analytical Strategy

The analysis focuses on a comparison of the effects of employment insecurity on first childbirth in East and West Germany on the one hand and on the changing effects over time in West Germany on the other hand. For the latter purpose, the West German sample is split in half according to the year of partnership formation, comparing couples who moved together between 1973 and 1996 ("early cohorts") with couples who moved together between 1997 and 2011 ("late cohorts"). This division was chosen to ensure roughly equal group sizes.

The analysis consists of three parts: Firstly, descriptive analysis is conducted to compare the East and the West German samples and the two West German cohorts (Section 5.4.1). The focus of the descriptive analysis is on the employment situations and constellations in the samples. Secondly, hazard and survival rates are estimated for the different groups to investigate the relationship between partnership duration and first childbirth (Section 5.4.2.1). These steps are thirdly followed by the multivariate discrete-time event history analysis of the effect of employment insecurity on first childbirth (Section 5.4.2.2). This part of the analysis consists of two types of models:

1. Firstly, the effect of the *individual employment situation* of the male and the female partner is investigated in separate models. This step also comprises separate analyses for the different subsamples, i.e. East and West Germany and the two different cohorts.
2. Secondly, the effect of different *employment constellations* within the couple, i.e. working hours constellations and permanency constellations, is analysed. Due to restrictions on sample size, this can only be conducted for the joint sample.

In both types of models, the covariates are included in three steps: A first model contains only the risk period (i.e. partnership duration) and the employment situations (Base Model). In the second model, all individual and couple characteristics mentioned in Section 5.3.2.3 are added except for income (Socdem Model). Income is added in a last model in order to investigate whether low earnings explain part of the effect of employment insecurity on first childbirth (Full Model). The sample size is kept the same in all three models in order to be able to compare the coefficients between the models. In the running text, the results from the Socdem Model are presented. The results from the Base Model and the Full Model are found in the Appendix. Furthermore, several sensitivity checks are undertaken to investigate whether the results are robust to different ways of model building.

5.4 Results

In this section, the results of the statistical analysis are presented. Initially, descriptive information on the whole sample and different sub-samples is given (Section 5.4.1). This is followed by the results from the discrete-time event history analysis (Section 5.4.2).

5.4.1 Descriptive Results

Table A 5 in the Appendix gives an overview of the distribution of all variables included in the analysis.[127] Some remarks have to be made when comparing the different sub-groups, i.e. the East and the West German samples and the different West German cohorts: Due to the younger age at first birth, women in the Eastern sample are younger than women in the Western sample (26.0 compared to 28.6 years). Within the Western sample, close to no age differences exist concerning the early and the late cohorts. Nevertheless, average partnership duration is slightly longer in the early cohorts with 4.8 years, compared to 3.4 years in the late cohorts and 3.5 years in East Germany. This is due to the fact that the early partnership formation cohorts can be observed for a longer period of time in the SOEP.[128] Turning now to the employment patterns, Table 5.1 gives an overview of the employment situations of the women in the sample.

Table 5.1: Forms of employment of the women in the sample (%)

Form of employment	Total	East	West	West Early Cohorts (1973-1996)	West Late Cohorts (1997-2011)
Standard employment	56.4	52.8	57.0	60.5	52.8
Fixed-term full-time	7.3	9.5	6.9	5.2	8.9
Permanent part-time	8.7	5.4	9.2	9.6	8.9
Fixed-term part-time	2.6	1.9	2.7	1.3	4.4
Employed, missing details	4.2	2.5	4.5	5.9	2.8
Self-employed	3.2	2.4	3.3	2.5	4.2
In education	9.8	15.9	8.7	6.6	11.3
Unemployed	4.7	8.5	4.0	3.9	4.1
Inactive	3.3	1.0	3.7	4.6	2.7
Total (n)	10,001	1,499	8,502	4,635	3,867

Source: Author's calculation based on SOEP v.30 (1985-2013).

The table shows that the majority of childless, coupled women are in a standard employment relationship. The second biggest group are women in education, followed by permanent part-time work

[127] The percentages and averages reported in this section refer to the number of observations in the sample. As most couples contribute several observations, the number of couples is unequal to the number of observations. Thus, a share of, say, 80% in the sample actually means 80% of observations instead of 80% of couples. For reasons of readability, the shares are still referred to as "x% of men/women/couples" throughout this section, even though "x% of observations" is always meant.

[128] Among the early cohorts, the longest time a couple is observed until an event/right censoring is 25 waves, while the late cohorts are observed for up to 14 waves and the East German sample for up to 18 waves.

and fixed-term full-time work. Comparing East and West Germany, it is apparent that standard employment as well as part-time work (be it permanent or fixed-term) are more prevalent in the West than in the East. In contrast, the share of women in education is almost double in East Germany, and there is also a higher share of fixed-term full-time working and unemployed women. The differences are particularly marked regarding the early Western cohorts, while the employment pattern of the late Western cohorts is more similar to East Germany. Comparing the early and the late cohorts, the share of women in standard employment has decreased. This is mainly attributable to a larger share of women still in education in the late cohorts, but the share of women in fixed-term contracts has also increased, reflecting the trend of labour market deregulation.[129]

Looking at men's employment pattern (Table 5.2), we see some similarities to that of women. An even greater majority of the men in the sample are employed in a standard employment relationship. Again, this share is higher in the West than in the East. In contrast, unemployment is much more prevalent in the East than in the West. Also, a higher share is employed on a fixed-term full-time contract. However, the comparison of the early and the late cohorts shows that, over time, the share of fixed-term full-time workers has increased considerably in the West.

Table 5.2: Forms of employment of the men in the sample (%)

Form of employment	Total	East	West	West Early Cohorts (1973-1996)	West Late Cohorts (1997-2011)
Standard employment	64.3	58.7	65.3	66.3	64.0
Fixed-term full-time	6.9	7.2	6.8	5.5	8.5
Permanent part-time	3.4	2.4	3.6	3.8	3.4
Fixed-term part-time	1.3	1.4	1.3	1.1	1.5
Employed, missing details	3.5	2.2	3.7	4.8	2.5
Self-employed	7.0	7.4	6.9	6.5	7.5
In education	6.7	8.9	6.3	6.3	6.2
Unemployed	5.0	10.1	4.1	3.5	4.8
Inactive	2.0	1.8	2.1	2.3	1.8
Total (n)	9,931	1,478	8,453	4,618	3,835

Source: Author's calculation based on SOEP v.30 (1985-2013).

Looking at the constellations of working hours within the couples (Table 5.3), we find that in the majority of couples (60%) both partners work full-time. The second most important constellation is a female part-time worker and a male full-time worker. A constellation in which the female partner

[129] Comparing the employment situation of women in the two cohorts in the year of partnership formation, it becomes apparent that a larger share of women in the early cohorts than in the late cohorts had already attained a standard employment relationship when moving in together with their partner (54% vs. 48%), while the share of women still in education at the time of partnership formation is larger in the late cohorts (14% vs. 18%). These results should not be taken as an indicator that women from the early cohorts tended to wait longer until moving in together; on the contrary, the average age at partnership formation is lower in the early cohorts. The differences thus reflect the ongoing trend towards longer educational participation (Geißler 2014:334–340).

is in education and the male partner works full-time is also relatively frequent. In contrast, a cumulation of economic insecurity, i.e. a constellation in which neither partner is in full-time employment, is rather rare (the different categories jointly amount to 9.2%).

Table 5.3: Working hours constellations among the couples in the sample (%)

Constellation		%
♀ Full-time	♂ Full-time (ref.)	60.4
	♂ Part-time	2.2
	♂ In education	3.3
	♂ unemployed/inactive	4.1
♀ Part-time	♂ Full-time	9.0
	♂ Part-time	1.5
	♂ In education	0.8
	♂ Unemployed/inactive	0.8
♀ In education	♂ Full-time	6.2
	♂ Part-time	0.8
	♂ In education	2.0
♀Unemployed/inactive	♂ Full-time	5.9
	♂ Part-time	0.3
Other constellations (without employed)		2.8
Total (n)		9,588

Source: Author's calculation based on SOEP v.30 (1985-2013).

In contrast, temporal insecurity in the form of the absence of a permanent contract is more widespread in the sample (Table 5.4). Among less than half of the couples (48%) do both partners have a permanent contract. Nevertheless, a situation in which both partners are on fixed-term contracts is very rare. Rather, couples find themselves in very different constellations in which a permanent contract of one partner is combined with fixed-term employment, other activities or unemployment/inactivity of the other partner.

Table 5.4: Permanency constellations among the couples in the sample (%)

Constellation		%
♀ Permanent	♂ Permanent (ref.)	48.0
	♂ Fixed-term	4.1
	♂ Otherwise active*	7.3
	♂ Unemployed/inactive	3.8
♀ Fixed-term	♂ Permanent	5.9
	♂ Fixed-term	1.5
	♂ Otherwise active	1.4
	♂ Unemployed/inactive	0.7
♀ Otherwise active	♂ Permanent	6.8
	♂ Fixed-term	1.4
Unemployed/inactive	♂ Permanent	5.0
	♂ Fixed-term	0.6
Other constellations (without dependent employed)		6.4
Either partner dependent employee but missing contract type		7.2
Total (n)		9,588

Source: Author's calculation based on SOEP v.30 (1985-2013).
Note: Otherwise active includes the self-employed and persons in education.

Table 5.5 shows the distribution of the first subjective measure, concern about job security, for employed respondents (employees and self-employed). Starting out with the distribution for women, we see that many female employees feel insecure in their jobs: Only half of the sample does not worry at all about their job security. The shares of those who are somewhat or very concerned are higher in East Germany than in West Germany. Moreover, within the West, concern about job insecurity has distinctly increased when comparing the early and late cohorts.[130]

Table 5.5: Concern about job security in the sample (%)

	Total	East	West	West Early Cohorts (1973-1996)	West Late Cohorts (1997-2011)
Female partner					
Not at all concerned	50.5	30.6	53.7	58.6	47.4
Somewhat concerned	36.9	48.0	35.1	33.1	37.7
Very concerned	12.6	21.4	11.2	8.3	14.9
Total (n) employed	7,768	1,060	6,708	3,753	2,955
Male partner					
Not at all concerned	50.2	33.6	52.7	56.6	48.0
Somewhat concerned	37.5	47.3	35.9	33.9	38.4
Very concerned	12.4	19.2	11.4	9.5	13.6
Total (n) employed	7,751	1,039	6,712	3,695	3,017

Source: Author's calculation based on SOEP v.30 (1985-2013).

[130] This is in line with an increase of concern about job security over time in the general population in Germany: While in 1990, only 8% of workers were very concerned about their job security, the share rose to 21% in 2005 and then declined slightly again to 18% in 2007 (Dittmann 2009).

A very similar pattern concerning perceived job security can be seen for men (still Table 5.5). Again, around half of the sample is not at all concerned about their job security. And again, East Germans are more concerned about job security than West Germans. However, East German women are slightly more concerned than East German men, reflecting women's lower labour market chances in this region (Chapter 2). Concern about job security has also increased among men across the cohorts in West Germany.

Table 5.6: Concern about the economic situation in the sample (%)

	Total	East	West	West Early Cohorts (1973-1996)	West Late Cohorts (1997-2011)
Female partner					
Not at all concerned	25.5	12.1	27.8	32.1	22.7
Somewhat concerned	54.8	59.7	53.9	53.9	53.9
Very concerned	19.8	28.2	18.3	14.0	23.4
Total (n)	9,964	1,495	8,469	4,614	3,855
Male partner					
Not at all concerned	29.4	16.4	31.7	35.6	27.0
Somewhat concerned	51.9	59.7	50.5	49.5	51.8
Very concerned	18.7	23.8	17.8	15.0	21.2
Total (n)	9,906	1,473	8,433	4,602	3,831

Source: Author's calculation based on SOEP v.30 (1985-2013).

The results for the second measure of employment insecurity, i.e. concern about one's economic situation, are presented in Table 5.6. Generally, concern about the economic situation is more widespread than concern about job security (although it has to be noted that here we are looking at the whole sample, not only employees). Yet the overall pattern is very similar to that of concern about job security: East German respondents worry more about their economic situation than West Germans, and again there is a difference between men and women in the Eastern states in the sense that East German women are more concerned than men. And like concern about job security, concern about the economic situation has increased across the cohorts in West Germany.

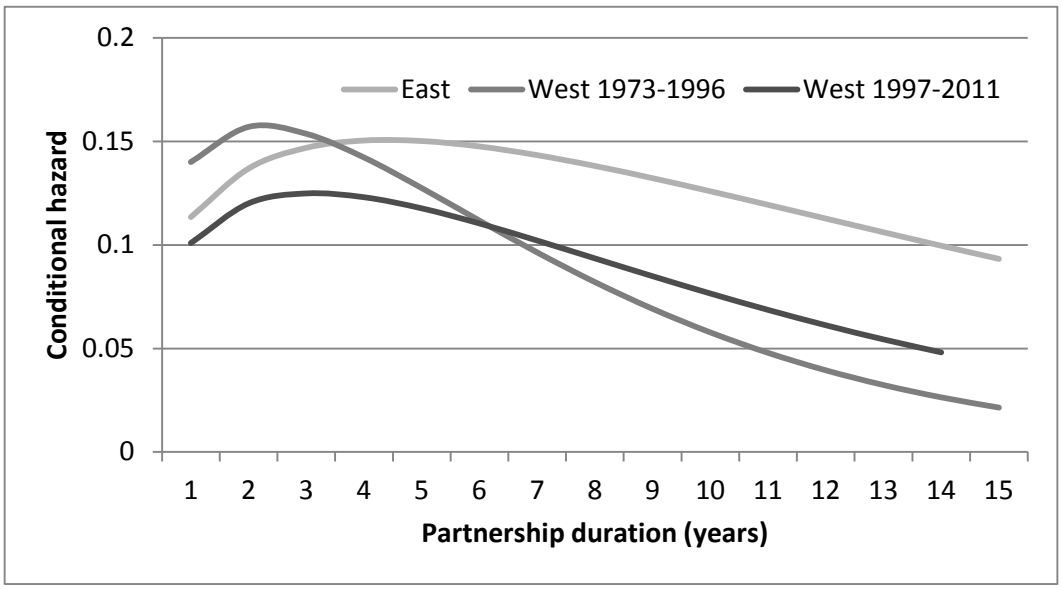
5.4.2 Event History Analysis of First Childbirth

This section presents the results from the event history analysis, consisting of the hazard and survival rates (Section 5.4.2.1) and the multivariate event history analysis (Section 5.4.2.2). This is followed by some remarks about sensitivity checks (Section 5.4.2.3).

5.4.2.1 Hazard and Survival Rates by Region and Cohort

Figure 5.2 illustrates the childbearing behaviour of couples depending on the duration of their partnership.[131] The lines show estimated hazard rates,[132] meaning the conditional probability of the event occurring at a time point given that it has not yet occurred (Rabe-Hesketh and Skrondal 2012:750). In this case, it designates the probability of first childbirth given the couple is still childless after a certain partnership duration. The figure compares the hazard rates of three subgroups: West German couples belonging to the early cohorts of partnership formation (1973-1996), West German couples from the late cohorts (1997-2011), and East German couples (formed 1989-2011).

Figure 5.2: Hazard rate of first childbirth by partnership duration and region



Source: Author's calculation based on SOEP v.30 (1985-2013).

Comparing the hazard rates of East Germany and the two West German cohorts, different patterns of childbearing behaviour according to partnership duration become apparent: The West German

[131] As the birth of the child was backdated by nine months, the duration actually measures time until pregnancy. Generally, no pregnancy was observed after 15 years of partnership duration, which is why the x-axis ends at this year. Furthermore, couples in the late Western cohorts were observed only for up to 14 years, which is why there is no value for a partnership duration of 15 years for them.

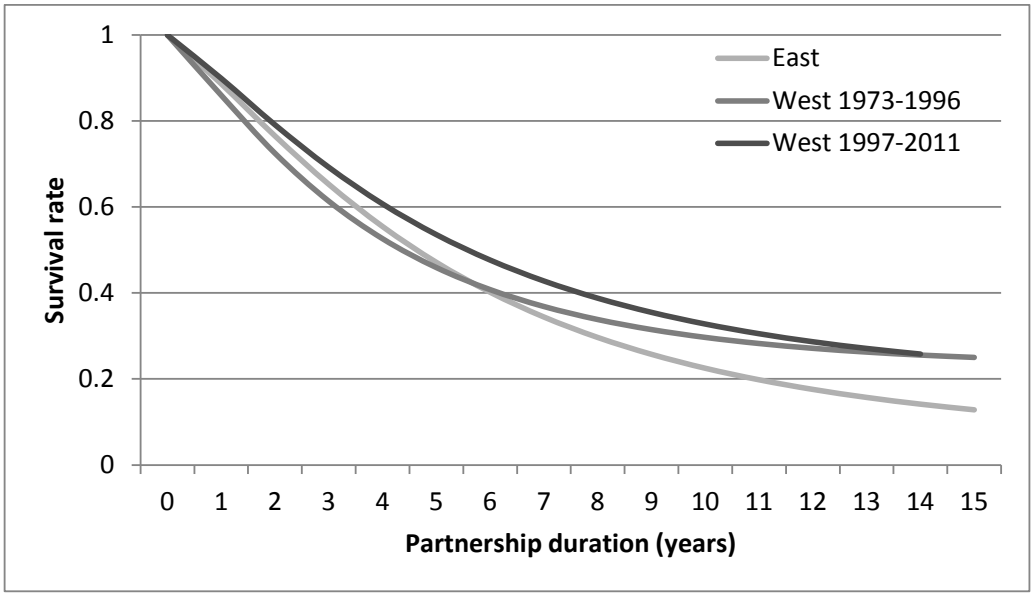
[132] The hazard rate of first childbirth was estimated with an event history model which only included partnership duration and the log of partnership duration as independent variables. It has to be added that this logarithmised specification of partnership duration has a good model fit for the West German sample but is not ideally suited for the East German sample. However, there was no parametrical specification that suited the data for East Germany markedly better.

cohorts exhibit a comparatively high hazard in the first years after moving in together which already declines after two/three years of partnership duration. The East German hazard rate initially rises in a similar way but declines more slowly than the rate of the West German cohorts. The different patterns in East and West Germany point to a closer temporal link between the transition to cohabitation and first childbirth in the West. Among East Germans, these two processes are rather decoupled, resulting in a wider spread of first childbirths along different partnership durations. The Eastern pattern might partly be the result of the large-scale postponement of childbirth after reunification and the subsequent recuperation of births, which can be expected to have to some extent blurred the link between partnership duration and first childbirth.[133] Comparing the early and the late West German cohorts, it becomes clear that the hazard of the early cohorts starts out on a higher level and then declines faster than the hazard of the late cohorts. After seven years of partnership duration, the hazard rate is higher in the late cohorts than in the early cohorts. This result suggests that over time, West Germany has also undergone a decoupling of the timing of moving in together and first childbirth, although not as far-reaching as in the East. This development is in line with the dissolution of the chronologically standardised "normal family biography" and the pluralisation of living arrangements in recent decades (see Introduction).

The differences in the hazard rates of the three groups are reflected in the trajectory of the estimated survival rates, as shown in Figure 5.3. The survival function designates the probability of not experiencing the event by time t (Rabe-Hesketh and Skrondal 2012:751), in this case the probability of still being childless after a certain partnership duration. The initially high hazard rate of the early Western cohorts translates into the lowest survival rate during the early years of partnership duration: After five years of partnership duration, 46% of the couples of the early Western cohorts are still childless, compared to 55% of the couples of the younger Western cohorts and 47% of East German couples. With increasing partnership duration, the higher hazard rates of the East Germans result in a very low survival rate: After ten years, 22% of East German couples remain childless, compared to 30% of the early Western cohorts and 33% of the late Western cohorts. Looking at even longer partnership durations, the two Western cohorts approach each other, resulting in 26% of couples of both cohorts remaining childless after 14 years of partnership duration. In contrast, only 14% of the East German couples are still childless after this period.

[133] However, it also has to be noted that the number of events in the East German sample is much smaller than in the West German sample, so estimates for East Germany are not as precise, particularly not concerning the hazard of long partnership durations beyond ten years.

Figure 5.3: Survival rate of first childbirth by partnership duration and region



Source: Author's calculation based on SOEP v.30 (1985-2013).

5.4.2.2 Multivariate Discrete-Time Event History Analysis

This section investigates the effect of employment insecurity on first childbirth among couples in Germany. In a first step, the individual employment situations of the female and the male partner are investigated, both with regard to objective and subjective indicators of insecurity. In a second step, the employment constellations between the partners are analysed. The results of the discrete-time event history analyses are given as hazard ratios.[134] For reasons of brevity, only the coefficients for the key variables, meaning the employment situations, are presented. The complete models can be found in the Appendix (Table A 6 to Table A 22). Also for reasons of brevity, only the coefficients for the risk of first childbirth are reported, albeit the risks of first childbirth and partnership dissolution were estimated simultaneously. However, the effect of employment insecurity on the risk of partnership dissolution is the subject of Chapter 7.[135]

Individual Employment Situation - Objective Measures of Insecurity

Table 5.7 shows the effects of different employment types and statuses on first childbirth for both partners. The reference category is the standard employment relationship, which is connected to temporal as well as economic security. Regarding women, it was hypothesised that permanent part-time work exerts a positive effect on first childbirth in West Germany (hypothesis 1-West) and a

[134] In the case of metric variables, hazard ratios indicate at what factor the risk of first childbirth changes if the value of the variable increases by one unit. In the case of dummy variables – which constitute the vast majority of variables in the models – hazard ratios indicate at what factor the risk of first childbirth is increased/decreased for cases in this category compared to cases in the reference category. Coefficients higher than 1 indicate a positive effect of the variable on the risk of first childbirth, while coefficients between 0 and 1 indicate a negative effect.

[135] The results concerning the risk of partnership dissolution from the models in this chapter are also available from the author upon request.

negative effect in East Germany (hypothesis 1-East). Contrary to this expectation, the risk of childbirth does not differ between standard and *permanent* part-time working women in either region. *Fixed-term* part-time work, in contrast, exerts a negative effect on first motherhood, and this effect is visible in both parts of the country, although it is no longer significant if the sample is split into two regions. This is in line with the expectation that women in temporal insecure employment postpone parenthood (hypothesis 2b). If controlling for income (Full Model, Appendix Table A 6), the effect of permanent part-time work becomes more positive (albeit insignificant), especially in West Germany, and the effect of fixed-term part-time work becomes less negative. These results suggest that economic insecurity in the form of low income is (partly) responsible for the detrimental effect of part-time work on women's first childbirth. There is furthermore a significant negative effect of fixed-term full-time work on first motherhood. When breaking down the effect according to region, it becomes apparent that this effect is driven entirely by women in East Germany. Therefore, hypothesis 2a is supported for East Germany but not for West Germany. This might be due to differences in the meaning of a fixed-term position: In West Germany, fixed-term positions are more often bridges into permanent employment than in East Germany (see Section 5.2.1).

Table 5.7: Effects of the employment type/status on the risk of first childbirth by region

	Women			Men		
	All	**West**	**East**	**All**	**West**	**East**
Standard (ref.)	1	1	1	1	1	1
Fixed-term full-time	**0.81***	0.95	**0.39*****	0.94	0.92	1.00
Permanent part-time	1.05	1.07	1.06	**0.63****	**0.62****	0.79
Fixed-term part-time	**0.69***	0.68	(0.79)	0.96	0.84	(1.62)
Self-employed	0.92	0.94	0.91	0.89	0.89	0.83
In education	**0.54*****	**0.54*****	**0.50****	**0.61*****	**0.60*****	0.63
Unemployed	1.19	**1.41****	} 0.79	1.02	0.97	} 1.21
Inactive	**1.48****	**1.55****		0.95	0.94	
n (couple-years)	10,001	8,502	1,499	9,931	8,453	1,478
n (births)	1,237	1,028	209	1,218	1,013	205

Source: Author's calculation based on SOEP v.30 (1985-2013).
Notes: Results from discrete-time event history analysis with competing risks. Models also include partnership duration, age, educational level, country of birth, religiousness, region (only "all" model), prior children, period and health. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01. Cell sizes below 30 cases in brackets.

Another effect that can be found in general and in both East and West Germany is the negative effect of educational participation on first motherhood. This effect was found in many prior studies for *all* women (see Section 5.1) and is here again confirmed for the subgroup of *coupled* women. For employment statuses at the margin, i.e. unemployment and inactivity, we observe a positive

effect on first motherhood, which is small and insignificant for unemployment[136] but stronger and significant for inactivity. Comparing the two regions, it becomes obvious that the positive effect of unemployment and inactivity is driven entirely by women in West Germany. In contrast, there is a negative, albeit insignificant effect of unemployment/inactivity in East Germany. Therefore, hypothesis 4 receives some support for East but not for West Germany: As expected, under the dual breadwinner model, East German women generally do not seem to regard unemployment or inactivity as a good opportunity for childbearing. In contrast, women in West Germany appear to react in a compensatory way to a situation of unemployment by focusing on childbearing.

Turning to the results for men (still Table 5.7), hypothesis 5 stating that economic as well as temporal insecurity exert negative effects on first childbirth, is only partly confirmed by the analysis: There is indeed a significant negative effect of permanent part-time work. Comparing the two German regions, the negative effect of men's permanent part-time work is significant only in West Germany. This is an indication of the stronger breadwinning responsibilities of men in West Germany. Fixed-term work, be it full-time or part-time, however, is not significantly related to first fatherhood. A possible explanation is that a permanent contract might not be as important for men as for women for childbearing: Most men stay in employment continuously around the time of childbirth and thus do not need to be concerned with reinstatement rights after parental leave. Furthermore, they might not worry about the temporary nature of their job if they are confident that their contract will be renewed. Being a new father might actually help in achieving this aim to the extent that employers might give preference to (male) workers with family obligations. Comparing the two types of part-time work, i.e. permanent and fixed-term, the different effects might be due to the different occupations underlying these categories for men: In the sample, a much larger share of fixed-term part-time workers are highly qualified white-collar workers. Fixed-term part-time work might thus constitute a step in a promising employment career. In contrast, permanent part-time work is found more often among blue-collar workers. Like for women, men's educational participation markedly reduces the risk of childbirth. However, in East Germany this effect is insignificant. Contrary to the expectation formulated in hypothesis 7, unemployment does not hamper first fatherhood in either region.

Overall, in East Germany there are no significant effects of the male partner's employment situation on first childbirth. This might partly be due to low case numbers among the permanent

[136] In the Full Model, which additionally controls for income, the hazard ratios of both unemployment and inactivity of the female partner become larger and the effect of unemployment is then also significant. This might be interpreted in that women's unemployment would be a good situation for childbearing were it not for the low income connected to it. The difference between women who classify themselves as unemployed versus inactive might therefore partly be a consequence of the question of whether the female partner's income is needed for the household budget or not.

part-time workers and fixed-term part-time workers. However, an additional analysis which combined all part-time workers into a joint category for East Germany did not reveal a significant effect either (results not shown). Another explanation for the missing significance of the male partner's employment situation might be that, in line with the sphere-of-interest rule, the female partner's employment situation is regarded as more important in East Germany. As the female partner is the one to interrupt her employment around childbirth and women's employment chances used to be particularly low in East Germany (see Chapter 2), it seems reasonable to orient the time of first birth towards the female partner's employment situation.

In a second step, the question whether the effects of employment insecurity have changed over time in West Germany due to the change from the male breadwinner model to the modified male breadwinner model is investigated. The same model as in Table 5.7 is estimated, this time separately for early cohorts (1973-1996) and late cohorts (1997-2011) of partnership formation in West Germany.

Table 5.8: Effects of the employment type/status on the risk of first childbirth in West Germany by cohort

	Women		**Men**	
	Cohorts 1973-1996	**Cohorts 1997-2011**	**Cohorts 1973-1996**	**Cohorts 1997-2011**
Standard (ref.)	1	1	1	1
Fixed-term full-time	0.76	1.09	0.91	0.95
Permanent part-time	0.98	1.23	**0.49****	0.84
Fixed-term part-time	1.38	**0.49****	**0.35***	1.56
Self-employed	0.67	1.08	0.85	0.93
In education	**0.68***	**0.47*****	**0.61****	**0.61***
Unemployed	1.40	**1.56***	0.95	1.00
Inactive	**1.89*****	0.89	1.14	0.60
n (couple-years)	4,635	3,867	4,618	3,835
n (births)	584	444	572	441

Source: Author's calculation based on SOEP v.30 (1985-2013).
Notes: Results from discrete-time event history analysis with competing risks. Models also include partnership duration, age, educational level, country of birth, religiousness, prior children and health. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

The picture that emerges comparing the two cohorts is far from clear, however. Regarding insecure forms of employment for women, fixed-term part-time work has a significant negative effect on first childbirth only in the late cohorts. It is possible that women in these doubly insecure positions used to seek the compensation strategy and withdrew from the labour market for childbearing in

the early cohorts, while nowadays women in this situation tend to postpone childbearing until economic or temporal security is reached.[137] Concerning other employment statuses, the negative effect of educational participation can be found in both cohorts. Inactivity only exerts a positive effect on first childbirth for women of early cohorts; this effect has completely disappeared in the late cohorts. In contrast, in both cohorts, unemployment exerts a positive effect on childbirth for women; however, the effect is significant only in the late cohorts. The differing effects of inactivity versus unemployment might be due to a change in the way non-working women self-classify themselves: Possibly, family-oriented women in the early cohort would have classified themselves as housewives and would therefore appear mainly in the inactivity category, while among the later cohorts it might be more common for all (childless) women outside employment to classify themselves as unemployed. Those childless women who are inactive in the later cohorts can be expected to be a select group with personal reasons for not participating in the labour market.

Among men, the results hint at a decreasing importance of full-time work for parenthood across time: Both permanent and fixed-term part-time work exert a significant negative effect on first childbirth in the early cohorts. In the late cohorts, the effect of permanent part-time work has decreased and become insignificant; the negative effect of fixed-term part-time work has reversed and turned into a positive one (albeit also insignificant). This shift is in line with the increasing dominance of the modified male breadwinner model: The rising employment participation of women seems to have partly relieved men from their earnings responsibilities and rendered men's part-time work less detrimental for childbearing.

Individual Employment Situation - Subjective Measures of Insecurity

With regard to subjective measures of employment insecurity, the chapter focuses on concern about job insecurity on the one hand, as a measure of temporal insecurity, and on the other hand on concern about the economic situation, as an indicator of economic insecurity. Table 5.9 gives the results for the concern about job security.

[137] The possibility that fixed-term part-time working women in early and late cohorts might also differ regarding the type of job was also considered. However, an investigation of the sample revealed that in both cohorts, the occupations as well as occupational statuses of female fixed-term part-time workers are very diverse. This therefore does not serve to explain the differing direction of the effect of this form of employment on first childbirth.

Table 5.9: Effects of concern about job security on the risk of first childbirth by region

	Women			Men		
	All	**West**	**East**	**All**	**West**	**East**
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	**0.81*** **	**0.85***	**0.63****	1.05	1.11	0.82
Very concerned	0.88	0.92	0.79	**1.22***	**1.24***	1.19
n (couple-years)	10,001	8,502	1,499	9,931	8,453	1,478
n (births)	1,237	1,028	209	1,218	1,013	205

Source: Author's calculation based on SOEP v.30 (1985-2013).
Notes: Results from discrete-time event history analysis with competing risks. Models also include other employment statuses, partnership duration, age, educational level, country of birth, religiousness, region (only "all" model), prior children, period and health. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

Although for men and women and East and West Germans alike a negative effect of subjective employment insecurity was expected (hypotheses 3 and 6), the results instead show gender-specific reactions to job insecurity: For the female partner, being somewhat or very concerned about one's job security both seem to exert a negative effect on first childbirth, although the effect is only significant and more pronounced if only somewhat concerned. This result is suggestive of a non-linear effect of job security for women: Those who feel their jobs *might* be threatened react to this situation by postponing first childbirth and focusing on their employment career. Among those women who are *very concerned* about their job security, some might also follow this strategy, but others might react to the threat of job loss compensatory by withdrawing from the labour market and focusing on childbearing. Furthermore, we might see a positive relation between job insecurity and first childbirth due to reverse causation: Those women who are planning to have a child might already become concerned about their job security because they fear that their pregnancy might incur a job loss.

The results for men are surprising as we find a significant *positive* effect of being very concerned about one's job security on first childbirth, which particularly applies to West Germany. This result is contrary to the expectation of a negative effect of temporal insecurity on first fatherhood due to men's breadwinning responsibilities (hypothesis 6). It can most likely be explained by reverse causation: Men who intend to become fathers anticipate that they will take over the role as (main) provider after childbirth (Kühn 2005:137). Therefore, it is possible that they simply become more concerned about their job security when the childbearing plans take shape because their jobs gain increasing importance to them. This explanation gains some support when looking at the changing effects over time in West Germany (Table 5.10): The positive effect of being very concerned about one's job security is stronger among the early cohorts, and even statistically significant if income is additionally controlled for (see Full Model, Appendix Table A 15). In contrast, the coefficient for the younger cohorts is smaller and insignificant. This suggests that with the change from the male

breadwinner model to the modified one, men cease worrying more about their jobs when they intend to become fathers. This change can be explained with the increasing role of the female partner's employment for the household budget, combined with more generous parental leave payments since 2007, which both contribute to relieving men from their breadwinning responsibilities. Another explanation might be that men in the early cohorts more often had to fear disadvantages in their jobs if they wanted to take over an active role in fathering, while this might be less the case for the late cohorts.

Table 5.10: Effects of concern about job insecurity on the risk of first childbirth in West Germany by cohort

	Women		Men	
	Cohorts 1973-1996	**Cohorts 1997-2011**	**Cohorts 1973-1996**	**Cohorts 1997-2011**
Not concerned (ref.)	1	1	1	1
Somewhat concerned	**0.82***	0.88	1.11	1.09
Very concerned	1.11	0.80	1.29	1.16
n (couple-years)	4,635	3,867	4,618	3,835
n (births)	584	444	574	440

Source: Author's calculation based on SOEP v.30 (1985-2013).
Notes: Results from discrete-time event history analysis with competing risks. Models also include other employment statuses, partnership duration, age, educational level, country of birth, religiousness, prior children and health. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

Comparing women in the different cohorts, we see that the non-linear effect of concern about job security is apparent only among women of the early cohorts, meaning only in this group do we find the lowest risk of childbirth among those who state that they are somewhat concerned. In contrast, among the late cohorts, being both somewhat concerned and very concerned exert a negative, albeit insignificant influence on first childbirth. The fact that the coefficients for "very concerned" point in opposite directions for women in the two cohorts suggests that some women in the early cohorts reacted to high job insecurity compensatory by starting a family, while women in the late cohorts instead seem to postpone first childbirth in this situation.

Focusing on the effects of concern about the economic situation (Table 5.11), we also see gender differences: Being somewhat or very concerned about one's economic situation significantly reduces the risk of first childbirth for the female partner but not so for the male partner. For men, there seems to be no connection between the evaluation of the economic situation and first parenthood. This also holds when comparing the two regions of Germany. Among women, we find significant negative effects in both East and West Germany. These results suggest that women's perception of the financial situation is more important in childbearing decisions than men's.

Table 5.11: Effect of concern about the economic situation on the risk of first childbirth by region

	Women			Men		
	All	**West**	**East**	**All**	**West**	**East**
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	**0.85****	0.89	**0.61****	1.03	1.06	0.92
Very concerned	**0.80****	**0.82***	0.73	0.95	0.96	0.92
n (couple-years)	9,964	8,469	1,495	9,906	8,433	1,473
n (births)	1,232	1,024	208	1,215	1,012	203

Source: Author's calculation based on SOEP v.30 (1985-2013).
Notes: Results from discrete-time event history analysis with competing risks. Models also include partnership duration, age, educational level, country of birth, religiousness, region (only "all" model), prior children, period and health. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

The last group of models in this section looks at the change in the gender-specific effects of subjective economic insecurity over time in West Germany (Table 5.12). A striking result is that for women, the negative effect of economic concerns can only be found among the late cohorts. Economic conditions seem to have gained more relevance for women's childbearing decisions over time, possibly reflecting the increasing costs of children (see Section 5.2.1). For men, there is an insignificant negative effect of being very concerned among the late cohorts, again suggesting an increasing importance of economic conditions for childbearing.

Table 5.12: Effects of concern about the economic situation on the risk of first childbirth in West Germany by cohort

	Women		Men	
	Cohorts 1973-1996	**Cohorts 1997-2011**	**Cohorts 1973-1996**	**Cohorts 1997-2011**
Not concerned (ref.)	1	1	1	1
Somewhat concerned	0.95	**0.78****	1.08	1.00
Very concerned	0.91	**0.70****	1.05	0.83
n (couple-years)	4,614	3,855	4,602	3,831
n (births)	582	442	571	441

Source: Author's calculation based on SOEP v.30 (1985-2013).
Notes: Results from discrete-time event history analysis with competing risks. Models also include partnership duration, age, education, country of birth, religiousness, prior children and health. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

Employment Constellations

The final step of the analysis aims to answer the question of whether, beyond the individual employment situation of each partner, the specific employment constellation within the couple matters for childbearing decisions. To this end, the employment situations of the partners were combined to build specific constellations, regarding working hours on the one hand and the permanency of the contract on the other hand. The results of the event history analysis of the effects of working hours constellations on first childbirth are presented in Table 5.13.

Table 5.13: Effects of the working hours constellation on the risk of first childbirth

		All couples
♀ Full-time	♂ Full-time (ref.)	1
	♂ Part-time	0.68
	♂ In education	**0.61*** **
	♂ Unemployed/inactive	0.98
♀ Part-time	♂ Full-time	0.83
	♂ Part-time	0.77
	♂ In education	0.83
	♂ Unemployed/inactive	1.16
♀ In education	♂ Full-time	**0.51*** **
	♂ Part-time	0.53
	♂ In education	**0.27*** **
♀ Unemployed/inactive	♂ Full-time	**1.29** **
	♂ Part-time	0.89
Other constellations (without employed)		0.81
n (couple-years)		9,588
n (births)		1,205

Source: Author's calculation based on SOEP v.30 (1985-2013).

Notes: Results from discrete-time event history analysis with competing risks. Model also includes partnership duration, age (female), age constellation, educational constellation, constellation country of birth, religiousness constellation, region, prior children, period and health constellation. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

On the background of the decision rules presented in Section 5.2.2.2, several results worth discussing appeared regarding the effects of working hours constellations: New Home Economics predicts that a specialised division of labour in the sense of one full-time working partner and one inactive partner exerts the highest risk of first childbirth. This assumption finds support in the result that an inactive or unemployed female partner is connected to a high risk of first childbirth if – and only if – the male partner is in full-time employment. In fact, this is the only working hours constellation with a higher risk of first childbirth than the doubly full-time working couple. If the male partner is employed part-time, unemployment or inactivity of the female partner do not lead to a higher risk of childbirth. Neither does the constellation in which the female partner is unemployed/inactive and the male partner is in education, unemployed or inactive (as reflected in "other constellations") have any effect. Furthermore, a *partly* specialised division of labour in the sense of one full-time and one part-time working partner does not exert a positive effect on first childbirth compared to

dual full-time working couples. Rather, the constellations of a full-time working female and part-time working male as well as the reverse constellation of a part-time working female and full-time working male both exert a negative, albeit insignificant effect on first childbirth. This points to the fact that the specialisation of the division of labour has to be complete, meaning that the female partner has to be outside employment, and not just work with reduced hours, to be beneficial for childbearing. It can be assumed that couples who take over this model already before childbirth are also particularly family-oriented.

Educational participation exerts a significant negative effect on first childbirth if either partner – male or female – is affected. The hampering effect of educational participation thus cannot be compensated by full-time employment of the other partner. This points to the validity of the egalitarian decision rule, which predicts that both partners' situations are equally important. If either partner is still in education, this is not regarded as a suitable occasion for starting a family. The concept of cumulative disadvantage gathers support from the fact that the effect of educational participation is particularly negative if both partners are in this situation. If both partners are part-time employed or if neither partner is employed at all ("other constellations"), we also see a reduced risk of first childbirth; however, the effects are not significant. Regarding working hours constellations, the results do not give any support to the patriarchal rule or the sphere of interest rule: It is not only men's or women's employment situations that matter but both partners' situations are relevant for childbearing decisions.

Another aspect that proved theoretically important for childbearing behaviour is temporal security. This is considerably influenced by the question whether the person is on a permanent or fixed-term contract. In order to investigate whether the disadvantage of a fixed-term contract accumulates in the couple context, couple constellations regarding the permanency of the employment contract are investigated. Table 5.14 shows the results.

Looking first at different constellations with a permanently employed female partner, it becomes clear that no constellation significantly differs from the reference category of two permanently employed partners. This points to the fact that it is the job security of the female partner that matters, regardless of the male partner's job security. This gives support to the sphere-of interest rule, saying that it should be the female partner's situation which matters because she is most affected by pregnancy, birth and care work.

Table 5.14: Effects of the permanency constellation on the risk of first childbirth

		All couples
♀ Permanent	♂ Permanent (ref.)	1
	♂ Fixed-term	1.06
	♂ Otherwise active	0.90
	♂ Unemployed/inactive	1.25
♀ Fixed-term	♂ Permanent	0.89
	♂ Fixed-term	0.71
	♂ Otherwise active	**0.48****
	♂ Unemployed/inactive	**0.40***
♀ Otherwise active	♂ Permanent	**0.66*****
	♂ Fixed-term	0.77
♀ Unemployed/inactive	♂ Permanent	1.24
	♂ Fixed-term	1.70
Other constellations (without dependent employee)		**0.59*****
n (couple-years)		9,588
n (births)		1,205

Source: Author's calculation based on SOEP v.30 (1985-2013).
Notes: Results from discrete-time event history analysis with competing risks. Otherwise active comprises persons in self-employment and in education. Model also includes partnership duration, age (female), age constellation, educational constellation, constellation country of birth, religiousness constellation, region, prior children, period and health constellation. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

There is also indication of cumulative disadvantage regarding permanency constellations: If the female partner has a fixed-term contract, all employment constellations are connected with a reduced risk of first childbirth. However, the degree varies considerably – from a weak and insignificant negative effect if the male partner is in permanent employment to strong and significant effects if the male partner is otherwise active (i.e. self-employed or in education) or unemployed/inactive. These results suggest that the insecurity caused by a fixed-term employment of the female partner is particularly harmful for childbearing if not backed up by a male partner in dependent employment. Looking at it from the perspective of the male partner, the results suggest that not being in dependent employment is not harmful for childbearing as long as the female partner is in a permanent position; however, it is detrimental for childbearing if the female partner has only a fixed-term contract. Also in line with cumulative disadvantage is the fact that a constellation in which neither partner is in dependent employment ("other constellations") significantly and strongly inhibits childbearing.

Further Characteristics

The analysis also revealed that, besides both partners' employment situations, a range of other individual and couple characteristics exert an influence on childbearing decisions in Germany. In the following, the most important results for the other variables from all estimated models are summarised (see also Appendix Table A 6 to Table A 22). In addition to the results for Germany as a whole, important differences between East and West Germany and between the West German cohorts are highlighted.

As expected, partnership duration is among the most important predictors of first childbirth; both the linear and the logarithmised terms show a significant effect on first childbirth, which results in an initially steeply increasing and then slowly declining hazard (see Section 5.4.2.1). The effect is reduced but still remains marked and statistically significant in the models which control for age. This suggests that the focus on the individual and his or her life course, which was prevalent among the majority of the previous studies, fails to recognise an important foundation of fertility decision-making: the partnership dynamics. This does not mean that age is irrelevant; on the contrary: Women's as well as men's ages also exert significant, strong influences on first childbirth. The linear term has a positive effect, while the squared term has a negative one, which together designate an inverted u-shaped or bell-shaped relationship between age and fertility. Concerning the age constellation of the two partners, couples in which the male partner is much older than the female partner have a reduced risk of first childbirth, while couples in which the female partner is older have an increased risk.

