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Labor Market Integration and the Transition to Parenthood - A Comparison of Germany and the UK

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Labour Market Integration and the Transition to Parenthood – A Comparison of Germany and the UK

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Abstract

The aim of this paper is to investigate the hypothesis that after leaving the educational system, labour market integration has a causal effect on first-birth decisions. The analysis focuses on two major research questions: First, how is the *timing* of first parenthood associated with previous labour market performance? Second, can differences in *first birth-risks* be related to labour market performance? In other words, to what extent do the fertility decisions of successfully integrated individuals differ from those who are poorly integrated into the labour force?

To account for the impact of cross-national differences in institutional settings, I contrast the continental conservative German welfare state with the liberal market economy of the UK. To account for gender-specific differences in opportunity costs, I distinguish between men and women in this analysis. Using longitudinal micro-data from the SOEP and BHPS, I apply a piecewise constant exponential hazard model. The results show a significantly reduced first-birth risk in the case of German men with weak occupational integration, as well as in the case of British and German women with pronounced labour market attachment. Furthermore, regarding the timing of family formation, a lengthy process of occupational integration tends to delay the transition to parenthood for both men and women, especially in Germany.

Keywords: fertilty, first-birth, occupational integration, cross-national comparison.

1) Introduction

The transition to parenthood currently takes place at a later stage in the life course than it did a few decades ago. The tendency to postpone parenthood has led to an increase in age at first birth as well as in permanent childlessness. Setting aside other causes, this delayed transition to parenthood can be linked to an increased level of educational attainment, especially for women, accompanied by a prolonged period of time spent in the educational system. Because education is a time- intensive endeavour in the life course, transitions to parenthood during times of (full-time) education are rare (see Liefbroer 1991). Moreover, it is rational to transfer educational investments into safe labour market positions (see Mills & Blossfeld 2003). Confronting these developments alongside the increasing prevalence of discontinuous employment patterns, leads one to suggest that the creation of a stable and reliable fundament for family formation relies on time-intense labour market integration processes, which, however, are threatened by fragile occupational trajectories (see Oppenheimer & Lewin 1999).

In this paper, I investigate the interrelation between initial labour market performance and fertility decisions with respect to two major research topics: First, I address the question, how is the timing of first parenthood related to labour market performance, particularly with respect to finishing education and entering the labour market? Second, I will investigate whether differences in first-birth risks depend on variations in individual labour market performance. In other words, I will consider to what extent successfully integrated persons differ with respect to their fertility decisions from those who are poorly integrated into the labour market or who show discontinuous employment patterns.

To account for the impact of labour market structure as well as for the influence of institutional settings, I consider two different welfare state systems, namely the continental conservative German welfare state and the liberal welfare state of the United Kingdom. These two proponents of welfare states also differ clearly with respect to their market relations, in that the UK propagates low state interference in occupational relations within a liberal market economy, while Germany focuses on high trust and long-term actor-firm relations by means of a coordinated market economy (see Hall & Soskice 2001). These regime differences lead to distinct differences in labour market structure, social policy settings, and exposure to life course risks. Moreover, both Germany and the UK can be characterized as strong breadwinner states.

Country-specific particularities within their respective institutional and cultural orientations lead to differences in the opportunity costs of parenthood, and have different effects on the evaluation of what constitutes adverse or supportive contexts for becoming a parent. It follows that the impact of incomplete labour market integration or lasting occupational insecurity is likely to result in different family formation rationales between these two welfare states, and, within these countries, rationales are different between women and men. Accordingly, the cross-national comparison of the German and the British welfare state will be accompanied by a gender-specific differentiation.

For the international comparison of fertility, I revert to micro-data from the British Household Panel Study (BHPS) and the German Socio-Economic Panel (SOEP) using comparable longitudinal data. The time span considered in the analysis reaches from 1991 to 2005. Hence, occupational patterns can be traced for more than a decade and will be linked to the individual fertility history as well as to supplementary biographical information.

2) Theoretical Background

The General Theoretical Framework

I assume that a significant proportion of transitions to parenthood are consequences of a rational choice in interaction with biographical planning processes. As a consequence of this assumption, I apply a framework of purposeful action. According to this perspective, the outcome of a fertility decision depends on the given resources and exogenous constraints as well as on expected utility, the anticipated ability to support a family, the attractiveness of parenthood and the existing alternative paths of action. Family formation in this context can be seen as a major life course goal, satisfying the higher order needs of social approval and (physical) well-being (see Lindenberg 1990; 1991; Lindenberg & Frey 1993). In this sense, and according to a *social production function* approach, family formation and a focus on a the pursuit of a career provide alternative means of attaining such higher order goals. Nevertheless, family formation and career focus as intermediate life goals can only be substituted to a limited extent, since on one side labour participation in gainful employment is required to maintain a livelihood, whereas, on the other side, family formation still poses a universal, non-

substitutable pleasure in most adult lives (see Schoen, Kim, Nathanson, Fields & Astone 1997: 335; Huinink 2001: 157).

Family Formation and Occupational Engagement

Particularly among women, the conflict between career aspirations and maternal duties, considering the scarcity of time, leads to an avoidance or at least a postponement of the transition to motherhood, since family formation negatively affects occupational advancement during the early phases of a career (see Brewster & Rindfuss 2000: 282). Nevertheless, as outlined above, family formation also depends on the sustainable provision of economic support, which can only be provided by thorough labour market integration. As parenthood involves a *long-term* commitment, occupational integration plays a key role in providing a reliable and lasting source of familial backing. While welfare state support can partially compensate for a lack of occupational integration, implicit norms strongly encourage the formation of an economic fundament prior to family formation (see Oppenheimer 1988; Hobcraft & Kiernan 1995). Moreover, for women, a sound occupational integration before childbirth also increases the labour market opportunities after a birth-related leave, and thus serves to maintain economic independence. In that sense, the actor's choice of whether to focus primarily on family formation *or* an occupational tenure is not simply a choice between alternatives. Rather, a minimum level of occupational achievement is in fact a prerequisite to starting a family (see Aaberge, Colombino, Del Boca, Ermisch, Francesconi, Pasqua & Strøm 2005: 132). Yet, pursuing a career as part of labour market integration drastically reduces individual time budgets, whereas available time is a prerequisite for family formation. This background creates a conflict between time and economic endowments as scarce resources (see Easterlin 1976).

One solution for this conflict could be the specialisation among partners. Societies, in which traditional gender roles are dominant, particularly encourage a gender-specific division of labour, with the woman focusing on domestic and parental duties and the man focusing on a breadwinner role (see Becker 1993). However, where institutional orientations ignore individual aspirations, particularly in the case of young women who have invested in training and education, the re-location of women to traditional carer roles aggravates the conflict between work and family rather than alleviating them (see McDonald 2000).

In front of this backdrop, occupational insecurities and discontinuous employment patterns tend to undermine a swift and reliable labour market integration. The manifestation of occupational insecurities like unemployment, fixed-term contracts, and more generally, insecure la-

bour market prospects hamper a stable economic backing for family formation. Where occupational integration remains incomplete, family formation adds an additional burden on the effort to translate skill investments into a stable and rewarding occupational position. Women who have obtained a high amount of human capital in particular strive to transform educational investments into *safe* labour market positions. Such a strategy not only provides an economic basis for family formation but also serves the need to establish economic independence in societal contexts where an increase in partnership instability would recommend female investments in economic autonomy[1] (see Rindfuss, Guzzo & Morgan 2003: 414). Furthermore, increasing occupational insecurity nourishes the creation of strategies to curb a family's exposure to economic risk by the promotion of dual-earner couples (see Kreyenfeld 2005). Yet, the benefit of containing life course risks is opposed to an increase in the price of time for women (see Mincer 1963: 77).

Transferring educational investments into save labour market positions is a high priority in the attempt to avoid a depreciation of acquired skills. Moreover, in contrast to childbearing decisions, career choices are very sensitive to delays, and the refusal of occupational opportunities is often implicitly sanctioned by a reduction in future career options. Accordingly, a sequential ordering of career focus and family formation in the individual biography is predominant in countries where the encouragement of traditional gender roles aggravates female role conflicts (see Sackmann 2000 for Germany). The biographical incompatibility of occupational engagement and parenthood gives rise to a strategy of avoiding biographically binding and irrevocable commitments like parenthood that would undermine career flexibility and options, and that would thus hamper occupational integration (see Birg 1991; Hobcraft & Kiernan 1995).

To conclude the above considerations, the delay of family formation should be closely associated with a greater array of occupational options, an association, which is particularly pronounced among persons with a higher level of education (see Blossfeld & Huinink 1991). Accordingly, high-skilled individuals exhibit a closer attachment to the labour market and a more deliberate focus on career-building. In contrast, women with less education in particular might tend to compensate for occupational insecurities with a focus on the homemaker role and the

[1] This is particularly important for Germany women, where an institutional regime that otherwise profoundly protects from life-course risks encourages a female retreat from the labour market, and thus aggravates risks of economic dependence after union dissolution (see DiPrete 2002; Neyer 2003).

transition to parenthood in order to diminish contingency in the life course (see argumentatively Friedman, Hechter & Kanazawa 1994). Moreover, precarious employment tends to curtail the chances of gaining social esteem through occupational achievement, thus fostering rationales that attempt to compensate for this status loss by trying to gain social approval through the role as a parent (see Tölke & Diewald 2003). Yet, particularly among men, an incomplete integration into the labour force also signals a reduced ability to sustainably support a family (see Golsch 2004: 41). Hence, different patterns of coping with occupational insecurities and risks seem to distinguish not only women with lower and higher levels of education but also women from men in general (see Mills & Blossfeld 2003: 208ff.) This is particularly relevant because women today are increasingly confronted with similar demands as men in education and the labour market, while the prospect of parenthood still places a greater burden on women, particularly in the institutional contexts of strong breadwinner societies (see Lewis & Ostner 1994; England 2005; Fuwa & Cohen 2007) .

