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# The Social Effects of Precarious Work

Research Report

DDr. Ulrike Mühlberger  
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## 1. Introduction

The reconciliation of work and family life is an essential part of the European Employment Strategy. It aims for a win-win situation: to increase female labor market participation while at the same time increasing fertility rates, which have fallen below the population replacement rate in all European countries. A view that has gained some currency in recent years is that flexible forms of employment may be a key factor in the aim to simultaneously achieve these potentially conflicting goals – i.e. non-standard work may facilitate the reconciliation of paid work and family (Evans 2001; Glass & Estes 1997; Dex & Smith 2002).

However, the fragmentation of work histories brought about by employment flexibility has not been sufficiently analyzed so far. It asks for an expansion of the research focus beyond the labor market, examining the effects of non-traditional work forms on the lives of individuals. Being exposed to high labor market risks over the life course is likely to lead to changes in social behavior and consequently to new social outcomes, which in turn require adjusted labor market policies. Exposure to risk may be especially consequential in critical life course periods which coincide with the need to make long-term commitments (such as in partnership and parenthood). This research project pins down the social effects of precarious work, looking at two crucial dimensions: (1) fertility and family formation and (2) family organization and within-family time-use.

While non-standard work broadly refers to all arrangements that fail to meet the standards of a full-time, year-round, permanent employment with benefits, precarious work is a more specific multidimensional construct that is defined according to a range of dimensions such as level of job stability, income sufficiency and social protection (Menéndez et al. 2007). In addition to general social and economic vulnerability, as the result of job insecurity, a low level of social protection and insufficiency of income, precarious work also tends to involve low task quality as well as limited opportunities for skill acquisition, participation in decision-making and career progression.

The relationship between female employment participation and fertility is contested. Economic theories predict a negative relation based on the assumption that women's rising income potential implies higher opportunity costs of childbearing. Thus, the underlying expectation is that the female wage has a negative effect on fertility. But this microeconomic view cannot account for the fact that fertility declines have actually been greatest where female employment has remained at a very low level (e.g. Italy and Spain) or has dramatically declined in recent decades (e.g. transition countries of Central and Eastern Europe). Recent evidence from aggregate data on female labor force participation (FLP) and total fertility rates (TFR) in OECD countries suggests that the traditionally negative relationship between these two variables – observed until the early 1980s – has gradually changed to a positive value by the beginning of the 1990s (e.g. Ahn & Mira 2002; Rindfuss et

al. 2003; Del Boca et al. 2005). This 'puzzle' that challenges the micro-economic assumptions about fertility behavior (as well as the common view that while female employment has gone up, fertility has declined in many European countries) has been explained by policy developments that have eased the reconciliation of employment with childrearing in a range of countries (e.g. availability of subsidized childcare in the Nordic countries and France, spread of high-quality part-time employment opportunities in the Netherlands – as opposed to other Continental and especially Southern European countries). Others, however, refute this view, suggesting that the studies which find a positive correlation between FLP and the TFR suffer from methodological weaknesses, and that fertility still tends to be lower where and when female employment rates are high (Engelhardt et al. 2004; Kögel 2004; 2006a).

Arguing that rising uncertainty stemming from the flexibilization of labor markets may be among the prime reasons for declining fertility in Southern Europe and elsewhere, recent studies have explored whether persistently high unemployment leads to the postponement of childbearing and eventually lower total fertility (Adsera 2004; 2005b; Engelhardt & Prskawetz 2004; Del Boca et al. 2005; Blossfeld et al. 2005; Da Rocha & Fuster 2006). But the evidence on the effects of economic uncertainty on fertility decisions is still inconsistent: while some studies suggest that employment insecurity leads to a postponed entry into parenthood (e.g. Bettio & Villa 1998 for Italy; Golsch 2003; Adsera 2005a; de la Rica & Iza 2005 for Spain; Bhaumik & Nugent 2005 for East Germany; Ranjan 1999 for Eastern Europe), others fail to identify economic uncertainty as a major factor driving the fertility decline (Kreyenfeld 2005; Ahn & Mira 2001; Andersson 2000). Vikat (2004) suggests that among lower educated young women, unemployment may exert a positive rather than a negative effect on fertility, the reason for this being that for young women with poor labor market prospects it may be the rational choice to seek uncertainty reduction in motherhood rather than in low-skilled and insecure work. Holding a temporary contract is found to have a strong negative effect in Spain, while its effect is not significant in Italy, Denmark and the UK (Baizán 2005). Overall, the literature tends to suggest that difficulties with obtaining a permanent job and thus with attaining a certain level of income security are related to the postponement or even limitation of fertility. Yet, while it can be argued that the low levels of fertility found in Spain and Italy are the result of the very high levels of postponement found in these countries (Kohler et al. 2002; Billari & Kohler 2002; Billari 2005), this argument does not generally hold across countries.

Especially in welfare state contexts that afford women the opportunity for 'catching up' later in their lives and careers (and thus facilitate the reconciliation of paid work with motherhood), the mean age of first birth is only weakly related to total fertility (Kohler et al. 2002). While in the Nordic countries or France, the postponement of fertility is the effect of longer schooling and higher career aspirations, in Southern Europe, postponement is more often the result of difficult and prolonged transitions to adult independence (Brodmann et al. 2007). Some findings suggest that the availability of part-time employment allows women to

combine work and motherhood and thus have a positive effect on fertility (Del Boca 2002). However, there is evidence for national differences in the way that working part-time affects fertility (Del Boca et al. 2005; Ariza et al. 2005). It is thus doubtful how much the availability of part-time work can add to the explanation of national differences in fertility patterns.

It can be concluded that similar levels of fertility across countries are likely to be the result of different factors in different countries. First of all, it has become clear that in addition to women's rising education and career aspirations, there are other reasons for fertility postponement such as youth unemployment and the spread of precarious work (Gustafsson 2001). Second, we have seen that postponement leads to lower total fertility in some but not all countries. Third, we see that there are indeed some countries (especially in Eastern Europe) where lowest-low fertility is not associated with an increasing age at first birth. Finally, another explanation for low fertility in Southern Europe stresses culturally dominant norms with regard to maternal employment and childcare (Bettio & Villa 1998; Di Tommaso 1999) that may be deeply anchored in historical traditions (Reher 1998).

It has been shown that difficulties to find a stable full-time job are also related to late home leaving (Aassve et al. 2002) and the postponement of long-term partnership commitments. A thesis commonly found in the literature is that labor market flexibilization and youth unemployment lead young people to delay the establishment of independent households and discourage marriage. Several studies support this hypothesis in different countries (de la Rica & Iza 2005; Golsch 2003 in Spain; Bernardi & Nazio 2005 in Italy; Golsch 2001 in Britain). The postponement of partnership formation is especially marked in Southern Europe (Billari & Kohler 2002; Billari & Rosina 2004; Ahn & Mira 2001). A recent comparative study (Blossfeld et al. 2005), covering a large number of countries in the aim to understand how employment insecurities at labor market entry impact on partnership formation, again documents the impact of welfare regimes.

This research project has initially set out to compare empirical literature on Europe and the US. However, after extensive literature research, it has been proven that there exist hardly any studies on the US. This might be explained by the fact that the US shows high female employment rates as well as high fertility rates, meaning that there is less academic interest in this research area. Adsera (2004) reveals for the US that highly flexible labor markets allows women to temporarily leave the labor market to care for children without risking a dead-end road.

## **2. Postponement and the Fertility Decline**

With few exceptions, demographic events such as those leading to the formation of new households and families have occurred later and later in the lives of women and men

during the recent decades. Although considerable heterogeneity exists both between and within countries, social events such as leaving the parental home, forming a new union, getting married and becoming a parent are being experienced on average later in life than ever before almost everywhere in the developed world. Postponement has been particularly important in understanding the fertility decline observed across Europe over the last few decades (Billari et al. 2006).

Bratti & Tatsiramos (2008) find that “*tempo effects*” are the result of two opposite forces produced by delayed motherhood. Delaying first birth is associated with two opposite effects that determine the overall effect on fertility. On the one hand, delaying the first birth may raise the likelihood of giving birth to a second child for working women due to a positive income effect: delayed motherhood is less costly for a woman’s working career (career-planning motive), raises life-time income and may have a positive income effect on fertility. On the other hand, there are both social and biological forces which lower the fertility of late mothers (biological and stigma effects). Bratti & Tatsiramos (2008) find that for non-working women, delayed motherhood leads to a postponement effect which is higher in the Mediterranean countries, where religious and social norms determine a relative larger stigma effect for giving birth late. For working women, delaying the first birth raises the likelihood of giving birth to a second child, presumably due to an income effect. In countries with high childcare provision and part-time employment opportunities, which lower the opportunity cost of childbearing and facilitate the combination of work and childbearing, the income effect is larger than the negative effect due to the biological and stigma effects, such as in Denmark and France, resulting in a positive overall effect of delaying the first birth, namely to an overall increase of total fertility (catch-up effect). In contrast, the income effect is relatively small in Southern European countries (Greece, Portugal, Spain) due to the low provision of external childcare and the lack of flexibility in the labor market. Furthermore, the negative stigma effect is large, leading to a negative overall effect. Thus, total fertility decreases (postponement effect). Estimates suggest that delaying the age at motherhood by five years - from 25 to 30 – leads to a positive effect on the likelihood of having a second childbirth as high as 19 p.p. for countries such as Denmark, and a negative effect as low as 13 p.p. in Mediterranean countries such as Greece.

### 3. Determinants of Life Course Security

Golsch (2005) argues that – apart from personal values and beliefs as well as developmental and socio-economic background factors – life course security, or readiness, is determined by the labor market context, the gender-related context, the welfare state context, and the partnership context, which are mutually interdependent. For example, there

may be constraints for women due to lacking part-time positions that could ease the combination of work and family career. Whether or not these constraints play a crucial role depends on the gender-related context. Furthermore the welfare state may offer substantial support to gainfully employ mothers (through childcare facilities) and lower social risks through employment-sustaining and welfare-sustaining policies (35ff). Life course security is linked to the stability and predictability of employment, partnership and parenthood career, and hence to the degree to which individual actors can rely on state, family, and market.