Regarding *educational attainment*, both a low and a high educational level have a positive effect compared to a medium level for both genders. Comparing the two German regions, it becomes clear that the positive effect of a high level of education for women is confined to East Germany. When looking at the constellation of the educational level within the couple, all other constellations (both low, both high, hypergamous and hypogamous) have a higher risk of first childbirth than the reference category of doubly medium educated couples. The highest risk of first childbirth is found among the homogamous lowly educated couples. The *region of residence* also affects childbearing: Couples living in East Germany have a higher risk of first childbirth than West Germans, which matches the higher transition rates to first births in the general population (see Chapter 2). Moreover, *foreign-born* women and men have a higher risk of first childbirth than natives. This effect is most pronounced if both partners are foreign-born. The separate analyses by region show that the positive effect of migration background is confined to West Germany. In this context it has to be noted that there are very few foreigners in the East German sample.[138] Moreover, migrants in East and West Germany differ considerably regarding their countries of origin: While in East Germany, most migrants are from Eastern Europe (and therefore from low-fertility countries), in the West German sample, migrants from (the high fertility country) Turkey constitute the largest group.[139]

[138] This is mainly due to the fact than the original East German SOEP Sample C drawn in 1990 entirely focused on German residents (Haisken-DeNew and Frick 2005). However, the share of migrants is generally very low in East Germany: Less than 4% of the population in East Germany (excl. Berlin) have personal migration experience (author's calculation based on StBA 2015c).

[139] This is partly owing to the systematic oversampling of "guest workers" from Turkey, Italy, Spain, Greece and Yugoslavia in the West German Sample B "Foreigners in the FRG" in the SOEP (see also Chapter 4).

Prior children of the male partner who live in the household decrease the risk of childbirth (albeit not significantly in most models). Satisfaction with *health* exerts a significant, positive influence on first childbirth for both genders. The health constellation within the couple, however, does not add any additional effects: There is a similarly negative, insignificant effect no matter whether only the female partner, only the male partner or both partners are in bad health. Religious women and men have a significantly increased risk of first parenthood. In the East-West comparison, religiousness only exerts a significant, positive influence in West Germany for both genders, while there is the tendency of a negative, albeit insignificant effect for religious women in East Germany. It has to be noted that there are very few religious respondents in the East German sample. Looking at constellations, couples in which both are religious or only the female partner is religious have a significantly increased risk of first childbirth. *Calendar period* (i.e. before or after 2000) does not have a significant effect in the joint sample. However, comparing the two regions shows that for East Germans the period since the millennium is connected to a significantly increased risk of first childbirth, which corresponds to the strong postponement of fertility directly after the fall of the wall and the subsequent recuperation of postponed births. Finally, *income* exerts a significant positive effect for both genders, which is true not only for individual income but also for the couple's joint income. This particularly applies to West Germany: The coefficients for East Germany also point to a positive effect; they are, however, insignificant. Furthermore, the effects of part-time work, unemployment and inactivity in part become more positive/less negative if controlling for income, particularly for women. This suggests that the economic insecurity connected to these employment situations is indeed an important detrimental factor for childbearing.

Comparing the effects of the further characteristics in the early and late cohorts in West Germany, there is not much change apparent over time. The only notable difference is that in early cohorts, women with different educational levels did not differ significantly in their childbearing behaviour. In contrast, in the late cohorts we see a significant positive effect of a low educational level and a slightly positive but insignificant effect of a high educational level. These results suggest that only recently did women's childbearing paths start to be differentiated by their former educational paths.

5.4.2.3 Sensitivity Checks

Several sensitivity checks were conducted to investigate whether alternative ways of modelling affect the results. Firstly, as mentioned, the models were built stepwise to see if the effects change when controlling for (additional) individual and couple characteristics. The results for these alternative models can be found in the Appendix. Secondly, the models including only one of the part-

ner's individual characteristics were compared to models which include all the individual characteristics of both partners simultaneously. The results remained substantially the same and are therefore not shown.

Additional sensitivity checks relate to partnership duration: Several specifications for partnership duration (including year dummies and a linear specification) were compared, and it was found that the logarithmised specification, which was used for the models in this chapter, had the best model fit. Furthermore, the fact was considered that the early West German cohorts were observed longer on average than the late Western cohorts. To test whether this affects the results, the comparative analyses were re-run including only couples up to a partnership duration of 14 years, which is the maximum that was observed among the late cohorts. The results did not change. Finally, the issue of unobserved heterogeneity was addressed. If unobserved heterogeneity is present, negative duration dependence will be overestimated and positive duration dependence underestimated and coefficients might be downward biased (Andress et al. 2013:269–270). In order to test for unobserved heterogeneity, random effects event history models were compared to results from conventional models. The results did not point to a notable amount of unobserved heterogeneity and coefficients changed only marginally, with both positive and negative effects becoming slightly larger. To the extent that random effects models can capture unobserved heterogeneity,[140] the results presented here can therefore be considered unbiased and, if anything, may mark a slightly conservative estimation of the effects at interest.

5.5 Summary and Conclusion

In the face of a persistently low fertility rate, high long-term unemployment and an increasing share of non-standard employment over the past decades, this chapter investigated the effects of employment insecurity on first childbirth among couples in Germany. The analyses extended the existing literature firstly by investigating a more refined list of indicators of objective employment insecurity. Secondly, the chapter paid more attention than prior studies to the interplay between the employment situation and the gender regime for fertility decisions by comparing the effects of employment insecurity in East and West Germany and by looking at changes in gender-specific effects over time in West Germany. Finally, the chapter contributed to the literature by taking on an explicit couple perspective and acknowledging the important role of partnership dynamics and both partners' employment characteristics for childbearing decisions.

[140] Fixed effects models would be preferable as they do not assume that unobserved heterogeneity is uncorrelated with the variables in the model. However, this was not feasible for the analyses in this thesis for lack of a convincing fixed effects event history approach for non-repeatable events such as first childbirth (Andress et al. 2013:278).

As a consequence of the historical experiences as GDR and FRG, the institutional settings in East and West Germany have differed in some important dimensions during the period of observation (1985-2013 for West Germany, 1990-2013 for East Germany). Labour market chances in the East were lower than in the West, particularly for women, manifesting themselves in a higher unemployment rate, a higher prevalence of fixed-term contracts and more involuntary part-time work in the East. Moreover, the two regions still differ considerably regarding their gender regime: While East Germany is marked by the dual breadwinner model, West Germany sees a dominance of the modified male breadwinner model. That said, it has to be added that West Germany's gender regime is currently in transition, having departed from the male breadwinner model, which was dominant in the Golden Age of Marriage of the 1960s. Against this background, the current chapter investigated to what extent the effect of employment insecurity differs by region and whether we see change in the effects over time in West Germany. The research questions were addressed by means of discrete-time event history analysis of the Socio-Economic Panel Study (1985-2013).

The comparative analysis of the hazard and survival rates in East and West Germany has demonstrated different patterns of family formation behaviour in relation to partnership duration. In West Germany, the timing of the first child is strongly tied to the time of household formation, while this link is relatively loose in East Germany. In both regions, the hazard rises steeply right after partnership formation but goes into decline much earlier in the West than in the East. As a result, childlessness is less widespread among East German couples after a long partnership duration.

The multivariate event history analysis focused on objective and subjective indicators of employment insecurity reflecting two different dimensions of insecurity, namely economic insecurity, in the form of financially insecure employment situations, and temporal insecurity, relating to insecurity regarding the continuity of the current job or employment in general. Overall, the analysis revealed the importance of temporal security in the form of a permanent employment position for women: Women in fixed-term positions – be it full-time or part-time – were shown to postpone first childbirth. Women on fixed-term contracts often do not have a job to return to after parental leave, which renders finding permanent employment before childbirth important to them. When comparing the two regions, it becomes clear that fixed-term full-time work has detrimental effects on first motherhood only in East Germany, pointing to the more difficult labour market chances of women on these contracts in the East. The results for the subjective measure of temporal insecurity support the crucial meaning of a secure job for childbearing decisions for women: Both in East and West Germany, women delay childbearing if they are concerned about their job security.

In contrast, a position outside employment seems to be supportive for first motherhood: Women who are inactive or unemployed exhibit a significantly increased risk of first childbirth.

Comparing the two regions, the positive effect of unemployment and inactivity for women can only be found in West Germany, while in East Germany, there is the tendency of a negative effect. This difference can be explained by the different gender regimes in East and West: In West Germany, the modified male breadwinner model requires women to stay home and care for the child for some time after childbirth, which creates high opportunity costs if the woman has to give up an employment position that is well paid or that promises a successful career. Furthermore, the role as homemaker and mother is socially more accepted in West Germany, which makes the compensation strategy more likely, meaning that women who are unsatisfied about their employment situation withdraw from the labour market to focus on family and children. Women in East Germany mainly prefer continuous full-time employment. In order to avoid a further decrease in their employment chances, they prefer to postpone first childbirth during unemployment until they are back in employment. While positions outside employment are therefore regarded as good opportunities for childbirth in West Germany, the results for the subjective indicator of economic insecurity seems to contradict this trend: In both East and West Germany, women postpone first childbirth if they are concerned about their economic situation. This finding suggests that unemployment and inactivity are only used for family formation if the economic situation is secured otherwise, e.g. by the income of the male partner. This assumption could be asserted by the subsequent constellation analyses (see below).

Turning to the results for men, the first thing that meets the eye is that, across the board, no significant effects of men's employment situations were found in East Germany. This result suggests that the dual breadwinner model combined with the tight East German labour market, particularly for women, leads couples to link the timing of their first child to a good employment situation of the female partner. The situation is to some extent different in West Germany. Similarly to the East, temporal insecurity in the form of fixed-term contracts does not hamper first fatherhood. As most men remain in employment continuously even after the birth of their child, the job guarantee during parental leave that comes with permanent employment is not as important for them. A rather puzzling result is the fact that we see a positive effect of concern about job security on first fatherhood in West Germany. This suggests that men who anticipate fatherhood and taking over the role as primary earner become more conscious about the security of their job. In contrast, economic insecurity in the form of (permanent) part-time work proves detrimental for first fatherhood in the West. This points to the fact that such positions are not regarded as suitable for a primary earner. However, men's concern about the economic situation has no effect on first fatherhood.

On the grounds of the changing gender regime in West Germany – from the male breadwinner model to the modified version – the chapter has furthermore investigated whether the gender-

specific effects of employment insecurity on first childbirth have changed over time. In this respect, the comparative analysis of two West German cohorts of partnership formation (1973 to 1996 vs. 1997 to 2011) revealed only few insights. Among women, fixed-term part-time work is only detrimental for childbearing for the late cohorts, which might point to the fact that a secure full-time position has become more important over time. In contrast, the results suggest that men's full-time employment was more important for childbearing in the early cohorts than in the late cohorts. This can be regarded as an indicator for women's strengthened role in employment, which has relieved men from their breadwinning responsibilities to some degree. Women's subjective economic insecurity, in turn, is only detrimental for childbirth in the late cohorts, possibly reflecting increasing costs of children and a general trend for couples to increasingly condition parenthood on a good economic situation.

In a final step, the chapter went beyond the existing studies by investigating to what extent the specific employment constellation of the partners plays a role in childbearing decisions. This analysis was rather exploratory as New Home Economics, bargaining theories and the concept of Cumulative (Dis)advantage led to different predictions. The results point to the validity of several of these approaches for childbearing decisions: New Home Economics, stating that a specialised division of labour fosters childbearing, gathered support from the fact that a female partner outside employment is only beneficial for childbearing if backed up by a full-time working male partner. This constellation has a particularly high risk of childbirth. The egalitarian rule, suggesting that employment insecurity has a negative effect no matter which partner is affected, was also partially supported: Childbearing becomes unlikely if either partner is in education, even if the other partner is in full-time employment and would therefore be able to support the family. Further, there was some support for the sphere of interest rule, predicting that only the female partner's employment situation matters: As long as the female partner is in permanent employment, the employment position of the male partner does not significantly affect the risk of childbirth. If the female partner is in a fixed-term position, there is always a negative effect on first childbirth, regardless of the specific employment situation of the male partner. However, the male partner's employment situation is not irrelevant in this respect: A fixed-term contract of the female partner is particularly harmful if the male partner is not in dependent employment. This result, in turn, is an indicator for cumulative disadvantage. Cumulative disadvantage was also reflected in the fact that a constellation in which no partner is in dependent employment exhibits a significant negative effect on first childbirth. Furthermore, educational participation is most detrimental if both partners are in education. The fact that evidence was found for several decision-making rules underlines the complexity and situation-dependence of fertility decision processes in couples.

Besides other aspects, this chapter has contributed to the literature in particular by developing an explicit couple's focus and recognising the partnership dynamics behind childbearing trends, i.e. partnership formation and dissolution. The SOEP data were chosen due to the long period of observation and the rich information on couples' employment situations. However, working with the SOEP, the focus on couples came at the expense of a comparatively small sample size, preventing very detailed analyses of specific (rare) employment constellations and comparing the effects of employment constellations between East and West Germany or across partnership formation cohorts. It is up to future research to plunge deeper into the effects of specific secure and insecure employment constellations and to compare their effects in Germany across region and time. For this purpose, an even larger sample would be needed. Furthermore, the effect of different gender role attitudes could not be tested directly on the level of the individual due to the unavailability of this information in the SOEP. Therefore, the effects of gender regimes were investigated by comparing East and West Germany. Testing the moderating effect of gender role attitudes on the employment-fertility nexus directly on the level of the individual could be another task for future research.

In addition, the analysis of changing effects of employment insecurity over time had to be restricted to West Germany due to the longer period of observation and larger sample size. As time passes and more waves of data become available for East Germany, it will also be interesting to investigate whether and in what way the gender-specific link between employment and fertility is also changing in the East and whether the two regions are converging over time.

Chapter 6

The Effects of Employment Insecurity on First Childbirth in Different Employment Systems – A Comparison of Germany and Australia

6.1 Background and State of Research

Most OECD countries exhibit fertility rates below replacement level (OECD 2014a:17). Germany has been among the low fertility countries for three decades, with the total fertility rate (TFR) usually ranging between 1.3 and 1.4. While Australia's TFR has remained on a higher level than Germany's (between 1.7 and 2.0), the two countries observe similar changes in fertility behaviour in the form of a rising number of childless persons and an increasing age at first childbirth (see Chapter 2). In the face of the demographic challenges connected to an ageing population in general and specifically an ageing workforce, governments in both Germany and Australia have voiced concern over the low birth rate and aimed to increase fertility (Boll et al. 2013; Heard 2006).[141]

Survey research demonstrates that both Germans and Australians regard a sufficient income and secure employment as important factors in the decision for children (e.g. IfD 2013; Weston et al. 2004). However, recent structural changes in the labour markets have made these preconditions more difficult to meet. As discussed in Chapter 2, both countries have seen a departure from the standard employment relationship during the past decades, now exhibiting high shares of non-standard employment, and in both countries these forms of employment have been criticised for their higher (risks of) precariousness compared to standard employment (Burgess and Campbell 1998; Keller and Seifert 2011). The developments in the labour market can be expected to alter the conditions for fertility decisions, as it is often young people who are employed in certain forms of non-standard employment and who are also overrepresented among the unemployed (see Chapter 2). Nevertheless, our knowledge about how these insecure employment situations affect couples' fertility decisions is still far from complete.

Against this background, this chapter investigates how employment insecurity affects first childbirth among couples in different institutional contexts, focusing on Germany and Australia for comparison. In this thesis, employment insecurity is used as an overarching term relating to different forms of insecurity surrounding employment. The focus is on economic insecurity, designating financially insecure employment situations, and temporal insecurity, referring to insecurity about

[141] A famous example of this is the former Australian Treasurer Peter Costello's remark during the presentation of the 2004 budget: "If you can have children it's a good thing to do - you should have one for the father, one for the mother and one for the country, if you want to fix the ageing demographic" (Dodson 2004, paragraph 2).

the continuity of the current job or employment in general. The chapter contributes to the literature by a) providing the first investigation of the effects of employment insecurity on fertility for Australia, b) examining a broader range of indicators of employment insecurity than previous studies for Germany, and c) considering the interplay between partnership dynamics and fertility.

Comparative studies stress the role of national institutions, like the welfare regime, the employment system and the gender regime, as moderators of the impact of employment insecurity on life course transitions (Mills and Blossfeld 2005; Schmitt 2012a; see also Chapter 1). This implies that insights about the effects of employment insecurity on fertility cannot simply be transferred from one country to another. Yet so far no study has ever investigated this issue for Australia. Several Australian macro studies suggest a relation between the macroeconomic conditions and the fertility rate (Basavarajappa 1971; Jackson 1995; Martin 2004). However, a study investigating the effect of the employment situation on fertility on the level of couples or individuals is still lacking. In the realm of fertility research, the closest studies in the field are some recent micro studies on the effects of certain family policies on fertility intentions and fertility (Drago et al. 2011; Guest and Parr 2010; Parr and Guest 2011). Concerning employment insecurity, in contrast, there are a range of studies regarding the effects of non-standard employment on economic and career outcomes, such as job satisfaction, transitions into permanent employment and the financial situation. Furthermore, some studies were interested in the effects on the mental health of workers (see Chapter 3). The study therefore contributes to the literature by providing the first analysis of the fertility effects of employment insecurity for Australia and comparing the results to those found for Germany. The comparison of these two countries promises important insights into the moderating role of national institutions, as Germany and Australia constitute countries with contrasting welfare and employment regimes on the one hand but a similar gender regime on the other. A look at Australia is particularly interesting in the face of the high prevalence of casual work, a specifically Australian form of employment which cannot be found in a similar way in the European context[142] and which is associated with a particularly high degree of job insecurity (see Chapter 2).

Against the background of persistently low fertility as well as political steps towards increasing labour market deregulation, a range of micro studies on the effects of employment insecurity on first childbirth already exist for Germany (for details, see Chapter 5). However, these studies mainly focus on a narrow range of indicators of employment insecurity, namely unemployment, part-time

[142] With the exception of the comparatively similar zero-hours contracts in Great Britain, which affect, however, only a very small share of the workforce.

work and fixed-term contracts. In this context, fixed-term contract workers have usually been investigated as a single group[143] and no study has yet differentiated among fixed-term full-time, fixed-term part-time and permanent part-time workers (except for Chapter 5 in this thesis). Moreover, presumably due to its small share of the workforce, temporary agency work has not yet been investigated in quantitative fertility studies. Qualitative studies show that temporary agency work reduces workers' capacities to make long-term life plans (Dörre et al. 2004; Kraemer and Speidel 2004a). Consequently, agency workers often perceive their employment situation as a barrier to the realisation of childbearing intentions due to the job insecurity, changing workplaces and low income associated with this form of employment (Niehaus 2012). These results suggest that actual fertility might also be affected by temporary agency work. Furthermore, no study has yet investigated the effects of minijobs on first childbirth, as a subtype of part-time work connected to a particularly low income and low working hours.

By comparing Germany and Australia, the present chapter therefore extends the existing literature on the effects of employment insecurity on fertility by systematically investigating a broad range of insecure forms of employment (i.e. temporary agency work, fixed-term full-time work, fixed-term part-time work, casual full-time and casual part-time work and minijobs), as well as unemployment within the same analytical framework. Most of these employment situations can be compared in their effects between the two countries; moreover, the effects of Australian casual work and German minijobs on fertility are investigated for the first time. Additionally, few studies for Germany (e.g. Golsch 2005; Kreyenfeld 2010) and no study for Australia has yet investigated the fertility effects of subjective indicators of employment insecurity, such as the evaluation of job security or the perception of the chances of reemployment. These aspects are also considered in this chapter.

The current chapter also pays more attention to the couple context than preceding studies. As explained in detail in Chapter 5, the predominant focus on individual actors in fertility research has not enabled distinguishing the effect of the employment situation on the selection into (stable) partnerships from its (subsequent) effect on fertility. The present study accommodates this fact by focusing only on cohabiting couples. Moreover, the likelihood of first childbirth and of partnership dissolution is estimated simultaneously and the stage of the partnership is taken into account by including partnership duration in the analysis.

[143] With the notable exception of Gebel and Giesecke (2009) who investigated interactions of fixed-term contracts with educational level, occupational position and employment in the public sector but could not find any significant effects on first childbirth.

Using data from two nationally representative panel studies – the German Socio-Economic Panel Study (SOEP) and the Household, Income and Labour Dynamics in Australia (HILDA) Survey for the period of 2001 to 2013 – the study addresses the following *research questions*:

- How does objective employment insecurity, i.e. different forms of non-standard employment and unemployment, affect first childbirth in Germany and Australia?
- How does subjective employment insecurity, as measured by the evaluation of job security and the chances of reemployment, affect first childbirth in the two countries?
- To what extent does the effect of employment insecurity on first childbirth vary by gender in the two countries?

The rest of the chapter unfolds as follows: Firstly, theoretical considerations regarding the effect of employment insecurity on first childbirth in Germany and Australia are presented in Section 6.2. This is followed by the empirical part of the chapter: The data and methods used are described in Section 6.3, while the results of the analysis are given in Section 6.4. This section consists of a descriptive analysis regarding the German and the Australian samples (Section 6.4.1), followed by the results of the event history analysis (Section 6.4.2). The chapter closes with a discussion and conclusion in Section 6.5.

6.2 Theoretical Considerations and Hypotheses

The current chapter investigates the effect of employment insecurity on first childbirth in Germany and Australia. As mentioned above, employment insecurity encompasses (at least) two interrelated dimensions, firstly economic insecurity and secondly temporal insecurity. In this context, the study looks at objective and subjective indicators of these forms of insecurity, namely different forms of non-standard employment, unemployment as well as subjective perceptions of one's job security and chances of reemployment.

The following considerations build on the insights from several previous chapters of the thesis to theoretically link employment insecurity to first childbirth in the two countries under study. Firstly, the specific characteristics connected to non-standard employment and unemployment in Germany and Australia and therefore their link to temporal and economic insecurity have been carved out in Chapter 3.[144] Secondly, the most relevant theories linking employment and first childbirth – e.g. Becker's (1981) New Home Economics, Oppenheimer's (1988) Theory of Marriage Tim-

[144] As the specific characteristics of the different employment situations are explained in detail and with extensive references to the respective empirical studies in Chapter 3, no specific studies are cited directly in this chapter with regard to these aspects.

ing and Friedman et al.'s (1994) Uncertainty Reduction Theory of Parenthood – were already introduced in the theory section of Chapter 5. In the following, the main insights and arguments from these two chapters are recapitulated and combined with the specific institutional settings in Germany and Australia as described in Chapter 2 in order to make predictions regarding the effect of employment insecurity on first childbirth in the two countries.

As Chapter 3 has shown, part-time work and minijobs are characterised by relatively low earnings, which is why in the following they are discussed jointly under the heading "economic insecurity" (Section 6.2.1). Fixed-term, temporary agency and casual work, in turn, are marked by the temporary nature of their employment; they are thus discussed under "temporal insecurity" (Section 6.2.2). Finally, fixed-term part-time work, casual part-time work and unemployment are characterised by a cumulation of economic and temporal insecurity and are discussed jointly in the last section (6.2.3).

6.2.1 Economic Insecurity: Part-Time Work and Minijobs

One of the most prominent characteristics of part-time work and minijobs is their connection to reduced earnings. Furthermore, these forms of employment can also have detrimental impacts on future earnings, due to reduced access to further training and low chances of transitioning into standard employment. Both low current and (expected) future earnings can be expected to negatively affect childbearing decisions: In the view of New Home Economics (Becker 1981), children can be regarded as durable consumer goods that are only acquired if the couple has enough *financial resources* to support a child in the long term. The high and long-lasting costs of children imply that not only the current income situation is relevant but also secure income perspectives. Moreover, a low income reduces the couples' capacity to make other partnership-specific investments such as buying a home, buying a family car or getting married, which might be regarded by many couples as preconditions for having children. Low partnership-specific investments further act to destabilise partnerships and thereby indirectly render the birth of a child less likely (see Chapter 7). A low income can also reduce partnership quality by creating economic stress and increasing arguments and conflict within the partnership (see also Chapter 7). Comparing Germany and Australia, the relevance of a sufficient and secure labour income for fertility decisions can be expected to be higher in Australia than in Germany due to the fact that Australia, the "wage earners' welfare state", places a strong focus on social security through wages instead of welfare payments.

While the low income connected to part-time positions, including minijobs, thus clearly points to a negative effect on childbirth, it has to be kept in mind that on the plus side, these forms of employment are connected to lower working hours and often located near the place of residence, providing employees with more time for private activities. This aspect is important considering the

fact that work and family are in a *competitive situation for time and energy* (Düntgen and Diewald 2008; Willekens 1991). In countries such as Germany and Australia, where the majority of children are cared for at home during the first years of their lives, parents' competition for time between employment and children is particularly pronounced. And in both countries, part-time work is the major solution for reconciling the demands of work and family (e.g. Heddendorp and Laß Forthcoming; Pocock 2003). The anticipation of future irreconcilability between the work and family spheres might – even before childbirth – lead workers to seek a position that – later – offers a good combination of employment and care. Generally, all workers in Germany who have been with their employers for at least six months are legally entitled to reduce their working hours to part-time in order to balance work and family commitments. Similarly, Australian parents who have been with their current employer for at least 12 months are entitled to flexible work arrangements, such as part-time work or working from home. Therefore, at first sight it seems unnecessary to already seek a part-time position before pregnancy for reasons of reconcilability. However, the entitlement to part-time work might be difficult to enforce in practice, as employers in both countries can refuse the request for part-time for business reasons. Furthermore, in Germany small businesses are exempted from this regulation, and in Australia, the right to flexible work arrangements was introduced only in 2009. Many workers might in fact have to change their jobs if they want to reduce their hours to part-time. Therefore, individuals working (permanent) part-time might consider this a particularly good opportunity for having a first child because they can be sure to have a suitable position waiting for them after childbirth. This suggests a positive relationship between (permanent) part-time work and first childbirth, even though this form of employment is connected to less income and thus less economic security.

Based on the expectation that at least one partner has to reduce his or her working hours or even quit employment for a certain period after childbirth – due to the competition situation – the positive fertility effect of a secure and sufficient income discussed above is also countered by the *opportunity costs* (Mincer 1963) of childcare: After the birth of a child, couples experience an income decline if one of the partners ceases work in order to care for a child. These opportunity costs are only partly offset by family policies, and during the period of observation this was more the case in Germany than in Australia due to the complete absence of state-funded paid parental leave in the latter country until 2011. For both countries it can be stated that the opportunity costs of childcare are greater, the higher the former income. Therefore, part-time work should promote first childbirth because it entails lower monetary opportunity costs.

In sum, the arguments on the one hand point to a negative effect of part-time work and minijobs on first childbirth due to a reduced current and future income, the connected postponement

of partnership-specific investments and the resulting deterioration of partnership quality. On the other hand, theory also argues in favour of a positive effect due to increased time budgets and lower opportunity costs. These opposing views can be reconciled by combining them with the gender regimes in Germany and Australia: Both countries are modified male breadwinner regimes, in which the male partner focuses on gainful employment and the female partner on housework and care and additionally acts as a secondary earner. In both countries, most mothers stay home with their child for a certain period after the birth. Against this background, the assumption of a negative fertility effect of reduced income and career prospects through part-time work particularly applies to men, as they are expected to be the main (and for a limited time even the sole) providers in their families. Therefore, in situations of economic insecurity of the male partner, couples in both countries can be expected to postpone parenthood until the male partner has attained a secure employment position and earns sufficient income to support a family.

In contrast, competition for time and energy between work and family can be expected to be more relevant for women than men in both countries, as women take over the (majority of) care work in the modified male breadwinner model. Nevertheless, the emergence of the "active father", wishing to spend more time with his children, suggests that the competition between work and family is increasingly becoming a problem for men in both countries as well. However, in both countries the changes towards active fatherhood are mainly visible in men's attitudes, and are not yet much reflected in their actions in the sense of a stronger involvement in housework and care.

Also, the opportunity cost argument is particularly relevant for women as they usually reduce or interrupt employment to care for children. Besides resulting from dominant gender role attitudes and conceptions of motherhood, this is also the consequence of a persistent gender pay gap in the sense that from graduation onwards, men earn more than women in both countries. The opportunity costs of reducing employment to the benefit of childcare are therefore lower for women, and women's part-time work should thus be particularly beneficial for childbirth. However, in Germany current policy measures work to counteract the opportunity costs of childcare more effectively than in the past: Since the introduction of the *Elterngeld* in 2007, the level of parental leave payment is tied to prior labour income. This gives an incentive for women too to attain high earnings through full-time work before childbirth. In contrast, Australian family policies are generally lump-sum and often means-tested and thus do not accommodate families' real opportunity costs through childbirth to the same extent.

In conclusion, positions connected to economic insecurity, such as part-time work and minijobs, can be expected to have a negative effect on first childbirth for men and a positive effect for women. Due to differing costs of children, family benefits and welfare payments, the impact of each

of the described factors presumably varies between the two countries. Nevertheless, owing to the common basis of the gender regime in the form of the modified male breadwinner model, the overall pattern can be expected to be the same in Germany and Australia.

H1a-b: In both Germany and Australia, forms of employment connected to economic insecurity, namely a) permanent part-time work and b) minijobs (in Germany), exert a positive effect on first childbirth for the female partner.

H2a-b: In both Germany and Australia, forms of employment connected to economic insecurity, namely a) permanent part-time work and b) minijobs (in Germany), exert a negative effect on first childbirth for the male partner.

6.2.2 Temporal Insecurity: Fixed-Term Contracts, Temporary Agency Work and Casual Work

While the main characteristics of part-time work and minijobs are the reduced working hours combined with low income, fixed-term contracts, temporary agency work and casual work are predominantly marked by a high level of temporal insecurity. Due to the lack of a permanent contract, workers are subject to increased job insecurity and an elevated unemployment risk. Against this background, fixed-term contracts, temporary agency work and casual work are also referred to as "temporary employment" in the following. For many workers, this temporary state lasts for a considerable period of time, as temporary forms of employment tend to reproduce themselves in "chains of temporary employment" (Giesecke and Groß 2003:162) or alternate with unemployment. A significant number of temporary workers do not succeed in transitioning to a permanent employment position. The theory provides several arguments as to why temporal insecurity can be expected to affect first childbirth.

Above all, temporal insecurity in the sphere of work also causes insecurity in the private sphere and impedes long-term planning. In her Theory of Marriage Timing, Oppenheimer (1988) stresses the important role of work in structuring people's lives, e.g. via mobility requirements, overtime or night shifts. Therefore, individuals are more prone to make long-term commitments like marrying and having children if their *future work career is foreseeable*. The insecure career perspectives should thus lead temporary workers to postpone childbirth until a secure position is reached and the couple can make life plans more easily. According to Birg et al.'s Biographical Theory of Demographic Reproduction (1991), having children also comes with *biographical opportunity costs* in the sense of forgone biographical opportunities. For example, a worker who exits the labour market for a certain period to focus on childcare might experience career penalties (Aisenbrey et al. 2009). Furthermore, the couple becomes less flexible regarding location of workplace and working hours

with the birth of a child. Against this backdrop, people will first seek to establish a secure and successful working career before the birth of their child.

The gap regarding foreseeable income and career perspectives between permanent and fixed-term employment can be expected to be wider in Germany than in Australia: In the former country, permanent employment positions are subject to a particularly high level of employment protection and usually connected to a long-lasting relationship with the employer, while fixed-term positions are comparatively unregulated. In Australia, the differences between permanent and fixed-term work are not as marked, as employment protection is comparatively low for all workers. Casual workers, in contrast, are in principle hired on a day-to-day basis, meaning that for them, employment protection is often non-existent. However, it has to be noted that in compensation for their low job security and for the fact that they are generally not entitled to paid leave, casuals are paid a loading on top of the usual wage (estimated to be around 20% during the 2000s).

Furthermore, the competition for time and energy between work and family, which was discussed in Section 6.2.1, can be expected to be more pronounced in temporary positions: Hoping to be taken over permanently by their employer or host company, temporary workers often invest much effort and time in their jobs. A situation of high workload might in turn be seen as incompatible with parenthood – in the sense of an anticipation of *competition for time and energy* after the birth of a child. Moreover, already at present the high workload might negatively impact the likelihood of childbirth by putting strain on the partnership through a reduced amount of time for joint activities and housework (see Chapter 7). What is more, temporary employment often cannot be reconciled with childcare-related employment breaks: In both Germany and Australia, the job guarantee during parental leave often does not apply to fixed-term contract workers, temporary agency workers and casuals.

Besides the structural interference of temporary employment with fulfilling the family role stemming from the competition for time and energy, partnership quality can also be negatively affected by temporary employment through *negative mood spillover* (Hughes et al. 1992). One of the specific strains possibly causing mood spillover is job insecurity: As Friedman et al. (1994) have argued in their Uncertainty Reduction Theory of Parenthood, people generally strive for certainty and experience states of uncertainty as unpleasant. Job insecurity might result in stress and tension spilling over to the private life and negatively affect the partnership. Another strain connected to temporary forms of employment can be a lack of social integration and appreciation at the workplace due to the role as outsiders or newcomers. This has been shown for agency workers in Germany but is even more plausible for Australia, where agency workers are often hired on a casual contract, lacking social ties to the host company as well as to the temporary employment agency.

Casual workers can also be assumed to have a particularly low level of social integration due to the usually short-lived nature of their employment relation. Furthermore, temporary workers are subject to a higher degree of mobility requirements and frequently changing working conditions due to changing workplaces. As people generally strive for security, social integration and stability, negative mood spillover is likely to occur for both the male and the female partner. However, against the background of the modified male breadwinner model, it can be expected to be most relevant for men who are more strongly confronted with the expectation of developing successful employment careers in order to be able to nurture their families. Furthermore, strain and stress caused by temporary work can *cross over* to the other partner and negatively affect the partner's well-being. Both spillover and crossover of work-related stress can be expected to increase relationship conflicts and thus have negative effects on partnership quality and stability.

The aforementioned arguments point to a negative effect of temporal insecurity on first childbirth for both countries on the grounds of a reduced capacity for long-term planning, structural interference due to the competition for time and energy and negative mood spillover and crossover. However, one contradicting argument can frequently be found in the literature: From a theory of action perspective, employees might try to *compensate for a dissatisfying situation* in the work sphere by seeking higher satisfaction in the family sphere (Edwards and Rothbard 2000; Lambert 1990). Thus, employees experiencing temporal insecurity could react to this situation by getting more involved in family life and speeding up childbearing. As mentioned above, people generally wish to reduce uncertainty. If certainty cannot be reached via a secure employment career, they might be more likely to start a family in order to gain certainty (Friedman et al. 1994). Similarly, a lack of satisfaction or success in the work sphere can lead individuals to seek these aspects in the family sphere (Tölke and Diewald 2003a). Adding a gender role perspective, it has frequently (e.g. Kurz et al. 2005; Schmitt 2012a) been argued on the grounds of the male breadwinner model that the strategy of compensation applies mainly to women: They are the primary caregivers and have the role as homemaker and mother as an alternative to the worker role available to them (Offe and Hinrichs 1977). In contrast, opting out of the labour market for the benefit of a family career is not socially accepted for men under the traditional gender regime. In both countries, the compensation strategy is supported by policies favouring homemakers, such as taxation regulations. Nevertheless, in the modified male breadwinner model, the compensation strategy becomes less plausible for women. Most women (want to) re-enter the labour market as children grow older so that a secure job to return to can be expected to have increasing importance to them. Moreover, as Oppenheimer (1994) has pointed out, the focus on a single earner can be a risky strategy as the family is not shielded against unemployment or income losses of the male partner. The economic risks of a loss

of the breadwinner are particularly high in countries like Australia, where social benefits are relatively low and means-tested.

In sum, the arguments taken from different theories unanimously suggest a negative effect of temporal insecurity for men through reduced long-term career and income perspectives, increased competition for time and energy and negative mood spillover and crossover. For women, the picture is not as clear: While competition for time and energy is even more important for them in their role as main caregivers, they might also react to employment insecurity in a compensatory way by withdrawing from the labour market and speeding up family formation. However, in times when most women return to the labour market after a period of parental leave and single-earner households are exposed to high economic risks, the assumption of a compensation strategy for women is not fully convincing. Therefore, also for women a negative effect of temporal insecurity on first childbirth is expected in this study. In a cross-country comparison, the arguments point to similar directions of effects in Germany and Australia, albeit the long-term career consequences of temporary employment can be expected to be more pronounced in Germany due to the particularly strong protection of permanent jobs. However, Germany's more generous social security system might render the income situation and perspectives less important than in Australia. In conclusion, the following hypotheses concerning the effects of objective and subjective temporal insecurity in the two countries are formulated:

H3a-c: In both Germany and Australia, temporary forms of employment, namely a) fixed-term full-time work b) temporary agency work and c) casual full-time work (in Australia), exert a negative effect on first childbirth for the male and the female partner.

H4a-b: In both Germany and Australia, subjective employment insecurity, namely a) a negative evaluation of one's job security and b) a negative evaluation of one's chances of reemployment, exert a negative effect on first childbirth for the male and the female partner.

6.2.3 Accumulation of Economic and Temporal Insecurity: Unemployment, Fixed-Term Part-time Work and Casual Part-Time Work

Unemployment combines economic insecurity with temporal insecurity and can therefore be regarded as a particularly insecure employment situation: In both Germany and Australia, *unemployment benefits* are considerably lower than labour incomes, albeit the gap to a full-time income is larger in Australia. Moreover, in Australia in general and in Germany after a one-year period, unemployment benefits are lump-sum and means-tested. The low income translates into a high poverty rate of the unemployed in both countries. As discussed in Section 6.2.1, low income should lead couples to postpone or forgo parenthood due to a reduced affordability of children and other

partnership-specific investments, as well as lower partnership quality and stability. One possible advantage of unemployment might be that it provides *more time* for childcare, although this depends on the intensity of the job search. As no employment has to be interrupted or reduced to find time for childcare, there are no *monetary opportunity costs* to children for unemployed persons.

This picture changes, however, when extending the perspective on opportunity costs to *biographical opportunity costs* in the sense of forgone biographical opportunities. Childbearing during unemployment can reduce future employment chances due to less flexibility concerning working time and less regional mobility. Therefore, even though unemployment provides more time resources, it may not be seen as a good opportunity for childbearing due to the irreconcilability of childcare and a re-entry into the labour market. The biographical opportunity costs of childbirth can be expected to be more pronounced in Germany than in Australia: Germany's closed employment system combined with a less favourable economic development for most parts of the 2000s rendered it difficult for many unemployed workers to find their way back into employment. Frequently, unemployment turns into long-term unemployment in Germany. In contrast, Australia's open employment system combined with the good economic development during the 2000s ensured that unemployment could be overcome more easily.

In addition, unemployment puts specific strains on workers, such as insecurity about future employment, financial difficulties, low social integration and reduced self-esteem. The fact that unemployed persons usually do not know how long the period of unemployment will last can be particularly prohibitive for making long-term life plans such as parenthood. Furthermore, the strains connected to unemployment can indirectly affect childbirth through negative mood spillover into the private sphere and crossover of stress to the partner, causing conflicts with the partner and reducing partnership quality and stability. However, as already discussed in Section 6.2.2, such stressful situations might also lead workers, particularly women, to withdraw from the labour market and focus on partnership and children.

Below the line, unemployment can be expected to exert a negative influence on childbearing decisions in both countries due to reduced income, increased biographical opportunity costs, reduced capacity for long-term plans and negative mood spillover as well as crossover. The negative effect should be visible for women as well as for men: While for women as main caregivers the positive relation between reduced monetary opportunity costs and childbirth is more relevant than for men, this also applies to the negative relation of biographical opportunity costs and childbirth.

H5: In both Germany and Australia, unemployment exerts a negative effect on first childbirth for the male and the female partner.

Besides unemployment, we also see a cumulation of economic and temporal insecurity within certain forms of non-standard employment, i.e. fixed-term part-time work and casual part-time work. These forms of employment come with a temporary employment contract and a comparatively low and (in the case of casuals) possibly unreliable income. Combining the arguments discussed in the previous sections, these two forms of employment can be expected to exert a negative effect on first childbirth for both genders.

H6a-b: In both Germany and Australia, forms of employment connected to both economic and temporal insecurity, such as a) fixed-term part-time work and b) casual part-time work (in Australia), exert a negative effect on first childbirth for the male and the female partner.

6.3 Data and Methods

This section provides a brief overview of the data and the applied methods (Section 6.3.1), the variables used in the analysis (Section 6.3.2) and the analytical strategy (Section 6.3.3). More details on the construction of the datasets, the key variables and the methods are found in Chapter 4.

6.3.1 Data, Sample and Methods

The data used in the following analysis stem from two nationally representative household panel studies, the German Socio-Economic Panel Study (SOEP) and the Household, Income and Labour Dynamics in Australia (HILDA) Survey. At the time of the investigation, 30 waves of data were available for the SOEP (1984-2013) and 13 waves for HILDA (2001-2013). However, the questions about temporary agency work and minijobs were taken up in the SOEP only in 2001. This fact and the aim of utmost comparability led to the decision to take the years 2001-2013 as the period of observation for both countries.[145] However, for the construction of partnership and fertility histories of the German respondents, data from all SOEP waves were used.

The samples were constructed according to the same criteria as described in Chapter 5: They consist of initially childless couples in joint households, i.e. nonmarital cohabitations and marriages. Furthermore, the female partners are aged up to 45 years (due to the end of the fertile period), and the male partners up to 60 years. All in all, the samples comprise 1,745 Australian couples and 1,539 German couples.[146] During the observation period, 41% of the Australian couples had their first child (719 births), compared to 36% of the German couples (549 births). Moreover, 15% of the

[145] The investigation of the effects of employment insecurity on first childbirth across the whole SOEP period is the focus of Chapter 5.

[146] Although overall the SOEP has a larger sample than HILDA (around 21,000 compared to 17,500 respondents in 2012), the HILDA sample used in this analysis is larger due to the fact that it was possible to establish partnership duration for more couples in HILDA than in the SOEP (see Chapter 4).

Australian couples separated (255 dissolutions), compared to 20% of the German couples (311 dissolutions).

The research questions are addressed using discrete-time event history analysis. As the focus of the analysis is on couples, partnership dissolution has to be considered as an alternative outcome to first childbirth. Couples drop out of the sample at the point of separation, and it is assumed that they are no longer at risk of first childbirth. Therefore, competing risks models in the form of multinomial logistic regressions are applied that simultaneously estimate the risk of first childbirth and of partnership dissolution. The German and the Australian samples are investigated in separate yet very similar models. Data for the analysis are unweighted; however, the multivariate models control for the oversampling of certain groups in the SOEP, such as East Germans and migrants.

6.3.2 Variables

6.3.2.1 Dependent Variable

The dependent variable is an event variable indicating either the birth of the first child (for the female partner) [147] or the dissolution of the partnership within the next year. In order to get as close as possible to the point in time when the couple decided to have a child, the birth of the child was backdated by nine months, therefore measuring, strictly speaking, the incidence of a pregnancy. This is necessary to avoid reverse causation, as the employment status during pregnancy might already be influenced by the knowledge about the arrival of the child. In contrast, a couple is considered as separated if either one of the partners moves out of the joint household or at least one of the partners reports a separation and/or reports to be single, even though the former partners might still live in the same household.