A Life Course View on the Link between Labour Market Entry and Family Formation

Life course research conceptualises emerging biographies as a sequence of interlinked trajectories. Employment occupies a central position in this concept, and the timing of vital transitions is closely related to the structuring effect of welfare state institutions (see Mayer & Müller 1986; Mayer & Schoepflin 1989; Mayer 2005). Leaving the family of origin, founding a new household, finishing education, labour market entry, marriage and the transition to parenthood are examples of status passages that initiate central life course stages in modern societies. Additionally, age and sequence norms specify when certain status passages have to be initiated or completed and the sequence, in which passages should be interconnected (see Levy 1996). Such transition norms are affected by predominant transition patterns, which are subject to welfare state structuring. However, while such institutionally defined status passages become increasingly variable, certain regulations still define specific boundaries for choices in individual life courses. This is the case, for instance, where implicit or explicit time schedules exist for educational transitions that also affect the timing of latter transitions like the one to becoming a parent.

Nevertheless, the contemporary life course is considered to have lost much of its binding power in the process of de-institutionalisation (see Kohli 1991). The original, ideal-typical concept of a predictable and standardized life course as an institution assumed that central life events occur in an almost fixed sequence, essentially relying on a *tripartitioning*, centred on

working life (see O'Rand 1996: 7). According to this view, the *life course regime* imposes a tight corset of rules and obligations, while simultaneously providing reliable scripts, thus minimizing biographical risks and contingencies (see Kohli 1985, Kohli 1991). Vital status passages in the life course are considered to result in a narrow sequence of events. In particular, this pertains to the exit from the educational system, entry into the labour market, marriage, and childbirth. Yet, the standard life course has become a fragile concept. Labour market entry and integration have become more precarious and unreliable endeavours. With reference to Germany, Brückner & Mayer (2005: 31) note that – while education to work transitions remain closely linked to institutional scripts – family formation not only tends to be more delayed but also more loosely coupled with occupational transitions.

Institutional Regimes and the Mediation of Life Course Risks

An examination of the underlying causes of these developments shows them to be closely related to the orientation of institutional regimes. In this context, extensive protection from life course risks results in more reliable patterns of central life course sequences (see Mayer 2005). Where economic security depends less on individual performance, and where welfare state intervention provides more predictable occupational prospects, family formation is more likely to be linked to the general transition to gainful employment rather than being delayed until key career positions have been attained.

Coordinated market economies like Germany encourage high trust relations in actor-firm interaction. The institutional arrangements foster long-term occupational relations, where firms are encouraged to train their staff on the basis of tenure tracks that provide a high level of reliability in the life courses of employees. In contrast, liberal market economies like the UK favour the deregulation of market relations. Legal barriers to hiring and to laying off staff are low, and both employers and employees focus on short-term maximisation of income, rather than on the establishment of long-term relations (see Hall & Soskice 2001). While this exposes the individual to extensive economic risks of poverty in cases where the liberal welfare state provides only minimal support, the threat of long-term social exclusion is contained by high labour market turnover and thus represents only a moderate threat of lasting exclusion from work (see DiPrete 2002). Yet, this endows adult life courses with a high level of economic insecurity and precariousness. Where job changes are frequent and where reliability in occupational trajectories is low (see Riley, Kahn & Foner 1994), actors have to cope with instability and looming economic risk by thoroughly integrating into the labour market prior to

family formation. Since the duration of this process is likely to show wide variation among individuals, depending on educational attainment and career focus, the transition to parenthood should be linked only loosely to labour market entry, and depend instead on individual performance. Therefore, one would anticipate that female labour market attachment would be pronounced in a liberal market economy as occupation-related norms generally demand labour market engagement, with individual skill endowments being the key indicator rather than gender. Moreover, the pronounced exposure to economic risk encourages dual income backing for family formation.

The situation in Germany is characterized by what are generally more predictable and stable life patterns. However, in recent years, a tendency towards deregulation in industrial relations has been noted, and an according insecurity in life courses has been pervasive. While the origins of this trend date back to the early 1990s (see Mills & Blossfeld 2003; Erlinghagen & Knuth 2004), convincing evidence for increased flexibility and mobility in occupational patterns is limited to the latter half of the decade (see Diewald & Sill 2004). The interesting question is how this decrease in reliable and, more importantly, predictable patterns of occupational relations translates into family formation behaviour in a society that was formerly characterized by a comparatively high level of economic security and stability in individual life. A key issue to be addressed in the empirical analysis is whether this increasing occupational insecurity tends to leave family formation behaviour largely unaffected, or whether the advent of precariousness in industrial relations has had a significant impact on the likelihood of making long-term commitments. This question is particularly interesting since the change has occurred in an institutional context where actors were socialized to expect comparatively high levels of stability and security.

Theoretical Conclusions & Hypotheses

The above elaboration illustrates a context where increasing occupational insecurity tends to hamper family formation by evoking bleak occupational prospects, thus undermining individual needs for security and protection. While occupational prospects are mediated by individual skill endowments and labour market conditions, the need for economic security is affected by the general level of institutional protection, and by the deviation from accustomed and familiar levels of previously provided security. In this context, family formation might be postponed until labour market integration is deemed sufficiently reliable, in the sense of providing a reliable basis for supporting a family (see Aaberge et al. 2005: 138). Moreover, the timing of family formation is most likely also oriented around avoiding its interference with further career aspirations. This is particularly important for women who, in both the UK and Germany, still shoulder most of the burden of parenthood, and for whom work and family are still essentially competing domains – particularly if they have a higher level of educational attainment (see Blossfeld & Huinink 1991).

Yet, the institutionally mediated opportunity structure for women is different in Germany and the UK. In Germany, comprehensive maternity protection and reinstatement rights broadly inhibit the depreciation of human capital investments; in the UK, on the other hand, the transition to motherhood remains largely unprotected from occupational risks and coercions. Hence, a focus of the following analysis is on how actors behave under the *sustained* impact of precariousness in one's working life. The crucial question in this context is whether clear indications of incomplete labour market integration effectively shift status aspirations towards the private domain, speeding up the transition to parenthood, or whether such indications rather foster the delay of family formation due to their association with an undermined ability to provide economic backing for parenthood.

Finally, the research question of this study addresses the issue of whether an initial labour market integration, one deemed sufficient for family formation, can be associated with specific spans of time since entering the labour market. That is, to what extent does the mere fact of a *transition* into gainful employment provide a notion of readiness for family formation? In contrast, preparedness for parenthood might be solely associated with individual labour market performance – indicated by income levels, occupational status, or entry into standard patterns of full-time employment, regardless of the amount of time since leaving education.

The following hypotheses summarize the theoretical arguments outlined above:

H1: Transition Pattern Hypothesis: A key step toward parenthood is the completion of full-time education, and entry into the labour market. A close temporal link between the entry into the labour market and transition into parenthood should be dominant, widely regardless of occupational security or labour market performance. This should be a particularly strong pattern in Germany, where welfare state support provides better protection of families from economic risks than in the UK.

H2: Gender Role Hypothesis: For women, parenthood and employment are competing life-domains, each of which require dedication and a significant investment of available time. The stronger the integration into the labour force, the greater a woman's reluctance to start a family. For men, thorough labour market integration should encourage the transition to parenthood as this complies with breadwinner norms, which are culturally embedded in both Germany and the UK (see Lewis 1992).

H3: Economic Prerequisite Hypothesis: Labour market integration primarily functions in establishing an economically independent household. The transition to parenthood is delayed (only) until a minimal threshold of occupational integration guarantees economic backing of a family (see Oppenheimer 1994).

H4: Risk Avoidance Hypothesis: Family formation is delayed in contexts of incomplete labour market integration and occupational insecurity. This is not only the case because actors try to establish a sound economic basis prior to family formation, but also because family formation requires dedication, thus further hampering occupational flexibility and threatening occupational establishment in the near future in addition to long-term career options. H4a: This context for postponing parenthood during precarious employment situations is generally pronounced in the UK, since welfare state protection from economic risks is limited. H4b: This context is particularly pronounced in Germany in the second half of the 1990s and later, since increasing risks and occupational insecurities violate accustomed patterns of (occupational) stability and security.

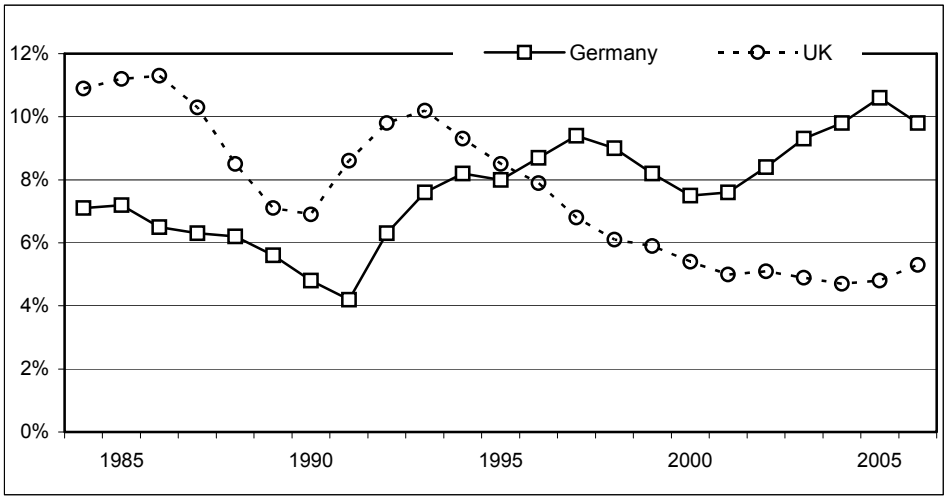
H5: Female Career Aspiration Hypothesis: Among women with career aspirations, family formation is delayed until a labour market position signals that family formation will not hamper occupational reintegration and that a depreciation of human capital remains limited. Such a safe status should generally be reached faster in Germany, where a high level of maternity protection repels at least some occupational disadvantages associated with motherhood – at least among already working mothers. In this context, occupational in-

securities should generally foster a delay of the transition to motherhood among women with a higher level of education, who will try to bolster their educational investments with a rewarding occupational position. In contrast, given occupational insecurities, women with a lower level of education will focus more quickly on the family domain, particularly where a male earner economically backs family formation.