González & Jurado-Guerrero (2006) stress the importance of the institutional settings (labor market regulation, housing policies and structures that support the combination of paid work and unpaid work: provision of time (i.e. maternity leave, paternity leave, parental leave, care leave, career breaks and flexible working time patterns), money (i.e. family allowance, housing allowances, social security, social assistance, tax allowances) and services (i.e. nursery places for small children, schooling and after school services), which differently affect individuals' perceptions of insecurity in the labor market.

Schmitt (2008A) stresses the importance of the institutional context. He contrasts family formation patterns in the continental conservative German welfare state with patterns in the liberal market economy of the UK. In Germany, an institutionally encouraged male breadwinner/female homemaker still has a strong impact on how German men and women shape their transition to parenthood. In a context, in which women face high incentives to invest in education while simultaneously being institutionally encouraged to retreat from the labor force, they tend to delay family formation in case they are facing incomplete occupational integration and precarious employment. A sequential combination of occupational career and motherhood remains a predominant way of coping with the squeeze resulting from occupational role demands and the institutional and normative encouragement of the female care-taking role. This sequentially-ordered life-course focus allows German women to retain at least a minimal attachment to the labor market by first transferring educational investments into occupational status positions, diminishing the risk of economic dependence. The dominance of traditionally structured family models is also reflected in the fact that couples with an income distribution that features a male main earner show a higher propensity to start a family. This is particularly encouraged by the German taxation system favoring married, single-earner couples. Women who retain a pronounced labor market attachment, in contrast, find it difficult to combine their career aspirations with the step to motherhood – given limited time budgets, strict norms of maternal care, and an underdeveloped childcare infrastructure. Among both, men and women, completed education and a stable and rewarding occupational position seem to be a precondition to decide for having a first child, whereas part-time employment, previous long-term unemployment, or lower income levels show a negative impact on the transition to fatherhood. Yet, incomplete labor market integration and occupational insecurities seem to

hamper the transition to fatherhood only to the extent that these patterns of precarious employment translate into income reduction, thus undermining economic backing of a family.

While women in Germany pursue at least a initial labor market integration and tend to focus on family formation thereafter, women in the liberal market economy of the UK obviously try to avoid extensive labor market exits. While Germany encourages a retreat to the female family care-taking role, the UK provides a generally low level of welfare state support and protection and leaves precaution to the individuals. The encouragement of diversity and flexibility in the labor market on one side and the limited welfare state protection against life course risks on the other results in less stable employment patterns and a higher exposure to hardships. This results in the necessity of establishing a sound labor market position to attenuate economic risk. The necessity of women completing their labor market integration does not so much rely on establishing an occupational basis to return to after a child-related leave, as reinstatement rights in the UK are largely absent. In this context, women in the UK rather try to realize a parallel combination of the female care-taking role with occupational participation, as underscored by the distinct positive likelihood to decide for a first- child during part-time employment. Women in the UK that face an involuntary exclusion from paid work in the shape of unemployment or subsequent inactivity show a high propensity to start a family in such a context that reduces the opportunity costs of parenthood. They place the transition to parenthood within periods of involuntary labor market exclusion (unemployment and subsequent inactivity). In both countries, Germany and the UK, women with a very strong labor market attachment show a similar reluctance to have a child. Obviously, the ability to reconcile work and family among women with pronounced career aspirations remains a critical issue.

Frejka (2008) shows a correlation between the status of women and men in society (family organization) and the family on the one hand, and fertility on the other (around the turn of the century in Western Europe). In the Scandinavian countries, where women are involved in many spheres of public life and many of them are gainfully employed, and where men share a considerable amount of household responsibilities, fertility is relatively high, close to replacement levels (Oláh & Bernhardt, 2008). In contrast, in the Mediterranean countries where women's involvement in public life is rising but still rare, where lesser proportions of women are gainfully employed, and where patriarchal relationships are still quite prevalent in the family, fertility is very low, considerably below replacement rates (De Rose & Racioppi & Zanatta, 2008; Delgado & Meil & López, 2008).

Bernardi et al. (2007) analyze childbearing intentions in European urban areas (Rome, Hamburg, Warsaw and Ljubljana). They show a difference in the correlation of the level of education and the intention to have a first child for men and for women, respectively. Thus, they document a gender-model conflict, namely a conflict between a male breadwinner

model and a double-earner or gender-equal model. Compared to the situation in which both partners are low educated, men's fertility intentions are positive and strongest if they are the one in the couple holding a tertiary degree or if both partners have a tertiary degree. On the contrary, childless women score a negative risk to desire a child when they have a partner with an educational degree higher than themselves or when they are more educated than their partner. Only in the case in which both partners are highly educated there is a positive effect on childbearing intentions compared to the situation in which both partners are low educated. In other words, it seems that indicators of gender equality in the couple are significant indicators for women's childbearing intentions, particularly for women in equally high educated couples. Men seem to evaluate education unbalance in their favor as appropriate for intending to have a child while such unbalance in her favor would rather discourage them.

Huinink & Konietzka (2007) assume that when binding commitments, such as the birth of a child, are made, it is helpful to have a fairly reliable notion of the long-term consequences of the decision for a partner, for children or a certain lifestyle. They specify three biographical problems, associated with a life course perspective with respect to the decision for and the timing of parenthood: (1) problem of perspectives: partners try to become clear about their own future perspectives and plans in a life course perspective before they make binding commitments. However, marriage or transition to parenthood may also be a solution to the problem of perspectives. (2) problem of resources: economic autonomization with the completion of education and the successful entry into the labor market, (3) problem of compatibility.

#### **4. The Decline of the Life Course Security**

Golsch (2005) argues that the contextual settings that determine life course security, and thus readiness (for parenthood), have changed over the last decades. Significant changes in the economic and social structure interpolate new sources of insecurity in individual life courses. Deregulation and flexibility of contemporary labor markets introduce insecurity in individual labor market careers as become visible in high unemployment, temporary employment, and inactivity. This is to say that education-to-work transitions and adult worker roles appear less certain for the rational actor. Related to this is the increasing need for further education and learning which goes hand-in-hand with less certainty for the individual whether this will pay off in the future. Another aspect of change that is clearly linked to life course security is the substantial retrenchment of welfare states over the last decades, which has lowered the degree of social security individuals can rely on. These economic and social changes result in a decline of life course security. Further aspects that are associated to this

are the growing instability of partnerships, cultural changes and technological innovations (Golsch 2005). In a globalized economy, individual labor market profiles are more insecure, and hence, less predictable. The insecurity hypothesis suggests that with increasing job insecurity individuals lack the ability to envisage future developments and to plan ahead, thus implying less life course security. Both job precariousness and perceived job insecurity will make a postponement of life course decisions more likely.

Mills & Blossfeld (2005) see the increased employment insecurity at labor market entry as a result from globalization. Globalization is thought to have led to increasing uncertainty about economic and social developments in today's societies. The internationalization of markets, the intensification of competition, the diffusion of knowledge and of information technologies, and the rising importance of markets lead to a high level of uncertainty in society, especially among young people who enter the labor market for the first time. Two aspects of uncertainty are of primary importance here: economic and temporal uncertainty. Economic uncertainty refers to the lack of (sufficient) income from labor. Temporal uncertainty relates to the temporal nature of the jobs. Both types of uncertainty are thought to be reflected in the deteriorating employment opportunities for young people.

Billari (2008) argues that the postponement of fertility, i.e. the fact that individuals and couples are having children at an increasingly later age, is a general common feature in Europe and contributed to the emergence and spread of lowest-low fertility (*postponement effect*). Three types of causal factors can be distinguished the driving forces of the postponement of fertility. First, ideational change (increased emphasis on individual autonomy, the rejection of institutional control, the rise of values associated with the satisfaction of individual's "higher order needs", and the growth in gender equality, which led to the emergence of new fertility preferences. Second, the rise of women's education (economic models of the timing of first births predict that the higher the woman's educational level the later is her transition to motherhood). Third, the increasing uncertainty during young adulthood and the emergence of "latest-late" transition to adulthood. Given a multifaceted nature of fertility postponement, uncertainty during young adulthood (coupled with policy changes) can be identified as one of the major driving forces of the postponement of childbearing.

## **5. The Effects of Economic (Un)certainly and Employment (In)security on Fertility**

### **5.1. Theoretical Findings**

Bernardi et al. (2007) see a substantial agreement in the socio-demographic literature that long-term commitments such as marriage and parenthood require some job stability or

realistic future career prospects and some immediate economic security. Sobotka (2004) argues that this is particularly valid for men, whose income in dual-earner families usually remains higher than that of women. Caretta & Deriu (2007) observe that labor market instability induces women to reduce or postpone childbearing. Blossfeld et al. (2005) find that under conditions of economic uncertainty, people's income becomes less reliable, and young people are likely to postpone childbearing until their income becomes more stable and reliable.

Golsch (2005) argues that individuals make life-shaping decisions such as labor market entry and subsequent career, marriage and family formation if they can rely on some measure of medium- or even long-term life course security. From a life course perspective, the decision to embark upon a certain educational or occupational route, to form a union, or have a child, is framed by individuals' general perceptions about the broad social and economic future developments, but also their past, current, and future individual life course perspectives. In other words, life course security is linked to the stability and predictability of employment, partnership, and parenthood career, and hence to the degree to which individual actors can rely on state, family, and market. A stable job position ensures high income stability, thus providing individuals with a certain degree of economic security and good career prospects, is seen as a prerequisite for partnership formation and parenthood. Stable career expectations and a consolidated economic basis allow for life course decisions that involve long-term commitments. Conversely, insecurity should lead to a delay of partnership and parenthood decisions. As a consequence of less stable entry patterns into the labor market – increased insecurity due to deregulation and flexibility – it becomes harder for individuals to meet the requirements (for making long-term commitments) of a solid economic basis and a certain degree of stability in the labor market. Golsch (2005) develops the key assumption that rational actors are more prone to postpone life course decisions if they are uncertain about their future prospects in these domains. To take on new responsibilities, and to make self-binding decisions in particular, a solid economic basis and a certain degree of stability in the labor market are essential. However, there is quite some debate that suggests that male-oriented and female-oriented explanations have to be developed. Men and women may react to insecurity in different ways.