6.3.2.2 Key Independent Variables

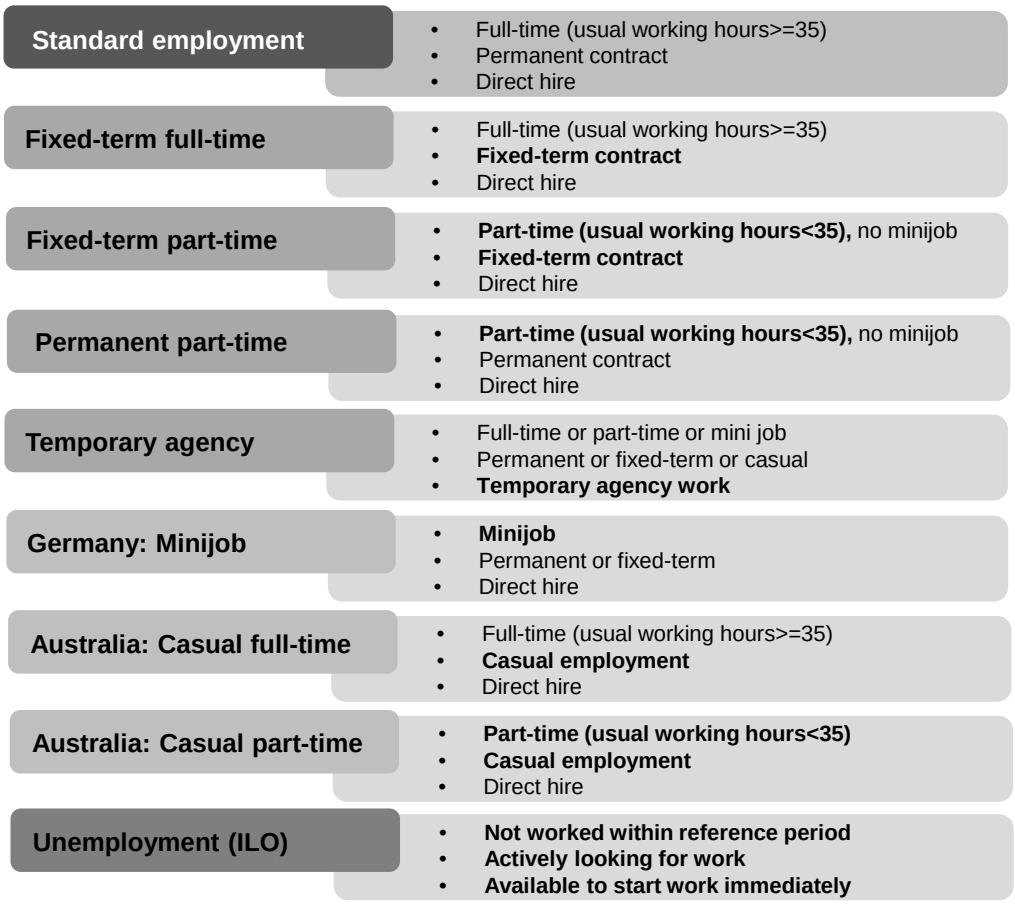
The central independent variables are different objective and subjective measures of employment insecurity, and their operationalisation is described in the following.

[147] The reason for the exclusive focus on women's fertility histories is explained in Chapter 4.

Objective Measures of Employment Insecurity

Regarding objective measures, the chapter looks at different forms of non-standard employment as well as unemployment. While part-time work and minijobs comprise high economic insecurity due to the low income connected to them, fixed-term, temporary agency and casual work are connected to high temporal insecurity due to an increased risk of job loss. In fixed-term part-time work, casual part-time work and unemployment, the two forms of insecurity cumulate.

Figure 6.1: Operationalisation of non-standard employment and unemployment



Note: Characteristics departing from the standard employment relationship are in bold letters.

Among the different employment situations, the reference category in the analysis is the *standard employment relationship*, designating direct-hire, full-time employment on a permanent contract (see Figure 6.1).[148] From this group, employees on fixed-term contracts and part-time workers are distinguished. These characteristics are combined to *fixed-term full-time, fixed-term part-time* and *permanent part-time work*. The fifth group are *temporary agency workers*. As this group is quite small in both countries, all employees self-rating themselves as temporary agency workers are put into this category. While the aforementioned categories are constructed similarly in Germany and

[148] In case a worker has several jobs, the classification of the form of employment refers to the main job.

Australia, for both there is a sixth, nation-specific employment category, the *minijobbers* in Germany and the *casual workers* in Australia. The two forms of employment are identified on the basis of self-classification. All minijobbers and casuals are grouped in the respective category except for those who are at the same time temporary agency workers. Casual workers are furthermore divided according to full-time and part-time working hours, while minijobbers are by definition part-time.[149]

Besides non-standard employment, the analysis also focuses on *unemployment* as another situation of employment insecurity. By default, SOEP and HILDA use two different concepts of unemployment: While in the SOEP the main concept is the registered unemployment, HILDA bases its definition of unemployment on the concept used by the Australian Bureau of Statistics (ABS 2013b), which in turns follows the International Labour Organisation (ILO) (Thirteenth International Conference of Labour Statisticians 1982). Following conventions in international comparison, in this chapter unemployment is measured according to the ILO definition, meaning that persons are counted as unemployed if they have not worked within the past week, are actively looking for work and are available to start work straight away. In order to render the two datasets comparable, the SOEP respondents are reclassified according to the ILO concept.

Several additional employment statuses are identified: The category *self-employed* includes self-employed persons[150] as well as unpaid family workers. Persons are classified as *in education* if they are attending school, university or vocational training.[151] Finally, persons are classified as *inactive* if they are neither employed nor unemployed according to ILO criteria and not in education.

Subjective Measures of Insecurity

Regarding subjective measures of employment insecurity, the evaluation of job security as well as the perceived chances of finding a job as good as the current one are taken into account.[152] Information on the *evaluation of job security* is collected in different ways in SOEP and HILDA (see Table 6.1): SOEP respondents are asked about their concern in this area on a verbal scale from “very

[149] In both datasets, some employees could not be grouped successfully into one of the above categories as they gave incomplete or inconclusive information. In the SOEP, the number of these respondents was considerable, which is why a category “employed but missing details” was added. In HILDA, the number of cases with missing information was very small, which led to the exclusion of these cases from the analysis.

[150] Employees of their own businesses, who have a separate category in HILDA, are classified as self-employed in this study.

[151] Due to differences regarding the way information on educational participation is collected in SOEP and HILDA, the category *in education* comprises slightly different groups: The category derived from the SOEP comprises all respondents in apprenticeships and all respondents who state they are not employed (but may have a side job) and at the same time are in education. The category based on HILDA comprises all full-time students plus all non-working part-time students. In both samples, respondents who are unemployed and in education at the same time are counted as unemployed.

[152] Manski (2004:17) suggests a “composite measure of job insecurity” which combines the likelihood of job loss and the likelihood of finding a job as good as the current one into one single measure. Therefore, in a preliminary analysis, the information from the SOEP on concern about job security and chances of finding a job as good as the current one was combined into one ordinal measure. As this measure did not have a significant impact on first childbirth, findings from separate analyses of these items are presented.

concerned" to "not at all concerned". In contrast, HILDA respondents are asked about their satisfaction with this issue on an 11-point scale. In order to render HILDA and SOEP more comparable, the 11-point scale from HILDA is aggregated to three categories, with 0 to 4 designating "low satisfaction", 5 to 8 "medium satisfaction" and 9 to 10 "high satisfaction". This unequal bandwidth of the categories is chosen on the grounds that Australians tend to be very satisfied with their job security, with around half of the sample rating it with 9 or 10 points (see Section 6.4.1).

Table 6.1: Measurement of subjective employment insecurity in SOEP and HILDA

Indicator	Germany (SOEP)	Australia (HILDA)
Job security	How concerned are you about the following issues? – Your job security Answers: (1) Very concerned, (2) Somewhat concerned, (3) Not at all concerned	(…) Please pick a number between 0 and 10 to indicate how satisfied or dissatisfied you are with the following aspect of your job (…) – Your job security Answers: Scale from 0 (totally dissatisfied) to 10 (totally satisfied)
Chances of reemployment	If you lost your job today, would it be easy, difficult, or almost impossible for you to find a new job that is at least as good as your current one? Answers: (1) Easy, (2) Difficult, (3) Almost impossible	If you were to lose your job during the next 12 months, what is the per cent chance that the job you eventually find and accept would be at least as good as your current job, in terms of wages and benefits? Answers: Scale from 0% (i.e., no chance) to 100% (i.e., absolute certainty) ( )% Would not seek another job ( )

Source: DIW Berlin/SOEP (2013) and MIAESR (2014).

There are also some differences concerning the questions on the *evaluation of the chances of reemployment*: The time frame is different, as the SOEP asks respondents about losing the job today, while HILDA asks them to imagine losing a job during the next 12 months. In HILDA people are asked to rate their chances of finding and accepting the job, while in the SOEP finding the job is sufficient. Moreover, HILDA is more precise about what is meant by "as good as your current job" by defining it in terms of wages and benefits, while in the SOEP the definition of what a good job is, is left entirely to the respondent. Again, the answer scales differ considerably, with HILDA asking about a percentage, while the SOEP uses a three-category verbal scale. Again, for more comparability the 101-point scale of the HILDA question is aggregated to three categories, with 0 to 24% designating "almost impossible", 25 to 74% "difficult" and 75 to 100% "easy".[153] The chances of reemployment are only analysed for employees, as in HILDA self-employed respondents did not receive this question.

[153] The number of respondents in this sample who state they would not seek another job is extremely low (four women and six men). These cases were omitted.

6.3.2.3 Further Variables

Besides the employment situation, several other variables are included in the models that reflect individual and couple characteristics which have been shown to be relevant for fertility decisions (e.g. Boll et al. 2013; Heard and Arunachalam 2015). In order to ensure comparability with Chapter 5 of this thesis, the range of characteristics included is very similar:[154] Among the *individual characteristics*, age, educational level, country of birth, health and income are considered. The *couple-level characteristics* comprise partnership duration, region and prior children of the male partner.

Individual Characteristics

- *Age:* The potential parents' ages, particularly that of the female partner, are among the key determinants of fertility. Statistics generally show an inverted u-shaped, or "bell-shaped", relation of age with first childbirth (see for example ABS 2014; BiB 2015). In order to accommodate this relation, age is inserted in a quadratic specification.
- *Educational level:* This characteristic not only signifies a certain income potential – and therefore the opportunity costs of childcare – but also certain values and ideas which might affect the likelihood of parenthood (Kreyenfeld and Konietzka 2008). In order to render educational levels comparable across the two countries, the levels are coded according to the ISCED 1997 classification and then summarised more broadly to "low education" (ISCED 0-2), "medium education" (ISCED 3-4) and "high education" (ISCED 5-6).
- *Country of origin:* The country of origin should be included in the analysis, as studies show that migrants often exhibit a different fertility pattern to the native population as they bring the family values of their origin culture to the new country (e.g. Heard and Arunachalam 2015; Milewski 2010). Both Australia and Germany have a considerable share of foreign-born inhabitants: In Germany, the first-generation migrants make up 13.4% of the population and in Australia even 28% (ABS 2016b; StBA 2015c). The exact country of birth of the respondents is available in both datasets. However, the construction of meaningful and comparable categories is difficult, as the origin countries are very diverse *within* and *between* the samples: In the Australian sample, there are women and men from more than 50 countries of origin, and by far the biggest share of observations is contributed by migrants from the United Kingdom, followed by those from New Zealand. The third most observations are from migrants from the Philippines

[154] The list of covariates is almost identical with the exception that religiousness is missing in the models of this chapter. This is due to the fact that in HILDA, the top-up sample of 2011 had not yet received the question on religiousness until wave 2013. The inclusion of this characteristic in the models would thus have meant the exclusion of the complete top-up sample from the analysis.

(women) and South Africa (men).[155] In the German sample, the migrants stem from more than 30 countries. Observations from Turkey and Poland are most frequent, followed by the former Yugoslavia (women) and Russia (men).[156] In order to utilise the rich information on the country of origin while at the same time ensuring comparability between Germany and Australia, the countries are classified according to their total fertility rate (TFR) at the start of the observation period in 2001[157] (The World Bank 2016). For Australia, the analysis distinguishes between "low-fertility countries" (TFR of 1.5 and less), "medium-fertility countries" (TFR between 1.6 and 2.0) and "high-fertility countries" (TFR of 2.1 and more). As in the German sample the number of migrants is not as large as in the Australian sample (see Section 6.4.1), medium- and high-fertility countries are combined.

- *Health:* The state of health is controlled for in order to ensure that this characteristic does not act as a third variable influencing the employment situation and fertility at the same time. As explained in Chapter 3, health and employment mutually influence each other in that certain employment situations, e.g. temporary agency work and unemployment, can negatively affect workers' health, but at the same time bad health conditions might negatively affect a person's employment situation. Bad health can in turn put a strain on partnership quality and on one's ability to give birth to or care for a child. For the Australian models, satisfaction with health is included as a metric variable ranging from 0 (totally dissatisfied) to 10 (totally satisfied). For the German models, the self-defined health status is used, [158] which has an ordinal scale ranging from 1 (very good) to 5 (bad). The five original categories are combined to "(very) good", "satisfactory" and "poor/bad".

[155] In Australian official statistics as well as empirical research, the countries of origin are often dichotomised to "Main English Speaking Countries (MESC)" versus "Non-English Speaking Countries (Non-ESC)". MESC comprise Canada, Ireland, New Zealand, South Africa, the United Kingdom and the United States of America. While this classification might be predictive for example of problems on the labour market resulting from a possible language barrier, it is meaningless when it comes to describing fertility behaviour: Under the label Non-ESC, migrants from low-fertility countries such as Germany or China are combined with those from high-fertility countries such as Eritrea or India.

[156] This is partly a consequence of the sampling of migrant groups in the Sample B "Foreigners in the FRG" at the initiation of the SOEP in 1984. This sample covered persons in private households with a Turkish, Greek, Yugoslavian, Spanish or Italian household head. Compared to the native population in the original Sample A, the migrant population in Sample B was oversampled in order to enable stand-alone analyses of this population (Haisken-DeNew and Frick 2005).

[157] The strategy of assigning every respondent the TFR of the same year was chosen for practical reasons. Theoretical alternatives would have been to assign them the fertility rate of the year they migrated to Germany/Australia or the year they turned a certain age. Yet it is very doubtful that reliable data on the TFR of every single origin country in every year dating back several decades would have been obtainable.

[158] As in HILDA, satisfaction with health is usually asked on a yearly basis in the SOEP as well. However, it is not available for large parts of Sample J in 2011 and for Sample K in 2012. In contrast, the self-defined health status ("How would you describe your current health?") is available for all samples during the observation period.

- *Income:* A final step of the analysis includes the level of income to test whether this characteristic explains part of the effects of employment insecurity**.** This factor was considered by inserting a measure of gross labour income.[159] There are, however, some differences regarding the two datasets. For HILDA, the current gross wages and salary from all jobs is given as *weekly* income in A$, while in the SOEP the current gross income (from the main job and the side job) is given as *monthly* income in €. However, because separate analyses are conducted for the two samples, this difference does not affect the estimation results. Income values are deflated using the national consumer price indices (Australian Taxation Office 2016; StBA 2014b), the base years being very similar – 2011-12 in Australia and 2010 in Germany. For better readability, the values are furthermore divided by 100.

Couple Characteristics

- *Partnership duration:* A central independent variable is the duration of the partnership, which serves as the risk period in the event history analysis. Partnership duration has been shown to be a very strong predictor of first childbirth (Klein 2003). In order to accommodate the fact that the risk of first childbirth rises steeply during the first few years of partnerships and then slowly declines, the duration is modelled via a linear and a logarithmised term. The duration is measured from the time of moving in together.
- *Region of residence:* This characteristic is considered for both countries but in different ways: For Australia, regional differences are accounted for by the 2011 Remoteness Area (Australian Standard Geographical Classification - Remoteness Area (ASGC-RA)). Remoteness Areas measure the access to goods and services. The country is divided into Major Cities of Australia, Inner Regional Australia, Outer Regional Australia, Remote Australia and Very Remote Australia. As mentioned in Chapter 4, people from Very Remote Australia were not part of the initial HILDA sample but they could become included in the survey if a respondent moved into one of these areas. Remoteness Area was chosen because previous studies have shown a relation between this characteristic and fertility (Heard and Arunachalam 2015).[160] Due to low case numbers, Outer Regional, Remote and Very Remote Australia are grouped together to form the category "Outer Regional/(Very) Remote". In Germany, previous studies have found large fertility differences between East and West Germany, which still have not converged decades after reunification (see Chapter 2). It would be interesting to analyse East and West Germans in separate

[159] Both SOEP and HILDA provide generated income variables where missing values have been imputed. These variables were used in this analysis.

[160] Heard and Arunachalam (2015) find a clear link between remoteness and fertility in the sense that the more remote the area, the higher the fertility: While women in Major Cities had a Completed Fertility Rate (CFR) of 1.9 in 2011, women in Very Remote Australia had a CFR of 2.5.

models; however, the sample size is not sufficient.[161] Therefore, a dummy variable is inserted in the analysis which indicates couples living in East Germany.

- *Prior fatherhood:* As the question whether a couple is childless or has their first child is judged with respect to the female partner's birth history, prior children of the male partner are controlled for in the models. The analysis distinguishes between "no prior children", "resident children" and "non-resident children".

6.3.3 Analytical Strategy

The analysis in this chapter consists of two steps: Firstly, the prevalence of objective and subjective indicators for employment insecurity in the German and the Australian samples is investigated descriptively. Secondly, an event history analysis of the risk of first childbirth is conducted. This step consists of the estimation of the hazard and survival rates for German and Australian couples and the multivariate discrete-time event history analysis of the effects of employment insecurity on the risk of first childbirth.

The risk of first childbirth is investigated in separate models for the female and the male partner.[162] The covariates are inserted stepwise into the models: In a first step, only the indicators for employment insecurity and partnership duration as the risk period are included (Base Model). In a second step, sociodemographic characteristics are added (Socdem Model). This accommodates the fact that effects found in the Base Model could be due to different structural compositions of workers in different employment situations regarding age, educational attainment, country of origin, etc. In a final step, income is added to investigate whether the level of income explains part of the effect of insecure employment situations (Full Model). The sample size is kept the same in all three models in order to be able to compare the coefficients between the models. In the results section, the coefficients from the Socdem Models (including all sociodemographic characteristics but excluding the mediator variable income) are presented. The results for the Base Models and Full Models can be found in the Appendix.

As a sensitivity check, the analysis was repeated by means of a random effects event history model to account for possible unobserved heterogeneity. There was no evidence of a notable amount of unobserved heterogeneity in the data and the results remained substantially the same. Therefore, the results from the conventional event history analysis are presented.

[161] However, separate analyses for the effects of employment insecurity in East and West Germany can be found in Chapter 5, which is based on almost the whole SOEP period (1985-2013) and thus on a larger sample.

[162] As a sensitivity check, both partners' characteristics were also analysed simultaneously in the same model to investigate whether the effects of a person's employment situation change when controlling for the characteristics of the respective partner. The results changed only marginally and are thus not reported.

6.4 Results

The following sections contain the results of the statistical analysis. Firstly (Section 6.4.1), descriptive analyses regarding the forms of employment, the division of labour and subjective measures of employment insecurity in Germany and Australia are presented. This is followed by the results of the event history analysis of the risk of first childbirth (Section 6.4.2).

6.4.1 Descriptive Results

Table A 23 in the Appendix gives an overview of the distributions in the German and the Australian samples for all variables included in the subsequent event history analysis.[163] Comparing the socio-demographic characteristics of the two samples, it becomes clear that the German sample is slightly older: The German women are on average 29.5 years, compared to 28.7 years for the Australian women, and German men are 33.0 years compared to 31.4 years for Australian men. Further investigation shows that this difference is mainly due to a higher age of the German respondents at the start of their partnerships. In contrast, average partnership duration in the two samples is similar, with 4.7 years in the German sample and 4.6 years in the Australian sample. Although younger, the Australian sample is more highly educated on the basis of the ISCED classification: Highly educated men and women constitute around half of the Australian sample, while they amount to less than a third of the German sample. In contrast, men and women with a medium educational level account for more than half of the German sample. These differences result from the fact that it is more common for Australians to go to university, while Germany is marked by the dual education system, meaning a larger share of young people take up apprenticeships (see also Chapter 2). In ISCED, apprenticeships are lower ranked than Bachelor's degrees. Another important difference is that the share of foreign-borns is higher in Australia than in Germany: In the Australian sample, 83% are native-born, while in the German sample the share is 92%. The distribution according to partnership type in the two samples is roughly similar: In the German sample, 62% are cohabiting unions, compared to 58% in the Australian sample. Regarding the region, 83% of couples in the German sample live in West Germany. In the Australian sample, most couples (72%) live in Major Cities as opposed to Inner Regional Australia (17%) and more remote areas (12%).

[163] The percentages and averages reported in this section refer to the number of observations in the samples. As couples contribute several observations, the number of couples does not equal the number of observations. Thus, a share of, say, 80% in the sample actually means 80% of observations instead of 80% of couples. For reasons of readability, the shares are still referred to as "x% of men/women/couples" throughout this descriptive section, even though "x% of observations" is always meant.

Concerning the employment status of the couples in the samples, the first thing to be noted is that the vast majority of both men and women are in dependent employment. In the German sample, this applies to 80% of both genders, while in the Australian sample the respective shares are only slightly lower with 79% of women and 78% of men. Also, the prevalence of unemployment is roughly similar: In Germany, 3.9% of women and 4.4% of men are unemployed, compared to 4.1% of Australian women and 3.0% of Australian men (see Appendix Table A 23). Focusing only on dependent employees, Table 6.2 takes a closer look at the prevalence of different forms of employment. It becomes clear that the standard employment relationship is by far the most common form of employment among childless couples in both countries. It is slightly more prevalent in Germany as compared to Australia, however, and for men as compared to women.

Table 6.2: Prevalence of different forms of employment (only dependent employees)

	Germany				Australia			
	Women		Men		Women		Men	
Form of employment	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Standard	2,616	70.2	3,039	82.6	2,693	66.3	3,010	76.8
Fixed-term full-time	387	10.4	332	9.0	429	10.6	345	8.8
Permanent part-time	324	8.7	88	2.4	314	7.7	78	2.0
Fixed-term part-time	132	3.5	39	1.1	58	1.4	15	0.4
Minijob (D)	178	4.8	64	1.7	-	-	-	-
Casual full-time (AU)	-	-	-	-	122	3.0	198	5.1
Casual part-time (AU)	-	-	-	-	323	8.0	141	3.6
Temporary agency	92	2.5	119	3.2	110	2.7	135	3.4
Total	3,729	100	3,681	100	4,049	100	3,922	100

Source: Author's calculations based on SOEP (v.30) and HILDA (release 13) (2001-2013).

Looking at non-standard forms of employment, fixed-term full-time employment is comparatively common among the samples of both countries as well as among both sexes. Permanent part-time employment is much more prevalent among women than among men in both countries. Fixed-term part-time work is very rare, and sample size is especially low for Australian men (15 cases). The results for this group thus have to be interpreted with caution.[164] Temporary agency work is comparatively rare among the two samples as well. The two nation-specific forms of employment, minijobs and casual work, have very different importance: Casual work is the most important form of non-standard employment for Australian women in the sample, and the second most common form for Australian men after fixed-term full-time work. A gender comparison shows that casual

[164] The alternative would have been to combine fixed-term part-time with permanent part-time work. However, this would have concealed the important difference between temporally secure and insecure part-time positions and therefore would not have resulted in a very meaningful category.

work is predominantly full-time for men and part-time for women. In contrast, the number of mini-jobbers in the German sample is small, particularly among men.

Switching from the individual to the couple perspective, Table 6.3 shows the division of labour among couples in the German and the Australian samples and reveals great similarities between the two countries: In both samples, the constellation in which both partners work full-time is by far the most prevalent partnership type with around 61%. This is followed in both countries by the constellation of a female part-time worker and a male full-time worker with around 12%. And the third most frequent type is in both countries the constellation of a non-working female and a full-time working male partner.

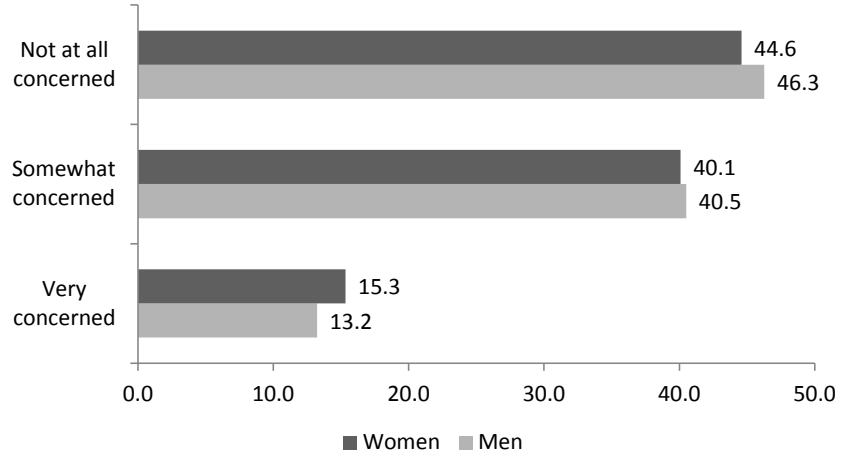
Table 6.3: Division of labour among couples in the samples

	Germany		Australia	
	n	%	n	%
Both full-time	2,763	60.5	3,017	60.7
Female part-time, male full-time	527	11.5	594	12.0
Female full-time, male part-time	101	2.2	166	3.3
Both part-time	88	1.9	101	2.0
Female full-time, male not working	259	5.7	231	4.7
Female part-time, male not working	89	2.0	83	1.7
Female not working, male full-time	468	10.3	525	10.6
Female not working, male part-time	56	1.2	74	1.5
Both not working	214	4.7	181	3.6
Total	4,565	100	4,972	100

Source: Author's calculations based on SOEP (v.30) and HILDA (release 13) (2001-2013).
Notes: Self-employed respondents are assigned to full-time or part-time categories depending on working hours. Not working comprises respondents who are in education, unemployed or inactive.

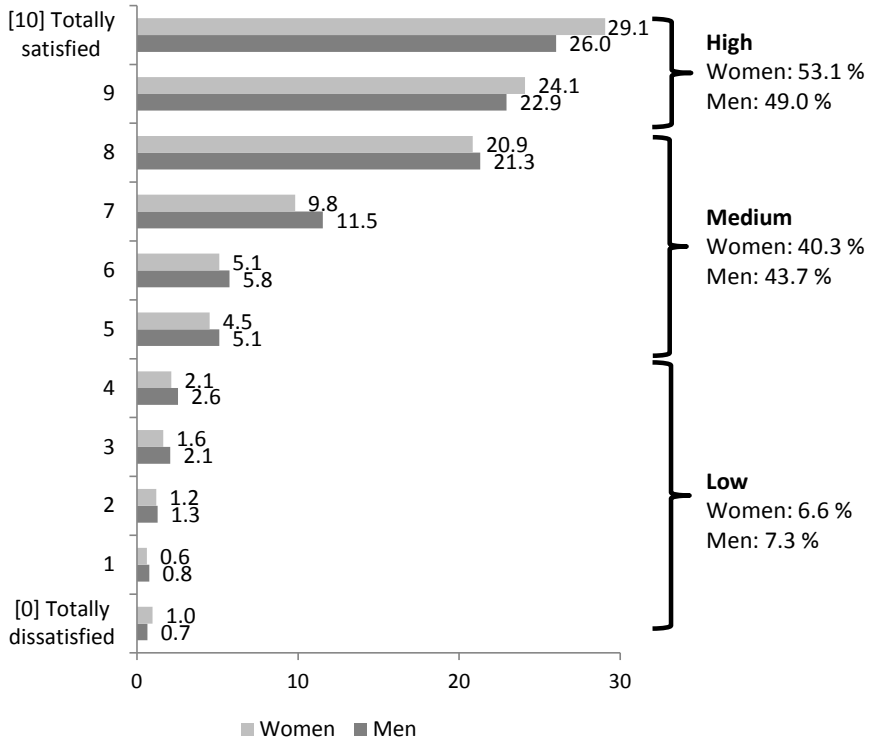
Figure 6.2 and Figure 6.3 show the evaluation of job security among the two samples. In the SOEP, perceived job security is measured as *concern* about job security, while in HILDA it is measured as *satisfaction* with job security. Concern about job security is widespread among German couples. More than 40% of German women and men state that they are somewhat concerned, and another 15% of women and 13% of men are even very concerned about their job security. In contrast, Australian couples are usually quite satisfied with their job security, around half of them rating it with 9 or 10 out of 10 points. Low satisfaction (4 or below) is reported by only around 7%.

Figure 6.2: Concern about job security in the German sample (in %)



Source: Author's calculations based on SOEP (v.30) (2001-2013).

Figure 6.3: Satisfaction with job security in the Australian sample (in %)

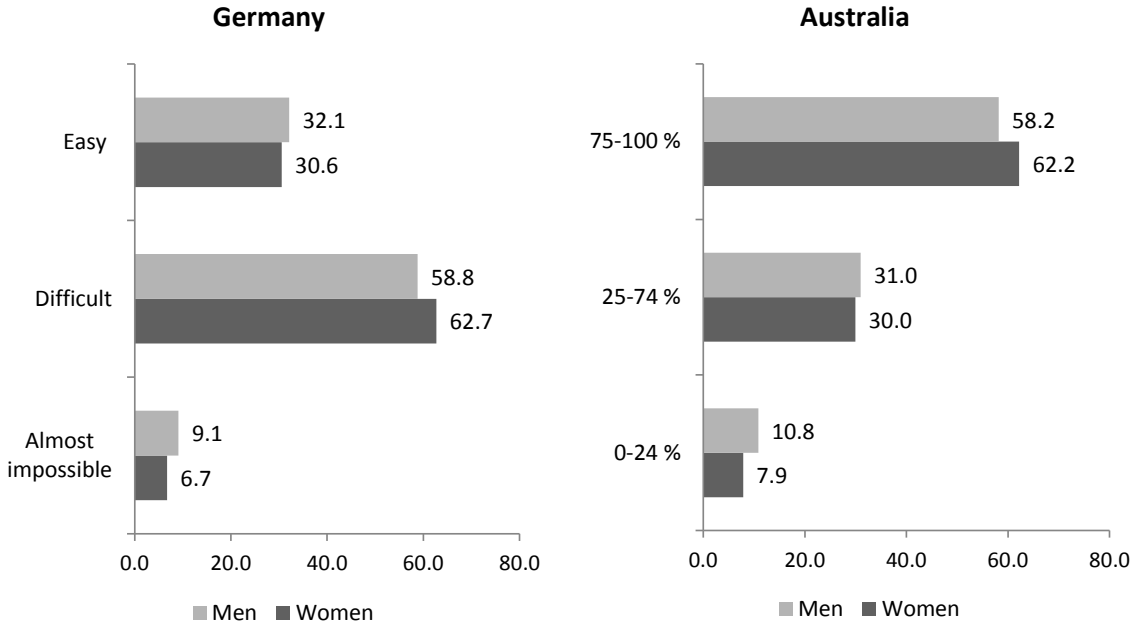


Source: Author's calculations based on HILDA (release 13) (2001-2013).

Figure 6.4 shows the distribution of the second indicator of subjective employment insecurity in the two samples, namely the chances of finding a job as good as the current one in case of job loss. For the Australian sample, the chances are given as a percentage, summarised for the later analysis to 0 to 24%, 25 to 74% and 75 to 100%. For the German sample, the chances are given as three verbal categories ranging from "easy" and "difficult" to "almost impossible". Among the German

sample, expectations seem to be rather negative: The majority of respondents think it will be difficult to find another job as good as the current one, while less than one third expects this to be easy. In contrast, most Australians view their jobs as relatively easily replaceable, with 58% of men and 62% of women rating their chances of finding an equal job at least 75%. Only a small minority thinks their chances are less than 25%. On average, Australian respondents rate their chances of finding another job as good as the current one at 74% (women) and 70% (men). Overall, gender differences are only small in both countries.

Figure 6.4: Chances of finding another job as good as the current one in the samples (in %)



Source: Author's calculations based on SOEP (v.30) and HILDA (release 13) (2001-2013).

Combining the results on subjective employment insecurity with the insights about the employment systems of Germany and Australia from Chapter 2, the differences regarding the perceived job security and the perceived chances of reemployment could firstly be due to the better performance of the Australian economy during most of the period under study. Secondly, the perceived higher chances of finding an equal job could be the result of the generally higher volatility of jobs in Australia compared to Germany. The link between educational qualifications and occupational positions is comparatively loose, meaning Australian workers less often match their jobs ideally in terms of qualifications and skills. Therefore, they should find it easier to get a job of similar quality. Owing to the dual educational system, educational qualifications and occupational positions are closely linked in Germany. This can be expected to result in a good match between employee and job and at the same time renders finding a job of similar quality more difficult.

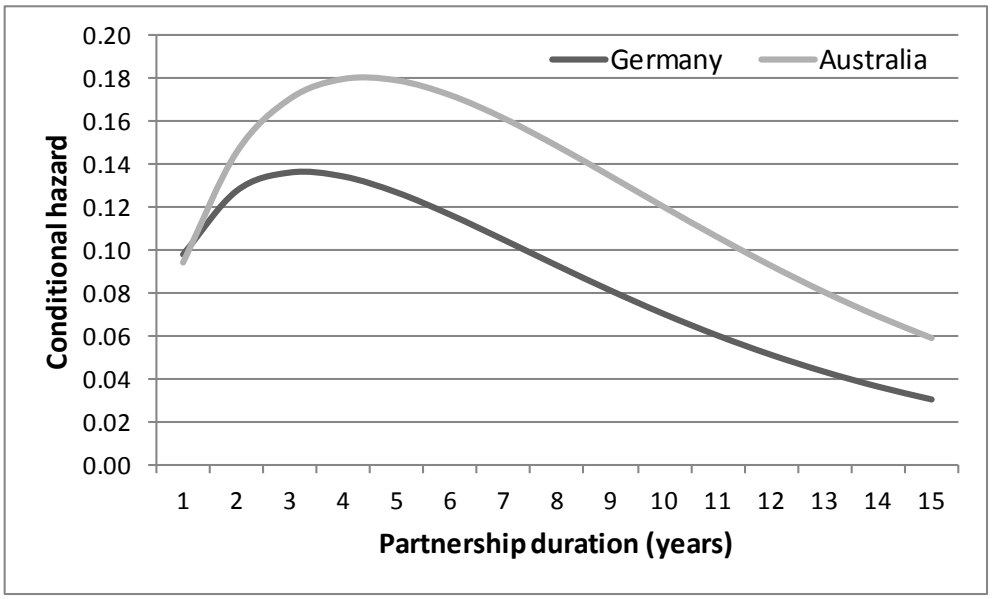
6.4.2 Event History Analysis of First Childbirth

This section presents the results of the event history analysis of the birth of a first child. A first step lies in the description of the hazard and survival rates in the two countries under study (Section 6.4.2.1). This is followed by the results from the multivariate analysis regarding the effect of employment insecurity on first childbirth (Section 6.4.2.2).

6.4.2.1 Hazard and Survival Rates in Germany and Australia

Figure 6.5 shows the timing of the first child for couples in Australia and Germany depending on partnership duration.[165] The line shows the estimated hazard rate,[166] meaning the conditional probability of a first birth occurring at a time point, given that it has not yet occurred. It becomes clear that in both countries, the risk of childbirth rises within the first years of partnership duration and then decreases until around year 15, after which no children are born anymore in both samples.[167] However, the conditional hazard of the Australian couples increases more steeply in the beginning and is higher than the hazard of the German couples at all times of partnership duration. This trajectory reflects the generally lower childlessness in the Australian population (see Chapter 2).

Figure 6.5: Hazard rate of first childbirth in Germany and Australia



Source: Author's calculations based on SOEP (v.30) and HILDA (release 13) (2001-2013).

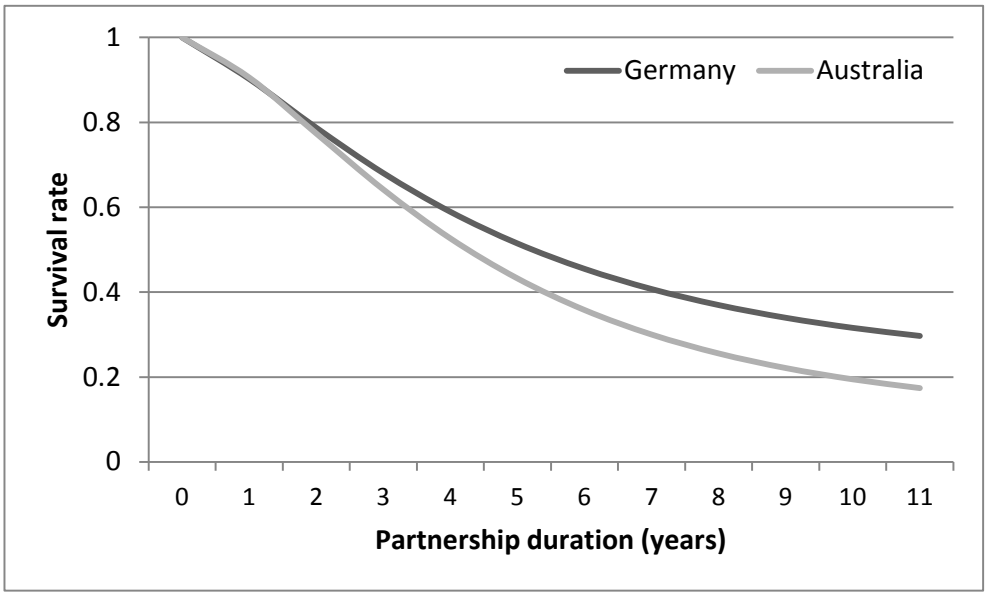
[165] It has to be kept in mind that the birth of the child was backdated by nine months; therefore, the duration actually measures the duration until pregnancy.

[166] The hazard rate of first childbirth was estimated with an event history model which included only partnership duration and the log of partnership duration as independent variables.

[167] With the exception of one first birth after a partnership duration of 24 years in HILDA.

Figure 6.6 shows the survival rates as a result of the hazard rates of all previous points in time. The survival function designates the probability of still being childless after a certain partnership duration. Due to the constantly higher hazard, the share of childless couples decreases faster in Australia than in Germany: After five years of partnership duration, more than half of the couples experienced the birth of a child, while 43% are still childless. In Germany, 51% of the couples remained childless after five years. The differences are even more notable when looking at the end of the observable period of partnership duration: After 11 years of partnership duration, a notably smaller share of Australian couples (17%) remains childless, compared to almost 30% of German couples.

Figure 6.6: Survival rate of first childbirth in Germany and Australia



Source: Author's calculations based on SOEP (v.30) and HILDA (release 13) (2001-2013).

6.4.2.2 Multivariate Discrete-Time Event History Analysis

In the following, the results of the multivariate discrete-time event history analysis regarding the effects of employment insecurity on first childbirth are presented. The results stem from the Socdem Models, meaning the models control for a range of socio-demographic characteristics but not for income. Although competing risks models were estimated to analyse the risks of first childbirth and of partnership dissolution simultaneously, for reasons of brevity, the chapter only presents the results for the risk of childbirth as the event of interest.[168] Moreover, only the coefficients for the key variables, meaning objective and subjective indicators of employment insecurity, are presented. Tables including all coefficients for the risk of first childbirth for all covariates in the

[168] But see Chapter 7 for an analysis of the effects of employment insecurity on the risk of partnership dissolution. Additionally, the results for the risk of partnership dissolution from the current chapter are available from the author upon request.

Base, Socdem and Full Models can be found in the Appendix. The results are presented as hazard ratios.[169]

Objective Measures: Non-standard Employment and Unemployment

Table 6.4 shows the effect of the objective employment situation on first childbirth (the complete models can be found in Appendix Table A 24 and Table A 25). The reference category is the standard employment relationship (full-time, permanent contract, no temporary employment agency), which is contrasted with different forms of non-standard employment and different employment statuses beyond dependent employment.

Table 6.4: Effects of the employment type/status on the risk of first childbirth

	Germany		Australia	
	Women	**Men**	**Women**	**Men**
Standard employment (ref.)	1	1	1	1
Fixed-term full-time	0.79	0.73	0.85	1.17
Permanent part-time	1.14	0.97	1.30	**0.45***
Fixed-term part-time	**0.40****	0.79	0.82	(3.53**)
Casual full-time	-	-	1.17	**1.45***
Casual part-time	-	-	1.00	0.66
Minijob	0.66	1.20	-	-
Temporary agency	**0.45***	1.22	**0.40****	1.26
Self-employed	1.05	0.90	0.92	1.18
In education	**0.48*****	**0.62***	**0.61****	0.86
Unemployed	1.04	1.07	1.19	0.91
Inactive	0.86	1.19	0.95	1.11
n (couple years)	4,867	4,829	5,111	5,030
n (births)	543	537	717	692

Source: Author's calculations based on SOEP (v.30) and HILDA (release 13) (2001-2013).
Notes: Results from discrete-time event history analysis with competing risks. Models also include partnership duration, age, educational level, country of birth, region, prior children and health. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01. Values for cell sizes below 30 cases in brackets.

Comparing the results for German and Australian women, we see many similarities. Focusing on the part-time forms of employment first, a positive effect on first childbirth for women as main caregivers was expected for permanent part-time work (hypothesis 1a) and minijobs (hypothesis 1b) due to the enhanced time budget and lower opportunity costs. In contrast, part-time work that comes with a temporary employment contract (fixed-term part-time and casual part-time) was expected to exert a negative effect on first childbirth for women (hypotheses 6a and b). The results

[169] In the case of metric variables, hazard ratios indicate by what factor the risk of first childbirth changes if the value of the variable increases by one unit. In the case of dummy variables – which constitute the vast majority of variables in the models – hazard ratios indicate by what factor the risk of first childbirth is increased/decreased for cases in this category compared to cases in the reference category. Coefficients higher than 1 indicate a positive effect of the variable on the risk of first childbirth, while coefficients between 0 and 1 indicate a negative effect.

to some extent confirm the expectations: Among the four forms of part-time work considered, permanent part-time work is the only form which has a positive effect on first childbirth, albeit the effect is insignificant. In contrast, fixed-term part-time work exerts a negative effect on first childbirth, which is significant for German women. Contrary to expectations, the specifically German minijob also exerts a negative effect on first childbirth, which is significant in the Base Model (see Appendix Table A 24) but insignificant in the presented model, which controls for sociodemographic characteristics. Furthermore, casual part-time work is not significantly related to first childbirth.

Concerning temporary forms of employment, a negative effect was expected for fixed-term full-time work, temporary agency work and casual full-time work for women on the grounds of uncertain career and income perspectives, difficulties of reconciling the competing demands of work and family and negative mood spillover (hypotheses 3a, b and c). The results overall support this assumption: In both countries, fixed-term full-time employment seems to have a negative effect on first childbirth for women; however, the effect is insignificant. Furthermore, temporary agency work exerts a significant and strong negative effect in both countries. Taking these results together with the mentioned results for fixed-term part-time work, the analysis therefore suggests a negative effect of temporary forms of employment for first motherhood. Yet casual full-time work (like casual part-time work) would not match the picture, as it is positively (but not significantly) related to first childbirth.

For men, the theory suggested a negative effect of part-time forms of employment on the basis of a reduced breadwinning capacity (hypothesis 2a and b). A negative effect was also expected for employment types which are part-time and temporal at the same time, i.e. fixed-term part-time and casual part-time work (hypothesis 6a and b). However, the expectation of a negative effect is confirmed only for permanent part-time work in Australia (which is significant), casual part-time work in Australia (insignificant in this model but significant in the Base Model) and fixed-term part-time work in Germany (insignificant). Contrary to expectation, fixed-term part-time work has a significant, positive effect in Australia, albeit this effect needs to be interpreted very cautiously as it is driven by a very small cell size (15 cases). For minijobs in Germany, there also seems to be a positive, although insignificant effect.

The theory furthermore suggested a negative effect of temporary forms of employment for men for the same reasons just stated for women (hypothesis 3a, b and c). Yet the results are for the most part not in line with this expectation, particularly not for Australia. In fact, the only result in line with the hypothesis is the insignificant negative effect of fixed-term full-time work in Germany. Taken together with the negative effect of fixed-term part-time work, which was already discussed above, this suggests that fixed-term work in general tends to hamper first fatherhood in

Germany.[170] In contrast, the coefficient for fixed-term full time work (and, as discussed, for fixed-term part-time work) for Australia point in the direction of a positive effect on first fatherhood. The same is true for temporary agency work in both countries. Furthermore, full-time casual employment exerts a significant positive effect on first fatherhood.

Regarding other employment statuses, we can see a negative effect of educational participation for both genders in both countries (albeit insignificant for Australian men) – a result that many studies have found before (e.g. Kreyenfeld and Konietzka 2008; Parr and Guest 2011). Contrary to expectation (hypothesis 5), unemployment has no significant effect in either country for either gender. Similarly, economic inactivity does not significantly affect first parenthood.