3) Labour Markets and Social Policy Settings in Germany and the UK

Labour Markets and Associated Policies

Figure 1: Unemployment Rates in Germany and the UK 1984 – 2006

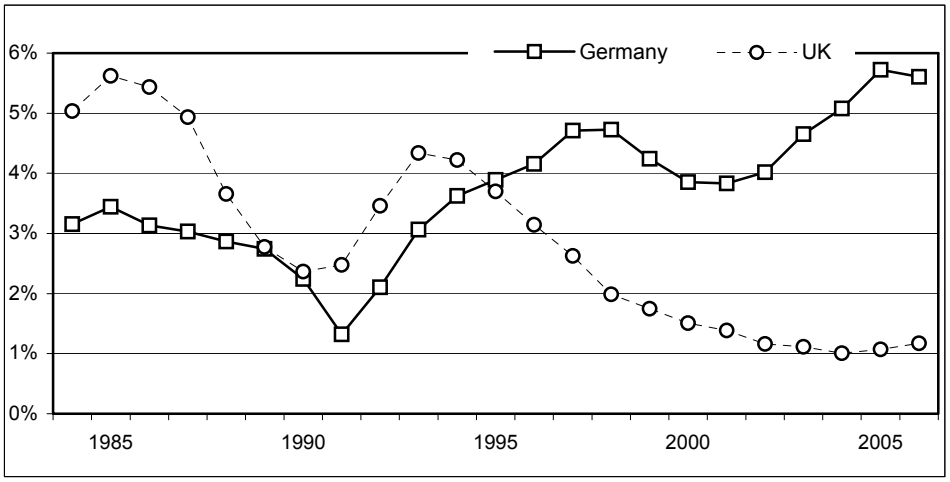


Source: SourceOECD Employment and Labour Statistics (2007). Online database.

With respect to labour market structure, one of the most prominent differences between Germany and the UK is the fact that the British labour market is widely deregulated, resulting in a rather rigid structure with high levels of insecurity. However, a flourishing economy and flexible labour market structure led to particularly low unemployment rates in the UK at the end of the 1990s (see Figure **1**), whereas unemployment rates in Germany rose to comparatively high levels during that time. Unemployment risks generally reflect occupational insecurities and the risk of economic dependence. These insecurities have become particularly pronounced in Germany with almost 50% of all unemployment being long-term in the second half of the 1990s. This corresponds to a general increase in discontinuous employment patterns and

occupational insecurity in the German labour market in the second half of the 1990s (see Diewald & Sill 2004; Tölke 2004).

Figure 2: Long-Term Unemployment Rates in Germany and the UK 1984 – 2006



Source: SourceOECD Employment and Labour Statistics (2007). Online database.
Note: Long-term unemployment is defined as continuous unemployment of one year or longer.

Of special importance for our topic are the transfers and benefit systems that may possibly mitigate the effects of a disadvantageous labour market performance and enable the individual to perform the transition to parenthood, even if they have unpromising occupational prospects. The social policy settings in Germany and the UK stress different forms of solidarity as well as different institutions (see in detail Neyer 2003; Mayer 2004). Germany encourages private solidarity by strengthening nuclear families. Importantly, social policies in general, and family policies and taxation in particular, encourage a traditional division of labour with a female focus on the carer role (see Lewis & Ostner 1994). In general, there are generous levels of social support with profound protection from risks. However, a broad range of transfers are linked to current or previous labour market status (commodification; see Esping-Andersen 1999). This excludes the female carer from key elements of social support, and nourishes female dependence on a male breadwinner. That outlines an institutional context, which – while offering a high degree of protection – exposes women to the central life course risk of economic and social dependence (see DiPrete 2002). The result is a strong incentive for women to participate in gainful employment – not only to transfer their increasing skill investments in occupational status positions, but also to ensure eligibility for social support in order to protect against basic risks in the life course. In contrast, the UK addresses men and women relatively equally in terms of benefit eligibility and also through individual-centred taxation. However, by provid-

ing in general only a low level of social support, the liberal British welfare state wards off only the most severe risks and hardships.

Unemployment insurance benefits in the UK are means tested and payments are rather low. In contrast to Germany, there is also no unemployment assistance in the UK. Instead low level social assistance payments, which are means tested, based on family income and a partner's employment, set in after six months. In comparison to these payments, unemployment assistance benefits in Germany (until 2005) are generous, while also lowering granted benefits compared to the amount of insurance benefits (see MISSOC 2004, 2006). Yet, these transfers in Germany represent significant payments, whereas assistance benefits in the UK decisively curb household income, exerting a high incentive to quickly re-enter the labour market, while seriously hampering the ability to support a family. For couples who are as yet childless, this most likely serves as a central disincentive in the decision for a child.

In Germany, an extensive vocational education system generally encourages investment in occupational skills. Moreover, firms are also institutionally encouraged to invest broadly in employee training measures (see Hall & Soskice 2001). However, they do so with focus on specific job profiles, focusing particularly on already skilled workers. In contrast, low skilled workers or employees, whose vocational investments have become obsolete are exposed to high risks – not only of job loss but also of pronounced difficulties of regaining a job after becoming unemployed, which is also reflected in the high rate of long-term unemployment in Germany. Governmental retraining schemes have only a limited ability to contain these risks, given recent changes in the labour market and the forces of globalization (see Mills & Blossfeld 2003; Blossfeld, Klijzing, Mills & Kurz 2005). While the UK is generally confronted with similar problems, and governmental training schemes are only rudimentary, many of the associated risks of precarious employment, and particularly long-term unemployment for low skilled workers, are contained by the generally low unemployment rate and a high rate of labour turnover.

Family Related Policies

Family policy transfers in Germany combine generous child-related benefits with protective maternity leave arrangements that do not involve an imminent commitment to return speedily

to work (see Ondrich, Spiess, Yang & Wagner 1999). Reinstatement in the previous job is guaranteed by legal rules for a duration of three years[2]. Both father and mother are eligible for taking leave; however, in practice the homemaker role is largely assumed by mothers, with only a marginal percentage of the fathers taking part of the leave. These arrangements are flanked by a rather limited supply of child- and day-care institutions, which renders a reconciliation of work and childrearing a difficult task. This package of financial aid, a taxation system that favours single-earner families (see Apps & Rees 2003), and limited childcare support encourages women to retreat from the labour market and thus favours the male breadwinner model (see Pfau-Effinger 1996: 479). It can be concluded that this combination of parental leave schemes, child-related benefits, and taxation reinforce a view of German social policy as one that cultivates the traditional division of labour. Germany, therefore, produces a rather strong incentive for at least one of the partners to stay away from the labour market, which – given female discrimination in the labour market and the tailoring of family-related benefits to single earner spouses – is usually the woman. Hence, the decision to perform the transition to motherhood in Germany has a high likelihood of establishing strong dependencies on a male breadwinner. However, the profound occupational protection associated with leave regulations could also function in encouraging family formation, even with an incomplete labour market integration. Yet, in practice, these regulations of prolonged leave encourage a female retreat from the labour force or at least a reduction of occupational engagement to part-time work after childbirth.

In the case of the UK, parental leave protection only covers a short time span of 13 weeks (in addition to maternity leave schemes, specified in Table 1). Transfers related to general parental leave schemes are not available. Overall, family-related transfers in the UK are clearly limited. Regarding child- and daycare supply, the UK follows the principle of encouraging diversity and dynamics in a widely privatised system (see Mahon 2002: 354). Although a limited amount of financial aid for childcare is available, the costs of childcare for working parents remain among the highest in the EU (see Bradshaw & Finch 2002). Just as in the UK, German parents face increased costs when relying on external childcare, a situation aggravated by the generally low level of childcare coverage, especially in the Western part of Germany.

2 Some jobs however are not covered by this rule, including especially short-term contracts or freelance work.

Table 1: Leave Regulations and Family Related Subsidies in Germany & the UK until 2005

	Maternity & Paternity Leave		*Net wage Replacement %* [5]		*Additional Parental Leave*	*Child Allowance*
	Maternity	Paternity	Maternity	Paternity	Leave & Subsidies	(1st child)
UK	6 weeks+ 12 weeks	*Since 2003:* 2 weeks[2]	90 [1] 115€/week[1]	108€/week	*Since 1999:* 13 weeks (unpaid)	105€ flat/month Tax benefits
Since 2004:	6 weeks+ 46 weeks		90 [1] 142€/week[1]			767€ lump sum w. childbirth[3]
D	14 weeks	None	100 / 13€/day max.	-	3 years; flat rate for 2 years (307€/month, means tested)	154€ flat/month Tax benefits

(1) Statutory Maternity Pay. Means tested option of Maternity Allowance (115€/week, for 18 weeks).
(2) Statutory Paternity Pay, introduced 04/2003.
(3) Sure Start Maternity Grant, means tested.
(4) No specific grants for single parents.
(5) Specific parental leave payments apply for non-working persons in Germany.
Sources: MISSOC 2002,2004;2006.

In summary, both the UK and Germany constitute traditional breadwinner countries. However, in a direct comparison of the two, the UK has progressed further in fostering egalitarian gender roles, which is reflected in individual taxation, support of female economic autonomy, and the recent strengthening of male contributions to childcare through introducing a paid paternity leave in 2004[3].