Kreyenfeld (2001), on the other hand, argues that it is not the *current* labor market income which influences fertility decisions, but *expectations* about the future course of the employment career. Based on the assumption that having children demands a stable and predictable economic situation, couples should postpone parenthood when the future course of the couple's (or rather the male's) employment career is uncertain. Del Boca & Pasqua (2005) stress that labor market instability also has an indirect negative effect on fertility. Maternity/parental leave regulation usually guarantees entitlement only to permanent workers, while the extension of the benefit to part-timers and temporary workers is

still quite limited. Whereas macro-level economic instability may lead to financial uncertainty on the individual level, delaying union formation and childbearing in early adulthood in favor of continued residence in the parental household and the pursuit of higher education and job stability, in some societies, economic uncertainty is less likely to delay entry into parenthood, but may lead to the delay or elimination of higher-parity births, as parents realize they cannot afford to have more children (Philipov, 2002; Perelli-Harris, 2005).

Bernardi et al. (2007C) put forward that two partially overlapping scientific "narratives" are used in demography to describe the implications of job stability on the work-life-balance and the consequences that job instability has on fertility intentions and behavior. In Bernardi et al. (2006) these narratives were labeled the "insecurity narrative", inspired by economic theory, and the "uncertainty narrative", inspired by socio-psychological frameworks of the life course: (1) With respect to the insecurity narrative the main line of argument is that job instability equals economic insecurity because the former brings in its wake fluctuating incomes arising from unstable unemployment episodes and rapid job changes. In addition, job instability often requires high residential mobility (given the growing demand for flexibility and mobility).

The notion of insecurity is related to expectations about one's own living standard and living style. As parenthood is a resource-intensive and long-term commitment, the intention to have a child is likely to be postponed or forgone when income and the working conditions are not perceived as stable. (2) The uncertainty narrative identifies biographical uncertainty rather than economic insecurity per se as the major consequences of job instability. The unstructuring of the life-course, which is a consequence of the growing demands for flexibility in the educational and job sphere, brings forth increasing biographical uncertainty in terms of which choices are to be faced and in terms of their timing. According to this narrative, life-course choices that reduce the level of uncertainty are particularly attractive. In this sense, parenthood is a way of producing biographical certainty. Parenthood thus can be thought of as a force that contrasts the biographical uncertainty produced by precarious job situations

– and can therefore be seen as something that is desired. (1+2) The two narratives share a common ground. Both insecurity and uncertainty are deemed to be general negative states that individuals will tend to avoid or reduce. In order to reduce or avoid them, individuals aim to make their future more predictable by increasing control over their circumstances (either by increasing investment in the working sphere or by entering the socially recognized status of parenthood).

Bernardi et al. (2007) argue that the supporters of the two narratives, with very few exceptions, base their empirical arguments on data that define both uncertainty and insecurity in relation to the socio-economic traits of individuals, rather than in relation to the subjective meaning individuals attach to them. The perspective that certainty and security are "intrinsic values" downplays the fact that individuals differ in the extent to which they

perceive and tolerate insecurity and uncertainty. These distinctions, however, are relevant since they have different consequences for family formation behavior, which in turn are central to understanding differentials in fertility intentions and behaviors in different contexts. Job instability may or may not produce job insecurity, and the consequence of job insecurity may or may not affect other life domains, such as family formation. Yet, most socio-demographic empirical literature relating job instability to fertility intentions or behavior is based on models that consider job insecurity as merely objective instabilities in the employment history, rather than subjectively defined insecurities and the ways in which they are related to other life domains.

## 5.2. Empirical Findings

Sobotka (2004) stresses that the empirical evidence on the effects of the labor market and economic uncertainty on parenthood is inconsistent and often conflicting. It suggests that the influence of uncertainty on first birth timing differs in time, across countries, by type of uncertainty, and has a different impact upon various population groups.

Adsera (2005C) analyses 13 European countries and finds that the current demographic transition is strongly associated with the constraints of the labor market where fertility decisions are taken. A higher gender gap in unemployment within a country is accompanied by a slowdown in the transition to motherhood and to further births. Further, in countries where long-term unemployment is rampant, childbearing occurs significantly later. In a country with no gender gap in unemployment and a moderate 20-percent long-term unemployment rate (under the 30-percent average), around 82 percent of women would have become mothers by age 35. By contrast, in countries with a 10-point difference between female and male unemployment rates and a 60-percent long-term unemployment rate, only slightly over two-thirds of women would have had a child by age 35. Similar differences persist into the transition to a second child. The negative effect of persistent female unemployment is particularly large in the case of the third birth. Eight years after the birth of a second child, only one in four women will have had a third child in countries with hysteretic unemployment and a large gender unemployment gap. Once they become mothers, women are likely to plan for a two-child family, but under harsh economic conditions, very few venture into larger families. Where male and female unemployment rates are similar and joblessness is short-lived, fertility rates are around 1.81, close to the current rates of the Nordic countries and Ireland. However, when unemployment rates are particularly high for women and unemployment is highly persistent, the estimated fertility is only around 1.28, similar to that prevalent in Southern Europe. These simulations closely match the high and low ends of the distribution of fertility rates within Europe and their underlying labor market conditions.

For Germany, Schmitt (2008A) finds that for both sexes, completed education and a stable and rewarding occupational position seems to be a precondition to decide for having a first child. Incomplete labor market integration and occupational insecurities hamper the transition to fatherhood insofar as these patterns of precarious employment translate into an income reduction, thus undermining economic backing of a family. For the UK it is found that a lack of labor market integration does not (necessarily) have a negative effect on the transition to parenthood. On the contrary, women in the UK facing involuntary labor market exclusion (unemployment and subsequent inactivity) show a high propensity to start a family within such periods.

Golsch (2005) finds support for the insecurity hypothesis for the UK and Spain but not for Germany. It is demonstrated that labor market insecurity determines the decision to become a parent. At the same time, her analysis reveals different impacts on men and women and cross-country differences. In Germany, the transition to first parenthood does not seem to be influenced by men's and women's activity status. Furthermore the type of employment relationship does not seem to matter for the transition to parenthood in Germany. Likewise, the individual perception of job insecurity appears to have no effect on the decision to have a child. While in Germany, insecurity does not seem to interfere with parenthood decisions, it looms large for men and women in UK. Here, in support of the insecurity hypothesis, a precarious employment relationship has a negative impact on entry into first fatherhood: holding a temporary job decreases the likelihood to become a father. Yet, this insecurity effect vanishes when marital status is included in the analysis. Golsch finds the same negative relationship between the probability of becoming a mother and temporary work. The youth living in Spain confronts the strongest detriments of increased labor market insecurity. The transition to first parenthood is heavily influenced by the activity status of men and women. In Spain, temporary employment is extraordinarily high, long lasting, and alternating with unemployment spells. It is therefore hard to establish and solidify an economic basis through permanent employment, particularly at younger ages. As a consequence, Spaniards in insecure labor market positions are less likely to become fathers and more likely to postpone it until they become an "insider". With a large absence of social security and a lack of security in terms of maternity leave and re-entry after employment disruption in Spain, not only the type of men's employment contract but also women's perception of job security matter. Compared to gainfully employed men, those unemployed or not economically active are less likely to become a father. Unemployment leads to defer first motherhood while this transition is highly probable for inactive women, who are likely to have already decided to embark on a family career. Spaniards who hold a permanent job have the highest probability to become fathers. Conversely, men on temporary posts have children less often and at later ages. At the same time, insecure employment has no impact on the transition to first motherhood. Surprisingly, the higher the degree of satisfaction, the lower is the probability

to become a father. For women, Golsch observes the opposite effect. The more they think that their job is secure the more likely they are to become mothers. Educational qualification plays a significant role for transitions to first parenthood. In Germany, highly qualified women postpone this parenthood decision and seem to catch up with their less educated counterparts. In The UK, there is also evidence that well educated men and women adjourn the decision to have a child. In Spain, men and women with low educational qualification are more likely to become fathers and mothers, respectively. Considering married couples, in all three countries secure male breadwinner families and, complementary, female homemaker families are most likely to become parents. Quite the opposite, in dual earner couples, couples in insecure positions and couples where the woman contributes to the household income through her part-time work.

Bernardi et al. (2007) stress that economic stability, i.e. stable employment for at least one of the partners, is a necessary condition to become a parent. Considering the employment status of couples who have already experienced a first birth, the most frequent combination between the mother's and the father's employment at first pregnancy is when both partners are employed. Employment stability is reached later and later in one's life course – in line with the postponement of parenthood. It seems that the later the economic stability is reached the later individuals enter a union and form a family. The authors conclude that the strongest factor which could encourage couples to intend a child would be to guarantee them a secure job situation for the female partner, net of the different combination of educational degrees.

Ekert-Jaffé & Solaz show for France that when comparing two cohorts, whose members formed couples at two very different periods (1970s and 1980s vs. 1990s), the early labor market career path has become an important factor in couple formation. Both unemployment and insecure employment delay couple formation by young adults. The negative effect of insecure employment has increased for the younger cohort. The rise of two-earner couples has gone hand-in-hand with greater symmetry between men and women in terms of couple formation: specifically, unemployment is now a handicap with respect to couple formation for women as well, although still less than for men.