Subjective Measures: Evaluation of Job Security and Reemployment Chances

The results above for the different forms of employment have demonstrated that objective temporal insecurity negatively affects first motherhood, but they revealed a mixed picture for first fatherhood. In the following, it is investigated whether subjective indicators of temporal insecurity reveal a similar or a different pattern. In hypothesis 4a and b it was hypothesised that subjective temporal insecurity exerts a negative effect on first childbirth for both genders. Table 6.5 shows the results for the first subjective measure, the evaluation of job security (for the complete models see Appendix Table A 26 and Table A 27). For Germany, concern about job security was investigated, and for Australia the satisfaction with job security. The reference category is employees/self-employed persons who are not at all concerned (Germany) or who are highly satisfied with their job security (Australia).

Table 6.5: Effects of the evaluation of job insecurity on the risk of first childbirth

	Germany		Australia	
	Women	**Men**	**Women**	**Men**
Not at all concerned/high satisfaction (ref.)	1	1	1	1
Somewhat concerned/medium satisfaction	**0.81***	1.01	0.94	1.03
Very concerned/low satisfaction	**0.75***	**1.30***	**0.68***	1.22
n (couple years)	4,867	4,829	5,119	5,035
n (births)	543	537	717	692

Source: Author's calculations based on SOEP (v.30) and HILDA (release 13) (2001-2013).
Notes: Results from discrete-time event history analysis with competing risks. Models also include other employment statuses, partnership duration, age, educational level, country of birth, region, prior children and health. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

Starting with women in Germany, it can be seen that women who are somewhat concerned as well as those who are very concerned about their job security have a significantly reduced first birth risk.

[170] Additionally, it was tested whether the effect of men's fixed-term work is significant if fixed-term full-time and fixed-term part-time work are combined into one category to increase cell size. The effect, however, remains insignificant.

In Australia, we see a similar and also significant effect for those women who report low satisfaction with their job security. For men, we see the opposite effect: Those men who have low satisfaction with their job security or are very concerned show an elevated risk of first childbirth, albeit this effect is only significant in Germany.

The results for the second indicator of subjective temporal insecurity – the chances of finding a job as good as the current one – are given in Table 6.6 (the complete models are shown in Appendix Table A 28 and Table A 29). Here, the reference category is dependent employees who rate their chances of finding a job as good as the current one as "easy" (Germany) or as a percentage chance between 75 and 100% (Australia).

Table 6.6: Effect of the chance of finding a job as good as the current one on the risk of first childbirth

	Germany		Australia	
	Women	**Men**	**Women**	**Men**
Easy/75-100% (ref.)	1	1	1	1
Difficult/25-74%	0.92	1.06	0.98	**1.22****
Almost impossible/ 0-24%	**1.45***	1.28	**1.35***	0.76
n (couple years)	4,839	4,789	5,108	5,019
n (births)	541	531	714	690

Source: Author's calculations based on SOEP (v.30) and HILDA (release 13) (2001-2013).
Notes: Results from discrete-time event history analysis with competing risks. Models also include other employment statuses, partnership duration, age, educational level, country of birth, region, prior children and health. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

Looking at women first we find that compared to employees who are optimistic about reemployment, those employees who rate their chances as "almost impossible" or lower than 25% have an elevated risk of childbirth. This effect is significant for both German and Australian women. For German men, we see the same pattern of a positive effect of low chances of finding a similar job, albeit the effect is insignificant. For Australian men, however, there seems to be a non-linear effect of reemployment chances on first childbirth: Rating the chances between 25 and 74% is connected to a significantly increased risk of childbirth, while chances below 25% lead to a reduced risk.

Further Characteristics

So far, the discussion focused only on employment characteristics as determinants of first childbirth. The effects for the other covariates can be seen in the complete version of the models in the Appendix. It becomes evident that many other individual and couple characteristics significantly affect first childbirth apart from the employment situation: Besides partnership duration, already discussed in Section 6.4.2.1, an important determinant of first childbirth is the age of both partners. While the linear age exerts a significant positive effect on first childbirth, the squared age exerts a significant negative effect, which together designates an inverted u-shaped relation between age and first childbirth.

Apart from these two factors, which are very important in both countries, the effects of the other characteristics often differ between Germany and Australia. While in Germany a high educational level of either partner is significantly and positively related to first childbirth, this is not the case in Australia. This might be explained by the close connection between educational attainment and occupational positions in Germany, entailing that a person's educational level is a strong determinant of long-term labour market success (see Chapter 2). In contrast, in Australia's less vocationally specific educational system and open labour market, the educational level has less effect on future labour market chances.

In Germany, foreign-born persons generally have a higher fertility than natives; however, the effect is only significant for women from low-fertility countries and for men from medium-/high-fertility countries. In Australia, there is only a significant, positive effect for women from medium-fertility countries. Regarding the region of residence, East German couples have a significantly higher risk of first childbirth than West German couples. This matches the lower childlessness in the East German population (see Chapter 2) and the results from the East-West comparison in Chapter 5. In Australia, the results hint at a positive effect of Inner Regional areas, which however is small and insignificant.[171] Taken together, these results highlight the important role of the culturally dominant fertility patterns of a person's origin country or region for childbearing in Germany.

The health status does not have a significant effect in Germany, while satisfaction with health exerts a significant positive effect for both partners in Australia, which is stronger for the male partner. This result might be traced back to the fact that in Australia, as a wage earners' welfare state, the (physical and mental) ability to work more strongly determines a person's economic future than

[171] This result does not seem at first sight to match that of Heard and Arunachalam (2015), who find a positive relation between remoteness and fertility in their bivariate analysis. The most plausible explanation is the difference in the fertility measure: While Heard and Arunachalam (2015) focus on completed fertility, this study looks at the risk of *first* childbirth. Taken together the results can thus be interpreted in the way that motherhood is equally likely among (partnered) women in all regions in Australia, while women in more remote areas overall tend to have more children.

in Germany, where social security provisions are more generous and the monetary gap between labour income and social welfare is not as large. Finally, in Germany, neither partner's labour income exerts an influence on first childbirth, while in Australia there is a significant positive influence of the male partner's income on first childbirth. Furthermore, upon inserting income into the model, the negative effect of men's permanent part-time work becomes insignificant in Australia (but remains almost stable regarding effect size). These results suggest that men's ability to take over the breadwinner role is very important in Australia and that the detrimental effect of part-time work is indeed partly (but not completely) due to the related lower income.

6.5 Discussion and Conclusion

The current chapter was concerned with the effects of employment insecurity on first childbirth. In order to investigate the moderating role of the employment system and welfare regime, the chapter focused on a comparison of Germany and Australia. Both countries have seen a considerable increase in non-standard forms of employment over the past decades. These changes are embedded, however, into very different labour market settings, economic developments and welfare regimes: While Germany has a rather closed employment system with a high level of protection for established workers and comparatively difficult labour market chances for newcomers, Australia's open employment system provides lower employment protection for all workers. At the same time, Australia's positive economic development during most parts of the 2000s attenuated the effects of job insecurity by fostering (re)employment. German workers, in comparison, are more strongly shielded from the effects of employment insecurity through the relatively generous system of social security, but at the same time are subject to a high risk of long-term unemployment in case of job loss. In contrast, the two countries are remarkably similar regarding their gender arrangements: In both countries, the modified male breadwinner model is the dominant family model, assigning the role as primary earner to the male partner and the role as primary caregiver and secondary earner to the female partner.

Against this background, the current chapter has investigated whether employment insecurity exerts different effects on the decision for a first child in the two countries. The focus was on two dimensions of employment insecurity, namely economic insecurity, i.e. economically precarious employment positions, and temporal insecurity, i.e. positions connected to job insecurity and/or insecurity about the future employment career. Data from the SOEP Study and the HILDA Survey for the period 2001-2013 were analysed by means of event history analysis. The chapter contributes to the literature by providing the first study on the topic for Australia and by considering a broader range of indicators of economic and temporal insecurity than previous studies for Germany. While

the bulk of previous studies have focused on European and North American countries, the investigation of Australia was particularly promising in the light of the high prevalence of casual work – a unique form of employment connected to particularly high job insecurity and comparatively low earnings. The chapter furthermore moved beyond past studies by considering more strongly the partnership context in which fertility decisions are made.

On the whole, the results point to many commonalities rather than differences between the two countries regarding the effect of employment insecurity on first parenthood. Starting out with women, a positive effect of part-time work was expected on the basis of the enhanced time budget for care work. Although both countries provide a legal entitlement to part-time work, this might not always be enforceable in practice, and therefore women should be keen to attain such a position before the birth of a child. In fact, in Australia, the right to part-time work was only established in 2009 and therefore did not apply throughout most of the observation period. The expectation of a positive effect, however, could only be confirmed for *permanent* part-time work, which – out of all the analysed part-time forms – was the only form exhibiting a positive effect on first childbirth. This result suggests that it is not simply the reduced working hours which matter for childbearing but that these have to come as a package with a job guarantee so that women can be sure to be able to return to this position after parental leave. Yet the effect of permanent part-time work is only statistically significant in Australia (and only when controlling for income). This can be explained by the fact that in this country, permanent part-time work was a particularly privileged form of employment for mothers as many women seeking to combine work and family used to end up in casual part-time work, presumably for lack of permanent part-time positions (Pocock 2003).

Regarding forms of employment connected to temporal insecurity, i.e. fixed-term, temporary agency and casual work, the theory, building upon the traditional male breadwinner model, predicts a positive effect on first childbirth for the female partner in the form of a compensation strategy. Contrary to this traditional gender-specific reasoning, in this study it was assumed that temporal insecurity exerts a negative effect on first childbirth for women: Under the prevailing modified male breadwinner model, it was expected that women would want to prepare for a smooth reentry into the labour market and therefore aim at a permanent employment position before childbirth. In line with this expectation, the analysis revealed a negative effect of fixed-term part-time work and temporary agency work for women in both countries. Furthermore, fixed-term full-time work exerts an (insignificant) negative effect on childbearing. These results defy the traditional assumption of a compensation strategy of women and support the idea that Australian and German women seek a secure permanent position before childbirth in order to prepare for a smooth return to the labour market after parental leave. However, casual work does not fit this picture as the

analysis showed an (insignificant) positive effect of casual full-time work on first motherhood. It might be that these jobs are particularly often "dead-end jobs" with low career opportunities. Women in casual work seem to indeed pursue a compensation strategy by focusing more on the family and speeding up childbearing.

The interpretation that women (usually) put emphasis on permanent employment to prepare for re-entry into the labour market is also backed by the results for the subjective evaluation of job security: Women with a low job security satisfaction and those who are somewhat or very concerned about their job security postpone first childbirth. They wait with motherhood until they have a secure job that they can return to after parental leave.

A rather stunning result is the fact that women who are pessimistic about finding a job as good as the current one show an elevated risk of childbirth in both countries. Interpreting this variable as the perception of one's labour market chances, short "employability", would mean that those women who see themselves as hardly employable are the ones who decide for children. This interpretation is not fully convincing, as it would be irrational for these women to risk their current job by exiting the labour market for childbirth (at least for the majority of women who plan to re-enter the labour market after childbirth). The risk of job loss after childbirth is particularly high in Australia where the job guarantee during parental leave holds for only one year in contrast to three years in Germany. An alternative explanation could be that reverse causation is at work here: Women who already intend to have children might be aware of the fact that having a child could reduce their employability, because it lowers the flexibility regarding working hours, regional mobility, etc. A third and possibly more convincing explanation relates to the fact that there is a different way of reading the question on "finding a job at least as good as the current one". This question might not primarily measure employability but rather the quality of the current employment: Considering it difficult to find a job as good as the current one possibly means that the current job is exceptionally good and therefore hardly replaceable. This might not only be related to a good wage but also to benefits like good conditions for the combination of work and family, such as support with childcare or home office. The central role of the employer for a functioning combination of work and family has been shown in various studies for Germany (e.g. Dilger, Gerlach and Schneider 2007; Gerlach and Schneider 2012), and is also crucial in Australia where the conditions for combining work and family are largely subject to negotiations with the employer. For example, until the introduction of the state-funded parental leave scheme in 2011, paid maternity leave was available in Australia only as a benefit granted by the employers (see Chapter 2). A high satisfaction with the present employer, including the belief that the employer has an understanding for family duties, therefore seems to lead women to decide for a child in this situation.

Unemployment was expected to defer childbearing for women due to the low income and the large biographical opportunity costs connected to childbearing in times of unemployment. However, the analysis did not reveal a significant effect of women's unemployment. A possible explanation might be that different groups of women react differently to this situation. Some women, particularly the work-oriented ones, will postpone childbearing and try to get back into the labour market quickly, while others will choose to withdraw from the labour market and focus on care work. These two opposing effects might cancel each other out so that unemployment as a whole does not seem to affect childbearing. It is up to future research to investigate the interplay between work orientation and unemployment in their fertility effects on coupled women.

For men, the theory predicted a negative effect of economic as well as temporal insecurity on first childbirth as they are expected to take over the role as (main) providers after childbirth. However, the results concerning indicators of economic insecurity reveal some differences between Australian and German men. In Germany, contrary to expectation, neither permanent part-time work nor minijobs seem to notably affect first childbirth.[172] For fixed-term part-time work, there is a small negative, yet insignificant effect. In contrast, in Australia, there are negative effects of permanent part-time work as well as casual part-time work (albeit the latter is not statistically significant). The Australian results are thus more in line with the assumption that men postpone childbirth in times of economic insecurity, which suggests a greater importance of the male partner as primary earner for childbearing decisions in Australia than in Germany.

Regarding temporal insecurity, contrary to expectation, none of the temporary forms of employment exert a significant negative effect on first fatherhood in either country, albeit there are negative (insignificant) effects of fixed-term work in Germany. What is more, casual full-time work exerts a significant positive effect on first fatherhood. As already discussed in Chapter 5, a possible explanation is that a permanent contract might not be very important for men as most men stay in employment continuously around the time of childbirth and thus do not need to be concerned with reinstatement rights after parental leave. Furthermore, they might not worry about the temporary nature of their job if they are confident that their contract will be renewed or (in the case of casual workers) that their employer will keep hiring them. This can be expected to have been particularly the case in Australia, as unemployment was very low during the observation period. The positive

[172] The attentive reader will find that the analysis in Chapter 5 did indeed reveal a significant negative effect of permanent part-time work for men in Germany over the period 1985-2013. This effect, however, was only significant in West Germany and most pronounced in the early cohorts of partnership formation. The difference to the current analysis can thus be explained by the facts that a) West and East Germany are analysed together in this chapter and b) the focus is on the recent years since 2001, which excludes large parts of the early cohorts. One could interpret the results such that the breadwinning responsibilities of the male partner have attenuated over time in (West) Germany, while in Australia they are still as strong as they used to be a few decades ago in West Germany.

effect of men's casual full-time work might therefore suggest that young, healthy workers, who value cash payments more than paid leave entitlements, might be able to profit from the pay loading connected to casual work to build up an economic foundation for parenthood.

Similarly to the temporary forms of employment, the subjective indicators also provided no evidence of a detrimental effect of temporal insecurity on first fatherhood. On the contrary, the analysis revealed a positive effect of low job security satisfaction or high concern about job security. As already discussed in Chapter 5, where a similar result was found for men in West and (to a lesser degree) in East Germany, this counterintuitive result might be explained by reverse causation: Those men who are planning to have a child with their partner might become less satisfied or more concerned about their job security as their demand for job security rises in anticipation of becoming a father and taking over the breadwinner role.

The effects of the perceived chances of finding a similar job for men differ slightly between the two countries: For German men we see a pattern similar to that of women, i.e. that men who find their jobs impossible to replace have the highest risk of first childbirth. As in the case of women, this could be due to the fact that the variable measures more the quality of the present job than the employability of the worker. Men, as the primary earners, may think of a "good job" primarily in terms of wages and monetary benefits; however, they could also refer to the employers' understanding for men who wish to be involved fathers. Even though fathers are legally entitled to parental leave as much as mothers, studies show that men often encounter obstacles at their workplace if they want to reduce their working hours or take leave to care for their children (Gesterkamp 2005; Whitehouse, Diamond and Baird 2007). Those men who wish to take up an involved father role might therefore be more likely to realise their childbearing intentions if they feel they have an understanding employer who will give them sufficient time for their children without any career disadvantages. In Australia, however, there seems to be a nonlinear effect of the chances of reemployment: Those who rate their chances of finding a similar job between 25 and 74% have the highest risk of childbirth, while those who view their jobs as hardly replaceable have the lowest risk. One can only speculate about the reasons for this non-linear relationship. It might be that Australian men who rate their chances of finding a similar job very low are particularly anxious to keep the job they have. Therefore, they might show high commitment to the job, leaving neither time nor energy to invest in partnership and family.

Contrary to the expectation, men's unemployment does not notably affect first childbirth in Germany or in Australia. For Australia, this might be explained by the short average duration of unemployment: The good economic conditions and related to this the high employment chances

during the observation period may have led couples to ignore the short-lived incidence of unemployment in their family planning. Against the background of a high risk of long-term unemployment in Germany, this explanation does not hold here, however. Yet the results are backed by similar findings in the analysis of couples in East and West Germany over a longer period of observation in Chapter 5 and by previous studies which also did not find significant effects of the male partner's unemployment on women's fertility in Germany (e.g. Brose 2008; Kreyenfeld 2005; Kreyenfeld and Konietzka 2005; Schmitt 2008b, 2012b). In contrast, some studies focusing on *all men* – partnered or not – found significant negative fertility effects of unemployment (e.g. Kurz et al. 2005). Taken together, these results suggest that for men, unemployment impairs the likelihood of finding a partner and cohabiting, but once a joint household with a partner is established, unemployment is less of an obstacle to childbearing.

The current chapter has extended the state of research by investigating the effects of employment insecurity on first childbirth in a comparative perspective for Germany and Australia. Prior studies have already shown similarities between the two countries regarding the effects of insecure forms of employment on the occupational and economic situation as well as the health of employees (see Chapter 3). This study now demonstrates that insecure employment also affects fertility in both Germany and Australia. Albeit different regarding welfare regime, employment system and economy, the conditions at hand in Germany and Australia act together to produce similar outcomes for couples: a great importance of women's secure employment conditions for fertility decisions.

Chapter 7 The Effects of Non-Standard Employment on Partnership Dissolution in Germany

7.1 Background and State of Research

Since the Golden Age of Marriage in the 1960s, Germany has seen more than a tripling of the divorce rate (Peuckert 2012:308). Against the background of the severe consequences of divorce, e.g. for the economic situation of lone mothers or the well-being of the former partners and their children (summarising: Amato 2010; Arránz Becker 2015), the question about what factors contribute to destabilising partnerships has moved into the focus of scientific interest. A central element in explanations of partnership dissolution is the division of labour between the partners and the connected employment and income arrangements. In the face of a rising participation of women in employment in combination with the traditional norm of the male breadwinner model, the possibly negative effect of "*women's employment*" and their income has been the subject of past theoretical and empirical work on marital stability (e.g. Böttcher 2006; Hartmann and Beck 1999; Hill and Kopp 1994; Levinger 1965). Studies for Germany show that, compared to non-employment, wives' employment is indeed associated with a higher risk of divorce; however, there is a wide range of potential explanations (summarising: Angelis 2003). For men, in contrast, *unemployment* was assumed to have a destabilising effect on partnerships, as men are expected to be the providers in their families. This assumption is also backed by the existing empirical studies, which find a (stronger) positive effect of men's unemployment on partnership dissolution (Cooke and Gash 2010; Franzese and Rapp 2013; Kraft 2001).

While a range of studies has thus been concerned with the dualism of employment vs. non- or unemployment, what has been less considered is the question whether it is not employment per se but the character and quality of employment that exerts an influence on partnership stability. This aspect is the focus of the present chapter[173] by investigating the effect of non-standard forms of employment on partnership dissolution. The marked increase of fixed-term contracts, part-time work, minijobs and temporary agency work during the past decades (see Chapter 2) raises the question whether these forms of employment improve the situation of couples, e.g. by facilitating the combination of work and family, or whether they put specific strains on partnerships that might lead to their destabilisation. As the detailed discussion of the characteristics of different forms of employment in Chapter 3 has clarified, non-standard employment is a mixed blessing: On the one

[173] Part of the analyses in this chapter were conducted by the author in the framework of the project "Atypische Beschäftigung und zentrale Lebensbereiche" of the Forschungszentrum Familienbewusste Personalpolitik, University of Münster, funded by the Hans-Böckler-Stiftung.

hand, all forms of non-standard employment are associated with increased "risks of precariousness" (Keller and Seifert 2011) compared to standard employment. For example, they are connected to a lower (and potentially insufficient) income, a lower integration into the system of social security and (partly) lower employment stability or higher job insecurity. These disadvantages regarding employment and finances can negatively influence the private lives of the employees and reduce the quality of their partnerships. On the other hand, some types of non-standard employment provide employees with more time resources that can be invested in private relationships and housework.

Some of the existing studies provide insights about the effects of single forms of non-standard employment. Evidence on the effect of part-time work on partnership dissolution is mixed: Cooke and Gash (2010), for example, investigate the effect of wives' part-time employment on the risk of dissolution in West Germany using SOEP data. They find a significant negative effect of part-time work on the risk of dissolution compared to inactive wives. Böttcher (2006) investigates the effect of part-time and full-time employment on women's divorce risk using the Family and Fertility Survey (1992). In contrast to Cooke and Gash (2010), the study finds a positive effect of both forms of employment on the divorce risk compared to non-employment for both East and West Germany; however, only the effect of full-time employment is statistically significant. The study by Lois (2008) on the basis of SOEP data in turn cannot find any significant effect of women's part-time work on the dissolution risk, neither in cohabiting unions nor in marriages, while controlling for work orientation and income. In addition to providing inconclusive evidence on the effect of women's part-time employment on partnership dissolution, another shortcoming is the fact that none of the studies has investigated men's part-time employment. Moreover, in the face of the historically strong role of the male breadwinner model, the studies chose inactivity of the female partner as the reference category for the analysis rather than full-time employment. It is therefore not possible to make direct conclusions about the difference of the effects of full- and part-time employment on partnership dissolution.

The only study for Germany looking at women's and men's part-time work and at the same time using full-time employment as reference category is the study by Böhm, Diewald and Körnert (2010) on the basis of the Microzensus and a BiBB/IAB survey. They find that, compared to full-time employment of 35-43 hours, a low number of working hours has a positive effect on partnership stability for both genders. However, among men long working hours between 44 and 54 hours per week also show a positive effect on partnership stability. Böhm et al.'s (2010) study is also one of the few to investigate other forms of non-standard employment, concretely fixed-term contracts.

For both genders they find a significant, positive effect of a fixed-term contract on partnership dissolution. However, Böhm et al. (2010) use a pooled cross-sectional logistic regression to analyse the risk of dissolution. The present study applies event history analysis, a method which is more appropriate for the research question, as it takes into account the timing of the event occurrence (see Chapter 4).

What is more, the existing dissolution studies have not covered the full range of non-standard forms of employment: No study has yet differentiated between regular part-time work and mini-jobs or between permanent part-time work and fixed-term part-time work. Furthermore, no quantitative study has yet investigated the effect of temporary agency work. The inclusion of this form of employment seems promising, however, as qualitative studies such as Dörre et al. (2004) point to an increased risk of dissolution as a possible consequence of temporary agency work: They stress that particularly young agency workers hope that their job will act as a bridge into standard employment and therefore put much effort into their jobs in order to become part of the permanent staff. According to the study, this high engagement in the job comes at the expense of less time for private relationships and can result in partnership dissolution and even in "unrelatedness" (*Beziehungslosigkeit*) (Dörre et al. 2004:389). Another qualitative study by Niehaus (2012) points out that the high job insecurity, low income and lack of social approval which usually go along with temporary agency work negatively affect partnership quality and the realisation of long-term partnership goals, such as getting married, building a home or having a child.

Another shortcoming of the current state of research is the fact that the knowledge about the processes of dissolution of nonmarital cohabiting unions is still rudimentary (Lois 2008). Between 1972 and 2010 the number of cohabiting unions in West Germany has increased 14-fold, from 137,000 to 1.9 million households. Their share of all couples has risen to 14% in Germany as a whole, and close to one third (31%) of cohabiting unions have children living with them (Peuckert 2012:101). However, the majority of studies concerned with the effect of employment on partnership dissolution (e.g. Böttcher 2006; Franzese and Rapp 2013; Kraft 2001; Schmitt and Trappe 2010) focus exclusively on marriages; others do not differentiate by partnership type (Böhm et al. 2010; Kley 2012). Studies that investigate marriages and cohabiting unions separately are rare in the German context (with the exception of Lois 2008). However, as discussed in Section 7.2, it is important to distinguish those two forms of partnerships when investigating processes of partnership dissolution. The present study accommodates this fact by undertaking comparative analyses for cohabiting unions and marriages.

Moreover, more attention needs to be paid to the constellation of both partners' employment situation. Theoretical approaches to partnership dissolution, like New Home Economics (Becker,

Landes and Michael 1977), argue on the basis of a certain division of labour within the couple, not on the grounds of the employment situations of isolated individuals. In order to accommodate this, it is necessary to look at both partners' employment situations simultaneously. Böhm et al. (2010) provide evidence that constellations in which the female partner works at least as much as the male partner exert a positive influence on partnership dissolution compared to more traditional arrangements. Schmitt and Trappe (2010) show that this result needs to be differentiated by region due to the different gender arrangements and economic conditions in East and West Germany: They find an increased dissolution risk for marriages with an egalitarian division of labour compared to traditional male breadwinning marriages in the Western part of Germany, while in the Eastern states the dissolution risk seems to be highest among traditional marriages. Both studies only look at combinations of full-time, part-time and non-employment and do not consider constellations of other forms of non-standard employment. The present study extends the analysis of employment constellations by looking at more differentiated combinations. Moreover, the available studies do not provide evidence on the effects of employment constellations within cohabiting couples compared to marriages, which are also investigated in this chapter.

Besides investigating the effects of non-standard employment on partnership dissolution, this chapter also attempts to identify some of the mechanisms behind these effects. Theoretically, it can be assumed that non-standard forms of employment affect partnership stability because they are connected to certain benefits and disadvantages affecting partnership quality or the dependence on the partner. The major benefit of part-time work and minijobs is that they provide more time for private activities. On the downside, this is usually connected to lower income. Fixed-term contracts and temporary agency work, in turn, often go along with job insecurity, concerns about the economic situation and regional mobility (see Chapter 3). This chapter investigates whether the effects of non-standard employment are mediated by these factors. Moreover, the chapter analyses to what extent the effects of non-standard employment on dissolution are mediated by partnership quality. As a direct measure of partnership quality is unavailable in the SOEP, this question is addressed by analysing the effects of non-standard employment on the risk of partnership conflicts. Summing up, the chapter addresses the following research questions:

- How do different forms of non-standard employment affect the risk of partnership dissolution for the male and the female partner?
- How do different constellations of standard and non-standard employment within the couple affect the risk of partnership dissolution?
- Does the effect of non-standard employment and employment constellations on dissolution differ between cohabiting unions and marriages?

- To what extent is the effect of non-standard employment on dissolution mediated by employment characteristics, i.e. earnings, job insecurity, economic concerns and regional mobility?
- How do different forms of non-standard employment affect the risk of partnership conflicts?

These questions are investigated using event history data from the Socio-Economic Panel Study for the period 2001-2013. The rest of the chapter is structured as follows: In a first part (Section 7.2), arguments from different theoretical approaches are combined to formulate hypotheses concerning the effects of non-standard employment on partnership dissolution. This is followed by the empirical part of the chapter: Section 7.3 describes the sample and the methods, while Section 7.4 presents the results of the analysis. Firstly, a multivariate analysis of the relation between non-standard employment and partnership conflicts is presented. Secondly, results of an event history analysis of the risk of partnership dissolution are discussed. The chapter closes with a summary and some concluding remarks (Section 7.5).

7.2 Theoretical Considerations and Hypotheses

In the following, arguments from different economic and sociological theories are discussed in order to make predictions on the effects of non-standard employment on the risk of partnership dissolution. The most influential theories on partnership dissolution, i.e. New Home Economics (Becker et al. 1977; Becker 1981) and Social Exchange Theory (e.g. Lewis and Spanier 1979), assign very different weights to the couple's employment situation. In New Home Economics, the crucial determinant of marital stability is the gain from the partnership, which is significantly influenced by the couple's income. In this respect, the gain is highest if the partner with the larger income potential focuses completely on gainful employment, while the other focuses on homemaking. Employment is therefore primarily relevant for partnership stability in its role of delivering labour income: A low income acts to destabilise partnerships. The role of the *quality* of employment for partnership dissolution, however, is not the focus of New Home Economics.

In the Social Exchange Theory, the main determinant of partnership stability is marital quality, which is defined "as a subjective evaluation of a married couple's relationship. (…) High marital quality, therefore, is associated with good judgement, adequate communication, a high level of happiness, integration, and a high degree of satisfaction with the relationship" (Lewis and Spanier 1979:269). Although the concept of marital quality is similar to the gains from marriage in New Home Economics, Social Exchange Theory does not assign income a similarly crucial role for marital quality. In contrast, income and other employment-related aspects are among a large range of determinants, including premarital factors, social and economic factors as well as interpersonal and dyadic factors. In the framework of Social Exchange Theory, employment affects on the one hand

the socio-economic adequacy of the family, namely through the occupational status of the husband, the stability of the spouse's economic resources and roles, and through the family income. On the other hand, both partners' satisfaction with the wife's employment is important for marital quality. The emphasis of the satisfaction with the wife's employment points to the fact that qualitative aspects of the employment, e.g. the question whether the job is taken due to personal choice or for reasons of economic necessity, are also of relevance for partnership quality. However, Lewis and Spanier (1979) hardly go into details about which employment characteristics should lead to high satisfaction. Moreover, within this framework, satisfaction is relevant only with regard to the female's employment. All in all, the predictive power of New Home Economics and the Social Exchange Theory regarding the effects of non-standard employment on partnership dissolution is limited. These approaches are therefore supplemented in the following theory sections with arguments from other theories and studies.

The theoretical approach in this chapter differs in one important aspect from the majority of theories and studies in the field: Guided by the traditional male breadwinner model, most studies concerned with the effect of women's employment on the dissolution risk chose non-employment as the reference category for hypothesis building. In other words, the effects of different employment situations *compared to non-employment* were addressed. For men, most attention was paid to the effect of *unemployment compared to employment*. In contrast, in this chapter hypothesis building is conducted in respect to the standard employment relationship, meaning that the effect of different forms of employment is *compared to standard employment*. This is justified on the grounds that the impetus for the investigation is the expansion of non-standard employment at the expense of the standard employment relationship in recent decades – not the increase in women's employment participation or the rise in men's unemployment. Explicit theory on the effects of non-standard employment compared to standard employment on partnership dissolution is unavailable; however, arguments are transferred from existing theories to fill this gap.

The effects of non-standard employment on partnership dissolution can be expected to vary with the specific form of employment. Therefore, arguments from different dissolution theories are combined with the specific characteristics and effects of each form of employment as described in Chapter 3.[174] As part-time work and minijobs share the characteristic of reduced working hours and income, the two are discussed together (Section 7.2.1). Thereafter, fixed-term contract work and temporary agency work, two temporary forms of employment with a rather high level of job inse-

[174] As the specific characteristics of non-standard forms of employment, such as income, job mobility, job security or location of workplace, are explained in detail and with extensive references to the respective empirical studies in Chapter 3, no specific studies are cited directly in this chapter with regard to these aspects.

curity, are discussed (Section 7.2.2). Differentiated hypotheses regarding gender and type of partnership are formulated. Changing from the perspective of the individual form of employment to a stronger couple focus, it can be expected that the effect of one partner's employment situation varies with the other's employment situation. Therefore, hypotheses regarding the effects of certain employment constellations are also developed (Section 7.2.3). Furthermore, the theoretical discussion below highlights that non-standard employment can be expected to indirectly affect partnership quality and stability via specific employment characteristics such as working time, commuting, income, job insecurity and economic insecurity. Therefore, a last set of hypotheses is formulated regarding the role of these job characteristics as mediators between the form of employment and partnership dissolution (Section 7.2.4).

7.2.1 Part-Time Employment and Minijobs

According to New Home Economics (Becker et al. 1977; Becker 1981), the stability of a partnership depends strongly on the gain the couple receives from the partnership. In this context, a specialised division of labour – in which the partner with the higher human capital focuses on gainful employment and the other partner on homemaking – maximises the gain from the partnership. However, as Hill and Kopp (1990) stress, this specialisation argument is only valid if the household requires the working power of a whole person. During the past decades, several developments – among them the reduction in the number of children, the mechanisation of the household and the increasing availability of market goods and services – have considerably decreased the time necessary for housework. Therefore, a complete specialisation of one partner on housework may in many cases be unnecessary, and an employment with reduced working hours such as minijobs or part-time employment might provide sufficient time for housework while at the same time generating additional income for the family.

Moreover, the (partly) specialised division of labour can be seen as a relationship-specific investment which strengthens partnership stability as it renders the partners more dependent on each other. According to bargaining theory (Ott 1992), this is especially true for the partner who specialises on homemaking: This person misses out on the accumulation of human capital, faces a reduction of his or her income potential and becomes economically dependent on the partner. What is more, the investments the person makes in family and household are relationship-specific and usually cannot be transferred to a new relationship (England and Farkas 1986:55). This reduces the alternative attractions to the current partnership for this person. Compared to standard employment, part-time work and especially minijobs usually do not provide a living wage and are connected to less training opportunities. Furthermore, the transition rate to standard employment is

low. These forms of employment therefore render individuals financially dependent on their partners' income in the short and in the long term. This not only prevents the part-time working/minijobbing partner from dissolving the partnership; it also discourages the other (presumably full-time working) partner from separation due to the social stigma attached to deserting a financially dependent family (England and Farkas 1986:65).[175] Moreover, the full-time working partner is to some degree dependent on the housework and family work that the other partner accomplishes, although some of these tasks could be substituted by market services (England and Farkas 1986:56). Nevertheless, the partner focusing on employment is less dependent on the relationship because they have mainly made "relationship-transferable" investments in their earnings capacity that can easily be transferred from one partnership to the next (England and Farkas 1986:56).

Further arguments stem from Social Exchange Theory. As mentioned, in this framework partnership stability is mainly determined by partnership quality. In this connection, gainful employment can reduce partnership quality via what Greenstein (1990:661) has termed "the absence effect": Employment is usually connected to spending a considerable part of the day away from home, reducing the time available for housework, which can lead to increased stress or marital dissatisfaction and result in separation. Compared to standard employment, the absence effect of part-time work and minijobs will be smaller: Part-time work and particularly minijobs provide employees with more time for housework due to shorter working hours and less commuting time, resulting from the fact that they are more often located near the home. This reduces the likelihood of conflicts over the division of housework between the partners, increases the quality of the housework and reduces the risk of a double burden from employment and housework. Moreover, short working hours ceteris paribus provide employees with more leisure time to spend with their partners and families, which increases the interaction between the partners and thereby raises partnership quality (Hartmann and Beck 1999).

Besides the *financial* dependency already mentioned, Hartmann and Beck (1999) stress another determinant of partnership stability: The *emotional* dependency on the partner and the partnership. Employed persons have more opportunities for social contacts and therefore rely emotionally less on their partners. They might even get to know potential alternative partners at their workplaces. Moreover, employed persons gather part of their identity from their work role, in contrast to non-working partners who form their identity from the role of homemaker and parent. Compared to standard employment, employment types with very low working hours provide less

[175] The German welfare system guarantees everyone subsistence after a divorce, and family law usually obliges the partner with the higher earnings to pay maintenance. Nevertheless, the high poverty rates of divorced persons in general and lone mothers in particular (Geißler 2014:237) demonstrate that there are considerable economic risks attached to divorce, especially for the partner who had specialised in homemaking and did not fully participate in employment.

opportunities to make new acquaintances at work and to build an identity as a worker instead of homemaker and parent. Therefore, particularly minijobs should strengthen the emotional dependency on the partner and the partnership compared to standard employment.

Another argument can be deduced from preference theory. According to Hakim (2000), women can be divided into three groups: Firstly family-oriented women, who have the family as their main priority and only pursue gainful employment if they have to financially, secondly adaptive women who want to combine work and family, and thirdly work-oriented women, who have a clear priority on their employment career. Against this background, family-oriented and adaptive persons might deliberately choose jobs with reduced working hours because they provide them with more time for family work (see also the theory sections in Chapters 5 and 6). Family-oriented and adaptive individuals should therefore be overrepresented among the part-time workers and minijobbers. As these groups place a higher value on their family life, they can also be expected to be less prone to separate from their partners.

The aforementioned arguments predict a negative effect of part-time work and especially minijobs on the dissolution risk compared to standard employment. There are a few counter-arguments, however. A higher couple income is perceived to increase the gain from the partnership or the partnership quality (Lewis and Spanier 1979; Ross and Sawhill 1975). It raises the standard of living and increases the possibility to invest in partnership-specific capital like home ownership or a wedding, which in turn strengthens partnership stability (Hill and Kopp 1994). Oppenheimer (1997) even suggests that the joint income of a dual breadwinner family has replaced the income of a sole earner as the social standard. It becomes increasingly difficult for sole-earner families to achieve the same standard of living as dual breadwinner families. Moreover, in times of rising employment instabilities (see Introduction), the employment of both partners and the respective income serves to protect the couple from financial insecurities such as one partner's unemployment or unexpected expenses (Oppenheimer 1997). Economic stress, in contrast, can lead to "relational stress" and thereby destabilise the partnership (Fischer and Liefbroer 2006). Compared to standard employment, part-time work and minijobs are connected to a lower income, which therefore reduces the capacity for partnership-specific investments and increases the likelihood of economic stress and thereby might decrease partnership stability.

In sum, most arguments point to a negative effect of part-time work and particularly minijobs on partnership dissolution compared to standard employment. While the discussion so far was kept gender-neutral, the stated arguments need to be seen against the background of country-specific gender norms. As Cooke and Gash (2010) stress, forms of employment that are not in accordance with social norms can be expected to exert a negative effect on partnership stability. The partners

have certain expectations regarding each other's roles in the relationship, and if one of them does not live up to these expectations, this can result in conflicts and dissolution. In Germany, the modified male breadwinner model, in which the male partner works full-time and the female partner works fewer hours while at the same time cares for household and children, is the dominant family model (see Chapter 2). Therefore, part-time work and minijobs of the female partner are in accordance with gender norms, while men are usually not expected to work in these forms of employment. This means that part-time work and minijobs can be expected to have a negative effect on partnership dissolution for women, while they should exert a positive effect for men.

While this statement can be expected to be valid for the majority of couples (which are generally married), it has to be differentiated by partnership type because gender role expectations and the division of labour differ between cohabiting unions and marriages. While marriages often adhere to a traditional division of labour in the form of the (modified) male breadwinner model, cohabiting unions are usually oriented towards an egalitarian division of housework and gainful employment (Brines and Joyner 1999; Lois 2008): Cohabiting unions can be dissolved more easily than marriages as no legal actions need to be taken. And indeed statistics show that they are more unstable than marriages, partly because they are often regarded as testing periods before marriage (Bumpass, Sweet and Cherlin 1991). Due to this insecurity about the longevity of the relationship, a specialised division of labour comes at a high economic risk for the partner who takes over the housework and family work. As mentioned above, focusing on homemaking creates economic dependency on the partner and lowers the bargaining power in the relationship (Ott 1992). Moreover, gender role attitudes are usually more egalitarian in cohabiting unions than in marriages (Clarkberg, Stolzenberg and Waite 1995). Therefore, a negative effect of part-time work and minijobs of the female partner on the dissolution risk is expected only for marriages, while in cohabiting unions these forms of employment should exert a positive effect for both genders.

Hypothesis 1a-b: In cohabiting unions, a) part-time work and b) minijobs of the female partner exert a positive effect on the risk of partnership dissolution.

Hypothesis 2a-b: In marriages, a) part-time work and b) minijobs of the female partner exert a negative effect on the risk of partnership dissolution.

Hypothesis 3a-b: In both cohabiting unions and marriages, a) part-time work and b) minijobs of the male partner exert a positive effect on the risk of partnership dissolution.

7.2.2 Fixed-Term Contracts and Temporary Agency Work

Like part-time work and minijobs, fixed-term contracts as well as temporary agency work are connected to lower earnings, so the arguments connected to income (economic dependence vs. economic stress) stated in Section 7.2.1 are also valid for these two forms of employment. However, the earnings differential to standard employment is generally smaller, so the effect on partnership stability can also be expected to be weaker. In contrast, fixed-term and temporary agency work have another specific characteristic that can be expected to have a greater impact than the income disadvantage: the temporary nature of the employment. Compared to standard employment, fixed-term contracts and temporary agency work are connected to lower employment stability. Agency workers exhibit particularly short job tenure, often lasting less than three months. Moreover, even under the same labour contract, they experience frequent changes of their employment conditions as they usually move between different host companies.

This temporary nature can lead to a range of strains on workers which can spill over to their partnerships and reduce partnership quality: Particularly temporary agency work, but also fixed-term contracts are connected to higher subjective job insecurity compared to standard employment because the employment can be terminated more easily. As job security is among the most important components of job quality in Germany (Nübling et al. 2015), it is likely that workers are dissatisfied with the temporary nature of their job and seek to find a permanent position or direct employment. Fixed-term contracts and temporary agency work are taken on involuntarily by the overwhelming majority of workers in these positions. The uncertainty about the future that comes with temporary employment is a source of psychological strain and stress for the worker. Strains in the workplace can in turn cause strains in the private sphere via the process of psychological spillover, thereby impeding role performance in private life. Furthermore, stress and strain are transmitted not only intra-individually from one sphere of life to another but also inter-individually from one partner to the other in the form of a crossover process (see Chapter 1). Thus, the partner can also be negatively affected by the uncertainty caused by temporary employment. Moreover, from a temporal perspective, job insecurity inhibits couples from making long-term life decisions and from investing in partnership-specific capital such as getting married or having a child (see also Chapter 5). Furthermore, insecure jobs can be associated with a higher workload, e.g. because the temporary worker hopes to become a permanent worker if they do the job well and show high involvement with the firm. This can reduce the time spent at home to invest in housework and joint leisure activities with the partner and the family and thereby decrease partnership stability. Job security satisfaction was shown to affect partnership quality via the frequency of partnership conflicts and positive conflict behaviour (Berninger et al. 2011). Similarly, Larson et al. (1994) show for

the U.S. that job insecurity stress is associated with family problems and marital dysfunction. What is more, Ahituv and Lerman (2005) show, again for the U.S., that job instability in the sense of job changes has detrimental effects on marital stability.

Moreover, temporary employees are confronted with higher mobility requirements as they move from position to position or – in the case of temporary agency workers – from one host company to the next. Particularly agency workers are often subject to long-distance commuting to work. This reduces the time spent at home, which, as mentioned, can in turn be expected to lower partnership quality. In this connection, Kley (2012) investigates the influence of commuting on partnership stability and shows that long-distance commuting significantly raises the risk of partnership dissolution among women. If the job mobility is connected to moving houses instead of commuting, the couple (and possibly their children) need to adapt to the new environment and build new social networks. As Boyle et al. (2008) find, moving residency more than once – even if it is short-distance – leads to a higher risk of partnership dissolution. Furthermore, temporary agency workers have been shown to work in shifts more often than other workers. In this context, studies for the U.S. demonstrate that working rotating shifts or night shifts can be detrimental for partnership quality and stability (Perry-Jenkins et al. 2007; Presser 2000).

The arguments discussed above suggest a positive effect of fixed-term and temporary agency work on partnership dissolution. There are some counter-arguments, however, which are based on the emotional and/or financial mutual dependence of the partners: Since both forms of employment are connected to greater job mobility, fixed-term and temporary agency workers meet a large number of people – and therefore alternative partners – as they go from one workplace to the next. However, due to their temporary position and possibly lower status compared to permanent and direct-hire workers, their involvement at the workplace can be expected to be lower than in the standard employment relationship and they have less time and incentive to invest in long-term relations with colleagues. Therefore, the emotional dependence on the partnership and the partner can be expected to be higher. It is also possible that in times of insecurity and lack of success in the employment sphere, people turn to their partners as reliable social relations in compensation (Diewald and Eberle 2003). Moreover, Fischer and Liefbroer (2006) argue that in insecure times the relative costs of partnership dissolution, i.e. for paying lawyers or setting up separate households, are perceived as too high so that couples tend to stay together. Although the authors originally applied this argument to insecurities regarding macroeconomic conditions, it might be extended to temporary workers who do not feel economically secure enough to leave their partners even when dissatisfied with the relationship.