Nevertheless, though female labour market attachment today is deeply entrenched in both countries, ranking among the highest in the EU, these countries also show extraordinary high levels of female part-time work (see Table 2). This is above all an indicator of work-family conflicts that lead to a restriction of female labour market engagement after childbirth (see Trzcinski & Holst 2003; Zollinger-Giele & Holst 2004). The underlying causes of this are pronounced norms of maternal care (particularly in Germany), combined with an underdeveloped childcare infrastructure. Childcare supply is characterized by either low coverage (particularly in West Germany), or the high costs of a privatized childcare system in the UK,

[3] Note that the described context focuses essentially on the time of analysis 1991–2005. Changes in family policy arrangements beyond this time span, or recent changes in labour market policies will not be considered specifically, due to difficulties of an appropriate consideration of their impact, given the short time of observation. This also applies with respect to the German labour market reforms (Hartz I – IV), introduced 2003-2005.

which is rarely affordable for couples in low paying jobs. The consequence of the outlined context is a pronounced reluctance to enter parenthood, particularly among with women with high skill endowments who have not yet consolidated their educational investments in a stable occupational position.

Table 2: Emergence of Female Part-Time-Employment 1973 – 2003 by Country

	1973	1983	1993	2003	△1973-2003
UK	39.1	42.4	43.9	**40.0**	0.9
Germany	24.4	30.0	32.0	**37.0**	12.6
Italy	14.0	9.4	11.0	**23.6**	9.6
France	12.9	20.1	26.3	**22.6**	9.7
Sweden	46.0	45.9	41.4	**20.6**	-25.4
US	26.7	28.1	25.5	**18.8**	-7.9
Finland	10.6	12.5	11.1	**15.0**	4.4

Source: OECD Employment Outlook 2007.
Notes: Values for Germany before 1991 apply to West Germany only.

Concluding this discussion of background influences, the institutional context in both the UK and Germany aggravates work-family conflicts for women, and thus influences childbearing decisions. In this context, Germany on one side provides a more traditional institutional orientation that increases female burdens, while the UK shows slight tendencies toward a more egalitarian division of labour and a less pronounced encouragement of the female caretaker role. Nevertheless, the same family support and leave protection that encourage a female retreat from the labour force in Germany, could also serve as an incentive to start a family, since parental leave and reinstatement rights provide a profound protection, even where occupational integration remains incomplete.

4) Data and Methods

The discussion above outlines an institutional context where the burden of reconciling the demands made by gainful employment and parenthood are widely left to individual actors, and to women in particular. The prevailing delay in family formation shows that actors try to achieve compatibility of these competing life-domains through an adjustment in the timing of parenthood. Accordingly, Brewster and Rindfuss note that this "…brings us back to the dy-

namics of the fertility-employment relationship and the importance of incorporating time into conceptual as well as statistical models" (2000: 291). Hence, a longitudinal design will be an integral part of the following empirical investigation.

Data Basis and Utilized Indicators

The data facilitated for the empirical analysis is based on the British Household Panel Study (BHPS) as well as the German Socio-Economic Panel (SOEP). The BHPS started in 1991 while the SOEP was initiated in 1984. Both panels are representative household surveys covering over 9,300 households and more than 16,500 individuals in the case of the BHPS and over 12,600 households and more than 23,800 individuals in the case of the SOEP (year 2002). Both surveys provide longitudinal data and offer a high level of comparability, making them a good match for a comparison between Germany and the UK.

To investigate the influence of labour market integration on *family formation*, I consider solely the transition to *first*-parenthood[4]. For both the BHPS and the SOEP an extensive fertility and employment history is available, providing reliable demographic information on the fertile history of both men and women[5]. Among the various indicators, the extent of labour market integration and performance rests in the centre of attention. I analyse the time since labour market entry and the duration of continuous employment. An index of overtime work in relation to working hours signals not only constraints in time budgets but also serves as an indicator of occupational attachment. Various measures of occupational activity serve to indicate discontinuous or fragile employment patterns. This includes part-time employment, fixed-term jobs, and unemployment. Moreover, occupational upward and downward mobility during the last year is considered an indicator of job performance. Additionally, regarding the entry into the labour market, I take into account if the first job is adequate of individual educational achievements, or if the initial labour market position rests below or above the level of skill endowments (see also Tölke & Diewald 2003).

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[4] The timing of second and further births is closely associated with the timing of the first birth (see also Kreyenfeld & Huinink 2003). Most mothers show a tendency to place subsequent births in close sequence with the transition to parenthood in order to compress labour market absence and high parental burdens in a narrow time span. This results in an increased probability of childbirth if parents already have a young child.

[5] However, in case of the SOEP the birth biography for men only starts with panel members entering in 2000 or later. For father-child relations of men that entered the panel before 2000, the fertility history needs to be reconstructed by observing the household structure in the previous waves. This approach causes a slight bias in

The further set of covariates includes net personal income[6] (among others as indicator for economic backing). Transfer reception is considered, assuming that this not only further describes the economic situation but also signals economic dependence. Educational attainment will be determined by considering the highest completed school certificate. Furthermore, vocational education and university degrees will also be considered. The importance of having children in the future and the importance of having a good job will also be considered as indicators of biographical goals. These items might further reflect the internalisation of social norms and thus display preference patterns and the preferred means of attaining social approval and well-being.

An important element of the empirical model is the supplementation of individual data with partner data. The decision for or against having a child is, in almost all cases, made by both partners (see Thomson & Hoem 1998). Thus, the resources and situation of both partners have to be taken into account when calculating the probability for the transition to parenthood (see Klein 2003). Furthermore, the resources of the partner, especially the working income, can be comprehended as a form of bargaining power when important decisions have to be met.

Design of the Multivariate Model

I focus on the *transition to first birth* in the context of labour market behaviour, or to be more exact, on the *time of deciding to have a first child*. The focus on the population at risk requires the exclusion of persons who are commonly inhibited from having a child due to their age. Therefore, I will only consider adults between 16 to 45 years of age. The key goal is to restrict the analysis to persons who are (still) likely to have a first child, considering social and biological factors (see Chen & Morgan 1991). Correspondingly, both descriptive and multivariate findings are based on characteristics of cohorts from 1956 to 1985, observed between 1991 and 2005 (relying on data from 1990 to 2006).

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case of first-born children who no longer live within the same household like the father. When considering if a person is already is mother or father, I only consider biological children.

6 For the UK, only gross income is available. This leads to a bias due to the inability to consider the redistribution effects through taxation. However, while this redistribution remains limited for this liberal welfare state, the individual taxation in the UK incorporates no (implicit) redistribution among spouses as is the case in Germany, where a sole consideration of gross income would introduced a much more severe bias in the gender-specific estimates (see Apps & Rees 2005; Wrohlich & Dell 2005).

The transition to first birth as a *dependent variable* is significantly related to parental age. In approximating the time of the decision for a child, I backdate the time of birth by 10 months[7]. As the underlying forces that drive fertility decisions vary across age groups, I apply *an exponential hazard model* with the extension of *piecewise constant* estimates. In this model, the estimates distinguish between time intervals with variable hazard rates. "The basic idea is to split the time axis into time periods and to assume that the transition rates are constant in each of the intervals but can change between them" (Blossfeld & Rohwer 1995: 110).

Although available data provides discrete measures, while the exponential model relies on a continuous time scale, the average duration of the spell until an event occurs (more precisely, a first birth) is several years. As I base my analysis on a monthly measure of the dependent variable and central covariates (particularly the recent employment history, taken from the calendar of activities in SOEP and BHPS), this can be considered a justified approximation of continuous time data (see Jenkins 2005: 19f.). In the applied analysis, the piecewise-constant intervals approximate a normal distribution with a summit around the 30th year of life, where the probability for having a first chid is highest. In detail, the selection of the piecewise constant intervals is based on a hazard rate analysis[8].

I define the risk for transition to the first birth at a given time at a baseline hazard $\overline{\theta}$ varies across age with steps at, 16th, 21st, 26th, 33rd and 38th year of life (month 192, 252, 312, 396, 456 after respondent's birth). Time at risk for first-birth conception is defined to start with the 16th year of life, and to end with the 45th year of life (month 192 and month 540)[9]. The regression parameters γ and β refer to the time variant (z) respectively to the time invariant (x) set of covariates, considered in the analyses. Thus, the hazard rate $\theta(t)$ for a first-birth decision is defined as follows:

$$\theta(t) = \overline{\theta}_t \exp\left(\beta' X_t + \gamma' Z_t(t)\right) \tag{0.1}$$

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[7] Evidence on conception probabilities, derived from various medical studies suggest that the proportion of couples, not able to conceive within two to three cycles is in fact very small, which underscores the validity of this procedure of backdating (see Bongaarts 1982).

[8] Hazard rate estimates based on the SOEP and BHPS population of analysis show a normal distribution of first-birth risk across age (author's calculations).

[9] Almost no transitions to first parenthood can be observed beyond this age (see Figure 3 & Figure 4).