González & Jurado-Guerrero (2006) stress for Spain, Italy, West Germany and France that being economically inactive, having a permanent job, and having a longer-lasting job position together with a relatively high income seems to favor motherhood. Regardless of age and educational level, women who are within the education system or with unstable employment relations (fixed-term contracts, a recent employment relation or unemployment) have a low propensity to have a first child. Individuals confronted with uncertainty feel less confident to make long-term commitments such as marriage and parenthood. This uncertainty, however, may be mediated by institutional settings (in which employment and childbearing decisions are taken) (Kohler et al., 2006). González & Jurado-Guerrero (2006)

also put forward that different national institutions influence women's life transitions, in particular partnership and motherhood. A similar degree of labor market deregulation may not cause the same reactions on individuals providing there are other institutions that have an effect on their transitions into parenthood, for instance, through public intervention (i.e. labor market policies, housing policies, family policies). In general, a number of socio-economic conditions have to be fulfilled in order to have a first child in Spain, Italy and West Germany: to be out of school and to be in a partnership. Apart from this, there are different pathways to exit childlessness among these European countries. The authors distinguish between two paths leading to motherhood: Motherhood occurs more easily within male-breadwinner couples – the uncertainty and conciliation problem constraints are overcome through a gender division of labor within the partnership, economic inactivity of the woman. Alternatively, women tend to pursue motherhood after having reached a comparatively high personal income and/or job stability as a way to overcome the relatively high direct costs, opportunity costs and conciliation problems of having a child. Women who are not employed manage to have a child, surely because their partner earns a sufficiently high income, and women with a high income can externalize a great deal of unpaid work to the market in a welfare context of limited public policies for working mothers. In national institutional contexts that pose more problems for reconciling family and employment – in West Germany and particularly in Italy and Spain – both paths leading to motherhood (two ways to cope with conciliation and opportunity cost constraints) are found. In national institutional contexts that are more supportive of mothers' employment, as in the case of France, most women fall into the second category. That is to say, women expect to reach job security and gain experience in the workplace and to be in dual-earner couples in order to have a first child. Since it is easier to combine family and employment in this context, the opportunity costs of a child are relatively low. The positive context effect in France is related to a strongly implemented and socially accepted dual earner family, which represents by far the best living arrangement to exit childlessness. Women with unstable employment are more likely to postpone or forgo motherhood than women in a long lasting employment position. The uncertainty, mainly caused by labor force flexibilization, is partly responsible for the progressive delay of motherhood and the eventual increase in unintended childlessness, in varying forms, for Spain, Italy (Southern Europe) and West Germany. In Italy, unlike in Spain and similarly to France, fixed-term contracts are not a barrier to the transition to a first child. In Spain fixed-term contracts and unemployment constitute important barriers to the transition to a first child in Spain compared to a permanent job and to a homemaker position, after controlling for personal income. In Italy, unlike Spain and France, unemployment does not negatively affect the likelihood to become a mother. Instead, homemakers and unemployed women seem more likely to become mothers when compared to women with a permanent job. In West Germany unemployed women and women with 3-6 years of employment duration have a higher propensity to have a first child compared to women in a permanent

job and to inactive women respectively, which is similar to the corresponding Italian models. Like in Italy, being in a partnership, where she is unemployed and he is employed, eases motherhood.

Andersson (2000) and Hoem (2000) demonstrate for Sweden that women well established in the labor market and with a decent level of earnings have much higher propensities to become a mother than childless women with a weaker attachment to the labor market. Andersson (2005) shows that this pattern is strengthened by the design of family policy, which is aimed at strengthening women's labor-market attachment and at promoting gender equality, facilitating the combination of work and family life (i.e. a specific combination of individual taxation, income-replacement based parental leave and subsidized high-quality full-time day care and a "speed premium", which creates incentives to women to have their children at relatively short birth intervals). This underlines that parenthood and labor-market activity are by no means considered as competing activities by Swedish women. A decent level of income for a woman in Sweden is seen as a prerequisite for her childbearing and certainly not a hindrance to it.

Looking at Italy, Spain, France, Austria, Germany, Netherlands, United Kingdom and Norway, Wolbers (2007) finds that graduates with an insecure employment status at labor market entry are indeed less likely to leave the parental home and establish a nuclear household and family than those with stable first employment. These results hold true for men concerning the entry into marriage and parenthood. The negative impact of employment insecurity at labor market entry on the likelihood of getting married and the likelihood of becoming a parent is, in general, greater for higher educated young men than for higher educated young women. For the Netherlands, Liefbroer (2005) finds that perceived uncertainty influences the postponement to parenthood.

There are several papers looking on East and West Germany with inconsistent results. Eastern Germany is shown to be an example for a narrow correlation of economic changes and (low) fertility on the macro-level (Kreyenfeld, 2008). Some authors find uncertainty to be one of the key factors that contributed to the drastic fall in fertility in former East Germany during the first half of the 1990s. Golsch (2005) finds no support for the insecurity hypothesis in Germany. Neither men's and women's activity status nor the type of employment seems to influence the transition to parenthood. Diewald & Düntgen (2008), on the other hand, argue that experiences of insecurity, expectation uncertainty and unsteady working careers lead to postponement of fatherhood and – especially – motherhood, whereas a steady and thus progress of income without substantial jumps in the previous career have a positive effect on the realization of parenthood. Bernardi et al. (2007) find substantial differences between eastern and western Germany in the consequences of job insecurity on intentions to have a first child. While in western Germany a relatively secure job career is expected to precede family formation, in eastern Germany job security and family formation are thought of and

practiced as parallel investments. Schmitt (2008A) shows that among both sexes, completed education and a stable and rewarding occupational position seems to be a precondition to decide for having a first child. For Western Germany, Kreyenfeld (2008) finds that postponement of family formation can hardly be explained by female unemployment. However, the use of fixed-term contracts has a negative impact on family formation. For temporarily employed workers the rate of first births is reduced by more than 20%. Perceived economic uncertainty as well as part-time work has a negative impact on transition to first birth only for women with a high school diploma. These results indicate that for highly qualified women (Abitur) part-time work is a form of precarious work, perceived as inadequate for family formation. For low-qualified women (Hauptschul-degree or no degree) the tendency to parenthood increases in periods of economic insecurity. This result supports the hypothesis that for women with limited working career options parenthood can be perceived as a biographical alternative to an unsatisfying working career.

Bernhard & Kurz (2007) find some evidence for a wide spread male breadwinner model in Germany. Higher educated men who are expected to realize higher incomes more often expand their families than less educated men. Furthermore non-employed women and women working part-time share a higher probability of a transition to second birth than those employed full-time. On the other hand, they find evidence for a tendency of erosion of the male breadwinner model. Men who are employed with stable contracts are just as likely to have a second child as those with unstable contracts, whereas women with temporary contracts are less likely to become a mother for the second time if they are employed full-time.

Kreyenfeld (2004) contrasts childbearing patterns in the German Federal Republic (FRG) and German Democratic Republic (GDR) prior to unification to demonstrate the pervasive role of institutional constraints for the relationship between female employment, female education and fertility. She found very strong and distinct differences in fertility behavior in the two Germanies. Apart from differences in the total number of children, which was higher in the GDR than in the FRG, there were glaring differences in the age at first parenthood. The societal context in the case of the GDR supports (high coverage of full-time day-care, one year of parental leave combined with a high level of income replacement, low employment uncertainties due to a highly structured and centrally planned labor market, etc., used to stable and predictable fulltime employment careers), in the case of the FRG hampers the compatibility between work and family life (institutional constraints fairly supportive to traditional family types, virtually no public policies that encouraged mother's employment or favored dual-earner families, inflexible childcare system, etc.).

Bernardi et al. (2007) find substantial differences between eastern and western Germany in the consequences of job insecurity on intentions to have a first child. In western Germany, a relatively secure job career is expected to precede family formation, and this sequence of

transitions is rather rigid, whereas in eastern Germany job security and family formation are thought of and practiced as parallel investments. Western German couples tend to focus on and streamline their working career when faced with job instability and job insecurity, while Eastern Germans handle the consequences of job instability in a more flexible way. They pursue a "diversified portfolio" of priorities without strictly sequencing their achievements. Job insecurity is likely to play a lesser role in fertility timing. The authors suggest that the lack of convergence in family formation patterns between eastern and western Germany after the unification of the country in 1990 is partially related to different attitudes toward job insecurity in the two contexts. Western Germans' ideal of a straight career path with a lack of discontinuity between the stages of the life cycle is typically linked to the attitude of a rational, planned, and straightforward approach to life. The foundation of this ideal was the life-long inclusion of the male breadwinner in the labor force, and this notion is echoed in the range of patterns and categories we find in the western subsample of young adults today. The western respondents seem to apply the strategy of trying to increase predictability by a sequential approach. The authors suggest that the insecurity narrative can be convincingly used to interpret rising childlessness in western Germany. In contrast eastern Germans increase their chances to satisfy all of their life course priorities by accounting for the unpredictability of their achievements in terms of timing and sequencing of events. Instead of framing educational and occupational interruptions as defeats or accidents, they talk about them in terms of opportunities. The alternative set of strategies, typically for the eastern German respondents, provides for an alternative narrative, what can be termed the balancing narrative yet to be told by socio-demographers. The balancing narrative to interpret the relationship between job insecurity and fertility is characterized by a reduction in the expectation that the life course will be predictable at reasonable personal costs. Therefore, respondents who apply this narrative are very confident of being able to cope with job market hazards and with childbearing at the same time. The difference between the sequential and the parallel life course careers of employment and family, or between a predictability strategy and a balancing strategy, is consistent with earlier transition to first birth in eastern Germany and rising childlessness and faster transition to second birth in western Germany – the observation that Eastern Germans continue to become parents more often and do so at younger ages than their western counterparts, even if they face higher socio-economic insecurity and unemployment. On the one hand, once western Germans decide to become parents, they probably have settled most issues related to their working life in the best way available to them and have overcome the feeling that their lifestyle may be threatened by children. With the exception of health and other biological limits, there are no other unpredictable obstacles to having a second or third child, provided it is desired. The question, though, is whether or not they succeed in starting with family formation at all, given the emphasis on strict sequencing and high achievement. On the other hand, in the eastern German sample, the more flexible attitudes to the timing of parenthood – attitudes that

encourage first birth – may be a factor that delays successive childbearing because the desired balance between family and employment has to be re-established and re-evaluated before every successive childbearing decision

Diewald & Düntgen (2008) find that women in Eastern Germany more often compensate for insecurities in the work life by making long-term commitments in the private sphere (family formation). For Western Germany, Tölke – Diewald (2003) argue as follows: (1) In accordance with the spillover hypothesis, which assumes that labor market success (or failure) leads to success (or failure) in family behavior (which postulates that insecurities in the working life carry over into the private life, postponing or preventing long-lasting commitments), they find that under difficult and/or insecure circumstances in career patterns, men delay their transition to fatherhood. The delay is caused in particular by unemployment, self-employment (usually requires money and preparation in advance, and plenty of time and energy is needed to run a business) or part-time work. As men in western Germany still see themselves and are regarded as being the breadwinner of the family, they shy away from family responsibilities when their economic situation is insecure. A successful career development, however, increases the propensity to have a child soon after having taken a career step. The probability of becoming a father is significantly higher for those men who climb up the career ladder than for those on a steady track. This feature may be attributed to a timing effect. Upwardly mobile men (have to) postpone the founding of a family because long educational periods and investment in the career take time. But if they succeed, the probability of establishing a family is no longer low, and they catch up with high speed. The results concerning the upward career track support one aspect of the spillover hypotheses, namely that success in the labor market is passed on to family behavior. (2) Steady relationships seem to decrease or even neutralize the effects of some difficult labor market experiences. When having started one's partnership biography, part-time work as one of the insecurities is not significant any more, loses importance. On the other hand, being unemployed is still effective in partnerships and reduces the propensity to start a family, marriage and parenthood. However, in case of a formalized relationship by marrying in comparison to cohabiting unemployment loses its significance. Self-employment and upward mobility are the only characteristics of the working-life, which keep up their crucial status even when the kind of relationship is included in the model specification. Self-employment reduces the realization of fatherhood significantly and a career step has a beneficial effect on it.