Concerning gender differences regarding the effects of fixed-term contracts and temporary agency work on dissolution, the prediction is not as straightforward as with part-time work and minijobs. For men, fixed-term contracts and temporary agency work might signal that they are not fully integrated in the labour market and unable to reliably fulfil their role as breadwinners. This suggests a positive effect of these forms of employment on partnership dissolution for men. The effect should be more pronounced for temporary agency work than for fixed-term employment as the latter has already reached a considerable share of the workforce, especially young workers and academics at universities (see Chapter 2). For women, in turn, the insecurity and reduced income connected to fixed-term contracts and temporary agency work might often be less important to the couple in an economic sense, as women are only expected to contribute a smaller share to the household income. However, the longer absence from the household connected to longer commuting or a higher workload means that the woman cannot invest as much time in housework and care work as she might invest in a standard employment relationship. Due to women's main responsibility for housework and care, longer absences from home can be expected to be less accepted for women than for men. Therefore, it can be expected that fixed-term contracts and temporary agency work exert a positive effect on partnership dissolution for women as well as for men.

Again, differences by type of partnership can be assumed: Cohabiting unions are less institutionalised and easier to dissolve. Therefore, it can be expected that cohabitations are less resistant than marriages regarding strains spilling over from the employment sphere. In troubled times, cohabiting unions will dissolve more easily. Therefore, it is assumed that the negative effect of fixed-term contracts and temporary agency work is particularly pronounced in cohabiting unions.

H4a-b: In both marriages and cohabiting unions, a) fixed-term contracts and b) temporary agency work of the female partner have a positive effect on the risk of partnership dissolution.

H5a-b: In both marriages and cohabiting unions, a) fixed-term contracts and b) temporary agency work of the male partner have a positive effect on the risk of partnership dissolution.

One last issue remains regarding the effect of fixed-term part-time work, as two different characteristics of "non-standardness" accumulate in this form of employment. As a consequence of the assumptions made above on part-time work and fixed-term contracts in general, it can be expected that fixed-term part-time work positively affects the risk of partnership dissolution for both genders in cohabitations and for men in marriages. In the case of married women, a large time budget for partnership activities and housework is juxtaposed by the specific strains stemming from the temporary nature of the employment. It is therefore investigated in an exploratory fashion how women's fixed-term part-time work affects partnership dissolution in marriages.

7.2.3 Employment Constellations within the Couple

Theory suggests that beyond the individual form of employment, the constellation of the employment situations of the two partners exerts an effect on partnership quality and the risk of dissolution. Theoretical approaches on partnership dissolution (Becker et al. 1977; Lewis and Spanier 1979) usually focus on the couple as a joint entity or on two individuals who coordinate the division of labour between each other. With regard to the gain from the partnership/partnership quality and stability, both partners' contributions to the partnership in the form of labour income and housework matter. Moreover, the strains which both partners experience in their work life can spill over to private life and accumulate in the partnership context (see Chapter 1). The theoretical discussion above has made clear that it is especially two aspects of non-standard employment that have a decisive effect on the risk of partnership dissolution: the (lower) number of hours worked and the temporary nature of the employment relationship. Therefore, it is hypothesised that the effects of these employment characteristics on partnership dissolution vary with the employment characteristics of the partner.

7.2.3.1 Working Hours Constellations

Concerning the effects of different constellations of working hours, New Home Economics (Becker 1981) suggests that a specialised division of labour, in which one partner focuses on gainful employment and the other on housework, maximises the gain from marriage. In a similar vein, Lewis and Spanier (1979) stress the importance of role complementarity for marital quality. Yet, as argued above, many households will not require the working power of a whole person. Therefore, a constellation in which one partner works full-time and the other part-time should be particularly supportive for partnership stability. Combining this argument with the gender norm of the modified male breadwinner model, it can be hypothesised that it should be the female partner who works part-time in order to maximise partnership stability. This more traditional assumption is valid only for marriages, however. As partners in cohabiting unions often have more egalitarian gender role attitudes and try to remain economically independent from each other, an equal employment situation should be most supportive for them. Therefore, in cohabiting unions all other constellations (e.g. one partner works part-time or both partners work part-time) should exert a positive effect on partnership dissolution compared to a dual full-time working couple.

H6: In cohabiting unions, the constellation of a full-time working female partner and a full-time working male partner exerts the lowest risk of partnership dissolution.

H7: In marriages, the constellation in which the female partner works part-time/has a minijob and the male partner works full-time exerts the lowest risk of partnership dissolution.

7.2.3.2 Permanency Constellations

As mentioned above (Chapter 3 and Section 7.2.2), temporary employment in the form of a fixed-term contract or temporary agency work is often connected to specific strains, such as job insecurity, job mobility or economic concerns. These strains can negatively affect workers' private lives in the sense of a negative (mood) spillover. Moreover, stress and strain can cross over from one partner to the other. Furthermore, in line with arguments from the theory of cumulative (dis)advantage, if both partners experience strain and stress, these can accumulate in the couple context and have even more detrimental effects on the partnership (see Chapter 1).

Against this background, it can be assumed that if both partners are employed on a temporary basis, the strains connected to this form of employment multiply in the couple context and further decrease partnership quality and stability: If both partners have to commute long distance, their time for interaction is reduced. If both partners feel their jobs are insecure or worry about their economic situation, it is even more difficult to make life plans or to invest in partnership-specific capital. Therefore, it can be argued that the risk of partnership dissolution is highest in a situation in which both partners are employed in a temporary job. This should be true particularly in cohabiting unions as these partnerships are less resilient to strains and conflicts. In contrast, the lowest risk of dissolution should be found for both partnership types among the doubly permanent employed couples: They have the greatest capacity for a reliable organisation of everyday life, making long-term life plans and undertaking investments in partnership-specific capital.

H8: In both cohabiting unions and marriages, the constellation in which both partners are in permanent employment has the lowest risk of partnership dissolution.

7.2.4 Employment Characteristics as Mediators

The theoretical considerations in the previous sections have connected non-standard forms of employment to partnership quality and stability via certain employment characteristics that act as mediating factors, i.e. working hours, income, commuting, job insecurity and economic stress. In this context, the descriptive analysis in Chapter 3 has revealed that part-time work and minijobs are connected to some employment conditions which are assumed to be favourable for partnership quality: They not only go along with comparatively few working hours but are also often located near the place of residence. This maximises the time available for family work and leisure activities with the partner. On the downside, the increased time budget comes at the expense of a reduced income and slightly increased concern about the economic situation. Temporary forms of employment, in turn, exhibit rather unfavourable conditions for partnership quality and stability: Fixed-term full-time and temporary agency work are connected to similar working hours to the standard

employment relationship and are often connected to long-distance commuting and changing workplaces. Due to the temporary nature of their employment contract, fixed-term and temporary agency workers are furthermore often subject to increased concern about their job security and their economic situation. It can be assumed that these factors mediate the relationship between the form of employment and partnership quality or stability. For the statistical analysis this means that the effects of non-standard employment on partnership dissolution should decrease or even disappear if these characteristics are controlled for. Yet, as working hours are by definition an inherent characteristic of certain types of non-standard employment, this factor is not controlled for explicitly in the models.

H9a-d: The effect of non-standard employment on partnership dissolution is mediated by certain employment characteristics, namely a) labour income, b) commuting, c) perceived job security and d) the perceived economic situation.

7.3 Data and Methods

This section provides a brief overview of the data and the applied methods (Section 7.3.1), the variables used in the analysis (Section 7.3.2) and the analytical strategy (Section 7.3.3). More details on the construction of the dataset, the key variables and the methods are found in Chapter 4.

7.3.1 Data, Sample and Methods

Data for the analysis of the effects of non-standard employment on partnership dissolution are taken from the German Socio-Economic Panel Study (SOEP). While the SOEP is a household panel that has been ongoing since 1984, only the waves from 2001 to 2013 can be used for the analysis: The questions about temporary agency work and marginal work/minijobs were included in the questionnaire only from 2001 onwards. The analysis consists of two parts: In a first part, a logistic regression regarding the effect of non-standard employment on arguments and conflicts with the partner is conducted (Section 7.4.1). The basis for this analysis is all *coupled* respondents of working age between 16 and 65 years in wave 2011.

In the second part, the effect of non-standard employment on partnership dissolution is analysed (Section 7.4.2). This analysis draws on data from all waves between 2001 and 2013. The sample consists of respondents living with their partner in the same household, either in a nonmarital cohabitation or in a marriage. Both partners have to be of working age to be included in the analysis. The women in the sample are between 16 and 65 years old, and the men are between 18 and 65 years old. If both partners are already retired before age 65, the couple is excluded. The final analysis sample consists of 11,138 couples, 2,337 cohabiting unions and 8,801 marriages. The share of

dissolving couples is much higher among the cohabiting sample, with 23% (or a total of 547) of cohabitations dissolving during the observation period compared to less than 8% (or a total of 673) of marriages. Moreover, 33% (or 764) of the cohabiting couples get married during the observation period. The risk of partnership dissolution is estimated using the method of discrete-time event history analysis. Cohabiting unions and marriages are analysed in separate models. Putting aside the possibility of the death of one of the partners, cohabiting unions can be left in two ways: either by dissolution or by marriage. Therefore, for cohabiting unions, competing risks models in the form of multinomial logistic regressions are applied that simultaneously estimate the risk of partnership dissolution and getting married (similarly: Lois 2008). For marriages, binary logistic regressions on the risk of dissolution are applied. If cohabiting unions get married, they are treated as a new couple in the marriages sample. Data for the multivariate analysis are unweighted.

7.3.2 Variables

7.3.2.1 Dependent variables

The analysis in this chapter focuses on the effects of non-standard employment on arguments and conflicts with the partner and on the risk of partnership dissolution.

Arguments or Conflicts with the Partner

As mentioned above, the theory suggests that partnership quality is an important predictor of partnership stability. It therefore seems useful to directly investigate the effects of the form of employment on partnership quality. Unfortunately, the SOEP does not comprise a question regarding the evaluation of partnership quality. There is, however, a question on arguments and conflicts within relationships to others in wave 2011. The respondents were asked “With whom do you occasionally have arguments or conflicts that weigh upon you?” They could name between zero and five different persons, among them the “(marital) partner”. From this information a dummy variable is created that has unit value if the respondent mentioned the partner as any of these persons. Using this variable, a cross-sectional logistic regression is conducted on the relationship between the form of employment and the likelihood of reporting arguments with the partner.

Risk of Partnership Dissolution

The event of interest in the event history analysis is the dissolution of the partnership. A partnership is classified as dissolved if one or both partners report a recent separation from the partner. However, the event indicator cannot solely rely on this information because, as discussed in Chapter 4, many separations fail to be reported: Firstly, persons who recently separated from their partners are less likely to participate in the survey. Secondly, those who do participate may not be willing to

mention an unpleasant event such as a dissolution. In order to accommodate this problem, partnership dissolution is also assumed if one of the partners moves out of the household. For cohabiting unions, the event variable has three values: no event, dissolution and marriage. A marriage is assumed if the respondents report that they recently got married. For marriages, the separation of the couple is the only outcome considered. One could also think of investigating the formal divorce instead of the separation as the event of interest for marriages. However, there is usually a considerable time lag between the decision to dissolve the partnership and the formal divorce, which is why this study focuses on the more immediate event of separation. As Brüderl and Engelhardt (1997) find, choosing divorce or separation as indicator for the dissolution of marriages provides very similar results with respect to the determinants of dissolution.

7.3.2.2 Key Independent Variables

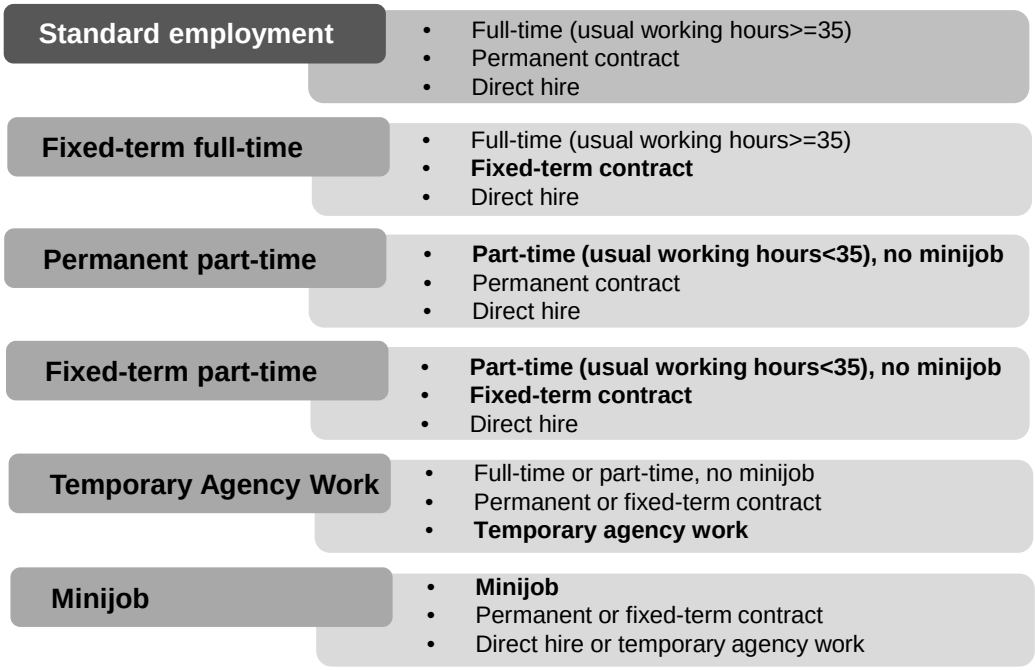
This chapter focuses on the effect of non-standard employment on partnership conflicts and dissolution. The forms of employment are prepared and analysed in two different ways: Firstly, separate models for the female and the male partner are estimated that include the *individual form of employment* and other individual characteristics. In a second step, *constellations of the employment situations* of both partners are analysed, controlling for the joint characteristics of the couple.

Individual Level: Employment Forms and Statuses

Figure 7.1 gives an overview of the operationalisation of the different forms of employment analysed in this chapter. The reference category is the standard employment relationship, defined by direct-hire full-time employment on a permanent contract. Non-standard employment, in turn, comprises fixed-term contracts, part-time work, minijobs and temporary agency work. In order to accommodate the fact that several criteria of "non-standardness" can appear simultaneously, the characteristics of the permanency of the contract and the working hours are combined to fixed-term full-time, fixed-term part-time and permanent part-time work. Here, part-time work is defined as less than 35 weekly working hours (see Chapter 2 for a discussion of the part-time threshold). *Fixed-term full-time workers* are therefore employees with 35 or more usual working hours and with a fixed-term contract, while *fixed-term part-time workers* are those fixed-term workers with less than 35 usual working hours. Consequently, *permanent part-time workers* have a permanent contract and work less than 35 hours per week. *Temporary agency workers* are identified via the respondents' self-classification. Due to the comparatively low case numbers (they constitute little more than 1% of the sample, see Appendix Table A 30), it is not possible to distinguish between full-time and part-time workers or permanent and fixed-term contracts within the group of temporary agency workers. Another group of non-standard employees are the *minijobbers*, who are also

identified via the respondents' self-classification**.** All minijobbers are assigned to one category, regardless of contract type or whether they are hired directly or through an agency. Due to the low number of events among men with reduced working hours, all part-time categories (permanent part-time, fixed-term part-time, and minijobs) have to be combined for men in the analysis.

Figure 7.1: Operationalisation of forms of employment



Note: Characteristics departing from the standard employment relationship are in bold letters.

In order to generate an employment status classification that fits all respondents, several more categories are created: Regarding dependent employees, there are a number of cases with missing values for one or more important questions or with valid values that make it impossible to fit the respondent into one of the existing categories. This is particularly the case if employees state that they do not have an employment contract. Therefore, a category, *"employee with missing details"* is added. Furthermore, separate categories for *self-employed persons* (and family workers) and *civil servants (Beamte)* are created. For the identification of the *unemployed*, the central criterion is whether a respondent is registered as unemployed. People in school, at university, in an apprenticeship or in a traineeship are assigned the category *"in education".* Finally, respondents are classified as *inactive* if they state that they are not employed, not in education and not registered as unemployed. For more details on the construction of the employment categories see Chapter 4.

Couple Level: Employment Constellations

Besides individual forms of employment, the effect of different employment constellations between the partners is analysed. Due to the large number of possible combinations of the different forms of employment and the limited case numbers, several forms of employment and employment statuses are combined. As the different forms of non-standard employment are very heterogeneous, a useful combination needs to focus on one or two specific job characteristics. In this connection, the theoretical discussion (Section 7.2) has made clear that it is especially two aspects of non-standard employment that can be expected to exert a decisive effect on the risk of partnership dissolution: the (lower) hours worked and the temporary nature of the employment relationship. Therefore, two different groupings of employment types are undertaken,

a) according to working hours: full-time vs. part-time/minijob (irrespective of permanency)
b) according to permanency of the contract: permanent vs. fixed-term/temporary agency (irrespective of hours worked).

a) Working Hours Constellations

To create the working hours constellations, four possible employment situations of the female partner are combined with the same four employment situations of the male partner: “full-time employment”, “part-time employment/minijob”, “other activities” and “unemployment/inactivity”. The category “other activities” comprises the self-employed, people in education and civil servants. Combining these three statuses might not result in a particularly meaningful category; however, due to the limited sample size, the number of possible constellations must be kept low, and these employment situations are not the focus of the current study. Unemployment and inactivity are combined to secure sufficient cell sizes. Moreover, constellations in which no partner is in dependent employment, i.e. both partners are either otherwise active or unemployed/inactive are combined to “other constellations” due to the rareness of these constellations. The constellation in which both partners are employed full-time is the reference category in the analysis.

b) Permanency Constellations

For the construction of the permanency constellations, again four different categories for each partner are combined: “permanent employment”, “temporary employment”, “other activities”, and “unemployment/inactivity”. Temporary employment comprises fixed-term contracts and temporary agency work. Again, couples in which neither partner is in dependent employment, i.e. both are otherwise active or unemployed/inactive are assigned to the category “other constellations”. The constellation in which both partners are employed on permanent contracts is the reference category in the analysis.

7.3.2.3 Further Variables

The additional variables included in the models consist of two groups, (1) sociodemographic characteristics of the individual or couple and (2) additional employment and economic characteristics.

Sociodemographic Characteristics

Much research has been done on the sociodemographic characteristics that determine the risk of partnership dissolution (see for overviews of the determinants of partnership dissolution, e.g. Arránz Becker 2015; Babka von Gostomski, Hartmann and Kopp 1999; Diekmann and Klein 1991; Wagner and Weiß 2003). Two groups of characteristics seem to be particularly important: Firstly, traits of the partners such as age, educational level, nationality, religiousness and the question whether these traits are met by the other partner, i.e. if the couple is homogamous regarding these characteristics. Secondly, partnership-specific investments such as children and home ownership are of relevance.

- *Partnership duration:* For marriages it is well established that the risk of partnership dissolution rises steeply during the first years, reaches its peak around the second to fifth year of marriage and then decreases slowly (Diekmann and Klein 1991). In the literature, two parallel processes are usually adduced to explain this trend (Ott 1992): On the one hand, previously unknown information about the partners comes to the fore soon after the wedding and instable (or mismatched) couples dissolve early, meaning that only the more stable couples remain. On the other hand, over time couples invest in partnership-specific capital, like children and property, which additionally helps to stabilise the partnerships. In order to model this "sickle-shaped" rate of partnership dissolution, partnership duration is inserted into the models in a linear and a logarithmised form. Preliminary analyses have shown that this modelling also provides a good fit for cohabiting unions. In marriages, partnership duration is measured since the date of the wedding, in cohabiting unions since the date of moving in together.
- *Age at start of partnership:* A higher age at the start of the partnership signifies a prolonged period of search and therefore increases the likelihood of a good match between the partners (Becker et al. 1977). Similarly, Lewis and Spanier (1979) stress that an increased age at partnership formation increases marital quality and can therefore be expected to decrease the risk of dissolution. For marriages, the age at marriage is used, for cohabiting unions the age of moving in together. But not only each partner's age but also the age constellation is relevant for partnership stability, as homogamy regarding this trait is expected to increase marital quality (Arránz Becker 2015; Becker et al. 1977). Therefore, in the dyadic models, the female partner's age and the age constellation of the partners are included. Five categories are built: "male partner more than five years older", "male partner up to five years older", "similar age" (max. one

year difference), "female partner up to five years older" and "female partner more than five years older".

- *Educational level:* A high level of education is associated with high marital quality (Lewis and Spanier 1979) and thus a lower risk of partnership dissolution. However, this seems to be the case especially for men rather than for women (Babka von Gostomski et al. 1999). Educational level is measured via the International Standard Classification of Education (ISCED 1997), categorised in "low education" (ISCED 0-2), "medium education" (ISCED 3-4) and "high education" (ISCED 5-6). In the constellation models, constellations of the educational levels of both partners are included. Five different constellations are distinguished: "both low education", "both medium education", "both high education", "hypergamous" (male partner's education higher than female's) and "hypogamous" (female partner's education higher than male's).[176]
- *Presence of children:* According to New Home Economics, children are partnership-specific investments that become less valuable after dissolution, e.g. because one partner can see them only rarely (Becker et al. 1977). Therefore, children can be expected to stabilise partnerships, particularly when they are small. In order to accommodate this, indicators for the age of the youngest child are inserted. As current pregnancies can also be expected to stabilise the partnership, the period of pregnancy was also included.[177] The categories are "pregnant or youngest child aged 0-2 years", "youngest child aged 3-6 years", "youngest child aged 7-12 years" and "no child (below age 13)".
- *Home ownership:* Buying a home is another partnership-specific investment that can be expected to stabilise a partnership. Therefore, a dummy for households living in their own property is included.
- *Region:* Partnership formation as well as dissolution behaviour traditionally differ between East and West Germany (see Chapter 2). It would thus be interesting to investigate the effects of non-standard employment on partnership dissolution separately for the two regions. However, this chapter already differentiates between cohabiting unions and marriages, and a further differentiation would have resulted in low case numbers. In order to capture East-West differences, a dummy for East Germany is therefore included.
- *Religiousness:* Religious affiliation is an indicator for certain normative orientations influencing the subjective barriers to divorcing one's partner (Babka von Gostomski et al. 1999). However, the level of religiousness affects the extent to which these norms are internalised and how

[176] As there are a considerable number of missing values for ISCED, a dummy variable for missing individual educational level or missing educational constellation is included in the analyses.

[177] As pregnancies are not reported directly in the SOEP, periods of pregnancy were calculated from the dates of birth of the children in the household.

binding the marriage is perceived to be. Therefore, a dummy variable for religiousness is included, which has unit value if the respondent attends church or religious events at least once a month. In the constellation models, the constellation of religiousness between the partners is included, with the categories "both religious", "female partner religious", "male partner religious" and "both unreligious".[178]

- *Partnership type:* In the analysis of the effects of non-standard employment on arguments and conflicts with the partner, dummy variables are included that differentiate between "partner outside the household", "cohabiting union" and "marriage". In the event history analysis, separate models by partnership type are estimated.

Employment-Related Covariates

Another group of additional variables comprises characteristics of the employment and economic situation of the couple. These are inserted into the models in a second step in order to investigate whether the effects of non-standard employment are to some degree mediated by factors such as commuting to work, economic stress or low income.

- *Commuting:* Commuting reduces the time available for housework and private activities. In order to investigate the effect of high mobility on dissolution, information from several SOEP questions regarding commuting are combined to form the following categories: "working from home", "short-distance commuting" (less than 30km), "long-distance commuting" (from 30km)[179] or "varying location of workplace".[180] In the constellation models, some of these categories must be grouped together to ensure sufficient case numbers. Long-distance commuting and varying workplaces can both be expected to be stressful for workers. The analysis therefore distinguishes between "no one long-distance or varying workplace", "female partner long-distance or varying workplace", "male partner long-distance or varying workplace" and "both partners long-distance or varying workplace".

[178] The question on attendance of religious events is asked only biannually in the SOEP. However, it can be assumed that values such as religiousness change only slowly over time. Therefore, the values for religiousness were interpolated between the waves with valid information and carried forward and backward across the first and last waves. There is, however, a small proportion of respondents who never received the question on religiousness due to their short time in the panel. Preliminary analyses show that the missingness of this item is related to the risk of partnership dissolution (since a separation often entails leaving the panel). Including a missing dummy for religiousness might therefore have distorted the results of the analysis. Therefore, those few cases who never answered the question on religiousness were discarded.

[179] In 2003, respondents were additionally asked whether they had a secondary residence due to work from which they were commuting to their workplace. Then they were asked about the distance of their daily way to work. For those with a secondary residence this meant only the distance from their second home to work. Therefore, persons who stated they had a secondary residence due to work in 2003 were classified as long-distance commuters, even though they may have given a distance from home to work shorter than 30km.

[180] If information on commuting was missing for one wave but the respondents stated that they were still working in the same job, the information from the previous wave was carried forward. Still, a considerable number of missing values remained so that the models include a dummy for missing information on commuting.

- *Concern about job security:* A high degree of job insecurity can reduce partnership quality. Therefore, a dummy variable for respondents who are "very concerned" (as opposed to being somewhat concerned or not concerned at all) about their job security is included in the model in order to test whether the effect of non-standard employment is due to higher job insecurity. In the constellation models, it is investigated whether the effect of job insecurity intensifies if both partners perceive their jobs as insecure. Therefore, the categories "no one very concerned", "female partner very concerned", "male partner very concerned" and "both partners very concerned" are distinguished.[181]
- *Concern about economic situation:* The inclusion of this variable serves to investigate whether the effects of non-standard employment are mediated by economic stress. The dummy takes on unit value if the respondent reports being "very concerned" about his or her economic situation. In the constellation models, it is investigated whether the effect of economic stress intensifies if both partners are concerned. Similarly to concerns about job security, the categories "no one very concerned", "female partner very concerned", "male partner very concerned" and "both partners very concerned" are distinguished.[182]
- *Income:* The theoretical considerations demonstrated that a low income (particularly of the male partner) serves as a major mechanism through which non-standard employment can destabilise a partnership. Therefore, the categorised gross labour income is included in the individual models.[183] The income was first deflated according to the consumer price index (base year 2010) (StBA 2014b) and then divided by 100 for better readability. In the constellation models, the couple's joint gross labour income is included as well as the income relation between the partners. Here it is distinguished between "male main earner", meaning that the male partner earns at least 20% more than the female, "equal earners" and "female main earner", in which the female partner earns at least 20% more than the male partner.

7.3.3 Analytical Strategy

In the next section, the results of the multivariate analyses concerning the effects of non-standard employment on partnership quality and partnership dissolution are presented. An overview of the specific characteristics of non-standard employment, such as working hours, commuting, job insecurity, income and economic concerns, and the effects on workers and their partnerships has al-

[181] Additionally, the models include a dummy for missing values regarding the concern about job security.

[182] Additionally, the models include a dummy for missing values regarding the concern about the economic situation.

[183] The basis was the generated income variable provided by the SOEP, where missing values have been imputed. Preliminary analyses also tested for non-linear income effects by adding the square of the gross income. Since no significant effect could be found – neither on the individual nor the couple level – the squared term was left out of the final model.

ready been given in Chapter 3. The following analysis builds on these insights and aims to empirically establish the link between non-standard employment and partnership conflicts and dissolution. Moreover, the mediating role of the aforementioned employment characteristics for partnership dissolution is investigated.

In a first step, results from a cross-sectional logistic regression regarding the effects of non-standard employment on arguments and conflicts with the partner are presented (Section 7.4.1). Secondly, the results of the multivariate discrete-time event history analysis of the risk of partnership dissolution are presented (Section 7.4.2). As shown in Section 7.2, the theory predicts differing effects of non-standard employment for the male and the female partner as well as for cohabiting unions and marriages. Therefore, separate models are estimated for the two genders and the different types of partnerships. While multinomial logistic regression is applied to cohabiting couples, binomial logistic regression is applied to married couples. For both types of partnerships, two groups of models are estimated: One group of models investigates the effects of the individual forms of employment on partnership dissolution,[184] and the second group investigates the effects of employment constellations within the couple. Each time, the variables are introduced into the models in three steps: In a first model, only the form of employment/employment constellation and the process time (partnership duration) are included (Base Model). In a second step, sociodemographic characteristics are added in order to investigate whether the effects of non-standard employment are distorted by differing structural compositions of the groups of employees (Socdem Model). In a last model, employment-related variables are added. This serves to investigate the question of what factors mediate the effect of non-standard employment on partnership dissolution (Full Model). The sample size is kept the same in all three models in order to be able to compare the coefficients between the models.

As a sensitivity check, the analysis was repeated using a random effects event history model to account for possible unobserved heterogeneity. However, the models showed no evidence of a notable amount of unobserved heterogeneity and the results remained substantially the same. Therefore, the results from the conventional event history analysis are presented.

[184] The results for the effect of the individual employment situation stem from separate models for women and men. As a sensitivity check, the effects of women's and men's form of employment were also estimated in a joint model, including all the individual covariates for both partners simultaneously. The statistical significance and size of the effects of the forms of employment overall remained the same and results are therefore not shown.

7.4 Results

In the following, the results of the empirical analysis are presented in two parts: Firstly, the effects of non-standard employment on partnership conflicts are discussed (Section 7.4.1). Secondly, the results of the event history analysis on the dissolution risk are presented (Section 7.4.2).

7.4.1 Making the Link: Non-Standard Employment and Partnership Conflicts

The first step of the analysis aims to gain insights into partnership quality as the central mediating factor linking non-standard employment to the risk of partnership dissolution. In this connection, arguments and conflicts with the partner can be seen as indicators of a comparatively low partnership quality, which in turn can be expected to raise the chances of partnership dissolution. In the following (Table 7.1), results of a logistic regression are given which estimates the effects of the form of employment on the chances of occasionally having distressing arguments or conflicts with the partner. A model with all coupled respondents (married, cohabiting, living-apart-together) is compared with separate models for cohabitations and marriages. As the sample size is comparatively small in this cross-sectional analysis, all couples were used in the analysis (including those for which partnership duration was unknown). Concerning further variables, the model includes most of the sociodemographic characteristics listed in Section 7.3.2.3, with the exception of partnership duration, and the current age was used instead of age at partnership formation (as the latter is not available if partnership duration is unknown). For reasons of brevity, only the results for the employment forms and statuses, as the key variables, are given. The complete models can be found in the Appendix (Table A 31). The results are given as odds ratios.[185]

Comparing the results by gender, the first thing that meets the eye is that there are considerably more significant effects of the different forms of employment on the odds of having arguments or conflicts with one's partner for women than for men. Among employed men, only fixed-term contract workers in cohabiting unions and civil servants in general have significantly increased odds of arguments and conflicts with the partner than men in the standard employment relationship. There also seems to be a tendency for increased odds for temporary agency workers, particularly among men in cohabiting unions; however, the effect is not significant. Moreover, men in education have significantly decreased odds of having arguments and conflicts.

[185] The odds ratio signifies the factor by which the odds of having arguments with the partner increase for each one-unit increase in the independent variable. In the case of metric variables, an odds ratio greater than one indicates that the odds of having arguments or conflicts increase when the independent variable increases. An odds ratio smaller than one indicates that the odds of having arguments and conflicts decrease when the independent variable increases (Menard 2002). In the case of dummy variables, an odds ratio greater than one signifies that the odds of having arguments or conflicts are increased for cases in this category compared to cases in the reference category. An odds ratio of less than one implies that the odds are decreased in the respective category compared to the reference category.

Table 7.1: Connection between the employment type/status and occasional arguments and conflicts with the partner

	Women			Men		
	All coupled	**Cohabi-tations**	**Mar-riages**	**All coupled**	**Cohabi-tations**	**Mar-riages**
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	0.99	1.27	0.92	1.08	**1.87****	0.81
Permanent part-time	1.02	1.06	0.99			
Fixed-term part-time	**1.38***	(1.01)	**1.66****	} 0.97	} 0.94	} 1.00
Minijob	0.85	**0.55***	**0.80***			
Temporary agency	**1.53***	**(2.87*)**	1.59	1.21	(1.84)	1.19
Self-employed	1.02	1.23	0.93	1.09	1.49	1.03
Civil servant	**1.33****	1.48	1.26	**1.30****	1.26	**1.32****
In education	**0.70****	0.81	0.60	0.78	**0.50***	**(0.38*)**
Unemployed	**0.73****	**0.54***	**0.72***	0.91	1.06	0.93
Inactive	**0.75*****	0.72	**0.76****	0.84	(0.53)	0.92
n (observations)	6,219	966	4,352	5,388	838	3,799

Source: Author's calculations based on SOEP v.30 (wave 2011).
Notes: Results from logistic regression analysis. Models also include age, educational level, region, religiousness, partnership type (only "All coupled" model), age of youngest child and home ownership. Results given in odds ratios (Exp(b)); * p < 0.10, ** p < 0.05, *** p < 0.01. Values for cell sizes below 30 cases are given in brackets.

Among women, the analysis reveals elevated odds of arguments and conflicts among fixed-term part-time workers compared to standard employees, especially among those in marriages. Moreover, temporary agency workers exhibit increased odds of arguments and conflicts, which is apparent for all couples and particularly strong for women in cohabiting unions. These results suggest that the specific strains resulting from temporary forms of employment spill over to the partnerships and reduce partnership quality for women. In contrast, minijobbers have reduced odds of having arguments or conflicts with the partner, and this effect becomes more pronounced and significant when looking only at women who live with their partner. Unemployed and inactive women also show reduced odds of arguing with the partner. A possible explanation for these results is that a traditional gendered division of labour prevents arguments over household chores in partnerships. Similar to men, female civil servants exhibit elevated and women in education decreased odds of having arguments or conflicts with the partner.

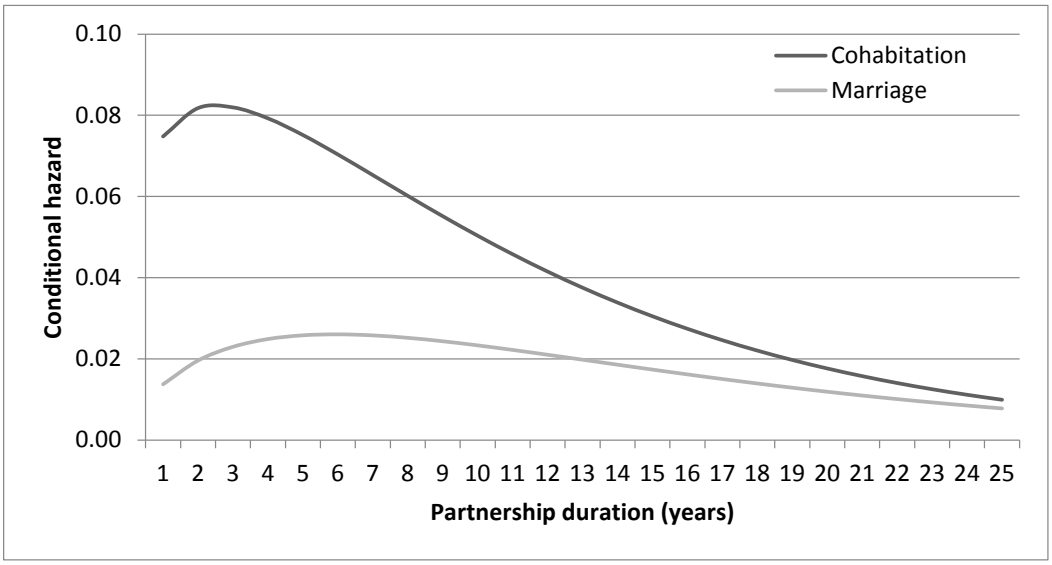
7.4.2 Non-Standard Employment and the Risk of Partnership Dissolution

This section investigates the effect of non-standard employment on the risk of dissolution for cohabitations and marriages. Firstly (Section 7.4.2.1), the hazard and survival rates of cohabiting unions and marriages depending on partnership duration are compared. This is followed by results of the multivariate event history analysis (Section 7.4.2.2).

7.4.2.1 Hazard and Survival Rates among Cohabitations and Marriages

Figure 7.2 presents the hazard rate[186] of partnership dissolution for cohabitations and marriages. Comparing the conditional hazard of the two partnership types, it becomes clear that the risk of partnership dissolution is considerably higher in cohabiting unions during the first fifteen years. The conditional probability of dissolution already starts on a very high level, then rises further until year three of the partnership and afterwards declines steeply. In marriages, in contrast, the dissolution risk is low at the beginning, rises until year six of the partnership and then slowly goes into decline.

Figure 7.2: Hazard rate of partnership dissolution among cohabiting and married couples

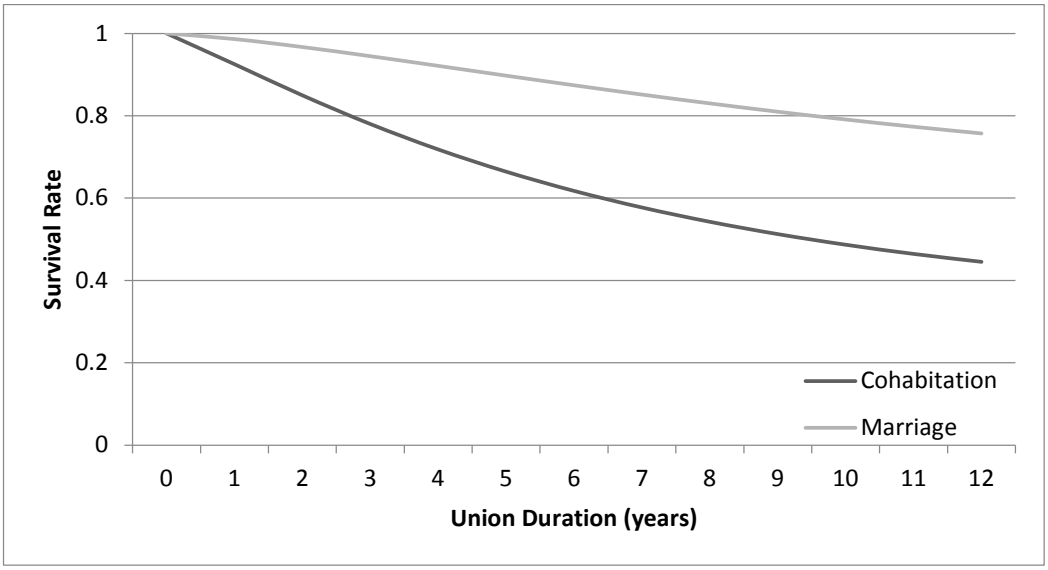


Source: Author's calculations based on SOEP v.30 (2001-2013).

Figure 7.3 presents the survival rates by partnership type, meaning the share of partnerships which are still intact after a certain time period. As a result of the higher conditional probability of dissolution among cohabiting unions, their survival rate is considerably lower than the one for marriages. After 12 years of partnership duration, 76% of marriages are still intact, while this applies only to 45% of cohabiting unions.

[186] As explained in Chapter 5, the hazard rate is the conditional probability of the event occurring at a time point given that it has not yet occurred, in this case the probability of a dissolution given the partnership still exists after a certain partnership duration. The hazard rate was estimated by regressing partnership dissolution on partnership duration and the log of partnership duration in a logistic regression.

Figure 7.3: Survival rate of partnership dissolution among cohabiting and married couples



Source: Author's calculations based on SOEP v.30 (2001-2013).

7.4.2.2 Multivariate Discrete-Time Event History Analysis

The multivariate analysis consists of two parts: In a first step, the effects of the individual forms of employment on the risk of partnership dissolution are analysed. In a second step, the effects of different employment constellations within the couples are focused. The analyses were conducted using methods of discrete-time event history analysis. As different effects were expected for cohabiting unions and marriages, separate analyses were run for these two groups. For cohabiting unions, competing risks models in the form of multinomial logistic regressions were estimated that simultaneously investigate the risk of marriage and partnership dissolution. For marriages, binomial logistic regression was applied. Due to a low number of events, the categories permanent part-time work, fixed-term part-time work and minijobs had to be combined for men. Summary statistics for the analysis samples can be found in Appendix Table A 30.

The following results are presented as hazard ratios, which can be interpreted in a similar manner to odds ratios.[187] For reasons of clarity and brevity, only the coefficients for the variables of interest, i.e. the employment forms and statuses, are given in this section. Furthermore, only the coefficients for partnership dissolution are given, although competing risks models were estimated for cohabiting unions to accommodate marriage as an alternative outcome.[188] Tables including all

[187] In the case of metric variables, hazard ratios indicate at what factor the risk of dissolution changes if the value of the variable increases by one unit. In the case of dummy variables – which constitute the vast majority of variables in the models – hazard ratios indicate at what factor the risk of dissolution is increased/decreased for cases in this category compared to cases in the reference category. Coefficients higher than 1 indicate a positive effect of the variable on the risk of partnership dissolution, while coefficients between 0 and 1 indicate a negative effect.

[188] The results concerning the risk of marriage are available from the author upon request.

coefficients for partnership dissolution for all covariates and information on the statistical properties of the models can be found in the Appendix (Table A 32 to Table A 35).

Individual Form of Employment

This section discusses the effects of men's and women's individual forms of employment on partnership dissolution. Table 7.2 presents the results for cohabiting unions for each gender in three models. These three models signify a stepwise inclusion of other variables: The first model only contains the employment form/status and partnership duration (Base Model); in the second model, sociodemographic characteristics are added (Socdem Model) and the third model additionally contains employment characteristics (Full Model).

Table 7.2: Effects of the employment type/status on the risk of partnership dissolution in cohabiting unions

	Women			Men		
	Base	**Socdem**	**Full**	**Base**	**Socdem**	**Full**
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	1.15	0.99	1.05	0.99	0.89	0.89
Permanent part-time	1.22	1.33	**1.36***			
Fixed-term part-time	1.29	1.20	1.24	} 1.23	} 1.16	} 1.15
Minijob	1.01	0.81	0.80			
Temporary agency	**2.32*** **	**1.98** **	**2.08** **	**2.16*** **	**2.17*** **	**2.15*** **
Self-employed	0.84	1.04	0.86	1.41**	1.64***	1.57**
Civil servant	1.07	1.16	1.16	1.45*	1.60**	1.60**
In education	1.93***	1.17	1.17	1.91***	1.38*	1.36
Unemployed	2.21***	2.01***	1.86***	2.06***	2.01***	1.93***
Inactive	1.34*	1.66**	1.64**	1.13	1.51	1.48
Partnership duration	✓	✓	✓	✓	✓	✓
Sociodemogr. characteristics		✓	✓		✓	✓
Employment characteristics			✓			✓
n (observations)	7,199	7,199	7,199	7,132	7,132	7,132
n (events)	526	526	526	527	527	527

Source: Author's calculations based on SOEP v.30 (2001-2013).
Notes: Results from discrete-time event history analysis with competing risks; for included covariates see Section 7.3.2.3. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

Table 7.2 shows that most forms of non-standard employment do not exert a significant effect on the risk of partnership dissolution in cohabiting unions. However, temporary agency work is connected to an increased risk of partnership dissolution for both genders, which was expected with hypotheses 4 and 5. This effect attenuates slightly for women after adding sociodemographic characteristics, but remains significant across all models. This means that there is a destabilising effect of temporary agency work that is not mediated by employment characteristics such as job insecurity, economic concerns, low income or strains from commuting. These were the factors which were hypothesised to be the central characteristics through which temporary agency work destabilises partnerships (hypothesis 9). Moreover, permanent part-time work of the female partner increases

the risk of partnership dissolution, albeit this effect is only significant in the Full Model. This effect was expected in hypothesis 1a. Contrary to the expectation (hypothesis 1b), we do not find a similar effect for minijobs, however. On the contrary, there instead seems to be a negative, albeit insignificant effect of minijobs of the female partner on the risk of dissolution. Regarding other employment statuses, unemployment considerably increases the risk of partnership dissolution for both genders in cohabiting unions. The same seems to be true for inactivity, although the coefficient is only significant for women. For men, other forms of work such as self-employment or being a civil servant exert a positive influence on the risk of dissolution as well.[189] Educational participation significantly increases the risk of partnership dissolution in the Base Model for both genders but this effect diminishes after adding sociodemographic characteristics. All in all, the results suggest a high relevance of (dependent) employment for both genders for the stability of cohabiting unions.