Where t_n defines the time intervals with constant baseline hazards:

$$t \in (193,252);\ (253,312);\ (313,396);\ (397,456);\ (457,540) \qquad (0.2)$$

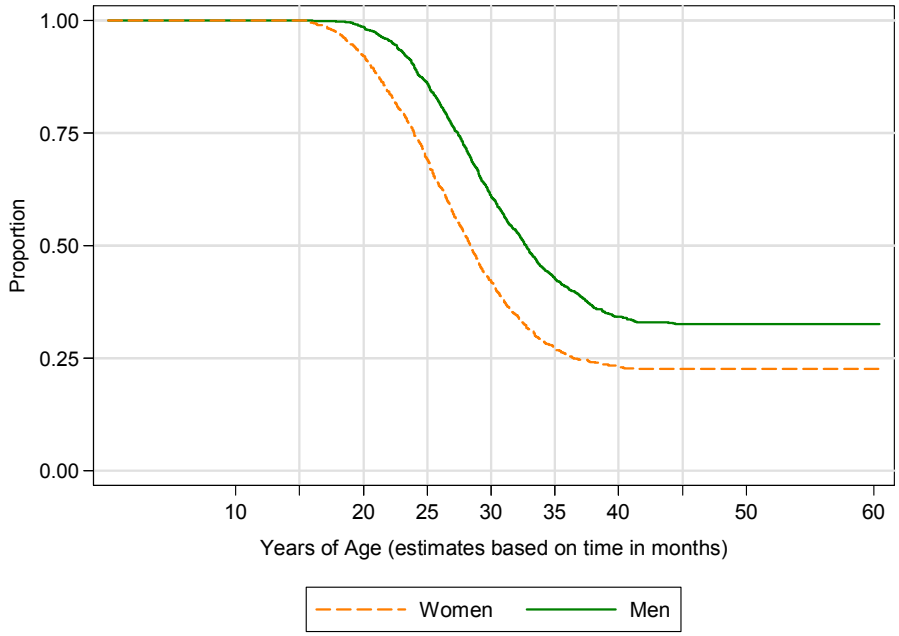
All multivariate results displayed in Table 4 & Table 5 are based on the outlined form of piecewise constant exponential hazard estimates. All findings, both descriptive and multivariate, are based on characteristics of cohorts from 1955 to 1985, observed between 1991 and 2005. In the following section, I will present some initial descriptive results.

5) Results of the Descriptive Analysis

Figure 3 for Germany and Figure 4 for the UK show the transition to first birth among both men and women. In Germany as well as in the UK, transitions occur later for men in comparison to women. Moreover, men in both countries show distinctively higher rates of permanent childlessness. These findings of a longer delayed transition to parenthood and a higher proportion of permanent childlessness are well in line with results on different countries (see, e.g., Bachu 1996 for the US, Juby & Le Bourdais 1998 for Canada, and Toulemon 2001 for France). In direct comparison, Germany evidences slightly higher levels of permanent childlessness. In addition, the transition patterns in Germany and the UK, that is, the age at which a specific proportion of adults has already made the step to parenthood, are similar between these two countries. An exception to this can be found in the high prevalence of teenage motherhood in the UK (see Ermisch & Pevalin 2003). Figure 3 and Figure 4 (both next page) are somewhat limited in visualizing the distinction between Germany and the UK with respect to this issue, since the estimates only consider births that occurred at 16th year of life or later. Yet, the survival estimates show that the proportion of persons that have already become a parent at age 20 is clearly higher in the UK than in Germany, a salient fact with particular relevance to the proportion of teenage mothers.

Within the cohorts 1956 to 1961[10], the mean age at first birth for women is about 24.6 years in Germany and about 25.8 years in the UK. Among men, the mean age at the time of the transition to fatherhood is 26.8 years of age in Germany and 28.2 years of age in the UK. The data for the cohorts 1956 to 1961 suggest that a significant proportion of men and women in Germany undergo a slightly more rapid transition to parenthood than their counterparts in the UK. This observation takes on greater force if one considers the comparatively high proportion of fertility transitions among British teenagers, which should add to a reduction of the average age at first birth in the UK. Yet, the mean age at first birth is *higher* in the UK than in Germany. Moreover, Germany shows higher rates of permanent childlessness, which is well in line with a lower TFR in Germany compared to the UK during recent decades. In particular, the majority of German women undertake the transition to parenthood within a rather limited time span, between ages 20 to 35, whereas the proportion of women that delay the transition to motherhood longer is higher in the UK than in Germany.

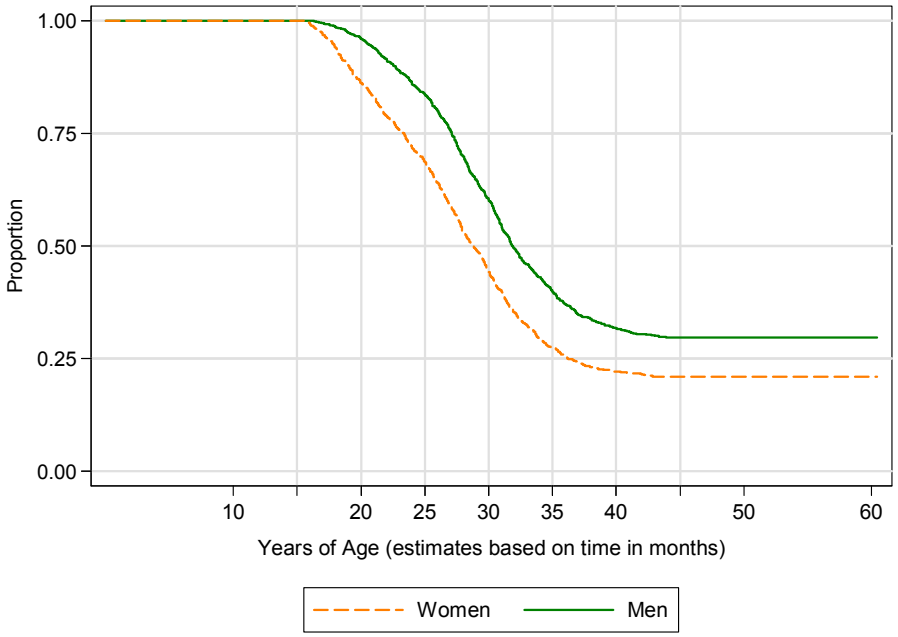
Figure 3: Kaplan Meier Estimates of First-Birth Transitions in Germany by Gender (Cohorts 1956 – 1985)



Source: GSOEP 1991 to 2006; (author's calculations) *n = 9.895 (events = 2.973)*

[10] The focus here is on cohorts who have already completed their fertile life-span (1956-1961). These results are based on the GSOEP for Germany and the BHPS for the UK, 1991 to 2005; author's calculations, unweighted.

Figure 4: Kaplan Meier Estimates of First-Birth Transitions in the UK by Gender (Cohorts 1956 – 1985)



Source: BHPS 1991 to 2005; (author's calculations) *n = 7.461 (events = 2.146)*

Shifting attention from the transition to parenthood to the transition into the labour market, the data show that labour market entry in Germany occurs at a higher age than in the UK. Obviously, the – in a cross-national comparison – long durations, spent for education and vocational training in Germany take their toll: The mean age at labour market entry is 20.7 years (with men entering slightly later than women). In the UK, the entry usually occurs earlier, at a mean age of approximately 19.2 years. The values for the median entry age differ even more (17.3 in the UK versus 20.0 years of age at labour market entry in Germany). These patterns can be particularly linked to the lengthy programs of higher education in Germany, which cause a significant delay in labour market entry compared to the UK, particularly among people with tertiary education[11].

The initial evidence of average age at first birth and labour market entry provides some initial indication that the relation between labour market integration and fertility decisions follows a different pattern in Germany than in the UK: In Germany, the first step into an occupational career is taken later than in the UK. Yet, the transition to first birth, in many cases, oc-

curs at a lower age. The lengthy process of educational and vocational training in Germany combined with what is on average an earlier transition to parenthood can be partially explained by the higher prevalence of first births prior to labour market entry. In Germany 14.3% (12.8% among men, 15.7% among women) of all first births occur before entering into employment, as opposed to 10.3% in the UK (11.4% among men, 9.4% among women). However, this might in part be related to a higher prevalence among German women to focus solely on the homemaker role and to neglect career development. This view is further supported by findings indicating that there is a marked difference in the age of British and German women at first birth before labour market entry, whereas the differential between British and German men is relatively small. Norms of maternal care, as well as social policy settings encouraging a traditional division of labour in Germany, support such gender specialization. In contrast, in the UK the greater exposure to economic risk and the high level of commodification establishes high barriers for women to refrain from professional work.

Figure 5 (Germany) and Figure 6 (UK, next pages) show the hazard rate of transition to first parenthood among those who have already entered the labour market. In both countries and among both men and women, the likelihood of starting a family swiftly increases after labour market entry. Particularly among German women, the probability of having a first child increases *very* rapidly after entry into the labour force. The highest degree of risk is reached at about eight years after starting a first job. This result is certainly also influenced by age norms that suggest the transition to parenthood should occur within a specific age range. Yet, the finding of a close relation of labour market entry and transition to motherhood implies that German women in particular focus first on labour market integration and subsequently on family formation. Among German men, the relation between labour market entry and the greater likelihood of family formation is less pronounced, reaching a peak after about 9 to 10 years.

Among women in the UK, too, the first-birth risk increases markedly with entry into the labour force. However, this relation is less striking than in Germany. The highest likelihood is reached after 11 years and clearly decreases thereafter. This suggests a less pronounced link between the status passage into gainful employment, and the starting of one's own family than is observable in Germany. Yet, as in Germany, this link is more distinct among women than

[11] There is empirical evidence that the age at labour market entry drifts apart even further: Haag and Jungblut (Haag & Jungblut 2001) state that the average age at labour market entry has increased in France and Germany, whereas it has decreased in the UK and the USA.

among men, which suggests that family formation follows an initial consolidation of educational investments in professional status positions in order to retain occupational opportunities after childbirth.