Also for West Germany, Tölke (2004) finds that under difficult circumstances, including interruptions in paid work, part-time work and self-employment, men postpone marriage and fatherhood. Job insecurities hamper marriage and fatherhood significantly – in the early career path as well as in the further course of working life.

A growing body of literature looks at transition economies. Billari (2008) argues that uncertainty is of primary importance for the transition economies of Central and Eastern Europe, although in some of these countries the postponement of childbearing started somewhat later with respect to Northern, Western, and Southern Europe. In most transition economies, fertility declined very steeply during the 1990s, sometimes immediately following the fall of socialist regimes, sometimes with delay of a few years. However, the evidence for the role of rising uncertainty in relation to the sharp fertility decline in Eastern Europe is ambiguous (for instance Kohler & Kohler, 2002). An analysis of fertility intentions in Bulgaria and Hungary documents that uncertainty might be reinforced by anomy and disorientation, factors that both contribute to the postponement of childbearing (Philipov & Spéder & Billari, 2006). An additional factor that might have driven postponement in Central and Eastern Europe is related to policy changes, or to the uncertainty surrounding specific policies.

Frejka (2008) stresses the importance of (a new set of) economic factors previously unknown in the state socialist economies, namely the type that evolve naturally as part of the shift towards a market economy, such as competition in the labor market, job insecurity and rising costs of children, for the demographic changes taking place in the CEE countries during the 1990s and the early 21st century. Attempts to decipher the main determinants of the fertility declines of the 1990s in Central and Eastern Europe were centered on two theories: The first theory argues that the economic and social crises which occurred in the wake of the transition from the state socialist centrally managed economies to capitalist market economies in the early 1990s were the principal causes of the rapid demographic changes. The other theory claims that it was the diffusion of western norms, values and attitudes regarding family formation and childbearing that were instrumental in causing the observed demographic trends. Frejka (2008) argues that both theories make valid observations, but that they do not reveal the root cause of the respective demographic trends, namely, the replacement of the state socialist regimes by market economies and by fledgling democratic institutions of governance (replacement of the socialist economic and political system with the capitalist system). The former created the relatively favorable conditions for childbearing of job security, low-cost housing, free education, free health care, and a variety of entitlements associated with child birth and childrearing, as well as shortages of career opportunities, leisure activities, and consumer goods. These were (after the collapse of the state socialist regimes around 1990) replaced by the more restraining conditions for childbearing of job insecurity, an increasing pressure to acquire more education, expensive housing, lesser and declining birth and childrearing entitlements, as well as the availability of a variety of career opportunities, leisure activities and consumer goods. The citizenry of the state socialist countries had grown accustomed to a relatively care-free existence, although the standard living conditions were worse than in the Western countries, and there were numerous unpleasant concomitants to this lifestyle. All of a sudden, people were submerged

into societal conditions which made it more difficult to earn a living, and under which various costs previously borne by the paternalistic state became the responsibility of individuals and families.

Matysiak & Vignoli (2007) argue that during state socialism, a dual earner/female double burden model was developed in Eastern Europe. Women were expected to be workers as well as the main care providers. They were supported in performing their double roles by generous social policies, job guarantees and low competition in the labor market. Since the breakdown of the system, the economic transformation and rising uncertainty in the markets have been accompanied by a reduction in the public provision of services. As a result, the difficulties in combining family and work have increased, resulting in a severe decline in fertility and employment of women. Following the fall of the socialist regime, the Eastern European countries experienced a severe fall in women's labor-force participation and fertility, accompanied to a large extent by a withdrawal of the state from institutional support of working mothers.

## **6. The Influence of Aggregate Unemployment on Fertility Decisions**

The OECD (2007) argues that unemployment is likely to play a role in the fertility decision. The effects of unemployment on the timing of births and number of births are, however, ambiguous. Unemployment may increase fertility rates, as each woman may expect a lower probability of finding jobs and lower wages, both of which reduce the opportunity costs of childbearing. On the other hand, when unemployment is high, young adults may decide to remain in their parent's home and/or to continue their education, both of which contribute to postponing partnership formation and childbearing. In most OECD countries fertility rates are higher in periods of low unemployment and lower when unemployment is high. There are some exceptions: in Korea both fertility and unemployment rates have declined over the past twenty years; in Canada, Australia and New Zealand, as well as several Nordic countries, swings in unemployment rates are not associated with significant changes in fertility rates. Conversely, in southern European countries, higher unemployment strongly reduces fertility, as the low female participation in the labor market implies that the substitution effect arising from a decrease in the opportunity cost of the woman's time is small compared to the income effect from the loss of male income (Ahn & Mira, 2002). The negative association between unemployment and fertility rates seems to hold also when considering the female unemployment rate instead of the overall unemployment rate (Adsera, 2004).

Generally, high unemployment is assumed to exert a pronounced negative effect on fertility (Schmitt, 2008B). The assumed mechanism at work is that high unemployment signals bleak labor market prospects and the resulting occupational insecurities offer an unpromising

outlook for starting a family. Thus, couples tend to focus on occupational attainment in order to contain risks that fosters a deferral of childbearing decisions. Such macro-level correlates are no reliable indicators when attempting to unravel the underlying mechanisms at work. Two topics are of special relevance in this context: 1) It remains unclear through which mechanisms such objective indicators as unpromising economic prospects translate into individual perceptions, and 2) Once these perceptions are established, it is unclear how individual perceptions of economic uncertainty affect fertility behavior.

Meulders & Gustaffson (2004) argue that expectations of high and persistent unemployment have different effects on fertility: on the one hand, women will participate in the labor market to protect household income against negative shocks to partners' wage and employment; on the other hand, they will not leave employment during childbearing years to protect their own labor market prospects. Sobotka (2004) finds that at the societal level, worsening economic and employment conditions are usually associated with reduced fertility and accelerated postponement. However, improving labor market conditions for women may lead to first birth deferment as well. Del Boca & Pasqua (2005) provide evidence that in countries where the unemployment rate is high, young couples tend to postpone household formation and fertility. Young people wait to be well established in their jobs before getting married and having children. The experience of unemployment not only reduces current income, but also affects the level of income that the families consider necessary for the well-being of their children. Sobotka (2004) argues that there appears to be consensus about the societal-level influences of unemployment: high unemployment rates increase economic uncertainty and discourage young people from union formation and parenthood. Southern European countries, in particular Italy and Spain, again constitute a primary example of this situation: "The chronic youth unemployment in Southern Europe has discouraged young adults from entering the labor market, has made higher education more attractive, and has caused working conditions to deteriorate toward a high fraction of low-paid temporary jobs" (Kohler, Billari, and Ortega 2002: 654).

Analyzing 13 European countries, Adsera (2005B) finds that high unemployment exerts a pronounced negative effect on fertility for a set of European countries. A higher gender gap in unemployment within a country is accompanied by a slowdown in the transition to motherhood and to further births. Further, in countries where long-term unemployment is rampant, childbearing occurs significantly later. The negative effect of persistent female unemployment is particularly large in the case of the third birth. Eight years after the birth of a second child, only one in four women will have had a third child in countries with hysteretic unemployment and a large gender unemployment gap. Where male and female unemployment rates are similar and joblessness is short-lived, fertility rates are around 1.81, close to the current rates of the Nordic countries and Ireland. However, when unemployment rates are particularly high for women and unemployment is highly persistent, the estimated

fertility is only around 1.28, similar to that prevalent in Southern Europe. These simulations closely match the high and low ends of the distribution of fertility rates within Europe and their underlying labor-market conditions. Transitions to second and third birth are hindered by economic uncertainty in high unemployment settings and by a woman's own long-term unemployment spells.

For Norway, Kravdal (2002) stresses the depressive effect of high (aggregate) unemployment rates on (aggregate) fertility. Wolbers (2007) looks at Italy, Spain, France, Austria, Germany, Netherlands, United Kingdom and Norway and summarizes that employment insecurity has a negative impact not only at the micro- but also at the macro-level. In European countries, in which unemployment among young people with tertiary education is high, the likelihood of entering independence, marriage and parenthood is smaller than in countries where such unemployment is low. The negative effect of this youth unemployment measure proved to be equally strong for male and female graduates. For Spain, Gutiérrez-Domènech (2008) finds that female regional unemployment rates have a negative effect on timing to first, second and third birth, especially in the first two parities.

## 7. The Influence of Individual Unemployment on the Fertility Decision

Sobotka (2004) argues that unemployment constitutes an example of a situation which is often referred to by the terms 'instability' and 'uncertainty.' Presumably, both individual-level and societal conditions associated with uncertainty have a strong impact on fertility decisions. At the individual level, labor market uncertainty usually reduces the propensity for parenthood among men, while the effects among women are filtered through cultural-specific conditions and are inconsistent. Overall, there is still very little understanding as to how particular types of uncertainty affect individual decision-making on fertility timing and quantum, and as to how this decision making is shaped by class-specific resources and aspirations.

Golsch (2005) finds for Germany that men and women who are either unemployed or not economically active are always less likely to become a parent than their employed counterparts, but this difference is never statistically significant. Transition to first parenthood does not seem to be influenced by men's and women's activity status. In Spain, compared to gainfully employed men, those unemployed or not economically active are less likely to become a father. Unemployment leads women to defer first motherhood while this transition is highly probable for inactive women, who are likely to have already decided to embark on a family career.

Diewald & Düntgen (2008) follow for Germany that unemployment does not have an

immediate effect but the longer it takes the stronger the negative impact on fatherhood. Being unemployed reduces the probability of motherhood significantly (no compensation effect). Also a period of unemployment in the recent past reduces the probability of motherhood.

Analyzing 13 European countries, Adsera (2003) finds that transitions to second and third births are hindered by a woman's own long-term unemployment spells. The proportion of women with two children eight years after the first birth was 70% among those who had not experienced a recent long-term unemployment spell but only around 60% among those who had. The negative effect of women's long-term unemployment spells continues to show significantly on the transition to third birth. The uncertainty spawned by unemployment discourages large families.