Table 7.3: Effects of the employment type/status on the risk of partnership dissolution in marriages

	Women			Men		
	Base	**Socdem**	**Full**	**Base**	**Socdem**	**Full**
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	1.34	1.23	1.21	1.07	0.98	0.95
Permanent part-time	**0.68*** **	**0.78***	0.84			
Fixed-term part-time	0.83	0.87	0.92	} 0.69	} 0.70	} 0.72
Minijob	0.81	0.86	0.95			
Temporary agency	0.97	0.98	0.97	1.44	1.28	1.13
Self-employed	1.00	1.20	1.17	1.09	1.21	1.07
Civil servant	**0.60****	0.78	0.82	0.96	1.16	1.19
In education	1.38	1.25	1.36	0.91	0.68	0.79
Unemployed	**1.34***	**1.37****	**1.35***	**1.91*****	**1.70*****	**1.81*****
Inactive	**0.53*****	**0.68*****	**0.76***	1.15	1.32	**1.51****
Partnership duration	✓	✓	✓	✓	✓	✓
Sociodemogr. characteristics		✓	✓		✓	✓
Employment characteristics			✓			✓
n (observations)	49,822	49,822	49,822	49,547	49,547	49,547
n (events)	664	664	664	642	642	642

Source: Author's calculations based on SOEP v.30 (2001-2013).

Notes: Results from discrete-time event history analysis; for included covariates see Section 7.3.2.3. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

[189] The destabilising effect for civil servants is surprising because this group usually enjoys a high level of job security and regular working hours. However, it must be stressed that civil servants can be found in very diverse occupations where the employment conditions differ considerably. The common perception of a regulated, stress-free job as civil servant usually refers to administrative tasks, and indeed a considerable number of the civil servants in the sample work in administrative occupations. However, within the cohabiting unions, the share of administrative jobs is larger for women than for men. Moreover, a large share of civil servants in cohabitations, particularly among men, works as soldiers or police. These occupations are connected to specific strains, such as a dangerous work environment, shift work or work in another town or country. Another large group among the cohabiting civil servants in the sample are teachers, who usually have very regular working hours and holidays but whose job is also psychologically demanding. Comparing cohabiting and married male civil servants, we see that firstly the range of occupations is more diverse among married men, due not least to the fact that the cell size is larger. Moreover, the share of soldiers and policemen is considerably higher in cohabitations, while the share of administrative workers and teachers is higher in marriages. The different occupational patterns might explain why male civil servants have an increased dissolution risk in cohabitations but not in marriages.

Table 7.3 presents the results of the same analysis for married couples. Here, the picture is quite different: Generally, there are less significant effects of the employment types or statuses, suggesting that the stability of marriages is less affected by the partners' employment situations. For the wife, permanent part-time work exerts a significant negative effect on the risk of partnership dissolution in the Base and Socdem Models. This effect was expected in hypothesis 2a on the grounds that this form of employment among women is a sign for a (partly) specialised division of labour. This increases the gains from the partnership and the dependency on the partner and is moreover consistent with dominating gender norms. The effect becomes smaller and insignificant after controlling for income and economic concerns in the Full Model, suggesting that the stabilising effect of the wife's permanent part-time work partly results from the economic dependency on the husband. Similarly, there is a negative effect of the wife's inactivity on the risk of dissolution, which slightly attenuates in the Full Model. This underlines the positive influence of a specialised division of labour on marital stability. Unemployment of the wife, however, exerts a positive effect on the risk of dissolution, which remains significant across models. This result suggests that the question whether women's non-employment is chosen voluntarily (as one would expect in the case of inactivity) or involuntarily (as the registration as unemployed suggests) is particularly important for partnership stability.

For married men, there are no significant effects of non-standard employment. There seems to be a negative effect of employment types with reduced working hours; yet this effect is insignificant. The husband's unemployment, however, exerts a significant positive effect on the risk of partnership dissolution, which is stable across models. Moreover, inactivity also increases the risk of dissolution, albeit it is significant only in the Full Model. On the whole, for married men it seems to be most relevant for partnership stability that they take some form of active role in the labour market, but the precise type of employment seems to be less important.

Employment Constellations

In this section the effects of employment constellations between the partners on the risk of partnership dissolution are analysed. Due to the large number of possible constellations, some employment types/statuses had to be grouped together (see Section 7.3.2.2). The results regarding the constellations of working hours are discussed first, and then the constellations regarding the permanency of the employment relationship.

Table 7.4 shows the effects of different employment constellations regarding working hours. For this purpose, the standard employment relationship was grouped together with fixed-term full-time and temporary agency full-time work to form the "full-time" category. This was contrasted to the "part-time" category, consisting of (permanent, fixed-term and agency) part-time work and

minijobs. Looking at cohabiting unions first, it can be seen that no constellation has a significantly lower risk of partnership dissolution than the constellation in which both partners are in (dependent) full-time employment. Therefore, hypothesis 6, stating that a dual full-time working constellation is most supportive for partnership stability in cohabiting couples, can be tentatively confirmed.

Table 7.4: Effects of the working hours constellation on the risk of partnership dissolution

		Cohabitations			**Marriages**		
		Base	**Socdem**	**Full**	**Base**	**Socdem**	**Full**
♀Full-time	♂ Full-time (ref.)	1	1	1	1	1	1
	♂ Part-time	0.79	0.83	0.84	0.31	0.34	**0.30***
	♂ Otherwise active	**1.66*****	**1.75*****	**1.70*****	1.27	**1.45***	1.29
	♂ Unemployed/ inactive	**1.72****	**2.02*****	**1.94****	**1.41***	**1.57****	1.27
♀ Part-time	♂ Full-time	1.20	1.24	1.23	**0.77***	0.90	0.90
	♂ Part-time	1.62	1.52	1.47	0.52	0.61	0.57
	♂ Otherwise active	1.13	1.14	1.08	**0.70***	0.95	0.91
	♂ Unemployed/ inactive	**2.61*****	**2.64*****	**2.53*****	1.26	1.39	1.07
♀ Otherwise active	♂ Full-time	1.26	1.06	0.96	0.88	1.05	1.00
	♂ Part-time	0.77	0.93	0.81	0.76	0.99	0.90
♀ Unemployed/ inactive	♂ Full-time	**1.72*****	**1.97*****	**1.68****	**0.65*****	0.89	0.88
	♂ Part-time	0.77	0.93	0.81	0.81	0.96	0.88
Other constellations		**2.10*****	**2.09*****	**1.89*****	0.85	1.14	1.15
Partnership duration		✓	✓	✓	✓	✓	✓
Sociodemogr. characteristics			✓	✓		✓	✓
Employment characteristics				✓			✓
n (observations)		6,890	6,890	6,890	49,063	49,063	49,063
n (events)		506	506	506	627	627	627

Source: Author's calculations based on SOEP v.30 (2001-2013).
Notes: Results from discrete-time event history analysis (for cohabitations with competing risks); otherwise active includes the self-employed, civil servants and persons in education; for included covariates see Section 7.3.2.3. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

A constellation in which one partner works part-time and the other full-time does not differ significantly from the constellation in which both partners work full-time.[190] A difference between part-time and full-time work can be seen regarding the combination with other employment statuses. An otherwise active (i.e. self-employed, civil servant or in education) male partner only exerts a significant positive influence on the risk of dissolution if the female partner is in full-time employment, not if she is in part-time employment. The most striking result, however, is that an unemployed or inactive male partner significantly increases the risk of dissolution no matter in which form of employment the female partner works: All three constellations "full-time female & unemployed/inactive male", "part-time female & unemployed/inactive male" and "other constellations"

[190] In the case of the full-time working female and part-time working male, the result might partly be due to low sample size as this is a comparatively rare constellation in cohabitations (79 observations).

(i.e. both partners are otherwise active, unemployed or inactive) show a significantly elevated risk of dissolution compared to standard employment. This result shows that the employment of the female partner cannot substitute for the lack of employment participation of the male partner, which goes against the role expectation that men are the main earners in the family.

Concerning the effect of working hours constellations on partnership dissolution in marriages (still Table 7.4), the picture is quite different. It was assumed in hypothesis 7 that a constellation in which the wife works part-time or has a minijob and the husband works full-time exerts a reduced risk of partnership dissolution because it constitutes the modified male-breadwinner model. The results generally confirm this hypothesis as we see a significant negative effect of this constellation in the Base Model. However, the effect becomes insignificant in the Socdem Model and the Full Model. Interestingly, the reverse constellation of a full-time working wife and a part-time working husband exerts an even stronger negative effect, which is significant in the Full Model. Therefore, a partly specialised division of labour with one partner working part-time and the other full-time seems to be beneficial for marriages no matter how the roles are distributed among the sexes.[191] Also in line with the specialisation argument is the (partly significant) negative effect of an unemployed or inactive wife and a full-time working husband. The reverse constellation of a full-time working wife and an unemployed or inactive husband, however, exerts a significant positive effect on dissolution.

Table 7.5 below shows the results for the permanency constellations for cohabiting unions and marriages respectively. It was assumed in hypothesis 8 that a constellation in which both partners are in temporary employment (i.e. either fixed-term or temporary agency) increases the risk of dissolution compared to a constellation in which both are employed on a permanent basis. The results for cohabiting unions, however, do not back this assumption. On the contrary, the constellation of a doubly temporary employed couple shows an extremely low risk of dissolution. This might partly be due to a low cell size as this is a rather rare constellation with less than 2% of the estimation sample (or around 100 cases). However, as pointed out in the theory section (Section 7.2.2), the stabilising effect of employment insecurity might also be due to emotional or financial dependence

[191] Nevertheless, additional analyses suggest that couples' reasons for taking over the constellation "female part-time worker & male full-time worker" often differ from the reverse constellation in marriages. Unfortunately, couples are not asked directly about their reasons for a certain division of labour in the SOEP, but it is possible to guess from the living conditions: The main reason for a constellation of a female part-timer and a male full-timer seems to be children: More than 60% of these couples have children under 16 years. In contrast, the motivations for the reverse constellation of a female full-timer and a male part-timer are far more diverse: Only in 35% of these marriages do we find children under 16 years, which would suggest an anti-traditional division of labour in the sense that the male partner takes care of the children and acts as secondary earner while the female works full-time. In many other cases the male partner is either 60 years or older or in comparatively bad health, suggesting that it is his physical conditions rather than a preference for homemaking that led him to reduce his working hours. Moreover, another large group wishes to work full-time, suggesting that the constellation is often taken on involuntarily. Finally, another (rather small) group of men in this constellation is pursuing a course of study besides working part-time.

of the partners on each other. Interestingly, if only the female partner is in temporary employment and the male partner is not, the risk of partnership dissolution is significantly elevated. A possible explanation could be that the strains caused by temporary employment of the female partner are less tolerated by the male partner if he is not in the same situation.

Table 7.5: Effects of the permanency constellation on the risk of partnership dissolution

		Cohabitations			Marriages		
		Base	**Socdem**	**Full**	**Base**	**Socdem**	**Full**
♀Permanent	♂ Permanent (ref.)	1	1	1	1	1	1
	♂ Temporary	0.84	0.84	0.83	0.98	0.90	0.83
	♂ Otherwise active	1.32	1.35	1.30	1.23	**1.43****	**1.33***
	♂ Unemployed/ inactive	**1.86*****	**2.14*****	**2.10*****	**1.55****	**1.61*****	1.32
♀ Temporary	♂ Permanent	**1.57****	1.36	1.39	**1.61****	**1.53****	**1.50****
	♂ Temporary	**0.16***	**0.13****	**0.14***	0.41	0.35	0.31
	♂ Otherwise active	1.40	1.29	1.23	1.14	1.13	1.02
	♂ Unemployed/ inactive	**2.66*****	**2.46*****	**2.42****	**2.49****	**2.18****	1.69
♀ Otherwise active	♂ Permanent	1.15	0.95	0.90	1.08	1.24	1.21
	♂ Temporary	**2.81*****	**2.20*****	**2.07*****	1.11	0.99	0.95
♀ Unemployed/ inactive	♂ Permanent	**1.45***	**1.63****	**1.46***	**0.78****	0.99	1.01
	♂ Temporary	**2.47*****	**2.54*****	**2.28*****	1.52	**1.73****	**1.67***
Other constellations		**2.16*****	**2.00*****	**1.82*****	1.14	1.28	1.27
Partnership duration		✓	✓	✓	✓	✓	✓
Sociodemogr. characteristics			✓	✓		✓	✓
Employment characteristics				✓			✓
n (observations)		6,890	6,890	6,890	49,064	49,064	49,064
n (events)		506	506	506	627	627	627

Source: Author's calculations based on SOEP v.30 (2001-2013).

Notes: Results from discrete-time event history analysis (for cohabitations with competing risks); otherwise active includes the self-employed, civil servants and persons in education; for included covariates see Section 7.3.2.3. Results given as hazard ratios (Exp(b)); * p<0.10, ** p<0.05; *** p<0.01.

For marriages, we see a picture similar to cohabiting unions regarding the effects of permanency constellations: Again, doubly temporary couples show a reduced risk of dissolution, although it is not significant. As with cohabiting unions, only comparatively few observations in the marriages sample (0.3% or around 150 cases) are contributed from doubly temporary couples. Also similar to cohabiting unions, a significantly increased risk of partnership dissolution was found for the constellation of a female temporary worker and a male permanent worker. A difference between permanent and temporary employment can be seen for the husband: If combined with an unemployed or inactive wife, temporary employment of the husband increases the risk of dissolution, while there is no such effect for permanent employment. This result highlights that a secure, permanent job is particularly important for those men who are the sole earners in their partnerships.

Further Characteristics

Many of the sociodemographic and employment characteristics in the models exhibit significant effects on the risk of partnership dissolution, while marked differences are visible between cohabiting unions and marriages (see complete models in Appendix Table A 32 to Table A 35). In both cohabiting unions and marriages, partnership duration has a major effect on partnership stability. The significant linear and logarithmised terms signal that the risk of partnership dissolution initially rises and then slowly falls with longer duration (see also Section 7.4.2.1). Concerning sociodemographic characteristics, a high age of the female or the male partner at the time of moving in together or getting married significantly reduces the risk of dissolution. With regard to the age constellation, the risk of partnership dissolution increases if the female partner is more than 5 years older than the male partner.

Concerning the educational level, the analysis shows that among women and men in cohabiting unions a low educational level increases and a high educational level decreases the risk of partnership dissolution compared to a medium educational level. No effect of either partner's educational level was found for marriages. Concerning the educational constellation, the results show an increased dissolution risk for homogamous lowly educated and for hypergamous cohabitations compared to homogamous medium educated couples. In contrast, homogamous highly educated cohabitations show a significantly reduced risk of partnership dissolution. In marriages, no significant effect of the educational constellation could be found.

The presence and the age of children considerably affect the risk of dissolution in both cohabiting unions and marriages. In both types of partnership, a pregnancy or a child below the age of 3 significantly reduces the risk of dissolution. In marriages, children between 3 and 6 years and (in part) also between 7 and 12 years also significantly reduce the risk of dissolution. In contrast, older children between 7 and 12 years increase the risk of dissolution in cohabitations. Home ownership significantly stabilises marriages, but has no effect in cohabiting unions. It is likely that in cohabiting unions, the home is more often owned by one of the partners independently, while in marriages it is usually joint property. Concerning region, there is no significant difference between East and West Germany. Religiousness significantly decreases the risk of dissolution for marriages but not for cohabiting unions among men and women. Similarly, a constellation in which both partners are religious considerably and significantly decreases the dissolution risk for marriages but not for cohabiting unions.

Concerning employment and economic characteristics, working at changing workplaces significantly increases the risk of dissolution compared to short-distance commuting for men and women

in marriages. For men, working from home as well as long-distance commuting also raises the dissolution risk. The constellation models show that there is only a significant positive effect on partnership dissolution if *both* partners commute long distances or have changing workplaces. This supports the assumption that an accumulation of disadvantages in the couple context is particularly detrimental for partnership stability. No effect of the location of the workplace on the dissolution risk was found in cohabiting unions. Great concerns about job security tend to decrease the risk of dissolution for women in cohabiting unions but do not have any effect for men or for marriages. This is a surprising result considering the fact that job security was expected to be a stressor that might cause conflict in the partnership and reduce partnership quality.

The question of economic security proves to be very important for partnership stability: A situation in which the female partner is very concerned about her economic situation is connected to an increased risk of dissolution in cohabiting unions as well as marriages. For the male partner, a similar effect could only be found in marriages. These results highlight the detrimental effect of economic stress for partnerships. However, the relationship between concern about the economic situation and dissolution could also be due to reverse causation: If women who are to some degree financially dependent on their partner anticipate a separation, they might become worried about their economic security already before actual separation. Men, in contrast, are usually less financially dependent on their partners. However, divorces typically incur high costs, and men are often obliged to make maintenance payments to their ex-wives (and children). Anticipating a divorce, men might become worried whether they will be able to maintain their standard of living while having to pay for the divorce and for maintenance. Concerning constellations, the highest risk of dissolution in cohabitations was found if only the female partner is very concerned about her economic situation. In marriages, there is a significantly increased risk of dissolution if either the female or the male or both partners worry about their economic situation.

The perception of the economic situation proves to be more important than the factual income situation: Neither the male partner's nor the female partner's income exerts an effect on the dissolution risk in cohabiting unions. In marriages, there is a significant positive effect of the female partner's income, supporting the argument frequently found in the literature that women become more independent from their partners if they have sufficient income of their own and can thus end an unsatisfactory marriage more easily. In the constellation models, neither the joint couple income nor the income constellation exert a significant influence on the risk of dissolution. This result gives further support to the assumption that it is (solely) the female partner's income which matters for partnership stability.

7.5 Summary and Conclusion

In the face of a rising divorce rate paralleled by substantial changes in the labour market in the form of an erosion of the standard employment relationship, the current chapter investigated the effects of different forms of non-standard employment on the risk of partnership dissolution. Data from the Socio-Economic Panel Study for the years 2001-2013 were used to investigate the dissolution risks of fixed-term full-time, fixed-term part-time and permanent part-time workers, minijobbers and temporary agency workers. Unlike many of the existing dissolution studies, the analysis differentiated between marriages and cohabiting unions and was able to detect some important differences in the factors that destabilise these two partnership types. In a first step, the relation between non-standard employment and the likelihood of having arguments or conflicts with the partner – as an indicator for partnership quality – was explored. This was followed by an event history analysis of the effects of non-standard employment on the risk of partnership dissolution.

The first part of the analysis showed that the form of employment exerts a strong influence for women on the likelihood of arguments and conflicts with the partner, while it has almost no effect for men: Among partnered women, fixed-term part-time work and temporary agency work were connected to higher odds of partnership conflicts, although the first mainly applied to marriages and the latter mainly to cohabiting unions. In contrast, minijobs were connected to significantly reduced odds of having arguments or conflicts with the partner, in both cohabiting unions and marriages. Among men, only fixed-term full-time work was found to be significantly and positively connected to the odds of partnership conflicts. As for women, there was also a tendency for partnership conflicts among male temporary agency workers, yet the effect was insignificant.

The subsequent event history analysis revealed considerable differences regarding the dissolution risk for cohabiting unions and marriages. The hazard rates showed that the risk of dissolution is much higher for cohabiting unions at all times during the first ten years of the partnership, resulting in a much lower share of couples still intact after this period. As the multivariate event history analysis demonstrated, non-standard employment also exerts different effects in cohabiting unions and marriages: In cohabiting unions, temporary agency work has a significant positive effect on the risk of dissolution for both genders. In marriages, a similar effect could not be found. This might reflect the fact that cohabiting unions are less binding and therefore less resilient to strains stemming from this insecure form of employment. Moreover, in cohabiting unions, permanent part-time work of the female partner significantly increases the risk of dissolution, while the opposite is true in marriages. Similarly, an inactive female partner increases the risk of dissolution in cohabitations, while it decreases the risk in marriages. These results demonstrate that only marriages benefit from a gendered division of labour in the form of the male breadwinner model or

modified male breadwinner model, while those arrangements are rather harmful to the stability of cohabitations. This does not, however, extend to unemployed women because unemployment of the female partner destabilises not only cohabiting unions but also marriages. For the male partner, the analyses did not reveal any significant effects of non-standard forms of employment besides the significant positive effect of temporary agency work in cohabiting unions. There is, however, a positive effect of unemployment and inactivity in both cohabiting unions and marriages. These results show that what counts for partnership stability is that the male partner is in (dependent) employment, but the specific type of employment is less important.

Comparing the results regarding partnership conflicts to those for the risk of partnership dissolution underlines the point already made by Lewis and Spanier (1979) that partnership quality and stability are two interrelated but separate constructs: There can be high-quality partnerships with low stability and low-quality partnerships with high stability. Fixed-term full-time working men in cohabiting unions have significantly increased odds of partnership conflicts, which however do not translate into an increased risk of dissolution. Permanent part-time working women in cohabitations, in turn, show an elevated risk of dissolution, although they are no more likely to report partnership conflicts. Yet for other forms of employment the picture is more straightforward: Women in fixed-term part-time or in temporary agency work both show increased odds of partnership conflicts and increased risks of dissolution (although the latter is only significant for agency workers). The strains from these temporary forms of employment therefore seem to cause tensions in the partnerships which consequently lead to their destabilisation.

The investigation of the employment constellations showed that the effect of non-standard employment on the risk of dissolution is partly dependent on the respective partner's form of employment. For these analyses, the different forms of employment were grouped together a) according to the number of hours worked and b) according to the permanency of the contract. Regarding the working hours constellations in cohabiting unions, it became clear that no constellation has a lower dissolution risk than the constellation in which both partners work full-time. In contrast, the results hinted at an increased dissolution risk for modified male breadwinner couples, i.e. a part-time working female and a full-time working male. The same is true for a constellation in which both partners work part-time. Most constellations in which either or both partners are not at all in dependent employment exhibit a significantly increased risk of dissolution. All in all, the results thus point to the important role of (full-time) employment of both partners for partnership stability in cohabitations. For marriages, the working hours constellations exert different effects on partnership dissolution: The constellations of one part-time working and one full-time working partner (no matter who does what) as well as the constellation in which both partners work part-time all exhibit

negative, though mainly insignificant effects on partnership dissolution. Again, these results point to some benefits of a specialised division of labour for marital stability.

Regarding the constellations according to the permanency of the contract, results were similar within cohabitations and marriages but contrary to the formulated theoretical assumptions. The analysis did not reveal a destabilising effect of a constellation in which both partners are in temporary employment; on the contrary, there is a strong negative effect on dissolution. However, if only the female partner is in temporary employment while the male partner has a permanent contract, there is an increased risk of dissolution in both cohabitations and marriages. This effect was not found for the reverse constellation of a permanently employed female and a temporary employed male. A possible explanation for these findings might be that doubly temporary couples are particularly understanding of each other's difficult employment situation and turn to their relationships for stability and support. If only the female partner is in temporary employment, however, this might cause tension within the partnership because the male partner might not be understanding about the specific strains connected to temporary employment, which might cause arguments about the fulfilment of household chores by the female partner. It is up to future research to plunge deeper into the mechanisms underlying the results found for the permanency constellations.

The mediator analysis has furthermore highlighted specific stressors for partnerships which are connected to (the form of) employment. Long-distance commuting, changing workplaces and concern about one's own economic situation are connected to an increased risk of dissolution. These are indirect ways through which non-standard employment can affect partnership stability. The fact that the negative effect of temporary agency work in cohabitations remains while controlling for these factors, however, suggests that this form of employment is connected to further characteristics that work to destabilise partnerships. A factor that was not considered in the present analysis is the fluid nature of temporary agency work: Workers frequently move in and out of temporary agency work, often coming from and leaving into unemployment. As this study has once again shown, unemployment is in turn connected to a high risk of dissolution for both genders and in both cohabiting unions and marriages. Therefore, a more thorough investigation of temporary agency workers and the effects of their employment paths on partnership dissolution is another task for future research. In this context, a larger sample of temporary agency workers than was available for the present study is desirable.

All in all, the analyses in this chapter suggest that only some forms of non-standard employment under some circumstances are harmful to partnership stability. This result, however, should not be interpreted in a way that non-standard forms of employment are not detrimental for private relationships. It has to be kept in mind that the focus of the chapter was on cohabitations and

marriages. This implies that effects of the employment situation on the selection into these types of partnerships, i.e. the initial partnership formation, the decision to move in together and – in the case of marriages – the decision to marry, were not considered. In this context, Chapter 3 has highlighted that the likelihood of having a partner and the degree of institutionalisation of the partnership are already influenced by the employment type/status. Non-standard employment proves to be particularly harmful for partnership formation among men. The effect of non-standard employment on intimate relationships therefore has two different components: the likelihood of establishing a partnership and the likelihood of maintaining it.

Summary and Conclusion

In the face of marked changes in the spheres of employment as well as partnerships and families in recent decades in Western societies, the thesis has investigated the effects of employment insecurity on partnership transitions. The case of Germany constituted the core of the study, yet with a comparative perspective on Australia. In order to explore the effects at different stages of the partnership, the focus of the study was twofold: On the one hand, the consolidation of partnerships was focused by investigating the transition to first parenthood. On the other hand, processes of partnership destabilisation were focused by investigating partnership conflict and dissolution. The focus of the thesis lay on two types of employment insecurity, namely temporal and economic insecurity. Temporal insecurity relates to uncertainty about the continuity of a specific job or the future of employment in general. In contrast, economic insecurity designates insecure financial situations and perspectives. Different forms of non-standard employment and unemployment as well as several subjective measures were considered as manifestations of employment insecurity.

The thesis contributed to the literature in several ways: With regard to fertility research, it went beyond most of the existing studies by taking an explicit couple perspective instead of focusing solely on individuals. The aim was to get closer to the factual decision-making on having children, which is usually made in a partnership context. It is in addition one of the few studies to investigate the effect of non-standard forms of employment on partnership dissolution in Germany, and among the very first to distinguish between cohabiting unions and marriages in this context. Moreover, the study adds to the literature by investigating forms of employment that have not yet been explored in their effects on partnership transitions, for example fixed-term part-time work and temporary agency work.

The study furthermore investigated the moderating effect of different institutional settings on the link between employment insecurity and first childbirth. In this context, it extended the predominant focus of the literature on single-country studies or comparisons in the European and North American context by including Australia in the study. The comparison of Germany and Australia provides promising insights regarding the effects of employment insecurity: On the one hand, its employment system and welfare regime differ markedly from that of Germany. A large share of Australians work as casuals, a specifically Australian form of employment that exhibits a particularly high level of employment insecurity. On the other hand, the two countries share a similar gender regime, ensuring the comparability of gender-specific effects of the employment situation on partnerships. The thesis furthermore added to the literature by differentiating between East and West Germany in the analysis of first childbirth and looking at the changing effects of employment insecurity on first childbirth over time in West Germany. This served to accommodate the moderating

role of diverging and changing gender regimes regarding the link between employment and partnership transitions.

The thesis consisted of two parts, firstly the *Theoretical and Conceptual Framework* (Chapters 1-4) and secondly the *Empirical Analysis* (Chapters 5-7). The first part provided the reader with the basic framework for understanding the subsequent empirical chapters. Chapter 1 gave a general introduction to the life course approach and located the current study within this framework. One point that became apparent in this chapter is the complexity of life courses and life course transitions: The life course has to be understood as a multidimensional phenomenon, spanning several interrelated life domains, such as education, employment, partnership and health. What is more, it is embedded into several levels, i.e. the micro level of the individual agent, the meso level of linked lives with surrounding individuals and the macro level of social institutions.

Following up on the latter point, Chapter 2 gave the reader an overview of the institutional and cultural backgrounds of Germany – with a special focus on differences in East and West Germany – and Australia. The two countries have seen a considerable increase in non-standard forms of employment over the past decades. These changes, however, are embedded into very different institutional settings: While Germany has a rather closed employment system with a high level of protection for established workers but comparatively difficult labour market chances for newcomers, Australia's open employment system provides lower employment protection for all workers. Furthermore, in international comparison, the share of non-standard employment is particularly high in Australia. At the same time, Australia's positive economic development attenuated the effects of employment insecurity during most parts of the 2000s. German workers, in comparison, are more strongly shielded from the effects of employment insecurity through the relatively generous system of social security, but are subject at the same time to a high risk of long-term unemployment. In terms of gender regimes, however, the two countries share a common basis, with the modified male breadwinner model being the dominant family model. In recent times, both countries have also seen a transition in gender role attitudes as well as policies towards stronger support of the combination of work and family. Regarding East and West Germany, it has to be noted that even decades after reunification the two regions have not converged with regard to their partnership patterns and gender regimes, with the modified male breadwinner model dominating in the West and the dual breadwinner model in the East.

Chapter 3 focused on the characteristics of non-standard forms of employment and unemployment and their effects on workers by summarising the extensive previous research and by some additional descriptive analyses. It became apparent that non-standard forms of employment and unemployment are – to varying degrees – associated with certain benefits and risks compared to

standard employment that can affect partnership transitions, such as a certain time budget, income, job security, career perspectives and mobility requirements.

Chapter 4 then presented the data and summarised the crucial steps of data preparation that constituted the basis for the empirical chapters in the second part of the thesis. The analysis in the thesis drew upon longitudinal data from two large-scale, nationally representative household surveys: the German Socio-Economic Panel (SOEP) for the period 1985 to 2013 and the Household, Income and Labour Dynamics in Australia (HILDA) Survey for the period 2001 to 2013. These datasets were used to construct partnership and fertility histories and analyse the effects of different employment situations on partnership transitions by means of discrete-time event history analysis. This method of analysis is ideally suited for the investigation of partnership transitions as it recognises not only whether an event takes place but also the timing of the respective event.

The framework provided in the first part of the thesis established the foundations for the second empirical part, consisting of three chapters (Chapters 5, 6 and 7). While Chapter 5 was concerned with the effects of employment insecurity on first childbirth in East and West Germany and the changing effects over time in West Germany, Chapter 6 compared the effects of employment insecurity on first childbirth in Germany and Australia. Chapter 7 then investigated the effects of employment insecurity on the risk of partnership dissolution in Germany. In the following, the findings from the thesis are synthesised[192] according to five central points that have emerged from the analyses.

Key Findings

The Heterogeneity of Employment Situations and Their Effects on Partnerships

The thesis has highlighted that the term non-standard employment serves as an umbrella for a range of very heterogeneous forms of employment. And as diverse as the employment types themselves, so also are their impacts on workers and their partnerships. Part-time work and minijobs provide workers with more time for private activities due to the reduced working hours and the fact that they are more often located near the place of residence. However, this comes at the cost of a low income, particularly in the case of minijobs. In contrast, temporary agency work, fixed-term contracts and Australian casual work are predominantly marked by the temporary nature of the employment relationship. This applies particularly to agency work and casual work, which can be subject to a constant change of the entire employment situation. While providing less job security, temporary forms of employment may also serve as stepping stones to permanent employment

[192] Where it is not stated otherwise, the following results refer to Germany as the focal country under study.

for marginal labour market groups. Permanent part-time work, in contrast, is a particularly stable form of employment. To accommodate these differences, a refined categorisation of employment types was applied in the analysis, and some forms of employment, above all temporary agency work, fixed-term part-time work, minijobs and casual work, were investigated for the first time in a quantitative analysis of partnership transitions.

Among the forms of employment under consideration, temporary agency work stands out as the most problematic employment type with regard to its effects on partnerships: Not only does it negatively affect first childbirth for women in both Germany and Australia, it also increases the likelihood of conflicts between partners compared to standard employment. In cohabiting unions, this in addition translates into an increased risk of partnership dissolution. For other forms of employment, the picture is more diverse. For example, the effects of permanent part-time work vary: For women, this form of employment proved to be detrimental for partnership stability in cohabiting unions, while it had the opposite effect in marriages. For men, permanent part-time work decreases the risk of first childbirth in West Germany and in Australia. Therefore, for some forms of employment no global judgement can be made as to whether they are beneficial or detrimental for partnership careers, as this depends on gender, partnership type, institutional context and the specific partnership outcome which is focused upon.

The study has furthermore shown that the question of whether the effects of non-standard employment are classified as good or bad also depends on the reference category. For example, across the board, unemployment is associated with a particularly high risk of partnership dissolution for both women and men. Where the alternative to non-standard employment is unemployment, non-standard employment might therefore be preferable. What is more, the marked findings for subjective measures of insecurity, e.g. a negative effect of women's concern about the economic situation on first childbirth, highlight the fact that beyond the objective employment situation, the subjective perception of one's situation is crucial in couples' decision making.

The Moderating Role of Gender

The dominance of the modified male breadwinner model in both Germany and Australia gave reason to expect a moderating role of gender in one's reaction to employment insecurity. In this context, arguments in the literature have frequently suggested a strong role of men's secure employment for childbearing, while women might rather be inclined to withdraw from the labour market and speed up childbearing in situations of employment insecurity. The results of this thesis, however, draw a very different picture: All in all, they highlight the importance of temporal but also economic security for women's childbearing decisions: In both Germany and Australia, women postpone first childbirth under a fixed-term contract as well as in temporary agency work. They

furthermore delay childbearing in both countries if they experience low perceived job security. These results have to be seen against the background that women usually stay at home with their newborns for a few months or years but afterwards want to re-enter the labour market. Therefore, a secure position to return to is particularly important for them rather than for men, who usually pursue their employment career continuously and simultaneously with first fatherhood.

However, among those women in West Germany who are outside employment, i.e. unemployed or economically inactive, many seem to follow a different strategy and choose to have a first child rather than seeking a secure job first. On the one hand, this result can be traced back to low monetary opportunity costs of childbearing as non-employed women have more time available compared to employed women. It might also reveal that women who feel discouraged by the labour market follow a compensation strategy and prefer to focus on homemaking. The fact that this strategy is found only in West and not in East Germany highlights the moderating role of the gender regimes for childbearing decisions. The positive effect of West German women's non-employment on first childbirth seems to be at odds with another finding, however: In both East and West Germany women postpone childbirth if they are concerned about their economic situation, demonstrating the crucial role of economic security for childbearing. These opposing results can (only) be reconciled when considering the specific employment constellation within the couple (see below).

In contrast, men's employment situation does not affect first childbirth to a similar extent to women's, particularly not in East Germany, where no significant results for men's employment situation were found at all. In Australia as well as in West Germany (particularly in the early partnership formation cohorts), men's part-time work proved to be detrimental for childbearing. This result emphasises men's role as primary earners in their families in modified male breadwinner regimes. However, men's perception of the economic situation does not play an important role in childbearing decisions, neither in East nor in West Germany. Furthermore, in both Germany and Australia men's perception of job security seemed to be reversely related to first childbirth in the sense that men become more concerned about their job security if the couple is planning to have a child.

That said, the picture is entirely different when focusing on partnership dissolution. Men's employment situation does indeed matter in this context. In cohabiting unions, all employment statuses other than dependent employment were related to an increased risk of dissolution for men. Marriages did not seem to be similarly sensitive to the specific type of work as long as the male partner pursued any economic activity. But men's unemployment or inactivity also proved a threat to partnership stability in marriages. For women, in contrast, the literature suggests a destabilising effect of participation in the labour market on partnerships. Contrary to this expectation, women's

unemployment was also found to destabilise partnerships. Women's economic inactivity, in contrast, stabilises marriages but destabilises cohabiting unions. This result can be traced back to different gender role attitudes within the two partnership types, with cohabiting unions tending to favour an equal division of labour, while marriages often adhere to more traditional gender roles.

Moving Beyond the Gender Perspective: The Interplay of Two Partners' Employment Situations

Life course theory has long pointed to the fact that individuals are not "lone wolves" setting out to pursue their lives all by themselves, but that their life courses hinge on other people's lives. This might sound trivial regarding the life domain focused on in this study, as partnership transitions by definition involve two individuals. Yet the vast majority of previous studies in fertility as well as dissolution research focused on the effects of individual employment situations. In contrast, in this thesis it was argued that the effect of an individual's employment situation has to be seen in the interplay with the other partner's employment situation as couples usually take both partners' employment into account when it comes to partnership decisions. The results overall supported the relevance of the specific employment constellation. For example, an investigation of the employment constellations explains the initially contradicting result of a positive effect of unemployment and inactivity of the female partner and a negative effect of economic concerns on first childbirth: The constellation models showed that a female partner outside employment increases the likelihood of first motherhood if – and only if – the male partner is in full-time employment. This result gives support to the assumption of New Home Economics that a specialised division of labour is beneficial for families.

The constellation analysis also gave support to the concept of cumulative disadvantage, suggesting that a situation in which both partners experience employment insecurity is particularly detrimental for partnerships. In both East and West Germany, the male partner's employment situation per se had little effect on first childbirth, which underlines the fact that it is mainly women's employment situation that matters for the timing of childbirth. But when focusing on the specific employment constellations, it became apparent that a fixed-term position of the female partner is particularly detrimental for childbearing if the male partner is not in dependent employment. The pattern of cumulative disadvantage was also reflected in several other results of the thesis. For example, the risk of childbirth is particularly low if both partners are still in education or if both partners are either unemployed or inactive. The risk of marital dissolution is increased if both partners have to commute long distance or have changing workplaces. However, some results would not match this picture. A particularly stunning result was that couples in which both partners are in temporary employment have a very low risk of dissolution. This result suggests that some couples

cope with dual employment insecurity by relying more strongly on their partnerships and thereby compensating the strains arising from the sphere of employment.

In other cases, one partner's employment situation seemed to always act in the same direction, no matter what employment situation the other partner is in. For example, unemployment or inactivity of the male partner always proved to be detrimental for the stability of cohabiting unions, regardless of whether the female partner is in full-time or part-time employment, has a permanent or temporary contract or has another employment status. This shows that despite women's increasing labour market participation, the normative expectations towards men to achieve an active, breadwinning role in the labour market are still in place.

All in all, the results reveal the complexity of the effects of employment constellations on first childbirth and partnership dissolution: In some cases, the specific constellation does not seem to matter at all; in some cases, complementary employment statuses are beneficial; and in others, similar employment situations in the form of a cumulation of advantages are beneficial for partnerships. This underlines the complex and heterogeneous conditions under which couples negotiate the division of labour and the timing of first childbirth with regard to their employment situations.

Making a Case for a Stronger Consideration of Partnership Dynamics

Particularly in fertility studies, the bulk of previous literature has taken on an explicit individual perspective by jointly investigating partnered and unpartnered individuals, entirely disregarding the stage of the partnership in the form of partnership duration or partnership type and/or by focusing on only one partner's characteristics. In contrast, this thesis has shown that partnership dynamics strongly determine both the likelihood of first childbirth and of partnership dissolution. This became apparent from the strong effects of partnership duration on both of these transitions and the differing effects of specific employment constellations. The form of the partnership furthermore played a major role in the risk of dissolution, with cohabiting unions being much more susceptible to disruptions stemming from the employment situation than marriages. The thesis has thus highlighted that a sole perspective on the individual actor in partnership decisions is insufficient and the concept of linked lives, in this case the lives of two partners, has to be taken more seriously in research on partnership transitions.

The empirical chapters focused on a specific phase in people's partnership careers, blending out processes of partnership formation, such as finding a partner, moving in together and getting married. However, other studies, which have been reviewed in this thesis, have already highlighted (mainly detrimental) effects of insecure employment situations on partnership formation, particu-

larly among men. In a synopsis, it therefore becomes apparent that the employment situation affects people's partnership careers at every stage. The fact that some forms of employment were not found to affect either fertility or partnership stability within the sample of cohabiting couples in this thesis does not therefore preclude indirect effects on partnership and fertility via partnership formation processes: If insecurely employed individuals refrain from forming a partnership in the first place (or taking it to the level of a joint household), first parenthood is out of reach for most of them.

The Moderating Role of Social Institutions

Life course theory suggests that national institutions shape the link between an individual's or a couple's employment situation and partnership career. Therefore, the thesis compared the effects of employment insecurity on first childbirth in East and West Germany as well as in Germany and Australia. Overall, the results highlighted several similarities between the countries and regions. For example, across the board, women's educational participation, fixed-term and temporary agency employment as well as perceived job insecurity proved to be detrimental for childbearing decisions. This result demonstrates that women in both countries and both German regions wish for a secure job before childbirth in order to prepare for a smooth re-entry into the labour market. However, Australian casual work does not fit this picture as the study revealed a rather positive effect of casual full-time work on first motherhood. This was surprising on the background that casual work is connected to an even higher level of job insecurity than fixed-term contract work. It might well be the case that many of these jobs are relatively unattractive so that women withdraw from the labour market and focus on family and children compensatorily. More investigation is needed as to the role of this form of employment in women's employment and partnership careers. Men's full-time employment, in contrast, played a larger role for first parenthood in Australia and West Germany than in East Germany, pointing to the normative expectation of men to be primary earners in the modified male breadwinner regimes of Australia and West Germany. Overall, the employment situation proved to affect first parenthood in similar ways across different employment regimes (i.e. West Germany and Australia) but to some extent differently across different gender regimes (i.e. West and East Germany).

Implications of the Study

Limitations and Future Research

The thesis has highlighted the heterogeneity of employment arrangements and the workers within these arrangements. One of the challenges of the empirical analysis in this study therefore lay in grouping the forms of employment in a way that ensured sufficiently large cell sizes but at the same time presented meaningful categories. Yet to the aim of investigating different employment constellations, some forms of employment had to be grouped together. This fact should invite researchers to undertake more differentiated analyses of specific employment types and constellations and their effects on couples' partnership careers. This, however, presupposes the availability of even larger samples of (insecurely employed) couples.

With regard to the form of employment, it furthermore has to be noted that the overall focus of the study was on dependent employment, which throughout the 20th century has been the dominant form of work and still is today. However, other forms of work such as independent contractors or consultants seem to be on the rise in some countries, e.g. in the form of the "Gig Economy" (Friedman 2014) or "Crowdsourcing" (Leimeister and Zogaj 2013). These forms of work can be expected to pose an even greater challenge to workers' employment security and to affect workers' partnership careers. Investigating the effect of forms of work beyond dependent employment on partnership transitions would therefore be another fruitful venture.

Life course theory stresses the importance of historical time and place. The insights of the current study are thus limited to the countries included and the period under consideration (1985 to 2013). As a consequence of the moderating role of the institutional settings at hand, results can be expected to vary if the analysis is transferred to other countries or repeated at a future time point for either of the countries under study. Both Germany's and Australia's gender regimes are in a phase of transition, with recently growing political support for working parents in the form of a (better) provision of paid parental leave and external childcare. As many of these measures are very recent – the latest measures introduced being the Dad and Partner Pay in 2013 in Australia and the legal entitlement to a childcare place for all one-year olds in the same year in Germany – their effects were not yet captured in this thesis. It will thus be interesting to look at the future development of the gender-specific effects of the employment situation on first childbirth in these two countries. Furthermore, for reasons of space, the analysis in this thesis was confined to the effects on first childbirth for Australia. The investigation of the effects on partnership formation, dissolution or on births of higher parity in Australia are other tasks for future research.

Overall, the thesis should invite researchers to take on a more comprehensive perspective on partnership careers. This study focused only on a specific time span within a partnership career, i.e. from entry into cohabitation until dissolution, and on two specific transitions within this frame. In contrast, some other studies have looked at other single transitions such as entry into cohabitation or marriage. Future research could set itself the task of bringing the pieces of the puzzle together and extending the perspective to an individual's or couple's whole partnership career, focusing on the consecutive steps of partnership formation, consolidation and dissolution, and their interplay with both partners' employment careers. One fruitful approach could be the application of techniques of sequence analysis, which are able to link entire employment histories to partnership and family careers and vice versa. Following couples from the very beginning to the end of their partnership would, for example, enable answering the question about in which phases of the partnership career employment insecurity exerts the strongest effects on partnership and family outcomes.

Policy Implications

The results of the study drew a heterogeneous picture of the effects of employment insecurity on partnerships. This is not surprising given the background of the diverse characteristics connected to different forms of employment and the characteristics and motivations of workers within these forms. Nevertheless, it became apparent that some forms of employment, above all temporary agency work, stand out as causing disruptions in partnership careers. Furthermore, particularly women were shown to be vulnerable to temporal insecure employment positions when it comes to determining the timing of first motherhood. They are struggling to reconcile the "new" aspirations of a successful employment career with the family obligations which are still mainly directed at them. Under insecure employment conditions, these two spheres are particularly difficult to combine. Men, in turn, find their partnerships destabilised if they do not meet the standard of the main provider in the partnership due, for example, to unemployment.