Figure 5: Hazard Rate of First-Birth Risk after Labour Market Entry in Germany by Gender (Cohorts 1956 – 1985)

Source: GSOEP 1991 to 2006; (author's calculations) *n = 8.579 (events = 2.693)*

Figure 6: Hazard Rate of First-Birth Risk after Labour Market Entry in the UK by Gender (Cohorts 1956 – 1985)

Source: BHPS 1991 to 2005; (author's calculations) *n = 6.884 (events = 2.036)*

6) Findings of the Multivariate Analysis

The multivariate analyses incorporate a set of covariates that focus on occupational performance and risks in the context of starting a family. These indicators can be grouped roughly into three types. A first set of indicators attends to the current labour market attachment and economic performance. The indicators in this group include the current activity status and an index measuring the current extent of overtime work. I also consider occupational upward or downward mobility since the previous year and, finally, current labour earnings – all of which define the current economic scope. In a second group of variables, I take into account more *latent* indicators of occupational performance. While certainly some forms of precarious employment – as represented in activity status types like part-time work or unemployment – can be assumed to have a latent effect as well, this group focuses on indicators that most likely exert a more lasting impact on occupational performance. This group includes occupational performance at labour market entry, an indicator that also takes into account whether the first job requirements were below or above the level of a person's educational attainment. The goal here is to provide insight into whether a person has made a promising or unpromising start in their working life, assuming that this exerts a lasting impact on future career aspirations and opportunities (see similarly Tölke & Diewald 2003). Moreover, in the context of latent occupational insecurity, I consider whether a person has been long-term unemployed (i.e. one year or longer) during the last three years, as this will likely have a pronounced negative impact on both labour market attachment, due to the discouragement associated with unemployment, and also on future job opportunities. A third group of variables focuses on the impact of specific key transitions from education to work. In addition to the descriptive evidence of the development of first-birth risk after labour market entry, I consider in the multivariate models the issue of whether there are any identifiable effects of duration in the transition to parenthood – in the context of time that has passed since leaving full-time education. An additional indicator that focused on the question of whether the step into a first job could be made within a period of twelve months or less did not produce significant findings and therefore was omitted from the displayed results in Table 4 & Table 5.

The Transition to Parenthood in Light of Labour Market Performance

In Germany as well as in the UK, involvement in full-time education exerts a distinctly negative impact on the likelihood of starting a family that is observable for both men and women. This context is well-documented in the research literature (see, e.g., Blossfeld & Jaenichen 1992) and corresponds to prevalent life course patterns in modern societies and in norms that encourage a delay of family formation until a minimum level of economic dependence and support for a future family has been reached (see Hobcraft & Kiernan 1995). In contrast, among those who have already entered the labour force, there are pronounced patterns that clearly distinguish men from women. Moreover, across countries, there are different backgrounds for starting a family that emerge according to whether labour market integration is either extensive or incomplete.

Among men, an occupational position beyond the standard template of full-time work seems to hamper the **transition to fatherhood in Germany**. There, part-time employment shows a negative impact. To a lesser extent, this also applies to economic inactivity among men. Moreover, the experience of long-term unemployment during the last three years clearly undermines the likelihood of having a first child. Importantly, all these effects vanish after controlling for income (and transfer reception), which in turn exerts a consistently positive impact on family formation among men. This suggests that it is primarily the direct impact of incomplete labour market integration on earngings that result in the inability to meet the requirements of family formation, rather than its signal of lastingly reduced breadwinner ability associated with precarious employment. That is underscored by the finding that none of the mentioned effects remains significant if the backing of a female earner is taken into account.

Shifting the attention to **male transitions to parenthood in the UK**, I find a somewhat different background for how occupational achievement affects this transition. Indicators of incomplete labour market integration – like male part-time employment or fixed term contracts – do not show any significant impact. However, just like among German men, the experience of long-term unemployment hampers the transition to fatherhood. In contrast, a promising labour market entry and a high performance in the first job affect this transition positively. Such a promising job start may serve as an indicator that occupational integration has been completed more swiftly, thus nourishing the ability to support a family. Yet, similar to the analysis of German men, none of these indicators retains a pronounced significance after controlling for a broader set of covariates, including income, transfers, and the backing of a second earner.

Importantly, however, among men in the UK, a second pattern of linking employment and the transition to fatherhood emerges that comes as quite a surprise: First of all, male occupational downward mobility does not hamper family formation as one would expect according to a theoretical framework that considers undermined earner qualities. In contrast, this downward mobility *increases* the likelihood to become a father. This effect is pronounced and remains consistently robust across all estimated models. While it should be taken into account that this could be a methodological artefact, this finding is further supported by evidence of a positive – albeit weaker – impact on family formation during male unemployment. In fact, this might hint that, when confronted with bleak occupational prospects or a precarious employment situation of the male earner, couples in the UK tend to back family formation with a more pronounced male engagement in childcare duties than predominant traditional gender roles would suggest. The institutional arrangements in the UK, particularly the high labour market demands on individual actors, combined with the low level of welfare state support for young families, especially with respect to childcare support, would certainly encourage the sharing of parental duties in this specific life phase. Moreover, British men also deviate from the traditional male breadwinner picture by showing a negative impact on family formation if they have a high valuation for occupational prestige (among German men, who widely refrain from engaging in childcare, this indicator is not significant). That is, for men in the UK, as for women, work and family to a certain extent present competing life domains. Finally, planning to have a child with stronger *paternal* engagement might not only serve to disburden a mother who is probably still working, but might also serve to compensate for the loss of occupational status and discouragement through a focus on the family, thus regaining both self- and social esteem.

The 2003 shifts in social policy that encourage paternal care through the introduction of paid paternity leave (see Table 1) come too late to be discussable as a relevant explanation for such behaviour. Moreover, the policy effects are certainly too limited to have induced such a fundamental shift in predominant gender roles in a strong breadwinner country as the UK (see Lewis 1992; Fuwa 2004). However, the introduction of paid paternity leave is perhaps an additional indication of slowly but constantly shifting gender roles in the UK. However, although the presented evidence provides a broadly consistent pattern across several indicators, this issue of a male disengagement from the labour market encouraging to take over carer duties certainly requires more attention in future research before it can be confidently related to an adjustment in traditional gender roles.

Women in the UK who start a family do indeed show similar patterns to men in the context of occupational performance and labour market insecurities. A pronounced labour market integration and a demanding occupational position clearly hampers the predilection to decide in favour of having a child. A high value placed on having a good job and extensive overtime work are both indications of close labour market attachment, whose strong restriction on time is a clear witness to how labour market attachment hampers the transition to parenthood. In contrast to this evidence of pronounced labour market attachment, women in the UK show distinct patterns of placing the transition to parenthood in times of occupational insecurities and precarious employment. The impact of unemployment provides impressive evidence in this direction. In this context, the likelihood of opting for a first child during unemployment is consistently two times higher. Obviously, women in the UK show a distinct tendency to perform the transition to motherhood when occupational status encourages this behaviour by reducing opportunity costs through the low price of time for family formation. Pronounced effects also link family formation to female part-time employment. This context in the UK, however, provides somewhat vague implications: Part-time employment may be the result of a deliberate reduction of working hours in order to allow for a parallel combination of work and motherhood in an institutional context that discourages a lasting labour market absence by offering only a rudimentary maternity protection and reinstatement rights. Yet again, among other women, lasting part-time employment may signal latent precarious employment and an incomplete labour market integration that is finally answered by shifting the focus to the family domain (for this line of reasoning see also Friedman et al. 1994).

Two major principles of how labour market integration affects family formation become salient among **women in Germany**. First, women with a below average performance at entry into the labour market tend to delay the transition to motherhood. This is perhaps the case as an unpromising job start tends to make an occupational integration a more lengthy and difficult process. At the same time, however it is required to a) transform educational investments into occupational status positions and b) enable a proper labour market reintegration after a maternal leave. This striving for a consolidation of the occupational position prior to family formation is reflected by findings that indicate that the experience of long-term unemployment sometime during the last three years among German women also hampers the transition to motherhood (just like is the case among men). This evidence, however, is not robust in the models that control for income, transfers, and the existence of a second earner; in contrast, precarious employment in the form of having a fixed-term contract exerts a consistently nega-

tive impact on family formation rationales. This is not only because fixed-term employment or casual employment is an indicator of an instable and precarious employment career, but also because the eligibility for leave related benefits is limited – at least among some of such contracts. In this context, the institutional arrangements regarding maternity protection and support provide an incentive to attain a minimum level of labour market integration prior to family formation which guarantees eligibility for these types of institutional support.[12]

In contrast to the coping patterns outlined above, which relate to women with a pronounced labour market attachment, the antagonism between the demands of occupational and family roles under the traditional German breadwinner regime takes its toll. These women with both a high workload and extensive career aspirations, as reflected in a high amount of overtime work and a high importance of having a good job, show consistent and pronounced effects of a lower likelihood to start a family. Generally, among German women, a minimum threshold level of occupation security and integration is obviously *aspired* prior to family formation – both to consolidate educational investments and in order to guarantee transfer eligibility that are linked to occupational status and duration. However, if the labour market attachment is *pronounced*, this tends to hamper family formation among German women. It should be noted that these two principles – either an initial labour market integration as prerequisite of family on one side, or an extensive labour market attachment that turns out to drastically conflict with family formation – is predominant in different status groups. In this context, the work-family conflict turns out to be prevalent among women with extensive investment in educational and occupational skills.

Finally, among women in Germany, there is slight evidence that – like British women – the transition to parenthood is undertaken during times of involuntary labour market exclusion – during unemployment or inactivity (the latter not considered for the UK). The evidence of a higher propensity to start a family among German women, however, remains weak and is related to economic inactivity as well as to female unemployment with the backing of a male earner.

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[12] The tendency among German women to initiate the transition to parenthood from of a safe labour market position is also mirrored in the finding of a positive impact of being in public employment. This type of employment commonly signals reliable job prospects, combined with comparatively generous support for parents. This indicator is only available for Germany and has thus been omitted in the results in Table 4 & Table 5.

Key Transitions in the Education – Work – Family Nexus

Where institutional arrangements still tend to predetermine life course patterns, this might still link the status passages in the education-work-parenthood nexus on grounds of a sequence of vital status passages and notions of how and with which timing these transitions should be interconnected (see Mayer & Müller 1986). Brückner and Mayer (2005) in this context argue that a close linking in a way that presents a consistent and dominant pattern of transitions tends to dissolve, where high flexibility dominates industrial relations. In this sense, predominant life course patterns with a close temporal linkage of education and family related status passages should be more difficult to identify in a liberal market economy like the UK, where the institutional arrangements, leave the protection against life course related risks to the actors (see DiPrete 2002). This should generate a greater heterogeneity in individual responses to theses settings than under a more predicable pattern as in a coordinated market economy as Germany.