For France, Meron & Widmer (2002) argue that unemployment among young women living in union postpones the birth of a first child. Experiencing a period of unemployment has prompted women born between 1952 and 1973 to delay their first birth in the expectation of better times. This phenomenon is even more evident when the woman has relatively little education and when she belongs to the most recent birth cohorts. Women who experience unemployment have a very different family behavior from homemakers, who have a first child more rapidly than women who are in the labor market (being out of the labor force, especially at the start of life together as a couple, translates into much more rapid first births that undoubtedly reflect an accelerated childbearing schedule).

For Western Germany, Tölke & Diewald (2003) highlight that unemployment causes a delay of the transition to fatherhood. Being unemployed is still effective in partnerships and reduces the propensity to start a family, marriage and parenthood. However, in case of a formalized relationship by marrying in comparison to cohabiting unemployment loses its significance. Tölke (2004) finds a negative effect of unemployment on family formation and Schmitt (2008A) suggests that previous long-term unemployment has a negative effect on the transition to fatherhood in West Germany.

For France, Finland, Germany, and the UK, Schmitt (2008B) finds clear evidence for gender-specific opposing effects of unemployment on family formation. The impact is consistently negative among men (which can be attributed to the lack of breadwinner capabilities in the inability to financially support a family) and positive among women (women show positive effects of unemployment on the propensity to have a first child in all countries except France). Only women in France and men in the UK deviate from this picture, and do not show any significant effects. The findings are pronounced in Germany and the UK where work-family conflicts are the cause of high opportunity costs of motherhood, and the gender-specific division of labor is still highly traditional. Particularly among women with a moderate and low level of education, unemployment clearly increases the likelihood to have a first child. More generally, the impact of unemployment remains insignificant if unemployment

duration is rather short. That is, it is predominantly longer unemployment episodes of more than four months of continuous unemployment that show significant effect levels. The impact of *longer* unemployment is negative among men and positive among women. Women in Finland however deviate from this otherwise persistent pattern across those countries, where unemployment affects family formation rationales. Among Finish women, only shorter unemployment episodes of up to four months show a positive effect on the likelihood to start a family. The latter effect also remains widely constant across all estimated models. Among men, unemployment hampers family formation. This context, however, is essentially related to the imminent effects of a reduced financial backing, whereas Schmitt did not find any consistent evidence that unemployment persistently signals reduced breadwinner qualities beyond the direct economic setbacks. Among women, unemployment encourages the transition to parenthood if occupational prospects are bleak, or if a close link to the labor market has been broken. This is reflected in the finding that particularly longer periods of unemployment and subsequent economic inactivity speed up the transition to parenthood. Moreover, a pronounced impact of unemployment among women with a lower educational and vocational attainment is found. These findings are particularly pronounced in Germany and the UK, two countries that leave the burden of reconciling occupational engagement and parenthood to women. Importantly, these two countries combine contradictory institutional arrangements by nourishing occupational aspirations, particularly among younger women, while traditional gender roles are still culturally embedded and institutionally reproduced – for example by neglect of maternity protection and support (UK), strict maternal carer norms (Germany), and by an underdeveloped supply of public childcare (in both Germany and the UK). The consequence of these contradictory institutional arrangements in market (i.e. individual) oriented and in family oriented institutions are high opportunity costs of parenthood. These opportunity costs are further increased by the necessity of establishing an autonomous and independent economic position, last but not least, in order to compensate for limited institutional protection from life course risks and economic hardships. This leads to a strong female labor market attachment. Against this background, only longer unemployment episodes that have already hampered labor market integration show a positive impact on to the likelihood to start a family. The view on the UK and Germany supports the assumption that family formation in these countries is closely related to two major factors: First, high burdens of combining familial and occupational roles, particularly among women; and second, the implicit norm to first integrate into the labor market in order to transfer educational investments into safe occupational status positions. This context results in family formation during unemployment being a promising option, particularly among lower educated women, who frequently already depend on support from a male earner, whose partner relations are thus more traditional, and who face bleak labor market prospects compared to women with higher skill endowments. In contrast, higher educated women are reluctant to place the transition to parenthood within an

unemployment episode. Rather, these women focus on a reintegration into the labor market obviously in order to avoid a reduction to the role of the sole homemaker, which would not only lead to a depreciation of their human capital investments and hamper their career options, but which would also establish economic and social dependence from a breadwinner. Except for the findings for Finland, which are biased by a severe labor market crisis that hampered occupational prospects, the evidence suggests a close labor market attachment of women in Germany and the UK, and particularly in France. While family formation during unemployment is obviously a promising option due to the low price of time among German and British women, women in these countries only opt accordingly if a close link to the labor market has been severed, and chances of quickly finding a job have been discouraged.

According to Wolbers (2007) the negative impact of employment insecurity at labor market entry is most distinct among those who are unemployed in Italy, Spain, France, Austria, Germany, Netherlands, United Kingdom and Norway. In France, unemployment with the rise of two-earner couples is now a handicap with respect to couple formation for women as well, although still less than for men (Ekert-Jaffé & Solaz, 2003). For Norway, Kravdal (2002) shows that first birth rates are slightly higher among women who had been unemployed twelve months before than among others, whereas higher-order birth rates are slightly lower. Although men's unemployment has a more pronounced negative effect, according to paternity rate models, the overall conclusion is that unemployment in Norway has had a negligible impact on fertility through individual-level effects. In Western Germany, Brose (2008) find that not short-term but long-term unemployment has a negative effect on family formation (not on family expansion). Zabel (2006) compares the UK and western Germany and conclude there is a significant positive effect of unemployment on first birth risks for women in the UK but not in western Germany. The effect of unemployment in the UK still holds after controlling for partnership status. There is no effect of the partner being unemployed in either country, although a negative effect was expected especially for the UK, where only flat-rate unemployment benefits are paid.

González & Jurado-Guerrero (2006) look into data for Spain, France, Italy and Western Germany and conclude the following: In Spain and France unemployment constitutes a barrier to transition to first child. In Italy, unemployment does not negatively affect the likelihood to become a mother. Instead, homemakers and unemployed women seem more likely to become mothers when compared to women with a permanent job. In Western Germany, unemployed women (as well as women with 3-6 years of employment duration) have a higher propensity to have a first child compared to women in a permanent job. To be married and in a partnership, where she is unemployed and he is employed, eases motherhood. The positive effect of unemployment may be interpreted in the light of the relative generosity of the unemployment protection, which may be an incentive to

motherhood.

Del Bono & Weber & Winter-Ebmer (2008) analyze the effect of job displacement on fertility outcomes in Austria by comparing the birth rates of displaced women with those of women unaffected by unexpected job loss after firm closure. Their results reveal (1) that job displacement reduces the number of children born by 5 to 10% in the short and medium term (after 3 and 6 years, respectively). This suggests that negative effects of displacement clearly outweigh any opportunity cost effects. (2) The reduction in fertility is largely due to the behavior of women in white collar occupations and higher earnings groups (while women in the lowest third of the earnings distribution and those in blue collar jobs do not show any change). This means that those who suffer lower fertility as a consequence of a firm closure are women who are more likely to invest in career or firm specific human capital and hence to suffer from an involuntary separation (white-collar jobs offer higher job protection and opportunities for career advancement, and thus higher expected returns for specific training. This suggests that women for whom career concerns and the destruction of firm specific human capital matter most show the largest response to a job loss). Women with medium experience levels are affected much more than those with either very little or very much experience. This hints at a big effect of displacement for women who are at an important stage of their career. (3) They find that unemployment has no extra effect on fertility on top of the effect due to job loss. (4) They provide evidence that the reduction in fertility is not due to the income loss generated by unemployment but arises because displaced workers undergo a career interruption. As a consequence of the firm closure accumulated firm or career specific human capital is destroyed and needs to be rebuilt on a new job.

## **8. Precarious Work and Fertility**

### **8.1. Temporary Contracts**

Temporary positions may impede predictions of one's future labor market career. The use of fixed-term labor contracts rather than regular open-ended contracts creates insecurity about future earnings and delays family formation until an open-ended labor contract has been secured. Del Boca & Pasqua (2005) stress that labor market instability also has an indirect negative effect on fertility. Maternity/parental leave regulation usually guarantees entitlement only to permanent workers, while the extension of the benefit to part-timers and temporary workers is still quite limited. Caretta & Deriu (2007) argue that temporary contracts, which should encourage young individuals and women to enter the labor market, seem not to have accomplished the target of guaranteeing also secure employment. Fixed-short term

contracts are acting in the direction of increased labor precariousness, economic instability and insecurity. Moreover, such arrangements involve mainly the young and make more difficult the transition towards economic independency, crucial for family formation and reproductive behavior choices.

For Germany, Golsch (2005) finds that the type of employment relationship does not seem to matter for the transition to parenthood. However, in the UK, holding a temporary job decreases the likelihood to become a father. Yet, this insecurity effect vanishes when marital status is included in the analysis. The same negative relationship is found between the probability of becoming a mother and temporary work. In Spain, temporary employment is extraordinarily high, long lasting, and alternating with unemployment spells. It is therefore hard to establish and solidify an economic basis through permanent employment, particularly at younger ages. As a consequence, Spaniards in insecure labor market positions are less likely to become fathers and more likely to postpone it until they become an "insider". Those who hold a permanent job have the highest probability to become fathers. Conversely, men on temporary posts have children less often and at later ages (Golsch, 2005).

Bernardi et al. (2007) proof that the effect of working contract conditions on employed women's childbearing intentions is remarkable. An unlimited contract for employed women is positively correlated to the intentions to have a child. Being a precarious worker has a negative effect. Both indicators show the need of women to feel stable in their own job before entering motherhood. The later achievement of a stable position for women is delaying positive fertility intentions. Naticchioni & Muzi (2007) compare sub-samples of workers with atypical contracts and regular employees with permanent contracts. With the only exception of Poland the probability of working as an atypical worker is negatively affected by age, consistent with the hypothesis that unstable contracts can be considered as a tool for supporting young workers access into the labor market. The relationship between having children and being an atypical worker is negative and significant in Italy, Poland and Slovenia with the effect ranging from -6% to -8%. Therefore, being in an unstable working position is associated with a lower probability of having children. Family choices are affected not only by a contemporaneous effect from unstable jobs but also by a dynamic effect related to the past job instability. Having experienced a higher instability of work in the past is linked to a higher probability of being currently in an unstable working position.