One might now argue that for many workers, insecure employment and unemployment are only transitory stages in life and that eventually, most people will move on to a secure, permanent position, rendering policy interventions unnecessary. Two problems appear with this perspective: Firstly, the risk of getting into a chain of temporary employment or alternating unemployment and temporary employment is considerable. For these workers, the prolonged period of insecure employment is likely to have detrimental consequences for their partnership career. Furthermore, those insecure workers who do successfully transition into secure jobs sooner or later are still at risk of experiencing employment insecurity in "just the wrong" phase of the life course, i.e. while establishing a partnership or during their prime childbearing years. The detrimental effects can thus

be long-lasting for them as well, in the form of the dissolution of a partnership, requiring a restart within the partnership career, and/or involuntary childlessness due to a lengthy postponement of parenthood. As the thesis has shown, it is particularly partnerships in their early stage as cohabiting unions that can easily be disrupted by employment insecurity. For many young workers this comes at a time when the "Rush Hour of Life" (BMFSFJ 2006) assigns them a very short time frame for the simultaneous tasks of labour market establishment, partnership formation and consolidation, and parenthood. Against the backdrop of the severe consequences of partnership dissolution and (involuntary) childlessness not only for the individual but also for society as a whole, the question that has to be raised next is how policy can be involved in supporting partnership stability and the realisation of childbearing plans.

As much as the effects of employment insecurity on workers' lives can only be gauged in a life course perspective, policy approaches to address this issue need to take on a similar life course perspective. Yet in Germany we find a differentiated set of policy areas which are confined to certain life domains and specific situations or risks within these domains (Deutscher Bundestag 2011). Furthermore, many policies are still orientated toward the "normal work biography" and thus the standard employment relationship and/or the traditional division of labour in the male breadwinner regime. Non-standard forms of employment encounter and reveal several fractures at the intersection of employment policy, family policy, and social policy in Germany:

In the realm of family policy, the recent extension of formal childcare for young children and the introduction of the earnings-based *Elterngeld* were important steps in the direction of supporting dual-working couple families. However, paid parental leave "only" substitutes 67% of the former income, setting incentives for couples to choose the partner who already has the lower income – and possibly an insecure job – to interrupt employment and take (most of) the parental leave. This, however, leads to a further reduction in career prospects due to a depreciation of human capital. Moreover, under the current parental leave legislation, temporary workers often do not enjoy the same level of protection as permanent workers because the job guarantee does not hold if a contract runs out during the period of leave. Yet workers wishing to return early to their workplace encounter difficulties in finding adequate childcare due to the fact that the entitlement to a childcare place only holds for children who are at least one year old. The legal entitlement to part-time work furthermore holds only for workers who have been with their employers for at least six months, which can be difficult to achieve, especially for temporary agency workers. In the realm of social policy, in turn, the long waiting period of 12 months in the unemployment insurance scheme entails that many temporary workers do not achieve entitlement to Unemployment Benefit I. Due to their increased unemployment risk, they often find themselves dependent on the less generous

and means-tested Unemployment Benefit II. This negatively affects not only their own but the whole couple's income situation and ability to accumulate savings – which would be needed to undertake partnership-specific and thereby partnership-stabilising investments.

What is needed is therefore an explicit life course policy which keeps an eye not only on the interplay between several policy areas and life domains at distinct phases in the life course, but also on how risks in one life domain might affect other life domains later in the life course. Life course policy aims at securing continuity in people's life courses on the one hand and on smooth status transitions on the other as well as offering individuals different options for the design of their own life course (Naegele 2010). Albeit the aim of a comprehensive life course policy was already set out in the 7th Family Report (BMFSFJ 2006) and the 1st Equal Opportunities Report (Deutscher Bundestag 2011), the approach is still in its infancy in Germany. This is in contrast to the Netherlands, for example, which has taken the step of introducing a life course policy as a distinct policy area, coordinating policies in fields such as education, labour market, wages, taxes, childcare and social security (BMFSFJ 2006). Life course policy not only entails close cooperation among several policy fields but also other actors such as the social partners who can contribute to facilitating the combination of insecure employment with partnership and family.

Family policy should continue to support dual-working couples, enabling them to pool the risks associated with insecure employment among the two partners instead of depending on the labour market success of a sole or primary earner. Women are still the primary carers but at the same time often wish to be employed and to have a smooth re-entry into the labour market after childbirth. Measures promoting new mothers' employment careers will therefore particularly help in facilitating childbearing decisions. In this context, raising the replacement level for parental leave to 100% of the former earnings would ensure that couples can also decide in favour of the partner with the already established career and the higher income interrupting employment for a period of childcare beyond the two partner months. Extending childcare for children under the age of one would further ensure that women whose jobs do not allow them to stay away for too long can return quickly to their workplace if they wish to. A real choice between care at home and a swift re-entry into the labour market as well as regarding the specific division of labour within partnerships should be established. Family policy and other policy areas should furthermore aim at the dispersion of the Rush Hour of Life by enabling individuals and couples to spread important steps in the educational, employment and partnership and family careers across a longer phase in their lives. Support of the combination of studies and parenthood as well as late parenthood are important tasks for family policy in this respect.

Labour regulations, employment policy, trade unions and employers should, in turn, aim to create comparable conditions overall for standard and non-standard workers and minimise the insecurity connected to temporary forms of employment. The recent introduction of the national minimum wage of €8.50 in Germany can be seen as a first step towards more economic security of non-standard workers, as they are overrepresented in the low-pay sector. The enforcement of equal pay, which seems to be an issue for temporary agency workers and minijobbers in particular, would be a further step in this direction. Support of further training opportunities can also ensure that non-standard workers do not suffer a decrease in their employability over time. Curtailing fixed-term contracts of very short durations would enable workers to plan ahead and ensure that more fixed-term and agency workers are covered by the job guarantee during parental leave. Besides giving equal pay and equal access to training and career opportunities to non-standard workers, employers could furthermore contribute by an open communication with temporary workers regarding their chances of further employment, enabling them to plan beyond the current position. Temporary employment agencies can furthermore contribute, e.g. by considering workers' partnership and family responsibilities in scheduling workplaces and working times.

Periods of employment insecurity are part of the life courses of a growing share of workers. A comprehensive life course policy, securing workers' economic basis and employability during these periods and ensuring smooth transitions to secure forms of employment and between periods of employment and care, is needed to prevent employment insecurity from negatively impacting workers' partnership and family lives. This is because, as Valerie Oppenheimer (1988:574) has already noted, "(…) if the nature of adult work roles appears very uncertain, so does the fabric of one's future life".

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Appendix

Appendix for Chapter 3

Table A 1: Case numbers for descriptive analyses (unweighted) (2012)

	Men		Women		Total
	n	%	n	%	n
Standard employment	3,427	63,2	1,997	36,8	5,424
Fixed-term full-time	278	54,2	235	45,8	513
Permanent part-time	119	8,5	1,281	91,5	1,400
Fixed-term part-time	54	22,2	189	77,8	243
Minijob	169	20,1	671	79,9	840
Temporary agency	135	57,9	98	42,1	233
Unemployed	458	47,4	508	52,6	966
Total	4,640	48,2	4,979	51,8	9,619

Table A 2: Concern about the economic situation by form of employment and gender (2012), in %

	Very concerned	Somewhat concerned	Not concerned at all	Total n
Men				
Standard employment	16	52	33	3,346
Fixed-term full-time	21	52	28	297
Permanent part-time	11	54	35	120
Fixed-term part-time	15	52	34	45
Minijob	24	46	30	170
Temporary agency	34	52	14	145
Total n	692	2,130	1,302	4,124
Total %	17	52	32	
Women				
Standard employment	18	51	30	2,046
Fixed-term full-time	30	52	18	255
Permanent part-time	19	55	26	1,158
Fixed-term part-time	35	47	18	190
Minijob	24	52	24	660
Temporary agency	30	54	16	98
Total n	931	2,300	1,175	4,406
Total %	21	52	27	

Table A 3: Concern about job security by form of employment and gender (2012), in %

	Very concerned	Somewhat concerned	Not concerned at all	Total n
Men				
Standard employment	16	52	33	3,326
Fixed-term full-time	21	52	28	295
Permanent part-time	11	54	35	120
Fixed-term part-time	15	52	34	45
Minijob	24	46	30	169
Temporary agency	34	52	14	145
Unemployed	52	39	9	478
Total n	692	2,130	1,302	4,577
Total %	20	50	29	
Women				
Standard employment	18	51	30	2,033
Fixed-term full-time	30	52	18	253
Permanent part-time	19	55	26	1,150
Fixed-term part-time	35	47	18	189
Minijob	24	52	24	656
Temporary agency	30	54	16	97
Unemployed	52	41	7	529
Total n	931	2,300	1,175	4,906
Total %	24	51	25	

Table A 4: Commuting to work by form of employment and gender (2012), in %

	Work from home	Short-distance (<30 km)	Long-distance (>=30 km)	Changing workplace	Total n
Men					
Standard employment	1	73	20	6	3,346
Fixed-term full-time	0	74	22	3	298
Permanent part-time	0	77	17	6	122
Fixed-term part-time	0	87	13	0	45
Minijob	6	82	9	4	170
Temporary agency	0	62	31	7	146
Total (%)	1	73	20	5	100
Total (n)	58	3,019	826	223	4,127
Women					
Standard employment	1	83	14	2	2,047
Fixed-term full-time	0	76	21	3	259
Permanent part-time	2	89	8	2	1,158
Fixed-term part-time	0	92	7	0	190
Minijob	2	92	3	2	657
Temporary agency	0	87	10	3	100
Total (%)	1	86	11	2	100
Total (n)	58	3,789	476	88	4,411

Appendix for Chapter 5

Table A 5: Descriptive statistics of the sample

Panel A: Individual-level variables

	Women		Men	
	Mean	**SD**	**Mean**	**SD**
Employment type/status				
Standard employment	0.56	0.50	0.64	0.48
Fixed-term full-time	0.07	0.26	0.07	0.25
Permanent part-time	0.09	0.28	0.03	0.18
Fixed-term part-time	0.03	0.16	0.01	0.11
Employee, missing details	0.04	0.20	0.03	0.18
Self-employed	0.03	0.17	0.07	0.25
In education	0.10	0.30	0.07	0.25
Unemployed	0.05	0.21	0.05	0.22
Inactive	0.03	0.18	0.02	0.14
Concern about job security				
Not concerned	0.40	0.49	0.42	0.49
Somewhat concerned	0.30	0.46	0.32	0.47
Very concerned	0.10	0.30	0.10	0.30
Missing concern	0.02	0.13	0.02	0.14
Concern about economic situation				
Not concerned	0.25	0.44	0.29	0.46
Somewhat concerned	0.55	0.50	0.52	0.50
Very concerned	0.20	0.40	0.19	0.39
Age	28.28	6.29	31.66	7.74
Educational level				
Low	0.14	0.35	0.13	0.33
Medium	0.58	0.49	0.58	0.49
High	0.25	0.44	0.28	0.45
Missing educational level	0.02	0.14	0.01	0.11
Foreign-born	0.09	0.29	0.10	0.30
Satisfaction with health	7.27	2.00	7.31	1.94
Religious	0.10	0.30	0.09	0.28
Gross labour income (div. by 100)	18.06	12.07	25.42	17.02
n	10,001		9,931	

Panel B: Couple-level variables

	Mean	SD
Partnership duration	4.13	3.57
East Germany	0.15	0.36
Prior child of male partner in household	0.02	0.14
Period (2000-2012)	0.53	0.50
Working-hours constellation		
Both full-time	0.60	0.49
Full-time (f) & part-time (m)	0.02	0.15
Full-time (f) & in education (m)	0.03	0.18
Full-time (f) & unemployed/inactive (m)	0.04	0.20
Part-time (f) & full-time (m)	0.09	0.29
Both part-time	0.02	0.12
Part-time (f) & in education (m)	0.01	0.09
Part-time (f) & unemployed/inactive (m)	0.01	0.09
In education (f) & full-time (m)	0.06	0.24
In education (f) & part-time (m)	0.01	0.09
Both in education	0.02	0.14
Unemployed/inactive (f) & full-time (m)	0.06	0.24
Unemployed/inactive (f) & part-time (m)	0.00	0.06
Other constellations	0.03	0.17
Permanency constellation		
Both permanent	0.48	0.50
Permanent (f) & fixed-term (m)	0.04	0.20
Permanent (f) & otherwise active (m)	0.07	0.26
Permanent (f) & unemployed/inactive (m)	0.04	0.19
Fixed-term (f) & permanent (m)	0.06	0.24
Fixed-term (f) & fixed-term (m)	0.01	0.12
Fixed-term (f) & otherwise active (m)	0.01	0.12
Fixed-term (f) & unemployed/inactive (m)	0.01	0.08
Otherwise active (f) & permanent (m)	0.07	0.25
Otherwise active (f) & fixed-term (m)	0.01	0.12
Unemployed/inactive (f) & permanent (m)	0.05	0.22
Unemployed/inactive (f) & fixed-term (m)	0.01	0.08
Other constellations	0.06	0.24
Either partner employee but missing contract type	0.07	0.26
Age constellation		
Male > 5 years older	0.24	0.43
Male 1-5 years older	0.39	0.49
Same age	0.28	0.45
Female > 1 years older	0.09	0.29
Educational constellation		
Both low	0.03	0.17
Both medium	0.14	0.34
Both high	0.14	0.34
Hypergamous	0.22	0.42
Hypogamous	0.18	0.39
Missing constellation	0.04	0.19
Health constellation		
Both satisfied	0.36	0.48
Female dissatisfied	0.20	0.40
Male dissatisfied	0.20	0.40
Both dissatisfied	0.24	0.43
Religiousness constellation		
No one religious	0.88	0.33
Female religious	0.03	0.18
Male religious	0.02	0.15
Both religious	0.07	0.25
Couple's labour income (div. by 100)	43.62	23.92
n	9,588	

Table A 6: Effects of the employment type/status on the risk of first childbirth in Germany

	Women			Men		
	Base	**Socdem**	**Full**	**Base**	**Socdem**	**Full**
Employment type/status						
Standard employment (ref.)						
Fixed-term full-time	0.89	0.81*	0.84	0.96	0.94	0.97
Permanent part-time	1.01	1.05	1.17	0.64**	0.63**	0.66**
Fixed-term part-time	0.74	0.69*	0.80	1.03	0.96	1.06
Employee, missing details	1.39**	1.40**	1.52***	1.11	1.12	1.17
Self-employed	0.74	0.92	0.94	0.76**	0.89	0.83
In education	0.56***	0.54***	0.66***	0.65***	0.61***	0.71**
Unemployed	1.27*	1.19	1.54***	1.01	1.02	1.24
Inactive	1.52***	1.48**	1.91***	0.94	0.95	1.15
Partnership duration						
Partnership duration	0.80***	0.91***	0.91***	0.80***	0.85***	0.85***
Log partnership duration	3.70***	1.89**	1.88**	3.77***	2.86***	2.83***
Sociodemographic characteristics						
Age		1.73***	1.72***		1.38***	1.38***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.25**	1.26**		1.23**	1.23**
Medium (ref.)		1	1		1	1
High		1.23***	1.17**		1.22***	1.15*
Missing educational level		0.88	0.87		1.42	1.42
Foreign-born		1.67***	1.71***		1.71***	1.74***
East Germany		1.22**	1.28***		1.24*	1.30***
Prior child of male partner in household		0.51**	0.53**		0.61	0.63
Satisfaction with health		1.03*	1.03*		1.03*	1.03*
Religious		1.37***	1.39***		1.46***	1.47***
Period (2000-2012)		1.01	1.00		0.95	0.95
Gross labour income			1.01***			1.01***
Constant	0.20***	0.00***	0.00***	0.20***	0.00***	0.00***
Statistics						
n (couple-years)	10,001	10,001	10,001	9,931	9,931	9,931
n (births)	1,237	1,237	1,237	1,218	1,218	1,218
Log Likelihood	-5,852.96	-5,690.43	-5,684.98	-5,849.34	-5,694.97	-5,689.78
chi2	196.38	521.44	532.34	160.05	468.79	479.17

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 7: Effects of women's employment type/status on the risk of first childbirth by region

	West Germany			East Germany		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Employment type/status						
Standard employment (ref.)						
Fixed-term full-time	0.99	0.95	0.98	0.53**	0.39***	0.39***
Permanent part-time	1.04	1.07	1.21	0.99	1.06	1.14
Fixed-term part-time	0.71	0.68	0.82	1.08	0.79	0.87
Employee, missing details	1.50***	1.48***	1.62***	0.78	0.68	0.73
Self-employed	0.75	0.94	0.97	0.69	0.91	0.91
In education	0.54***	0.54***	0.68**	0.55**	0.50**	0.57*
Unemployed	1.45**	1.41**	1.91***	} 0.73	} 0.79	} 0.95
Inactive	1.65***	1.55**	2.06***			
Partnership duration						
Partnership duration	0.78***	0.89***	0.89***	0.90	1.06	1.06
Log partnership duration	3.95***	2.14**	2.14**	2.20	0.82	0.82
Sociodemographic characteristics						
Age		1.78***	1.77***		1.51**	1.49**
Age squared		0.99***	0.99***		0.99***	0.99**
Educational level						
Low		1.22*	1.22*		1.26	1.27
Medium (ref.)						
High		1.12	1.06		1.99***	1.92***
Missing educational level		0.89	0.88		0.64	0.59
Foreign-born		1.68***	1.72***		0.70	0.71
Prior child of male partner in household		0.71	0.74		0.00	0.00
Satisfaction with health		1.03*	1.03*		1.02	1.02
Religious		1.41***	1.44***		0.86	0.86
Period (2000-2012)		0.93	0.92		1.62***	1.61***
Gross labour income			1.01***			1.01
Constant	0.20***	0.00***	0.00***	0.21***	0.00***	0.00***
Statistics						
n (couple-years)	8,502	8,502	8,502	1,499	1,499	1,499
n (births)	1,028	1,028	1,028	209	209	209
Log Likelihood	-4,881.31	-4,743.12	-4,737.44	-956.45	-918.45	-917.59
chi2	188.31	464.70	476.06	30.88	106.88	108.60

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 8: Effects of men's employment type/status on the risk of first childbirth by region

	West Germany			East Germany		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Employment type/status						
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	0.94	0.92	0.95	1.08	1.00	1.02
Permanent part-time	0.63**	0.62**	0.65**	0.75	0.79	0.85
Fixed-term part-time	0.93	0.84	0.93	1.60	1.62	1.74
Employee, missing details	1.08	1.08	1.11	1.46	1.66	1.82
Self-employed	0.76*	0.89	0.84	0.73	0.83	0.74
In education	0.67***	0.60***	0.70**	0.57*	0.63	0.73
Unemployed	0.96	0.97	1.18	} 1.01	} 1.21	} 1.49
Inactive	0.95	0.94	1.12			
Partnership duration						
Partnership duration	0.78***	0.84***	0.84***	0.90	0.91	0.91
Log partnership duration	3.95***	3.17***	3.12***	2.47	1.94	1.97
Sociodemographic characteristics						
Age		1.35***	1.34***		1.60***	1.59***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.18	1.18		1.64*	1.61
Medium (ref.)		1	1		1	1
High		1.24**	1.18*		1.18	1.04
Missing educational level		1.58*	1.59*		0.80	0.82
Foreign-born		1.74***	1.76***		0.53	0.55
Prior child of male partner in household		0.83	0.84		0.00	0.00
Satisfaction with health		1.03	1.03		1.04	1.04
Religious		1.49***	1.50***		1.16	1.15
Period (2000-2012)		0.87*	0.87*		1.46**	1.45**
Gross labour income			1.01***			1.01*
Constant	0.21***	0.00***	0.00***	0.18***	0.00***	0.00***
Statistics						
n (couple-years)	8,453	8,453	8,453	1,478	1,478	1,478
n (births)	1,013	1,013	1,013	205	205	205
Log Likelihood	-4,890.47	-4,748.80	-4,745.03	-948.85	-924.85	-923.47
chi2	150.54	433.88	441.43	22.27	70.26	73.03

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 9: Effects of women's employment type/status on the risk of first childbirth by cohort in West Germany

	Early Cohorts (1973-1996)			Late Cohorts (1997-2011)		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Employment type/status						
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	0.77	0.76	0.78	1.20	1.09	1.12
Permanent part-time	0.93	0.98	1.11	1.19	1.23	1.36
Fixed-term part-time	1.34	1.38	1.63	0.54**	0.49**	0.55*
Employee, missing details	1.78***	1.91***	2.03***	0.66	0.60	0.67
Self-employed	0.51*	0.67	0.64	0.94	1.08	1.14
In education	0.67*	0.68*	0.88	0.46***	0.47***	0.55**
Unemployed	1.31	1.40	1.97***	1.64**	1.56*	1.90**
Inactive	2.11***	1.89***	2.59***	0.78	0.89	1.09
Partnership duration						
Partnership duration	0.76***	0.90**	0.90**	0.85***	0.93	0.93
Log partnership duration	4.34***	2.06*	2.07*	2.69**	1.71	1.70
Sociodemographic characteristics						
Age		1.78***	1.77***		2.01***	2.00***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.09	1.10		1.45**	1.47**
Medium (ref.)		1	1		1	1
High		1.04	0.97		1.15	1.11
Missing educational level		0.73	0.72		1.22	1.21
Foreign-born		1.81***	1.83***		1.44**	1.47**
Prior child of male partner in household		0.56	0.59		0.97	1.00
Satisfaction with health		1.05*	1.04*		1.02	1.02
Religious		1.24*	1.27*		1.84***	1.88***
Gross labour income			1.02***			1.01
Constant	0.22***	0.00***	0.00***	0.17***	0.00***	0.00***
Statistics						
n (couple-years)	4,635	4,635	4,635	3,867	3,867	3,867
n (births)	584	584	584	444	444	444
Log Likelihood	-2,611.76	-2,523.02	-2,519.38	-2,242.20	-2,176.08	-2,174.88
chi2	174.83	352.33	359.60	62.24	194.46	196.87

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 10: Effects of men's employment type/status on the risk of first childbirth by cohort in West Germany

	Early Cohorts (1973-1996)			Late Cohorts (1997-2011)		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Employment type/status						
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	0.96	0.91	0.94	0.95	0.95	0.96
Permanent part-time	0.49**	0.49**	0.52**	0.85	0.84	0.86
Fixed-term part-time	0.39	0.35*	0.40	1.62	1.56	1.63
Employee, missing details	1.11	1.15	1.18	0.80	0.79	0.81
Self-employed	0.66*	0.85	0.73	0.89	0.93	0.92
In education	0.70*	0.61**	0.75	0.59**	0.61*	0.65
Unemployed	0.97	0.95	1.24	0.98	1.00	1.09
Inactive	1.15	1.14	1.46	0.60	0.60	0.65
Partnership duration						
Partnership duration	0.76***	0.83***	0.83***	0.85**	0.90	0.91
Log partnership duration	4.13***	3.16***	3.06***	2.76**	2.07	2.06
Sociodemographic characteristics						
Age		1.36***	1.36***		1.40***	1.39***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.14	1.14		1.26	1.27
Medium (ref.)		1	1		1	1
High		1.19	1.11		1.31**	1.28**
Missing educational level		1.44	1.45		2.06*	2.05*
Foreign-born		1.74***	1.79***		1.75***	1.75***
Prior child of male partner in household		0.65	0.67		1.14	1.14
Satisfaction with health		1.04	1.04		1.01	1.01
Religious		1.39**	1.39**		1.71***	1.73***
Gross labour income			1.01***			1.00
Constant	0.25***	0.00***	0.00***	0.17***	0.00***	0.00***
Statistics						
n (couple-years)	4,618	4,618	4,618	3,835	3,835	3,835
n (births)	572	572	572	441	441	441
Log Likelihood	-2,620.45	-2,535.84	-2,531.63	-2,254.96	-2,190.17	-2,188.12
chi2	148.69	317.90	326.31	27.39	156.97	161.07

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 11: Effect of concern about job security on first childbirth by gender

	Women			Men		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about job security						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	0.81***	0.81***	0.81***	1.07	1.05	1.06
Very concerned	0.88	0.89	0.91	1.25**	1.22*	1.26**
Missing concern	0.75	0.79	0.85	1.07	1.06	1.11
In education	0.51***	0.50***	0.58***	0.71**	0.66***	0.76*
Unemployed	1.16	1.09	1.34*	1.10	1.10	1.35*
Inactive	1.39**	1.36*	1.65***	1.02	1.03	1.25
Partnership duration						
Partnership duration	0.80***	0.91***	0.92***	0.80***	0.85***	0.85***
Log partnership duration	3.52***	1.80**	1.79**	3.78***	2.85***	2.80***
Sociodemographic characteristics						
Age		1.73***	1.72***		1.38***	1.38***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.24**	1.25**		1.23**	1.23**
Medium (ref.)		1	1		1	1
High		1.18**	1.14*		1.23***	1.16*
Missing educational level		0.88	0.88		1.43	1.44
Foreign-born		1.67***	1.71***		1.66***	1.68***
East Germany		1.25**	1.30***		1.22**	1.27***
Prior child of male partner in household		0.52**	0.53**		0.62	0.64
Satisfaction with health		1.03*	1.03		1.04**	1.04**
Religious		1.38***	1.41***		1.46***	1.48***
Period (2000-2012)		1.00	1.00		0.94	0.94
Gross labour income			1.01***			1.01***
Constant	0.22***	0.00***	0.00***	0.19***	0.00***	0.00***
Statistics						
n (couple-years)	10,001	10,001	10,001	9,931	9,931	9,931
n (births)	1,237	1,237	1,237	1,218	1,218	1,218
Log Likelihood	-5,853.89	-5,692.41	-5,687.82	-5,853.72	-5,699.02	-5,693.40
chi2	194.51	517.49	526.65	151.28	460.68	471.92

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 12: Effect of women's concern about job security on first childbirth by region

	West Germany			East Germany		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about job security						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	0.82**	0.85*	0.85*	0.59***	0.63**	0.63**
Very concerned	0.88	0.92	0.94	0.67*	0.79	0.81
Missing concern	0.69	0.74	0.80	0.96	1.02	1.09
In education	0.49***	0.50***	0.59***	0.45***	0.46***	0.52**
Unemployed	1.31*	1.29	1.63***	0.62	0.72	0.84
Inactive	1.50***	1.41**	1.75***	0.31	0.46	0.54
Partnership duration						
Partnership duration	0.79***	0.89***	0.90***	0.91	1.05	1.05
Log Partnership duration	3.66***	2.00**	1.99**	2.33	0.98	0.99
Sociodemographic characteristics						
Age		1.78***	1.76***		1.53**	1.51**
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.21*	1.22*		1.24	1.25
Medium (ref.)		1	1		1	1
High		1.09	1.04		1.71***	1.65***
Missing educational level		0.89	0.89		0.68	0.63
Foreign-born		1.67***	1.71***		0.63	0.64
Prior child of male partner in household		0.74	0.76		0.00	0.00
Satisfaction with health		1.03*	1.03		1.02	1.02
Religious		1.42***	1.45***		0.87	0.88
Period (2000-2012)		0.92	0.92		1.52**	1.51**
Gross labour income			1.01***			1.01
Constant	0.22***	0.00***	0.00***	0.26***	0.00***	0.00***
Statistics						
n (couple-years)	8,502	8,502	8,502	1,499	1,499	1,499
n (births)	1,028	1,028	1,028	209	209	209
Log Likelihood	-4,884.08	-4,746.33	-4,741.89	-954.93	-920.65	-919.80
chi2	182.78	458.27	467.15	33.92	102.47	104.17

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 13: Effect of men's concern about job security on first childbirth by region

	West Germany			East Germany		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about job security						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	1.11	1.11	1.12	0.77	0.82	0.85
Very concerned	1.26**	1.24*	1.26**	1.03	1.19	1.27
Missing concern	0.87	0.86	0.90	1.87	1.97	2.10
In education	0.74*	0.66**	0.77	0.53*	0.61	0.71
Unemployed	1.06	1.07	1.31	0.96	1.17	1.44
Inactive	1.05	1.04	1.25	0.83	1.17	1.41
Partnership duration						
Partnership duration	0.78***	0.84***	0.84***	0.89	0.90	0.90
Log Partnership duration	3.98***	3.18***	3.12***	2.64	2.10	2.11
Sociodemographic characteristics						
Age		1.35***	1.34***		1.59***	1.58***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.17	1.18		1.65*	1.63
Medium (ref.)		1	1		1	1
High		1.25***	1.19**		1.21	1.09
Missing educational level		1.61*	1.61*		0.83	0.85
Foreign-born		1.69***	1.71***		0.59	0.62
Prior child of male partner in household		0.84	0.85		0.00	0.00
Satisfaction with health		1.04*	1.04*		1.04	1.04
Religious		1.48***	1.50***		1.15	1.14
Period (2000-2012)		0.86**	0.86**		1.46**	1.45**
Gross labour income			1.01***			1.01
Constant	0.19***	0.00***	0.00***	0.20***	0.00***	0.00***
Statistics						
n (couple-years)	8,453	8,453	8,453	1,478	1,478	1,478
n (births)	1,013	1,013	1,013	205	205	205
Log Likelihood	-4,893.17	-4,751.75	-4,747.66	-947.64	-923.15	-922.10
chi2	145.13	427.97	436.16	24.69	73.67	75.77

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 14: Effect of women's concern about job security on first childbirth by cohort in West Germany

	Early Cohorts (1973-1996)			Late Cohorts (1997-2011)		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about job security						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	0.79**	0.82*	0.81*	0.87	0.88	0.88
Very concerned	1.08	1.11	1.12	0.80	0.80	0.81
Missing concern	0.93	0.95	1.01	0.43	0.49	0.52
In education	0.61**	0.61**	0.73	0.42***	0.44***	0.49***
Unemployed	1.19	1.26	1.60*	1.49*	1.43	1.71**
Inactive	1.92***	1.74***	2.17***	0.71	0.82	0.97
Partnership duration						
Partnership duration	0.77***	0.91*	0.91*	0.85**	0.93	0.93
Log Partnership duration	3.70***	1.73	1.72	2.62**	1.68	1.68
Sociodemographic characteristics						
Age		1.78***	1.77***		2.00***	1.99***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.06	1.07		1.46**	1.48**
Medium (ref.)		1	1		1	1
High		1.01	0.97		1.13	1.10
Missing educational level		0.76	0.76		1.14	1.14
Foreign-born		1.74***	1.76***		1.46**	1.51**
Prior child of male partner in household		0.59	0.61		0.93	0.96
Satisfaction with health		1.04*	1.04		1.01	1.01
Religious		1.25*	1.28*		1.81***	1.84***
Gross labour income			1.01**			1.01*
Constant	0.25***	0.00***	0.00***	0.18***	0.00***	0.00***
Statistics						
n (couple-years)	4,635	4,635	4,635	3,867	3,867	3,867
n (births)	584	584	584	444	444	444
Log Likelihood	-2,621.60	-2,533.48	-2,530.81	-2,244.50	-2,178.46	-2,176.97
chi2	155.16	331.39	336.73	57.63	189.72	192.68

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 15: Effect of men's concern about job security on first childbirth by cohort in West Germany

	Early Cohorts (1973-1996)			Late Cohorts (1997-2011)		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about job security						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	1.16	1.11	1.12	1.10	1.09	1.09
Very concerned	1.45**	1.29	1.33*	1.11	1.16	1.16
Missing concern	0.98	0.89	0.94	0.72	0.78	0.79
In education	0.80	0.67**	0.83	0.63*	0.65	0.68
Unemployed	1.12	1.05	1.38	1.05	1.08	1.15
Inactive	1.32	1.26	1.63	0.65	0.65	0.70
Partnership duration						
Partnership duration	0.76***	0.83***	0.83***	0.85***	0.90	0.90
Log Partnership duration	4.13***	3.10***	2.99***	2.77**	2.08	2.07
Sociodemographic characteristics						
Age		1.35***	1.36***		1.40***	1.40***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.13	1.12		1.25	1.26
Medium (ref.)		1	1		1	1
High		1.19	1.11		1.31**	1.29**
Missing educational level		1.44	1.46		2.13*	2.12*
Foreign-born		1.69***	1.72***		1.72***	1.72***
Prior child of male partner in household		0.66	0.69		1.14	1.13
Satisfaction with health		1.05*	1.05*		1.02	1.02
Religious		1.35**	1.36**		1.71***	1.72***
Gross labour income			1.01***			1.00
Constant	0.22***	0.00***	0.00***	0.16***	0.00***	0.00***
Statistics						
n (couple-years)	4,618	4,618	4,618	3,835	3,835	3,835
n (births)	574	574	574	440	440	440
Log Likelihood	-2,624.96	-2,541.58	-2,536.75	-2,256.74	-2,191.85	-2,190.20
chi2	139.66	306.42	316.09	23.82	153.60	156.91

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 16: Effect of concern about the economic situation on first childbirth by gender

	Women			Men		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about the economic situation						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	0.85**	0.85**	0.86**	1.06	1.03	1.06
Very concerned	0.80**	0.80**	0.84*	0.98	0.95	1.01
Partnership duration						
Partnership duration	0.80***	0.91***	0.91***	0.80***	0.85***	0.86***
Log Partnership duration	3.80***	1.89**	1.85**	3.73***	2.77***	2.71***
Sociodemographic characteristics						
Age		1.80***	1.77***		1.40***	1.39***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.27**	1.30***		1.23**	1.23**
Medium (ref.)		1	1		1	1
High		1.16**	1.13		1.22***	1.15*
Missing educational level		0.89	0.90		1.47	1.49
Foreign-born		1.83***	1.90***		1.71***	1.73***
East Germany		1.24**	1.28***		1.23**	1.28***
Prior child of male partner in household		0.55*	0.57*		0.63	0.66
Satisfaction with health		1.02	1.02		1.03*	1.03*
Religious		1.38***	1.41***		1.43***	1.45***
Period (2000-2012)		0.97	0.97		0.95	0.94
Gross labour income			1.01***			1.01***
Constant	0.22***	0.00***	0.00***	0.19***	0.00***	0.00***
Statistics						
n (couple-years)	9,964	9,964	9,964	9,906	9,906	9,906
n (births)	1,232	1,232	1,232	1,215	1,215	1,215
Log Likelihood	-5,866.88	-5,697.57	-5,694.14	-5,850.67	-5,695.17	-5,686.75
chi2	129.38	468.01	474.88	125.52	436.52	453.34

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 17: Effect of women's concern about the economic situation on first childbirth by region

	West Germany			East Germany		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about the economic situation						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	0.89	0.89	0.90	0.52***	0.61**	0.64**
Very concerned	0.82**	0.82*	0.85	0.54***	0.73	0.78
Partnership duration						
Partnership duration	0.79***	0.89***	0.89***	0.90	1.05	1.05
Log Partnership duration	3.87***	2.06**	2.03**	2.98*	1.08	1.06
Sociodemographic characteristics						
Age		1.82***	1.79***		1.69***	1.63***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.26**	1.28**		1.15	1.20
Medium (ref.)		1	1		1	1
High		1.08	1.05		1.71***	1.63***
Missing educational level		0.91	0.92		0.59	0.53
Foreign-born		1.86***	1.92***		0.60	0.65
Prior child of male partner in household		0.79	0.82		0.00	0.00
Satisfaction with health		1.03	1.02		1.02	1.02
Religious		1.44***	1.46***		0.78	0.82
Period (2000-2012)		0.89	0.89		1.45**	1.45**
Gross labour income			1.01**			1.01
Constant	0.22***	0.00***	0.00***	0.28***	0.00***	0.00***
Statistics						
n (couple-years)	8,469	8,469	8,469	1,495	1,495	1,495
n (births)	1,024	1,024	1,024	208	208	208
Log Likelihood	-4,896.40	-4,751.21	-4,748.63	-960.03	-923.08	-922.16
chi2	124.47	414.85	420.00	18.35	92.26	94.10

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 18: Effect of men's concern about the economic situation on first childbirth by region

	West Germany			East Germany		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about the economic situation						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	1.08	1.06	1.08	0.82	0.92	0.95
Very concerned	1.00	0.96	1.01	0.77	0.92	0.99
Partnership duration						
Partnership duration	0.79***	0.84***	0.84***	0.90	0.92	0.92
Log Partnership duration	3.95***	3.11***	3.03***	2.31	1.73	1.73
Sociodemographic characteristics						
Age		1.37***	1.35***		1.62***	1.59***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.18	1.19*		1.55	1.55
Medium (ref.)		1	1		1	1
High		1.24***	1.18*		1.16	1.07
Missing educational level		1.64*	1.66*		0.87	0.89
Foreign-born		1.73***	1.76***		0.61	0.64
Prior child of male partner in household		0.85	0.87		0.00	0.00
Satisfaction with health		1.03	1.03		1.05	1.04
Religious		1.47***	1.49***		0.98	1.00
Period (2000-2012)		0.87**	0.87**		1.47**	1.46**
Gross labour income			1.01***			1.01
Constant	0.19***	0.00***	0.00***	0.21***	0.00***	0.00***
Statistics						
n (couple-years)	8,433	8,433	8,433	1,473	1,473	1,473
n (births)	1,012	1,012	1,012	203	203	203
Log Likelihood	-4,895.47	-4,753.88	-4,746.66	-948.11	-923.69	-922.97
chi2	123.52	406.70	421.15	9.62	58.46	59.89

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 19: Effect of women's concern about the economic situation on first childbirth by cohort in West Germany

	Early Cohorts (1973-1996)			Late Cohorts (1997-2011)		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about economic situation						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	0.97	0.95	0.96	0.79*	0.78**	0.79*
Very concerned	0.99	0.91	0.93	0.70**	0.70**	0.73**
Partnership duration						
Partnership duration	0.77***	0.91*	0.91*	0.85**	0.93	0.93
Log Partnership duration	3.66***	1.72	1.71	2.98**	1.79	1.77
Sociodemographic characteristics						
Age		1.78***	1.76***		2.13***	2.09***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.12	1.13		1.53**	1.56**
Medium (ref.)		1	1		1	1
High		0.99	0.98		1.13	1.10
Missing educational level		0.84	0.85		1.08	1.09
Foreign-born		2.04***	2.08***		1.52***	1.59***
Prior child of male partner in household		0.68	0.69		0.96	0.98
Satisfaction with health		1.04	1.04		1.01	1.01
Religious		1.29**	1.30**		1.75***	1.79***
Gross labour income			1.00			1.01
Constant	0.25***	0.00***	0.00***	0.18***	0.00***	0.00***
Statistics						
n (couple-years)	4,614	4,614	4,614	3,855	3,855	3,855
n (births)	582	582	582	442	442	442
Log Likelihood	-2,625.78	-2,533.79	-2,532.53	-2,259.39	-2,184.91	-2,183.24
chi2	125.53	309.51	312.04	15.24	164.20	167.54

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 20: Effect of men's concern about job security on first childbirth by cohort in West Germany

	Early Cohorts (1973-1996)			Late Cohorts (1997-2011)		
	Base Model	Socdem Model	Full Model	Base Model	Socdem Model	Full Model
Concern about economic situation						
Not concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	1.16	1.08	1.11	0.99	1.00	1.01
Very concerned	1.22	1.05	1.13	0.83	0.83	0.86
Partnership duration						
Partnership duration	0.77***	0.84***	0.84***	0.85***	0.90	0.90
Log Partnership duration	3.98***	2.95***	2.82***	2.87**	2.16	2.14
Sociodemographic characteristics						
Age		1.35***	1.35***		1.44***	1.42***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.13	1.12		1.27	1.28
Medium (ref.)		1	1		1	1
High		1.20	1.11		1.29**	1.25*
Missing educational level		1.52	1.57		2.10*	2.07*
Foreign-born		1.72***	1.77***		1.74***	1.75***
Prior child of male partner in household		0.68	0.71		1.14	1.13
Satisfaction with health		1.04	1.04*		1.01	1.01
Religious		1.34**	1.35**		1.67***	1.69***
Gross labour income			1.01***			1.00
Constant	0.21***	0.00***	0.00***	0.16***	0.00***	0.00***
Statistics						
n (couple-years)	4,602	4,602	4,602	3,831	3,831	3,831
n (births)	571	571	571	441	441	441
Log Likelihood	-2,623.19	-2,540.74	-2,534.94	-2,261.78	-2,195.37	-2,193.03
chi2	127.71	292.60	304.21	12.15	144.96	149.65

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 21: Effect of the working-hours constellation on first childbirth

		Base Model	Socdem Model	Full Model
Employment constellation: working hours				
♀ Full-time	♂ Full-time (ref.)	1	1	1
	♂ Part-time	0.75	0.68	0.74
	♂ In education	0.73*	0.61***	0.70*
	♂ Unemployed/inactive	1.01	0.98	1.18
♀ Part-time	♂ Full-time	0.83	0.83	0.89
	♂ Part-time	0.79	0.77	0.90
	♂ In education	0.92	0.83	1.02
	♂ Unemployed/inactive	1.09	1.16	1.49
♀ In education	♂ Full-time	0.54***	0.51***	0.57***
	♂ Part-time	0.57	0.53	0.66
	♂ In education	0.30***	0.27***	0.34***
♀ Unemployed/ inactive	♂ Full-time	1.42***	1.29**	1.50***
	♂ Part-time	1.20	0.89	1.12
Other constellations		0.86	0.81	1.04
Partnership duration				
Partnership duration		0.80***	0.91***	0.91**
Log partnership duration		3.13***	1.69*	1.66*
Sociodemographic characteristics				

	Base Model	Socdem Model	Full Model
Age (female)		1.78***	1.76***
Age squared (female)		0.99***	0.99***
Age Constellation			
Male > 5 years older		0.85*	0.83*
Male 1-5 years older		1.02	1.00
Same age (ref.)		1	1
Female > 5 years older		1.28*	1.30**
Educational Constellation			
Both low		1.59***	1.58**
Both medium (ref.)			
Both high		1.37***	1.25**
Hypergamous		1.22**	1.18*
Hypogamous		1.20**	1.19**
Missing educational constellation		1.01	1.00
Constellation of migration background			
Both native (ref.)		1	1
Female foreign-born		1.25	1.26
Male foreign-born		1.34**	1.37**
Both foreign-born		2.21***	2.24***
East Germany		1.25**	1.32***
Prior child of male in household		0.49**	0.51**
Health constellation			
Both satisfied (ref.)		1	1
Female dissatisfied		0.89	0.90
Male dissatisfied		0.89	0.89
Both dissatisfied		0.89	0.90
Religiousness constellation			
No one religious (ref.)		1	1
Female religious		1.36*	1.38**
Male religious		1.32	1.32
Both religious		1.39***	1.41***
Period (2000-2012)		1.04	1.03
Couple's labour income			1.01***
Constant	0.23***	0.00***	0.00***
Statistics			
n (couple-years)	9,588	9,588	9,588
n (births)	1,205	1,205	1,205
Log Likelihood	-5,618.96	-5,431.84	-5,425.87
chi2	213.87	588.11	600.04

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 22: Effect of the permanency constellation on first childbirth

		Base Model	Socdem Model	Full Model
Employment constellation: working hours				
♀ Permanent	♂ Permanent (ref.)	1	1	1
	♂ Fixed-term	1.15	1.06	1.11
	♂ Otherwise active	0.93	0.90	0.94
	♂ Unemployed/inactive	1.26	1.25	1.54**
♀ Fixed-term	♂ Permanent	0.98	0.89	0.93
	♂ Fixed-term	0.89	0.71	0.78
	♂ Otherwise active	0.52*	0.48**	0.52*
	♂ Unemployed/inactive	0.44	0.40*	0.51
♀ Otherwise active	♂ Permanent	0.66***	0.66***	0.73**
	♂ Fixed-term	0.79	0.77	0.91
♀ Unemployed/inactive	♂ Permanent	1.41***	1.24	1.47***