In this context, I have first investigated if a delayed entry into the labour market after the end of full-time education exerts a lasting impact on family formation. In detail, I have distinguished persons who have started a job within twelve months after finishing education from those who did not enter the labour force within this time span. However, this indicator did not produce any latent impact on the likelihood to start a family. Moreover, I have focused on the duration, a person has been continuously in employment (without any educational or unemployment related work interruptions, e.g.) as an indicator of occupational stability and labour market integration. Yet, just like the education to work indicator that also aimed to cover latent fertility effects of difficulties to promote one's initial occupational integration, this measure also did not provide any significant impact on the propensity to become a parent[13].

In contrast, however, prevalent transition patterns still seem to temporally link the exit from full-time education to the *timing* of family formation in Germany, particularly among women. A dummy set of variables, covering the time since leaving full-time education (0 to 3 years, 4 to 6 years, 7 to 10 years, 11 to 14 years, and more than 14 years) was included in the hazard estimates. Among German women, this indictor presents robust evidence of a temporal linkage of these two status passages. The inclination for a first birth increases swiftly with the exit

[13] Different functional forms of this indicator of permanent employment have been tested (e.g. a linear impact and a decreasing marginal utility) but did not provide any consistently significant impact on the likelihood to start a family. This indicator has been omitted in the empirical analyses, presented in Table 4 & Table 5.

from full-time education and is most pronounced 7 to 10 years after this status passage, with the level of this effect declining thereafter – but remaining statistically significant. This widely corresponds to the hazard rates of an increased first-birth risk about eight years after labour market entry, as presented in Figure 5. These results for German women remain robust, after including the above mentioned indicators of occupational insecurities and precarious employment, and also after controlling for the full set of covariates, including – among others – educational attainment, income, transfer reception and information on the partner.

In contrast, the link between finishing education and starting a family is more loosely coupled among German men. A recent exit from full-time education even exerts a negative impact, which certainly owes something to the limited ability to support a family immediately after exiting the educational system and in the early stages after labour market entry. A positive impact on the likelihood of becoming a father can be found between 4 to 10 years after finishing education. The effects however remain spurious and vanish after controlling for the full set of covariates. Obviously, the life course pattern, linking these status passages is largely determined by heterogeneous contexts of individual labour market integration and performance. In the UK, the notion of a link between the status passages of leaving education and starting a family appears to be even more hazy. The effects generally remain spurious, and the most consistent effect is a negative impact on the transition to parenthood in the immediate years after finishing full-time education. Even more decisively among German men, the paths towards parenthood appear to be determined by individual occupational engagement and the experience of occupational insecurities instead of being related to a consistently defined life course script that links educational exit, labour market entry and family formation. The picture thus corresponds to the notion that a liberal regime encourages diversity in individual life courses in order to cope with hardships and life course risks, from which a liberal welfare state is only capable or willing to offer protection to a limited extent.

7) Conclusion

The investigation of the effects of labour market integration on fertility decisions revealed distinct gender-specific differences. However, the specific institutional arrangements in Germany and the UK entail distinctively different coping patterns across countries, particularly in the transition to motherhood. This is the case, even though the evoked contradictions between fe-

male work and family roles in Germany and the UK have led to an assessment of both countries as strong breadwinner countries (see Lewis 1992).

The institutional background in Germany still appears to reproduce traditional gender relations, which is also reflected in the way that German men and women tend to perform the transition to parenthood in relation to gainful employment. In this context, where women face high incentives to invest in education while simultaneously being institutionally encouraged to retreat from the labour force, I find evidence that women tend to delay family formation in a context where they are facing incomplete occupational integration and precarious employment. This is suggested by the robust negative impact observable if working in fixed-term employment or under the negative impact of an unpromising job start. Obviously a sequential combination of occupational career and motherhood (see Lauterbach 1994: 71ff.; Dornseiff & Sackmann 2003) remains a predominant way of coping with the squeeze resulting from occupational role demands and the institutional and normative encouragement of the female carer role. Moreover, such a sequentially-ordered focus on these two respective life course stages allows German women to retain at least a minimal attachment to the labour market by first transferring educational investments into occupational status positions, which also diminishes risks of economic dependence.

Yet, 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 favouring married, single-earner couples (see Apps & Rees 2003; Wrohlich & Dell 2005). Women who retain a pronounced labour 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, it is difficult for such women to combine work and family, which results and an extensive reluctance to start a family.

To conclude the discussion of these findings, the institutionally encouraged male breadwinner / female homemaker template still exerts a pronounced impact on how German men and women shape their transition to parenthood. This is also corroborated by slight indication that – 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 labour market integration and occupational in-

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

The relation between occupational performance and family formation in the UK differs from the picture in Germany. In the liberal market economy of the UK, the encouragement of diversity and flexibility in the labour 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 (see Hall & Soskice 2001). This results in the necessity of establishing a sound labour market position to attenuate economic risk. The necessity of women completing their labour 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. Rather, women in the UK try to realize a parallel combination of the female carer role with occupational participation, as underscored by the distinct positive likelihood to decide for a first- child during part-time employment[14].

A pronounced pattern among women in the UK is to place the transition to parenthood within periods of involuntary labour market exclusion. Particularly unemployment and subsequent inactivity clearly increases the likelihood of opting in favour of a first child due to reduced price of time effects. Some results suggest that even couples where the man becomes unemployed, or is less closely attached to the labour force, tend to use this flexibility in male time budgets to start a family. Perhaps, the high opportunity costs of parenthood in the UK tend to encourage a deviation from the traditional model of family duties, with men taking over a higher share of childcare responsibilities during joblessness, thus disburdening the female earner and fostering the tradition to parenthood. Such a focus on the parental role may also serve to partially compensate for the loss in social esteem after expulsion from the labour market, in a society that places high norms on participating in paid work. Yet, this issue of a reversal of traditional gender roles in case of male labour market detachment requires further investigation in future research and remains speculative for the present time.

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[14] Once again, it should be mentioned that observed births are backdated by ten month to the assumed point of deciding to have a child. It has been pointed out that particularly women in Germany tend to combine motherhood with part-time employment in order to cope with limited time budgets (see Trzcinski & Holst 2003). However, in the case of this analysis for the UK, part time employment is the *starting point* of that decision rather than consequence of becoming a parent, which suggests that at least some women take advantage of this incomplete labour market integration in order to start a family.

To conclude, the most distinct differences arise in the way women in Germany on one side and in the UK on the other shape the transition to parenthood in the context of their labour market participation. While women in Germany pursue at least an initial labour market integration and tend to focus on family formation thereafter, women in the UK obviously try to avoid extensive labour market exits. In this context, patterns of a parallel combination of work and family formation appear to be more prevalent in the UK. Moreover, 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. These different coping strategies are closely related to the different types of institutional arrangements and incentives in both countries. The UK provides a generally low level of welfare state support and protection and leaves precaution to the individuals, while Germany encourages a regress to the female family carer role.

Yet, women with very close labour market attachment show a similar reluctance to have a child in both Germany and the UK. Obviously, the ability to reconcile work and family among women with pronounced career aspirations remains a critical issue. In both countries, female participation in education and in the labour market has shifted from an exception to a rule. However, whereas the German welfare state is focused on supporting single-earner families with a female homemaker, the UK generally neglects the support of young families, particularly in a lacking alleviation of parental responsibilities. Still, both institutional regimes place the burden of childrearing solely upon the shoulders of the woman. In consequence, this fosters either an extensive delay of the transition to parenthood, or a complete rejection of the transition to parenthood, particularly among women with extensive skill investments that are highly capable of competing in the labour market, and aim to do so.

Appendix

(A) Descriptive Statistics

Table 3: Sample of Respondents – Selected Descriptive Statistics

Descriptive Statistics (all values in percent)	*Germany*		*United Kingdom*	
	Men	**Women**	**Men**	**Women**
Birth Cohorts				
1956-1965	15.3	11.7	18.49	14.7
1966-1975	45.4	40.2	40.4	40.0
1976-1985	39.3	48.0	41.1	45.3
Partnership Status				
Single / Living Apart Together	66.0	57.4	66.2	58.5
Consensual Union	17.8	23.2	18.5	22.6
Married	11.2	15.1	15.4	18.9
Educational Attainment				
University Degree	11.5	11.4	24.5	26.6
A Level	18.5	21.7	38.6	40.8
O Level	31.4	35.6	23.6	24.0
Complimentary Schooling	32.2	24.2	12.7	8.3
Activity Status				
Full-time & Permanent Contr.	40.7	37.0	61.3	57.2
Full-time & Public Employment	3.4	2.7	n/a	n/a
Full-time & Fixed Term Contract	5.9	6.7	5.4	6.1
Part-time Employed	1.7	4.6	1.6	2.6
Self-Employed	4.1	1.7	6.6	2.5
In Education/ Apprenticeship	31.3	35.3	13.6	18.6
Unemployed	6.6	4.4	7.9	4.9
Economically Inactive	1.9	5.6	n/a	n/a
Retired / Other / Missing	4.4	2.0	3.1	4.1
Partner Unemployed Inactive?	4.1	2.5	6.0	4.0
Occupational Mobility since previous Year				
Downward Mobile	5.0	4.2	10.5	9.9
No Change	39.4	40.3	28.4	33.0
Upward Mobile	5.8	5.1	13.3	13.0
Performance at Labour Market Entry				
Below Edu. Level/Weak Performance	12.9	14.7	13.3	9.0
Appropriate for Edu./Average Performance	53.5	49.0	43.2	43.6
Above Edu. Level/Good Performance	6.3	4.2	5.8	5.3
Long-Term Unemployed in last 3 Years?	4.1	2.5	7.7	4.7