Zabel (2006) shows for The UK and western Germany that continuous full-time employment experience has a positive effect on first birth risks. This corresponds to the hypothesis that women postpone the decision to have a first child until they have acquired some work experience in order to maximize life-time earnings or to secure a good position before beginning family formation. In contrast, González & Jurado-Guerrero (2006) find for Italy and

France that fixed-term contracts are no barriers to the transition to a first child. However, they do find negative effects of fixed-term contracts compared to permanent contracts in Spain.

## 8.2. Part-time Work

Del Boca & Pasqua (2005) stress that labor market instability also has an indirect negative effect on fertility. Maternity/parental leave regulation usually guarantees entitlement only to permanent workers, while the extension of the benefit to part-timers and temporary workers is still quite limited. For the Northern countries Meulders & Gustafsson (2004) show that part-time employment is widespread and represents most of the opportunities offered to women. On the contrary, part-time is extremely rare in Southern European countries.

Part-time and flexible jobs are often perceived as detrimental to employment security and career advancement, but at the same time are frequently viewed as arrangements which facilitate easier combination of work and childrearing among women (Sobotka, 2004). Consequently, women work part-time considerably more often than men and for most of them part-time employment reflects their preferences, which is not the case among men, whose part-time labor participation is often involuntary. For mothers who want to resume their labor participation soon after childbirth, the opportunity to work part-time is often instrumental for their decision.

In Spain, the country with the largest difference between the desired and actual numbers of children ("child gap"), Bernardi (2005) finds that measures that encourage part-time work (such as the right of parents to reduce their working hours by half to care for a child younger than 6 years old), are unlikely to be successful in reducing the child gap due to the segmented nature of the Spanish labor market and couples' need to maximize their labor effort. Given the present eligibility criteria for taking the leave, these measures had a limited effect for those who are unemployed, employed with a temporary contract, or self-employed. They could, instead, accentuate the existing inequality between labor-market insiders who can derive full advantage from the leave program, and outsiders who are excluded from them. According to Bernardi (2005), only a minority of workers will have the real possibility of taking advantage of the nominal right formally guaranteed by the law; namely those who are employed in the public sector. Second, and probably more important, the great majority of young Spanish couples are in debt to pay the mortgage of their recently bought home. They have therefore little choice but to maximize their labor. Thus, reducing working hours might be problematic due to financial reasons. However, it has been argued that incentives to private companies for introducing flexible working time schedules might be helpful in alleviating time constraints, allowing a better work-life balance. Similarly, measures to make domestic and care labor time schedules more flexible are likely to be beneficial. If housing costs and care responsibilities were partly assumed by the state (for example flexible access to neighborhood day centers for children), individuals could have a child, even

before being completely settled in the labor market. The positive implication of these policies for the child-gap problem would be to favor an earlier emancipation of youth and to eliminate the trade-off between employment career and child bearing. As a consequence, young couples would have a longer time span and fewer constraints on having the number of children they desire. However, Gutiérrez-Domènech (2008) finds that the probability of having a child in the next month is found to be similar under part-time and full-time employment in Spain. This may be due to the fact that part-time jobs are not common in Spain, and in any case, they are typically not based on a voluntary decision.

In contrast, Diewald & Düntgen (2008) show for Germany that part-time work reduces the probability of motherhood significantly. For both sexes part-time work leads to a postponement of parenthood. Tölke & Diewald (2003) find that part-time work leads to a delay of the transition to fatherhood. However, when having started one's partnership biography, part-time work as one of the insecurities is not significant any more, loses importance. Tölke (2004) also stresses that part-time work as part of an early career path and as an expression of a yet incomplete integration in working life of men as well as an indicator of a precarious position at the labor market, postpones first marriage and family formation.

Looking at 13 European countries, Adsera (2003) finds that women in part-time positions (ease entry after childbirth) transit faster to second and third births than those in full-time positions. Results indicate that in countries where part-time positions are more readily available transitions should be faster on average. In an international comparison, Wolbers (2007) highlights that having a part-time job has a different meaning for women than men when it comes to family formation. A part-time job for women usually does not indicate employment insecurity (i.e. no effect of part-time employment was found for female graduates on entry into marriage and a positive effect was found on entry into parenthood), but the possibility of setting up a family life in combination with labor market participation. Working part-time facilitates events in the transition to adulthood for females, especially with regard to parenthood. Naticchioni & Muzi's (2007) analysis confirms a clear link between family commitments and part-time employment only in Germany and Italy. In these two countries workers with children are, respectively, 14% and 7% more likely to work part-time than workers without children. The association between family status and part-time employment is confirmed also by a negative correlation between part-time employment and the familial economic situation. The lower the disposable income, the higher is the probability of working part-time. Turning to part-time employment can be considered as a way for dealing with family commitments when other ways of reconciliation, such as private childcare institutions, are not affordable. The fact that the role of part-time as a reconciliation tool is confirmed only in Germany and Italy indicates that the choice of working part-time can be considered as an option when childcare public services are not enough and the use of private childcare or other structures to support family commitment is difficult because of its

costs. In some countries part-time can be viewed both as a tool for reconciliation between work and family life and as a way for entering the labor market or combining economic activity with education.

Ariza et al. (2005) focus on the relationship between part-time work and women's decisions concerning fertility in 11 European countries. Given that part-time workers' social benefits as well as labor market alternatives (such as public childcare or parental leave provisions) differ across countries, they ask, whether the availability of a part-time schedule in each of the selected countries has a positive impact on the fertility decision or not. Results show that for working women, the part-time schedule affects fertility positively in Belgium, Germany, Ireland, Italy and the Netherlands. They find that women working part-time are, *ceteris paribus*, more likely to have a child. In the rest of the countries (Denmark, France, Greece, Portugal, Spain and the United Kingdom) the availability of a part-time schedule does not seem to be used as a way of reconciling family life and work (negative effect of part-time on fertility). These results suggest that policy makers wishing to implement adequate part-time schedules in order to enhance fertility should look at the part-time schedules available in Belgium, Ireland and the Netherlands, which enhance fertility for women who take advantage of this flexibility measure so as to reconcile family and work.

When both working women and non-working women are considered, the effect of part-time work on fertility decreases, given that non-working women have the highest birth rate. Moreover, when the sample is not restricted to workers, in Belgium, Germany and Italy, the positive effect turns to negative, whereas in the Netherlands and Ireland, the impact of part-time work on fertility remains positive no matter what group of women is considered. The percentage of births among part-timers is highest in these two countries. Therefore, Ariza et al. (2005) conclude that for these two countries, the availability of a part-time schedule enhances fertility. Their result may indicate that part-time work enhances fertility for workers that have access to it. Where access to part-time is restricted (for example in Italy), many females have to quit the labor market. In Germany, those women who work part-time do so mainly to combine family life and work. The fact that the effect of part-time work on fertility is positive among workers, but turns negative when non-workers are included in the sample, given that non-working women have the highest birth rate, may be explained by a very limited childcare service for children under 3 years of age and the very long length of parental leave (formerly up to three years).

Zabel (2006) finds for western Germany but not for the UK that there is a significant positive effect of part-time employment on first birth risks for women. In a model looking more precisely into the effects of working hours, it was found that especially working 20-29 hours, but not an extremely short week of less than 20 hours, had a positive effect on first birth risks for women in western Germany. The effect of part-time employment in western Germany no longer holds when controlling for partnership status. Especially for the UK, negative effects of

men's part-time work were also expected because part-time jobs tend to be very low paid. However, a negative effect was only found for western Germany.

### 8.3. Self-employment

For Germany, Diewald & Düntgen (2008) find that self-employed workers have a lower probability of fatherhood, which can be explained by a disproportionately high workload and rather instable income conditions. Tölke & Diewald (2003) argue that self-employment significantly reduces the realization of fatherhood. Tölke (2004) stress that self-employment in association with insecure expectations about the future course of the occupational career as well as a disproportionately high workload hamper family formation.

Comparing the UK and Germany, Zabel (2006) highlights that first birth risks were significantly higher for women whose partner was both self-employed and had a vocational degree than for those whose partner was either an employee with or without a degree, or self-employed without a degree. Analyzing 13 European countries, Adsera (2003) stresses that the effect of a self-employed spouse is positive and significant. On the one hand, earnings of self-employed individuals are, on average, lower than those of the total working population. On the other hand, more widespread earnings underreporting and the flexibility of schedules may constitute an asset. Further, self-employment has been an alternative to standard work for young workers in the midst of high unemployment, particularly in Southern Europe. Some of these workers might be relatively better than other peers. Furthermore, spouse's self-employment has a positive and significant effect on third births.

## 9. The Transition to Adulthood and Home-Leaving and Fertility

Wolbers (2007) argues that a lack of financial independence (i.e. the absence of income from a permanent job) creates uncertainty, influencing living arrangements and family formation. The lower the degree of employment security, the greater is one's financial dependence. In an international comparison, it is shown that graduates (higher educated young people) with an insecure employment status at labor market entry are less likely to leave the parental home and establish a nuclear household and family than those with stable first employment. Graduates with an insecure labor market position (i.e. those who are unemployed, working part-time or working full-time in a temporary job just after graduation) enter less often into independence and marriage than graduates with stable employment (i.e. those who are working full-time in a permanent job).

According to Caretta & Deriu (2007) there are different patterns of home-leaving across Europe. Southern European patterns and especially the Italian case are characterized with

latest-late transition to adulthood (late home-leaving as well as late transition to parenthood). Young adults in Southern countries tend to leave their home in order to cohabit or marry later in comparison to young adults in countries of the conservative/continental European model. The characteristics of home-leaving in Poland as Post-Communist country are to some extent similar to those in Southern European countries. It follows a pattern of late home-leaving - whereby the main reason is marriage, and to a lesser extent cohabitation. Slovenia shows the trend of delaying transition to adulthood, thus delayed exit of education, as well as late entering into employment and economic independence. The period of young people's dependence of families of origin is being prolonged. Also Bernardi et al. (2007) discover a trend of delaying formation of own household in Italy, Poland and Slovenia, although a quite large share of young people leave their home to form a union. In contrast, German young adults mainly leave home to live alone.