	Base Model	Socdem Model	Full Model
♂ Fixed-term	1.85*	1.70	2.07**
Other constellations (without dependent employed)	0.60***	0.59***	0.74*
Either partner employee but missing contract type	1.24*	1.25*	1.34**
Partnership duration			
Partnership duration	0.80***	0.90***	0.91***
Log partnership duration	3.36***	1.85**	1.82**
Sociodemographic characteristics			
Age (female)		1.79***	1.77***
Age squared (female)		0.99***	0.99***
Age constellation			
Male > 5 years older		0.88	0.85*
Male 1-5 years older		1.04	1.01
Same age (ref.)		1	1
Female > 5 years older		1.26*	1.30**
Educational constellation			
Both low		1.59***	1.58**
Both medium (ref.)		1	1
Both high		1.45***	1.29**
Hypergamous		1.23**	1.19**
Hypogamous		1.22**	1.21**
Missing educational constellation		1.02	1.01
Constellation of migration background			
Both native (ref.)		1	1
Female foreign-born		1.27	1.28*
Male foreign-born		1.34**	1.38**
Both foreign-born		2.33***	2.39***
East Germany		1.29***	1.38***
Prior child of male in household		0.51**	0.53*
Health constellation			
Both satisfied (ref.)		1	1
Female dissatisfied		0.89	0.90
Male dissatisfied		0.89	0.89
Both dissatisfied		0.89	0.90
Religiousness constellation			
No one religious (ref.)		1	1
Female religious		1.32*	1.36*
Male religious		1.31	1.31
Both religious		1.34**	1.38***
Period (2000-2012)		1.05	1.04
Couple's labour income			1.01***
Constant	0.21***	0.00***	0.00***
Statistics			
n (couple-years)	9,588	9,588	9,588
n (births)	1,205	1,205	1,205
Log Likelihood	-5,619.78	-5,435.55	-5,426.22
chi2	212.23	580.69	599.35

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix for Chapter 6

Table A 23: Summary statistics

Panel A: Individual-level variables

	Germany				Australia			
	Women		Men		Women		Men	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Employment type/status								
Standard employment	0.54	0.50	0.63	0.48	0.53	0.50	0.60	0.49
Fixed-term full-time	0.08	0.27	0.07	0.25	0.08	0.28	0.07	0.25
Permanent part-time	0.07	0.25	0.02	0.13	0.06	0.24	0.02	0.12
Fixed-term part-time	0.03	0.16	0.01	0.09	0.01	0.11	0.00	0.05
Minijob	0.04	0.19	0.01	0.11				
Casual full-time					0.02	0.15	0.04	0.19
Casual part-time					0.06	0.24	0.03	0.16
Temporary agency	0.02	0.14	0.02	0.15	0.02	0.14	0.03	0.16
Employee, missing details	0.04	0.19	0.04	0.20				
Self-employed	0.04	0.19	0.08	0.27	0.05	0.22	0.12	0.33
In education	0.10	0.30	0.06	0.23	0.08	0.26	0.04	0.20
Unemployed	0.04	0.19	0.04	0.21	0.04	0.20	0.03	0.17
Inactive	0.03	0.16	0.02	0.14	0.04	0.20	0.03	0.16
Evaluation of job security								
Not at all concerned/high satisfaction	0.36	0.48	0.39	0.49	0.45	0.50	0.44	0.50
Somewhat concerned/medium satisfaction	0.33	0.47	0.35	0.48	0.34	0.47	0.39	0.49
Very concerned/low satisfaction	0.13	0.33	0.11	0.32	0.06	0.23	0.07	0.25
Missing	0.02	0.15	0.03	0.16				
Chances of finding an equal job								
Easy	0.24	0.43	0.26	0.44	0.49	0.50	0.45	0.50
Difficult	0.50	0.50	0.47	0.50	0.24	0.43	0.24	0.43
Almost impossible	0.05	0.23	0.07	0.26	0.06	0.24	0.08	0.28
Age	29.50	6.63	33.01	7.85	28.72	6.59	31.36	7.97
Educational level								
low	0.10	0.30	0.08	0.28	0.08	0.27	0.10	0.31
medium	0.58	0.49	0.58	0.49	0.41	0.49	0.50	0.50
high	0.29	0.45	0.32	0.47	0.51	0.50	0.40	0.49
Country of origin								
Native	0.92	0.27	0.92	0.27	0.83	0.37	0.83	0.38
Abroad- low-fertility	0.04	0.20	0.04	0.20	0.04	0.19	0.02	0.15
Abroad- medium-fertility	0.03	0.18	0.04	0.19	0.08	0.28	0.10	0.30
Abroad- high-fertility					0.05	0.22	0.05	0.22
Gross labour income (div. by 100)	18.87	13.26	26.46	17.36	8.64	5.98	11.28	8.88
Health status								
(Very) good	0.66	0.47	0.67	0.47				
Satisfactory	0.24	0.43	0.24	0.43				
Poor/bad	0.10	0.30	0.09	0.28				
Satisfaction with health					7.57	1.77	7.62	1.71
n	4,889		4,859		5,127		5,047	

Panel B: Couple-level variables

	Germany		Australia	
	Mean	**SD**	**Mean**	**SD**
Partnership duration	4.71	4.11	4.59	4.38
Region				
East Germany	0.17	0.38		
Major Cities			0.72	0.45
Inner Regional			0.16	0.37
Outer Regional/(Very) Remote			0.12	0.32
Prior children of male partner				
None	0.92	0.27	0.88	0.33
Resident	0.02	0.14	0.02	0.14
Non-resident	0.06	0.24	0.10	0.30
n	4,998		5,194	

Table A 24: Effect of the employment type/status on the risk of first childbirth in Germany

	Women			Men		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Employment type/status						
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	0.93	0.79	0.81	0.79	0.73	0.75
Permanent part-time	1.01	1.14	1.22	0.94	0.97	0.99
Fixed-term part-time	0.45**	0.40**	0.44**	0.83	0.79	0.83
Minijob	0.63*	0.66	0.75	1.13	1.20	1.28
Temporary agency	0.47*	0.45*	0.48*	1.19	1.22	1.25
Employee, missing details	0.69	0.67	0.71	0.81	0.83	0.85
Self-employed	0.85	1.05	1.09	0.85	0.90	0.89
In education	0.44***	0.48***	0.54***	0.57**	0.62*	0.66
Unemployed	1.04	1.04	1.20	1.13	1.07	1.17
Inactive	0.75	0.86	1.01	0.92	1.19	1.30
Partnership duration						
Partnership duration	0.79***	0.89***	0.89***	0.79***	0.84***	0.84***
Log partnership duration	4.59***	2.20**	2.17*	4.82***	3.30***	3.28***
Sociodemographic characteristics						
Age		2.02***	2.02***		1.53***	1.53***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.30	1.31		1.07	1.07
Medium (ref.)		1	1		1	1
High		1.26**	1.22*		1.22*	1.18
Country of origin						
Germany (ref.)		1	1		1	1
Abroad- low-fertility		1.76***	1.79***		1.19	1.20
Abroad- medium-/high-fertility		1.37	1.40		1.80***	1.81***
Region						
West Germany (ref.)		1	1		1	1
East Germany		1.60***	1.65***		1.61***	1.64***
Prior children of male partner						
None (ref.)		1	1		1	1
Resident		0.58	0.59		0.73	0.73
Non-resident		1.08	1.07		1.20	1.20
Health status						
(Very) good (ref.)		1	1		1	1
Satisfactory		0.86	0.87		0.97	0.97
Poor/bad		1.00	1.01		0.89	0.90
Gross labour income			1.01			1.00
Constant	0.20***	0.00***	0.00***	0.17***	0.00***	0.00***
Statistics						
n (couple-years)	4,867	4,867	4,867	4,829	4,829	4,829
n (births)	543	543	543	537	537	537
Log Likelihood	-2,743.78	-2,646.30	-2,645.49	-2,739.12	-2,672.34	-2,670.72
chi2	143.23	338.18	339.80	113.89	247.45	250.69

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 25: Effect of the employment type/status on the risk of first childbirth in Australia

	Women			Men		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Employment type/status						
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	0.88	0.85	0.85	1.13	1.17	1.17
Permanent part-time	1.24	1.30	1.34*	0.45*	0.45*	0.47
Fixed-term part-time	0.76	0.82	0.85	4.12**	3.53**	3.72**
Casual full-time	1.05	1.17	1.19	1.35	1.45*	1.45*
Casual part-time	0.90	1.00	1.05	0.58*	0.66	0.70
Temporary agency	0.37**	0.40**	0.40**	1.23	1.26	1.21
Self-employed	0.85	0.92	0.99	1.17	1.18	1.26*
In education	0.54***	0.61**	0.65**	0.81	0.86	0.94
Unemployed	1.03	1.19	1.34	0.83	0.91	1.03
Inactive	0.86	0.95	1.06	0.67	1.11	1.26
Partnership duration						
Partnership duration	0.79***	0.83***	0.83***	0.79***	0.82***	0.82***
Log partnership duration	10.06***	5.94***	5.90***	10.46***	7.02***	7.00***
Sociodemographic characteristics						
Age		1.52***	1.52***		1.42***	1.41***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.24	1.25		0.94	0.95
Medium (ref.)		1	1		1	1
High		1.02	1.00		0.97	0.94
Country of origin						
Australia (ref.)		1	1		1	1
Abroad- low-fertility		1.12	1.14		0.87	0.89
Abroad- medium-fertility		1.29*	1.30*		1.06	1.06
Abroad- high-fertility		0.98	0.99		0.96	0.99
Region (remoteness)						
Major Cities (ref.)		1	1		1	1
Inner Regional		1.15	1.16		1.11	1.13
Outer Regional/ (Very) Remote		0.93	0.93		0.95	0.95
Prior children of male partner						
None (ref.)		1	1		1	1
Resident		1.20	1.21		1.18	1.21
Non-resident		0.77*	0.77*		0.97	0.97
Satisfaction with health		1.06**	1.06**		1.13***	1.13***
Gross labour income			1.01			1.01**
Constant	0.16***	0.00***	0.00***	0.14***	0.00***	0.00***
Statistics						
n (couple-years)	5,111	5,111	5,111	5,030	5,030	5,030
n (births)	717	717	717	692	692	692
Log Likelihood	-2,949.10	-2,879.37	-2,876.20	-2,895.57	-2,821.03	-2,819.03
chi2	182.20	321.67	328.02	161.57	310.65	314.65

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 26: Effect of concern about job security on first childbirth in Germany

	Women			Men		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Concern about job security						
Not at all concerned (ref.)	1	1	1	1	1	1
Somewhat concerned	0.84	0.81*	0.81*	1.06	1.01	1.01
Very concerned	0.79	0.75*	0.76*	1.30*	1.30*	1.31*
Concern missing	0.69	0.72	0.79	1.00	1.01	1.04
In education	0.44***	0.48***	0.55***	0.62*	0.67	0.72
Unemployed	1.02	1.01	1.22	1.25	1.17	1.28
Inactive	0.73	0.83	1.02	1.01	1.30	1.42
Partnership duration						
Partnership duration	0.79***	0.89***	0.89***	0.79***	0.84***	0.84***
Log partnership duration	4.61***	2.26**	2.22**	4.82***	3.29***	3.27***
Sociodemographic characteristics						
Age		2.06***	2.04***		1.54***	1.53***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.27	1.30		1.07	1.07
Medium (ref.)		1	1		1	1
High		1.20*	1.15		1.21*	1.17
Country of origin						
Germany (ref.)		1	1		1	1
Abroad- low-fertility		1.75***	1.81***		1.20	1.20
Abroad- medium-/high-fertility		1.40	1.47		1.78***	1.79***
Region						
West Germany (ref.)		1	1		1	1
East Germany		1.66***	1.73***		1.60***	1.62***
Prior children of male partner						
None (ref.)		1	1		1	1
Resident		0.58	0.60		0.72	0.72
Non-resident		1.08	1.06		1.19	1.18
Health status						
(Very) good (ref.)		1	1		1	1
Satisfactory		0.86	0.87		0.96	0.96
Poor/bad		0.99	1.01		0.87	0.88
Gross labour income			1.01**			1.00
Constant	0.20***	0.00***	0.00***	0.16***	0.00***	0.00***
Statistics						
n (couple-years)	4,867	4,867	4,867	4,829	4,829	4,829
n (births)	543	543	543	537	537	537
Log Likelihood	-2,750.87	-2,654.39	-2,652.03	-2,743.52	-2,677.97	-2,676.68
chi2	129.05	322.01	326.72	105.10	236.18	238.77

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 27: Effect of satisfaction with job security on first childbirth in Australia

	Women			Men		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Satisfaction with job security						
High satisfaction (ref.)	1	1	1	1	1	1
Medium satisfaction	0.92	0.94	0.95	0.95	1.03	1.03
Low satisfaction	0.64**	0.68*	0.69*	1.07	1.22	1.25
In education	0.52***	0.59***	0.61**	0.77	0.85	0.92
Unemployed	1.01	1.14	1.22	0.79	0.89	1.00
Inactive	0.84	0.91	0.97	0.64	1.10	1.23
Partnership duration						
Partnership duration	0.79***	0.84***	0.84***	0.79***	0.82***	0.82***
Log partnership duration	9.42***	5.57***	5.53***	10.09***	6.78***	6.78***
Sociodemographic characteristics						
Age		1.51***	1.50***		1.42***	1.41***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.29	1.30		0.95	0.97
Medium (ref.)		1	1		1	1
High		1.03	1.01		0.96	0.92
Country of origin						
Australia (ref.)		1	1		1	1
Abroad- low-fertility		1.12	1.13		0.85	0.87
Abroad- medium-fertility		1.29*	1.30*		1.07	1.08
Abroad- high-fertility		1.00	1.00		0.95	0.97
Region (remoteness)						
Major Cities (ref.)		1	1		1	1
Inner Regional		1.16	1.17		1.12	1.14
Outer Regional/ (Very) Remote		0.92	0.93		0.97	0.97
Prior children of male partner						
None (ref.)		1	1		1	1
Resident		1.19	1.20		1.21	1.22
Non-resident		0.79	0.79		0.97	0.97
Satisfaction with health		1.06**	1.05**		1.14***	1.14***
Gross labour income			1.01			1.01**
Constant	0.17***	0.00***	0.00***	0.15***	0.00***	0.00***
Statistics						
n (couple-years)	5,119	5,119	5,119	5,035	5,035	5,035
n (births)	717	717	717	692	692	692
Log Likelihood	-2,966.33	-2,894.05	-2,891.57	-2,912.29	-2,833.68	-2,831.37
chi2	162.28	306.85	311.80	130.22	287.42	292.05

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 28: Effect of chances of finding an equal job on first childbirth in Germany

	Women			Men		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Chances of finding equal job						
Easy (ref.)	1	1	1	1	1	1
Difficult	0.92	0.92	0.93	1.01	1.06	1.07
Almost impossible	1.19	1.45*	1.47*	0.99	1.28	1.30
Self-employed	0.88	1.12	1.15	0.88	0.98	0.97
In education	0.46***	0.53**	0.62**	0.59**	0.68	0.73
Unemployed	1.09	1.13	1.38	1.17	1.19	1.30
Inactive	0.77	0.93	1.15	0.95	1.33	1.46
Partnership duration						
Partnership duration	0.80***	0.89**	0.90**	0.80***	0.85***	0.85***
Log partnership duration	4.57***	2.17**	2.11*	4.68***	3.21***	3.19***
Sociodemographic characteristics						
Age		2.07***	2.05***		1.54***	1.53***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.29	1.32		1.05	1.05
Medium (ref.)		1	1		1	1
High		1.21*	1.16		1.20*	1.16
Country of origin						
Germany (ref.)		1	1		1	1
Abroad- low-fertility		1.74***	1.81***		1.23	1.24
Abroad- medium-/high-fertility		1.38	1.47		1.70**	1.71**
Region						
West Germany (ref.)		1	1		1	1
East Germany		1.63***	1.71***		1.61***	1.64***
Prior children of male partner						
None (ref.)		1	1		1	1
Resident		0.56	0.57		0.72	0.72
Non-resident		1.08	1.05		1.19	1.19
Health status						
(Very) good (ref.)		1	1		1	1
Satisfactory		0.84	0.85		0.98	0.98
Poor/bad		0.96	0.99		0.86	0.87
Gross labour income			1.01**			1.00
Constant	0.19***	0.00***	0.00***	0.17***	0.00***	0.00***
Statistics						
n (couple-years)	4,839	4,839	4,839	4,789	4,789	4,789
n (births)	541	541	541	532	532	532
Log Likelihood	-2,738.82	-2,641.17	-2,638.53	-2,721.09	-2,655.21	-2,653.53
chi2	124.10	319.40	324.69	95.16	226.92	230.27

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 29: Effect of chances of finding an equal job on first childbirth in Australia

	Women			Men		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Chances of finding equal job						
Easy (ref.)	1	1	1	1	1	1
Difficult	0.97	0.98	0.98	1.19*	1.22**	1.23**
Almost impossible	1.26	1.35*	1.35*	0.68**	0.76	0.76
Self-employed	0.89	0.96	1.00	1.18	1.20	1.29*
In education	0.56***	0.63**	0.66**	0.81	0.87	0.96
Unemployed	1.07	1.24	1.31	0.83	0.91	1.06
Inactive	0.97	0.99	0.98	0.68	1.12	1.28
Partnership duration						
Partnership duration	0.79***	0.84***	0.84***	0.79***	0.83***	0.83***
Log partnership duration	9.48***	5.48***	5.45***	9.67***	6.52***	6.49***
Sociodemographic characteristics						
Age		1.55***	1.54***		1.41***	1.40***
Age squared		0.99***	0.99***		0.99***	0.99***
Educational level						
Low		1.24	1.25		0.96	0.97
Medium (ref.)		1	1		1	1
High		1.02	1.01		0.97	0.93
Country of origin						
Australia (ref.)		1	1		1	1
Abroad- low-fertility		1.13	1.15		0.86	0.89
Abroad- medium-fertility		1.31*	1.31*		1.06	1.06
Abroad- high-fertility		0.97	0.98		0.95	0.99
Region (remoteness)						
Major Cities (ref.)		1	1		1	1
Inner Regional		1.14	1.15		1.11	1.14
Outer Regional/ (Very) Remote		0.93	0.93		0.97	0.97
Prior children of male partner						
None (ref.)		1	1		1	1
Resident		1.19	1.19		1.22	1.25
Non-resident		0.79	0.79		0.97	0.97
Satisfaction with health		1.07**	1.06**		1.14***	1.14***
Gross labour income			1.01			1.01**
Constant	0.16***	0.00***	0.00***	0.14***	0.00***	0.00***
Statistics						
n (couple-years)	5,108	5,108	5,108	5,019	5,019	5,019
n (births)	714	714	714	690	690	690
Log Likelihood	-2,960.00	-2,884.46	-2,881.46	-2,894.93	-2,818.04	-2,815.43
chi2	159.78	310.86	316.86	140.02	293.80	299.03

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of first childbirth and partnership dissolution. Only coefficients for first childbirth shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix for Chapter 7

Table A 30: Summary Statistics

Panel A: Individual-level variables

	Cohabiting unions				Marriages			
	Women		Men		Women		Men	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Form of employment								
Standard employment	0.39	0.49	0.52	0.50	0.21	0.40	0.55	0.50
Fixed-term full-time	0.06	0.23	0.05	0.22	0.01	0.11	0.02	0.15
Permanent part-time	0.10	0.30	0.02	0.13	0.19	0.39	0.01	0.11
Fixed-term part-time	0.03	0.16	0.01	0.09	0.01	0.11	0.00	0.04
Minijob	0.04	0.20	0.01	0.12	0.10	0.30	0.01	0.10
Temporary agency	0.02	0.12	0.02	0.15	0.01	0.09	0.01	0.11
Employee, missing details	0.03	0.16	0.03	0.17	0.03	0.18	0.03	0.16
Self-employed	0.04	0.19	0.10	0.30	0.06	0.24	0.11	0.31
Civil servant	0.04	0.20	0.06	0.23	0.05	0.22	0.08	0.27
In education	0.09	0.28	0.05	0.21	0.01	0.10	0.01	0.07
Unemployed	0.09	0.28	0.10	0.30	0.06	0.23	0.06	0.24
Inactive	0.10	0.29	0.03	0.18	0.26	0.44	0.11	0.31
Age at start of partnership	29.45	9.23	32.20	9.46	25.53	6.81	28.14	7.20
Educational level								
Low	0.12	0.33	0.09	0.29	0.14	0.35	0.10	0.30
Medium	0.60	0.49	0.60	0.49	0.56	0.50	0.50	0.50
High	0.26	0.44	0.29	0.46	0.28	0.45	0.39	0.49
Missing	0.02	0.15	0.01	0.12	0.01	0.10	0.01	0.09
Religious	0.06	0.23	0.03	0.18	0.20	0.40	0.16	0.37
Commuting								
Work from home	0.02	0.13	0.03	0.16	0.05	0.21	0.04	0.21
Short-distance	0.55	0.50	0.53	0.50	0.54	0.50	0.54	0.50
Long-distance	0.13	0.34	0.17	0.38	0.06	0.24	0.16	0.37
Changing workplace	0.03	0.16	0.08	0.28	0.02	0.15	0.08	0.27
Missing	0.01	0.09	0.01	0.08	0.01	0.10	0.01	0.09
Concern about job security								
Not concerned	0.30	0.46	0.32	0.47	0.29	0.46	0.31	0.46
Somewhat concerned	0.26	0.44	0.28	0.45	0.23	0.42	0.28	0.45
Very concerned	0.11	0.32	0.10	0.30	0.07	0.26	0.11	0.31
Missing	0.02	0.12	0.01	0.12	0.02	0.12	0.01	0.12
Concern about economic situation								
Not concerned	0.19	0.39	0.23	0.42	0.25	0.43	0.27	0.44
Somewhat concerned	0.53	0.50	0.51	0.50	0.53	0.50	0.51	0.50
Very concerned	0.28	0.45	0.26	0.44	0.21	0.41	0.22	0.41
Missing	0.01	0.08	0.00	0.06	0.00	0.06	0.00	0.06
Gross labour income (div. by 100)	15.46	14.33	23.98	19.57	12.37	15.30	31.87	29.72
n	7,199		7,132		49,822		49,547	

Panel B: Couple-level variables

	Cohabiting unions		Marriages	
	Mean	**SD**	**Mean**	**SD**
Partnership duration	4.23	3.73	19.59	11.50
Age of youngest child				
No children (< 13 years)	0.69	0.46	0.63	0.48
Pregnant or child <3 years	0.17	0.38	0.12	0.32
Child 3-6 years	0.07	0.25	0.11	0.31
Child 7-12 years	0.07	0.25	0.15	0.36
Home ownership	0.26	0.44	0.63	0.48
East Germany	0.33	0.47	0.22	0.41
Working-hours constellation				
Both full-time	0.33	0.47	0.14	0.35
Full-time (f) & part-time (m)	0.01	0.11	0.01	0.09
Full-time (f) & otherwise active (m)	0.08	0.27	0.04	0.19
Full-time (f) & unemployed/inactive (m)	0.04	0.20	0.04	0.19
Part-time (f) & full-time (m)	0.11	0.31	0.22	0.41
Part-time (f) & part-time (m)	0.01	0.12	0.01	0.09
Part-time (f) & otherwise active (m)	0.04	0.19	0.06	0.24
Part-time (f) & unemployed/inactive (m)	0.02	0.14	0.04	0.19
Otherwise active (f) & full-time (m)	0.08	0.27	0.05	0.23
Otherwise active (f) & part-time (m)	0.01	0.10	0.00	0.05
Unemployed/inactive (f) & full-time (m)	0.09	0.29	0.18	0.38
Unemployed/inactive (f) & part-time (m)	0.01	0.09	0.01	0.09
Other constellations	0.15	0.36	0.19	0.39
Missing	0.02	0.13	0.02	0.15
Permanency constellation				
Both permanent	0.33	0.47	0.29	0.45
Temporary (f) & permanent (m)	0.05	0.23	0.03	0.16
Permanent (f) & temporary (m)	0.03	0.18	0.02	0.13
Both temporary	0.02	0.12	0.00	0.06
Permanent (f) & otherwise active (m)	0.09	0.29	0.09	0.28
Temporary (f) & otherwise active (m)	0.02	0.14	0.01	0.08
Otherwise active (f) & permanent (m)	0.09	0.28	0.08	0.27
Otherwise active (f) & temporary (m)	0.02	0.14	0.00	0.07
Permanent (f) & unemployed/inactive (m)	0.05	0.22	0.07	0.25
Temporary (f) & unemployed/inactive (m)	0.01	0.11	0.01	0.08
Unemployed/inactive (f) & permanent (m)	0.08	0.27	0.18	0.39
Unemployed/inactive (f) & temporary (m)	0.02	0.14	0.01	0.12
Other constellations	0.12	0.33	0.13	0.34
Missing	0.06	0.24	0.09	0.28
Age constellation				
Male > 5 years older	0.24	0.43	0.18	0.38
Male 1-5 years older	0.33	0.47	0.43	0.49
Same age	0.27	0.45	0.29	0.45
Female 1-5 years older	0.11	0.31	0.08	0.27
Female > 5 years older	0.05	0.21	0.02	0.15
Educational constellation				
Both low	0.03	0.17	0.04	0.20
Both medium	0.41	0.49	0.34	0.47
Both high	0.15	0.36	0.19	0.39
Hypergamous	0.22	0.41	0.27	0.44
Hypogamous	0.16	0.36	0.14	0.35
Missing	0.04	0.19	0.02	0.13
Religiousness constellation				
No one religious	0.93	0.25	0.77	0.42
Female religious	0.03	0.18	0.07	0.26
Male religious	0.01	0.11	0.03	0.18
Both religious	0.02	0.14	0.13	0.33
Commuting constellation				
No one long-distance/ changing	0.35	0.48	0.37	0.48

	Cohabiting unions		Marriages	
	Mean	**SD**	**Mean**	**SD**
Female long-distance/ changing	0.08	0.26	0.04	0.19
Male long-distance/ changing	0.14	0.35	0.13	0.33
Both long-distance/changing	0.06	0.24	0.03	0.18
Missing	0.01	0.09	0.01	0.11
Concern about job security constellation				
No one very concerned	0.39	0.49	0.35	0.48
Female very concerned	0.06	0.23	0.03	0.17
Male very concerned	0.05	0.21	0.04	0.21
Both very concerned	0.03	0.16	0.02	0.15
Missing	0.03	0.16	0.03	0.17
Concern about economic situation constellation				
No one very concerned	0.60	0.49	0.69	0.46
Female very concerned	0.14	0.34	0.09	0.28
Male very concerned	0.12	0.32	0.09	0.29
Both very concerned	0.14	0.35	0.13	0.33
Missing	0.01	0.09	0.01	0.08
Couple's labour income (div. by 100)	39.48	28.18	44.26	34.41
Income constellation				
Male main earner	0.56	0.50	0.67	0.47
Equal earners	0.24	0.43	0.16	0.36
Female main earner	0.20	0.40	0.17	0.38
n	6,890		49,063	

Table A 31: Effects of the employment type/status on occasional arguments and conflicts with the partner

	Women			Men		
	All coupled	**Cohabiting**	**Married**	**All coupled**	**Cohabiting**	**Married**
Employment type/status						
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	0.99	1.27	0.92	1.08	1.87**	0.81
Permanent part-time	1.02	1.06	0.98			
Fixed-term part-time	1.38*	1.01	1.66**	} 0.97	} 0.94	} 1.00
Minijob	0.85	0.55*	0.80*			
Temporary agency	1.53*	2.87*	1.59	1.21	1.84	1.19
Employee, missing details	1.02	0.27**	1.09	0.93	0.59	1.09
Self-employed	1.02	1.23	0.93	1.09	1.49	1.03
Civil servant	1.33**	1.48	1.26	1.30**	1.26	1.32**
In education	0.70**	0.81	0.60	0.78	0.50*	0.38*
Unemployed	0.73**	0.54*	0.72*	0.91	1.06	0.93
Inactive	0.75***	0.72	0.76**	0.84	0.53	0.89
Sociodemographic characteristics						
Age	0.98***	0.98***	0.98***	0.97***	0.96***	0.97***
Educational level						
low	0.85*	0.73	0.86	0.83	0.86	0.82
medium (ref.)	1	1	1	1	1	1
high	1.27***	0.96	1.32***	1.08	1.16	1.04
Missing	1.50**	1.87	1.29	1.04	0.51	1.02
East Germany	0.89	1.03	0.81**	0.83**	1.05	0.81**
Religious	0.89	1.05	0.87*	0.88	0.75	0.93
Partnership status						
Partner separate household	0.66***	1.00	1.00	0.46***	1.00	1.00
Cohabiting union	1.08	1.00	1.00	1.04	1.00	1.00
Marriage (ref.)	1	1	1	1	1	1
Age of youngest child						
No children (below 13 years) (ref.)	1	1	1	1	1	1
Pregnant or child <3 years	1.06	1.14	1.04	0.92	0.81	0.94
Child 3-6 years	1.37***	1.61*	1.35**	1.34**	1.42	1.31**
Child 7-12 years	1.27***	0.90	1.31**	1.04	0.59	1.07
Home ownership	1.00	0.88	1.03	1.01	1.05	1.03
Constant	1.04	1.25	0.91	1.41*	1.77*	1.42
Statistics						
n (observations)	6,219	966	4,352	5,388	838	3,799
Log Likelihood	-3,652.43	-603.72	-2,543.16	-3,041.32	-506.79	-2,164.80
chi2	185.58	43.30	118.40	150.83	42.77	80.50

Results from logistic regression analysis

Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 32: Effects of the employment type/status on the risk of dissolution in cohabiting unions

	Women			Men		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Employment type/status						
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	1.15	0.99	1.05	0.99	0.89	0.89
Permanent part-time	1.22	1.33	1.36*			
Fixed-term part-time	1.29	1.20	1.24	} 1.23	} 1.17	} 1.16
Minijob	1.01	0.82	0.81			
Temporary agency	2.32***	1.99**	2.09**	2.16***	2.15***	2.14***
Employee, missing details	1.83**	1.57	1.53	1.35	1.30	1.29
Self-employed	0.84	1.04	0.86	1.41**	1.63***	1.55**
Civil servant	1.07	1.16	1.17	1.45*	1.58**	1.59**
In education	1.93***	1.18	1.17	1.91***	1.36	1.34
Unemployed	2.21***	2.02***	1.86***	2.06***	2.01***	1.94***
Inactive	1.34*	1.67***	1.64**	1.13	1.51	1.49
Partnership duration						
Partnership duration	0.86***	0.85***	0.85***	0.86***	0.85***	0.85***
Log partnership duration	1.56***	1.68***	1.67***	1.50***	1.61***	1.61***
Sociodemographic characteristics						
Age at start of partnership		0.96***	0.96***		0.97***	0.97***
Educational level:						
Low		1.57***	1.57***		1.33**	1.32*
Medium (ref.)		1	1		1	1
High		0.68***	0.68***		0.82*	0.81*
Missing		1.39	1.35		1.79**	1.77**
Age of youngest child						
No children (below 13 years) (ref.)		1	1		1	1
Pregnant or child <3 years		0.60***	0.60***		0.73**	0.72**
Child 3-6 years		1.16	1.13		1.21	1.20
Child 7-12 years		1.36*	1.32		1.33	1.32
Home ownership		1.03	1.05		1.03	1.03
East Germany		0.86	0.85		0.86	0.86
Religious		1.09	1.10		1.03	1.02
Employment characteristics						
Commuting						
Work from home			1.69			1.46
Short-distance (ref.)			1			1
long-distance			1.02			0.99
Changing workplace			1.16			0.87
Missing			1.28			0.94
Concern about job security						
Not/somewhat concerned (ref.)			1			
Very concerned			0.69**			0.96
Missing			1.35			1.16
Concern about economic situation						
Not/somewhat concerned (ref.)			1			
Very concerned			1.32***			1.08
Missing			0.56			0.00
Gross labour income			1.00			1.00
Constant	0.08***	0.30***	0.28***	0.08***	0.26***	0.26***
Statistics						
n (couple-years)	7,199	7,199	7,199	7,132	7,132	7,132
n (dissolutions)	526	526	526	527	527	527
Log Likelihood	-4,146.21	-4,018.23	-4,006.96	-4,092.02	-3,983.36	-3,974.13
chi2	134.60	390.57	413.10	130.07	347.39	365.84

Results from discrete-time event history analysis with competing risks. Simultaneous estimation of the risks of partnership dissolution and marriage. Only coefficients for partnership dissolution shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 33: Effects of the employment type/status on the risk of dissolution in marriages

	Women			Men		
	Base Model	Socdem Model	Full Model	Base Model	Socdem Model	Full Model
Employment type/status						
Standard employment (ref.)	1	1	1	1	1	1
Fixed-term full-time	1.34	1.23	1.21	1.07	0.98	0.95
Permanent part-time	0.68***	0.78*	0.84			
Fixed-term part-time	0.83	0.87	0.92	} 0.69	} 0.70	} 0.72
Minijob	0.81	0.86	0.95			
Temporary agency	0.97	0.98	0.96	1.44	1.28	1.14
Employee, missing details	1.01	1.11	1.18	1.18	1.15	1.13
Self-employed	1.00	1.20	1.18	1.09	1.21	1.07
Civil servant	0.60**	0.78	0.82	0.96	1.16	1.19
In education	1.38	1.25	1.37	0.91	0.68	0.79
Unemployed	1.34*	1.37**	1.35*	1.91***	1.70***	1.81***
Inactive	0.53***	0.68***	0.76*	1.15	1.32	1.51**
Partnership duration						
Partnership duration	0.89***	0.86***	0.86***	0.88***	0.86***	0.86***
Log partnership duration	2.11***	2.29***	2.27***	2.10***	2.31***	2.28***
Sociodemographic characteristics						
Age at start of partnership		0.96***	0.96***		0.97***	0.97***
Educational level:						
Low		1.16	1.13		0.93	0.93
Medium (ref.)		1	1		1	1
High		0.95	0.95		0.88	0.89
Missing		0.91	0.89		0.85	0.85
Age of youngest child						
No children (below 13 years) (ref.)		1	1		1	1
Pregnant or child <3 years		0.39***	0.41***		0.34***	0.35***
Child 3-6 years		0.65***	0.66***		0.60***	0.60***
Child 7-12 years		0.84	0.85		0.79**	0.79**
Home ownership		0.65***	0.67***		0.66***	0.65***
East Germany		0.92	0.88		0.95	0.92
Religious		0.58***	0.59***		0.57***	0.57***
Employment characteristics						
Commuting						
Work from home			0.86			1.57**
Short-distance (ref.)			1			1
Long-distance			1.26			1.49***
Changing workplace			1.57**			1.35**
Missing			1.09			0.45
Concern about job security						
Not/somewhat concerned (ref.)			1			1
Very concerned			0.88			1.08
Missing			0.90			1.01
Concern about economic situation						
Not/somewhat concerned (ref.)			1			
Very concerned			1.74***			1.30***
Missing			0.93			0.48
Gross labour income			1.01**			1.00
Constant	0.02***	0.10***	0.08***	0.01***	0.08***	0.07***
Statistics						
n (couple-years)	49,822	49,822	49,822	49,547	49,547	49,547
n (dissolutions)	664	664	664	642	642	642
Log Likelihood	-3,358.31	-3,295.89	-3,272.29	-3,275.32	-3,212.03	-3,196.38
chi2	336.70	461.53	508.75	305.39	431.96	463.26

Results from discrete-time event history analysis

Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 34: Effects of the working-hours constellation on the risk of partnership dissolution

		Cohabitations			Marriages		
		Base Model	Socdem Model	Full Model	Base Model	Socdem Model	Full Model
Employment constellation							
♀Full-time	♂ Full-time (ref.)	1	1	1	1	1	1
	♂ Part-time	0.79	0.83	0.84	0.31	0.34	0.30*
	♂ Otherwise active	1.66***	1.75***	1.70***	1.27	1.45*	1.29
	♂ inactive	1.72**	2.02***	1.94**	1.41*	1.57**	1.27
♀ Part-time	♂ Full-time	1.20	1.24	1.23	0.77*	0.90	0.90
	♂ Part-time	1.62	1.52	1.47	0.52	0.61	0.57
	♂ Otherwise active	1.13	1.14	1.08	0.70*	0.95	0.91
	♂ Inactive	2.61***	2.64***	2.53***	1.26	1.39	1.07
♀ Otherwise active	♂ Full-time	1.26	1.06	0.96	0.88	1.05	1.00
	♂ Part-time	0.77	0.93	0.81	0.76	0.99	0.90
♀ Inactive	♂ Full-time	1.72***	1.97***	1.68**	0.65***	0.89	0.88
	♂ Part-time	0.77	0.93	0.81	0.81	0.96	0.88
Other constellations		2.10***	2.09***	1.89***	0.85	1.14	1.15
Missing		2.41***	2.28***	2.26***	1.36	1.64**	1.58*
Partnership duration							
Partnership duration		0.86***	0.85***	0.85***	0.88***	0.85***	0.85***
Log partnership duration		1.50***	1.69***	1.69***	2.17***	2.35***	2.31***
Sociodemographic characteristics							
Age at start of partnership (female)			0.96***	0.96***		0.95***	0.95***
Age constellations							
Male > 5 years older			1.06	1.05		1.10	1.09
Male 1-5 years older			1.00	0.99		0.94	0.94
Same age (ref.)			1	1		1	1
Female 1-5 years older			0.80	0.79		1.23	1.21
Female > 5 years older			1.57*	1.54*		2.14***	2.09***
Educational level:							
Both low			1.58**	1.56*		1.00	1.00
Both medium (ref.)			1	1		1	1
Both high			0.73*	0.76		0.89	0.91
Hypergamous			1.28**	1.29**		0.90	0.93
Hypogamous			0.98	1.00		0.90	0.90
Missing			1.67**	1.68**		0.90	0.89
Age of youngest child							
No children (below 13 years) (ref.)			1	1		1	1
Pregnant or child <3 years			0.63***	0.62***		0.36***	0.37***
Child 3-6 years			1.21	1.17		0.62***	0.63***
Child 7-12 years			1.36*	1.33		0.82*	0.81*
Home ownership			1.04	1.07		0.65***	0.66***
East Germany			0.88	0.86		0.99	0.95
Religiousness							
No one religious (ref.)			1	1		1	1
Female religious			0.96	0.98		1.10	1.13
Male religious			0.72	0.74		1.36	1.36
Both religious			1.20	1.22		0.29***	0.30***
Employment characteristics							
Commuting							
No one long-distance/changing (ref.)				1			1
Female long-distance/changing				1.17			1.17
Male long-distance/changing				0.96			1.17
Both long-distance/changing				0.81			1.45*
Missing				0.66			0.61
Concern about job security							
No one very concerned (ref.)				1			1
Female very concerned				0.72			0.78
Male very concerned				0.97			0.87
Both very concerned				0.63			0.91

	Cohabitations			Marriages		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Missing			1.15			0.99
Concern about economic situation						
No one very concerned (ref.)			1			1
Female very concerned			1.42**			2.11***
Male very concerned			1.13			1.47***
Both very concerned			1.24			1.73***
Missing			0.39			0.56
Income						
Couple's labour income			1.00			1.00
Income constellation						
Male main earner (ref.)			1			1
Equal earners			0.97			0.83
Female main earner			0.89			1.18
Constant	0.07***	0.24***	0.25***	0.02***	0.13***	0.10***
Statistics						
n (observations)	6,890	6,890	6,890	49,063	49,063	49,063
n (dissolutions)	506	506	506	627	627	627
Log Likelihood	-3,950.15	-3,817.50	-3,794.44	-3,201.42	-3,112.23	-3,083.37
chi2	131.15	396.46	442.56	310.44	488.83	546.55

Results from discrete-time event history analysis. For cohabiting unions simultaneous estimation of the risks of partnership dissolution and marriage. Only coefficients for partnership dissolution shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A 35: Effects of the permanency constellation on the risk of partnership dissolution

		Cohabitations			Marriages		
		Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Employment constellation							
♀Permanent	♂ Permanent (ref.)	1	1	1	1	1	1
	♂ Temporary	0.84	0.84	0.83	0.98	0.90	0.83
	♂ Otherwise active	1.32	1.35	1.30	1.23	1.43**	1.33*
	♂ inactive	1.86***	2.14***	2.10***	1.55**	1.61***	1.32
♀ Temporary	♂ Permanent	1.57**	1.36	1.39	1.61**	1.53**	1.50**
	♂ Temporary	0.16*	0.13**	0.14*	0.41	0.35	0.31
	♂ Otherwise active	1.40	1.29	1.23	1.14	1.13	1.02
	♂ Inactive	2.66***	2.46***	2.42**	2.49**	2.18**	1.69
♀ Otherwise active	♂ Permanent	1.15	0.95	0.90	1.08	1.24	1.21
	♂ Temporary	2.81***	2.20***	2.07***	1.11	0.99	0.95
♀ Inactive	♂ Permanent	1.45*	1.63**	1.46*	0.78**	0.99	1.01
	♂ Temporary	2.47***	2.54***	2.28***	1.52	1.73**	1.67*
Other constellations		2.16***	2.00***	1.82***	1.14	1.28	1.27
Missing		1.72***	1.56**	1.51**	0.97	1.07	1.03
Partnership duration							
Partnership duration		0.86***	0.84***	0.85***	0.88***	0.85***	0.85***
Log partnership duration		1.52***	1.70***	1.70***	2.12***	2.34***	2.30***
Sociodemographic characteristics							
Age at start of partnership (female)			0.96***	0.96***		0.95***	0.95***
Age constellation							
Male > 5 years older			1.05	1.04		1.10	1.09
Male 1-5 years older			0.97	0.97		0.94	0.95
Same age (ref.)			1	1		1	1
Female 1-5 years older			0.81	0.80		1.24	1.22
Female > 5 years older			1.60*	1.58*		2.15***	2.10***

	Cohabitations			Marriages		
	Base Model	**Socdem Model**	**Full Model**	**Base Model**	**Socdem Model**	**Full Model**
Educational constellation						
Both low		1.60**	1.58**		1.02	1.01
Both medium (ref.)		1	1		1	1
Both high		0.77	0.79		0.89	0.91
Hypergamous		1.31**	1.31**		0.90	0.92
Hypogamous		0.99	1.00		0.90	0.90
Missing		0.77	0.79		0.90	0.89
Age of youngest child						
No children (below 13 years) (ref.)		1	1		1	1
Pregnant or child <3 years		0.63***	0.63***		0.34***	0.35***
Child 3-6 years		1.29	1.25		0.60***	0.60***
Child 7-12 years		1.36*	1.34		0.79**	0.79**
Home ownership		1.05	1.08		0.66***	0.67***
East Germany		0.86	0.84		1.01	0.96
Religiousness constellation						
No one religious (ref.)		1	1		1	1
Female religious		0.95	0.97		1.10	1.12
Male religious		0.70	0.73		1.33	1.34
Both religious		1.19	1.20		0.28***	0.30***
Employment characteristics						
Commuting						
No one long-distance/changing (ref.)			1			1
Female long-distance/changing			1.20			1.15
Male long-distance/changing			1.00			1.18
Both long-distance/changing			0.87			1.48**
Missing			0.69			0.65
Concern about job security						
No one very concerned (ref.)			1			1
Female very concerned			0.71			0.76
Male very concerned			0.97			0.91
Both very concerned			0.68			0.94
Missing			1.18			1.00
Concern about economic situation						
No one very concerned (ref.)			1			1
Female very concerned			1.42**			2.10***
Male very concerned			1.09			1.45***
Both very concerned			1.20			1.71***
Missing			0.40			0.57
Income						
Couple's labour income			1.00			1.00*
Income constellation						
Male main earner (ref.)			1			1
Equal earners			0.99			0.88
Female main earner			0.92			1.19
Constant	0.07***	0.25***	0.25***	0.01***	0.12***	0.09***
Statistics						
n (couple-years)	6,890	6,890	6,890	49,063	49,063	49,063
n (dissolutions)	506	506	506	627	627	627
Log Likelihood	-3,933.41	-3,808.50	-3,785.57	-3,203.88	-3,112.28	-3,083.87
chi2	164.63	414.45	460.32	305.53	488.73	545.54

Results from discrete-time event history analysis. For cohabiting unions simultaneous estimation of the risks of partnership dissolution and marriage. Only coefficients for partnership dissolution shown.
Exponentiated coefficients; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$