Kohler et al. (2006) stress that the socioeconomic context of decisions about timing of parenthood varies substantially across lowest-low fertility countries, with a striking difference between Southern European and Central/Eastern European (CEE) countries. In Southern European countries, per capita income levels are at medium to high levels with steady growth and low inflation. At the same time, the entry into the labor market for young adults is extremely difficult. The three lowest-low fertility countries in Southern Europe have the highest youth unemployment rates in the European Union. In contrast to Northern European countries, unemployment rates are also higher for females than for males. The link between unemployment and low fertility is also supported by the observation that the only Southern European country with relatively high fertility is Portugal, with considerably lower unemployment rates than its Mediterranean counterparts. The chronic high unemployment situation in Southern Europe has discouraged young adults from entering the labor market and made higher education more attractive, and it has deteriorated working conditions to precarious situations with mostly low-paid temporary jobs. In addition, there is a crowding-out process where more educated young people displace less educated people from their traditional positions. The labor market uncertainty and poor economic prospects in early adulthood also facilitate the commonly observed behavior of prolonging the stay in the parents' household until relatively late ages. In the Southern European countries, the uncertainty is basically due to youth unemployment and/or job instability.

Meulders & Gustafsson (2004) stress that the role of the family in supporting their children often extends far beyond the completion of schooling in Southern Europe. Because of the limited access to credit and housing markets for individuals without a stable employment, the Southern family traditionally provides income support to its children during their usually lengthy search for a stable, "protected" job. This responsibility is likely to have significant effects on women's participation and fertility.

Caretta & Deriu (2007) show that stable employment for at least one partners is a necessary condition to become a parent in Poland, Slovenia and Italy: In approx. three out of four cases of home-leaving (Italy 81.3%, Poland 72.1%, Slovenia 77.2%) at least one of the partners was in regular employment, while in more than half of the cases both were regular employees. In Germany, on the other hand, regular employment seems to play a less important role, since in as many as 42.2% of the cases none of the partners was in regular employment.

Brose (2008) investigates the impact of income and economic uncertainty on fertility behavior by West German women. It is shown that not short-term unemployment or economic uncertainty but (only) repetitive and long-term economic insecurity or unemployment has a negative effect on family formation, both for men and for women. Women from Western Germany do not tend to leave the labor market in case of exclusion or insecurity experience in order to switch role. Instead, employment security seems to be a prerequisite for family formation also for women. Individual unemployment experiences have a higher weight than aggregate developments. Family formation is more influenced by economic uncertainty than family extension. The analysis further shows that (long-term) income and income security of the partner have a positive effect on women's willingness to form a family. Vice versa, economic problems – unemployment and/or income loss – of the partner hinders family formation or the transition to a second child. Therefore the resources in partnerships can be interpreted as social capital facilitating women's decision for having children in the institutional context of Western Germany.

Gutiérrez-Domènech (2008) looks at Spain and sees the phenomenon of the late emancipation/late home leaving (modern Spanish women abandon their parents' household, i.e. get married, older) connected to the unstable labor market. This is mainly captured by female regional unemployment rates, which postpone marriage and have a negative effect on the timing to first, second and third birth. A rise in labor market instability (i.e. unemployment and number of temporary contracts) postpones female marriage, which in turn impacts negatively on fertility. A woman's employment status has a different impact on the likelihood of getting married in the two cohorts. While being employed has a negative impact on the chances of marrying in cohort 1945–1960, it has a positive effect in cohort 1961–1977. This suggests that the role of women in society has changed substantially. Women were expected to get married and abandon their job prospects in the past. Nowadays, women do not marry before they are settled in the labor market. Simultaneously, a generalised increase in both the demand for a high standard of living and housing costs has made female employment, and not only the one of men, necessary to leave parental home. Being employed reduces the hazard of first child, second child and third child in both cohorts, *ceteris paribus*. These results suggest that female employment is a brake on family formation in Spain.

Aassve et al. (2000), however, present different results for Italy. It is suggested that stable employment is an important prerequisite for men to start their own household. For women, in contrast, employment does not appear as a crucial trigger for leaving the parental home. Instead, finding a partner seems to be the most important factor in becoming independent of their parents.

## 10. The Influence of the Availability of Childcare on Fertility

The negative relationship between female labor force participation and having children seems to fade out as soon as the labor market manages to accommodate family requirements and work commitments, for example, with increased part-time opportunities or flexible working hours, with the possibility to re-enter easily the labor market after childbirth and with more gender-equal policies (Caretta & Deriu, 2007).

In the countries with very low fertility rates, the compatibility between work and family is particularly low, i.e. the opportunity costs of childbearing are particularly high. The lack of policies that favor the compatibility of work and family, especially for women, is a causal factor that depresses the probability of progressing to higher order births (Billari, 2008).

Köppen (2006) compares second birth risks in France and western Germany using data from the Family and Fertility Survey. Second birth risks are higher for highly educated women than for women with lower education in both countries. In western Germany, the positive effect weakens after controlling for the education level of the partner. The positive effect of French women's education remains unchanged, even after controlling for the partners' characteristics. Köppen interprets this finding in the sense that work and family life are more compatible in France, where highly educated women can turn their education more often into work opportunities and income. West German women often have to make a decision between an employment career and motherhood as two exclusive life options. In such a situation, it is primarily the partners' earning potential that influences fertility.

Sobotka (2004) stresses the importance of country-specific institutional settings, namely family and welfare policies, employment policies, childcare and gender equality in hindering or facilitating childbearing and employment compatibility. In particular, the combination of several factors typical of societies with a prevailing conservative (continental) welfare regime and 'familiaristic' (Southern European) welfare model appears to have a negative impact both on the tempo (i.e., inducing additional postponement) and on the quantum of fertility by reducing the opportunity for women to have independent career. High unemployment rates coupled with low family benefits; policies supportive of the traditional male breadwinner family model; costly and scarce childcare; expensive rental housing; and limited part-time

work opportunities characterize many societies with very low fertility and very late timing of motherhood. Moreover, norms prescribing mothers to stay at home when their children are young increase role incompatibility between employment and fertility. Southern European countries, especially Italy and Spain, exemplify such a situation. Availability of childcare may play an enabling role for women to establish themselves on the labor market and have children without seriously interrupting their career paths. A restricted supply and high price of childcare may facilitate fertility postponement.

Where childcare services are strongly rationed and flexible employment arrangements is limited (Southern European countries), married women are forced to choose between no work or full-time work, neither of which is necessarily their preferred option. Married women who choose to work tend to have full-time work commitments, which are not compatible with having a high number of children (Meulders & Gustafsson, 2004). Also Apps & Rees (2004) stress that greater availability of childcare and an individual taxing system rather than joint taxation have a positive effect on total fertility. Del Boca et al. (2007) show for 15 EU countries that in countries with greater availability of childcare, the probability of having a child increases. However, Hank & Kreyenfeld (2003) show for Western Germany that access to informal care arrangements increases the probability of entering parenthood, but no statistically significant effect of the public day care provision on fertility is found. This result points to shortcomings in the institutional setup of the German day care (and welfare) regime and to potentially relevant unobserved dimensions of child care.

Andersson (2008) sets a benchmark by explaining the system in Sweden: For women, reconciling family and working life is facilitated by (i) individual taxation and an individual-based social-security system, which makes gendered segregation of work and care less attractive for couples, (ii) an income-replacement based parental-leave system, which gives women incentives to establish themselves on the labor market before considering childbirth, (iii) the flexibility of this system, which allows parents to divide the leave between them on a full-time or part-time basis at any time until the child turns eight, (iv) subsidized child care, which allows mothers to return to work after parental leave, and (v) the right to take paid leave from work to care for a sick child. The latter option is shared more equally among fathers and mothers than parental leave. Sharing parental leave fits well to the Swedish policy focus on gender equality, which aims not only at enhancing women's position on the labor market but also at encouraging men to engage more actively in childrearing tasks within the family. The labor-market attachment of Swedish women and men reveals that the impacts of female and male earnings/labor market positions on the probability of having a second or third child to be fairly similar and independent. This result suggests that there is at least some degree of gender equality in the way Swedish couples deal with their family building.

Important features of first-birth patterns in Sweden hold for such a variety of population subgroups that they can be considered to be more or less universal in the country. The effects of various forms of participation and non-participation in the labor force do not vary greatly between immigrants and the Swedish-born. Women in almost all nationality groups that differ markedly in their cultural and family systems, when they live in Sweden exhibit a first-birth pattern in which women who are not established in the labor market have a reduced propensity to become a mother. The similarity in behavior across such a wide range of groups of women can be seen as a strong indication that various national institutional factors that affect all population subgroups in a society must be important in determining childbearing behavior (Andersson & Scott, 2005). Andersson & Scott (2007) look at associations of fertility with labor-market activity of mothers and fathers stemming from 10 different birth countries. While the previous study on labor-market attachment and first births revealed a positive effect of being established in the labor market on the propensity to become a mother in Sweden as well as a striking similarity across immigrant groups of women in this positive relation, in the later study they find much weaker associations of the labor-market status with the continued childbearing of parents. It seems that once childbearing has begun, the role of intervening factors such as the labor-market attachment of parents is not that important in childbearing decisions. Still, the absence of any negative association of a mother's labor-market attachment with her higher-order childbearing and the corresponding lack of a positive effect of her leaving the labor-market on fertility (the relation between being well established in the labor market and the propensity to expand one's family mainly is a positive one. In particular and in line with previous research, there is no indication that a woman's weak attachment to the labor force is associated with elevated fertility) reveal that women in Sweden are by no means forced out of the labor force in connection with motherhood. Evidently, childrearing and employment can readily be reconciled with each other. Andersson & Scott (2007) find no evidence of strongly gendered patterns of associations of labor-market status with either second or third birth risks. In most cases, they found a slightly positive association of labor-market activity and/or the level of annual earnings of the mother as well as the father with family building. Their patterns for fathers and mothers hold irrespective of whether they control for the characteristics of the other partner. The main exception to their lack of any positive association between a weak work orientation and fertility is unexpected: Swedish couples with two children and a father who has a very marginal attachment to the labor market have the most elevated propensities to have a third child. In all cases, one-child mothers who belong to any of the non-employed categories have reduced propensities to have another child, and in almost all cases, there is a moderately positive impact for employed mothers of their level of annual earnings. Andersson & Scott regard the findings of their previous and later study as evidence of at least some equalizing effects on social behavior of the way social rights in Sweden are granted to its residents (the context is a universalistic welfare state geared towards gender and social

equality where formal social rights are largely independent of a person's civil status, citizenship, and country of origin).

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