Table 3 continued on next page…

Table 3 continued…

Descriptive Statistics	***Germany***		***United Kingdom***	
(all values in percent)	**Men**	**Women**	**Men**	**Women**
Time Since leaving Full-Time Education				
Still in education	31.6	35.5	8.7	12.3
1-3 Years	19.4	20.6	18.9	21.8
4-6 Years	13.1	13.2	19.0	20.2
7-10 Years	12.8	11.5	18.6	17.7
11-13 ½ Years	8.0	6.3	11.1	10.4
More than 13 ½ Years	13.7	11.3	24.1	18.2
Work-Family Priorities				
Importance of having children low	35.0	29.3	19.3	20.8
Importance of having children average	25.3	24.6	33.0	28.5
Importance of having children high	10.7	16.9	24.2	33.3
Importance of good job low	7.9	9.0	23.3	17.3
Importance of good job average	36.4	36.8	22.8	23.6
Importance of good job high	27.1	22.6	52.8	57.8
Relative Income (Persons with Partner only)				
Similar Level	24.8	25.2	31.5	32.6
Traditional (♂ 1/3 above ♀)	42.6	37.8	44.0	37.1
Fem. Main Earner (♀1/3>♂)	16.2	20.6	15.9	22.4
Both not working	11.7	12.4	8.6	7.9
n of person-months	392.599	314.025	273.949	221.248
n of cases	5.225	4.508	4.014	3.318
n of births (backdated) 1991-2004 / 2005	1.319	1.493	956	1.062
n of cases / events Partner(Model III)	2.563/1.099	2.659/1.168	2.034/860	1.940/882

Source: GSOEP 1991 to 2006 for Germany & BHPS 1991 to 2005 for the UK; (author's calculations).

(B) Piecewise-Constant Exponential Hazard Estimates on First-Birth Risk

Model Description:

Model I: Indicators on current as well as latent labour market performance & precarious employment (incl. unemployment, inactivity, fixed-term job, duration of continuous employment, time since leaving full-time education, index of overtime work).
Backdating of birth to (t_{birth} – 10 months).
All adult respondents of cohorts 1956-1985, aged 16-45.

Model II: Indicators on current as well as latent labour market performance & integration
Backdating of birth to (t_{birth} – 10 months).
Control-variables added (incl. education, income, importance of children/job, etc.)
All adult respondents of cohorts 1956-1985, aged 16-45.

Model III: Indicators on current as well as latent labour market performance & integration
Backdating of birth to (t_{birth} – 10 months).
Control-variables added (incl. education, income, importance of children/job, etc.)
Partner information added (incl. partner's income, partner's unemployment/inactivity, partner's education, relative income, marital duration).
Only couples with partner being panel respondent, cohorts 1956-1985 aged 16-45.

Table 4: Determinants of First Birth Risk - Piecewise Constant Estimates for Germany Cohorts 1956 – 1985 during 1991 – 2005 (note: this table continued on next page)

	Model I				Model II (+Controls)				Model III (+Partner)			
	Men		***Women***		***Men***		***Women***		***Men***		***Women***	
	haz.	**b**	**haz.**	**b.**	**haz.**	**b**	**haz.**	**b**	**haz.**	**b**	**haz.**	**b**
Baseline age	(Measured in Months)											
16 to 21 Years	0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.01 (0.00)***		0.00 (0.00)***	
22 to 26	0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***	
27 to 33	0.01 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***	
33 to 38	0.01 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***	
39 to 45	0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***		0.00 (0.00)***	
Activity Status (*Reference:* Full-time Employed w. Permanent Contract; omitted Categories: Public & Self Employed)												
Fixed Term Contract (& Full-T.)	0.91 (0.10)		0.79 (0.09)**		1.02 (0.12)		0.78 (0.09)**		0.93 (0.12)		0.81 (0.09)*	
Part-Time Employed	0.37 (0.12)***		1.08 (0.13)		0.55 (0.18)*		0.89 (0.11)		0.63 (0.21)		0.96 (0.13)	
In Education/Apprenticeship	0.47 (0.07)***		0.35 (0.05)***		0.79 (0.11)		0.46 (0.07)***		0.93 (0.20)		0.62 (0.12)**	
Economically Inactive	0.69 (0.15)*		1.78 (0.18)***		1.08 (0.23)		1.13 (0.14)		1.12 (0.31)		1.10 (0.15)	
Unemployed	0.85 (0.11)		1.12 (0.15)		1.23 (0.18)		1.02 (0.15)		1.17 (0.27)		1.00 (0.18)	
Partner's Employment Status												
Partner Unemployed / Inactive									1.35 (0.13)***		1.14 (0.15)	
Overtime Index	(0-1 with 0 = No Overtime)											
Overtime/Working Hours	1.64 (0.61)		0.14 (0.09)***		0.95 (0.38)		0.13 (0.08)***		0.90 (0.39)		0.15 (0.10)***	
Occupational Mobility Since Last Year?												
Downward Mobile	1.08 (0.12)		0.84 (0.11)		1.01 (0.12)		0.86 (0.11)		0.96 (0.12)		0.87 (0.13)	
Upward Mobile	1.07 (0.11)		0.77 (0.10)**		1.01 (0.11)		0.83 (0.10)		0.91 (0.11)		0.85 (0.12)	
Duration of Continuous Employment:												
More than 24 Months	0.90 (0.07)		1.01 (0.08)		1.02 (0.08)		1.08 (0.08)		1.00 (0.09)		1.16 (0.10)*	
Long-term UE (>12Months) During the last 3 Years?	(*Reference:* Not Long-Term UE during last 3 years)											
Yes (1)	0.60 (0.10)***		0.58 (0.12)***		0.90 (0.16)		0.85 (0.16)		0.82 (0.17)		0.76 (0.18)	
Performance at Labour Market Entry / First Job	(*Reference*: Average Performance)											
Bad Performance / 1st Job below Educational Qualifications	0.89 (0.08)		0.84 (0.07)**		0.91 (0.08)		0.81 (0.07)**		0.89 (0.09)		0.78 (0.08)**	
Good Performance/ 1st Job above Educat. Qualifications	0.91 (0.10)		0.96 (0.12)		0.88 (0.11)		0.93 (0.11)		0.90 (0.12)		0.94 (0.13)	
Time Since Leaving Full Time Education	(*Reference*: Still in Education)											
Up to 36 Months	0.81 (0.10)*		1.88 (0.22)***		0.84 (0.10)		1.65 (0.19)***		0.91 (0.13)		1.84 (0.28)***	
37 – 72	1.31 (0.15)**		2.47 (0.31)***		1.12 (0.14)		1.78 (0.23)***		1.22 (0.17)		1.99 (0.31)***	
73 – 120	1.30 (0.16)**		2.76 (0.36)***		1.04 (0.13)		1.81 (0.24)***		1.13 (0.16)		2.04 (0.33)***	
121 – 160	1.15 (0.15)		2.27 (0.34)***		0.93 (0.13)		1.55 (0.24)***		1.10 (0.18)		1.82 (0.33)***	
More than 160 Months	0.99 (0.15)		1.75 (0.31)***		0.80 (0.13)		1.22 (0.24)		0.94 (0.17)		1.60 (0.36)**	

Table 4 continued on next page…

Table 4 continued…

	Model I				Model II				Model III			
	Men		***Women***		***Men***		***Women***		***Men***		***Women***	
	haz	**b**	**haz.**	**b.**	**haz.**	**b**	**haz.**	**b**	**haz.**	**b**	**haz.**	**b**
Region												
West (1) / East (2)	0.92	(0.07)	1.29	(0.09)***	1.19	(0.09)**	1.40	(0.10)***	1.37	(0.12)***	1.48	(0.13)***
Biographical Planning – Importance of Having: *(Reference:* Average Importance**)**												
Children – Low					0.43	(0.04)***	0.38	(0.04)***	0.43	(0.05)***	0.32	(0.04)***
Children – High					2.06	(0.15)***	2.10	(0.14)***	1.90	(0.15)***	2.02	(0.16)***
Good job – Low					0.83	(0.10)	1.15	(0.10)	0.93	(0.12)	1.15	(0.12)
Good job – High					0.90	(0.06)	0.83	(0.06)***	0.90	(0.07)	0.81	(0.07)**
Income	(Effects per 100€ / Month)											
Individual Net Labour Earnings					1.01	(0.00)***	0.99	(0.01)*	1.01	(0.00)***	0.99	(0.01)
Individual Transfers Received					1.01	(0.01)	1.02	(0.01)***	1.01	(0.01)	1.01	(0.01)**
Educational Attainment	(*Reference:* Comprehensive Schooling or Less)											
Third Level / University Degree					0.95	(0.10)	1.04	(0.11)	1.07	(0.12)	1.07	(0.14)
A Level Degree					0.74	(0.08)***	0.87	(0.08)	0.76	(0.09)**	0.96	(0.11)
O Level Degree					0.87	(0.07)*	0.92	(0.07)	0.84	(0.08)*	0.94	(0.09)
Partnerinformation	(Reference A / O Level Education)											
Partner's Education (Third Level Education)									1.03	(0.10)	1.11	(0.10)
Partner's Education (Lower Secondary or below)									1.03	(0.09)	1.06	(0.08)
Partner's Net Income (Effects per 100€ / Month)									1.00	(0.00)	1.01	(0.00)***
Type of Relationship	(*Reference:* Single*)*											
Consensual Union					12.88	(1.76)***	6.10	(0.72)***	*(Reference*: Consensual Union)			
Married					24.04	(3.34)***	10.98	(1.32)***	1.90	(0.13)***	1.85	(0.13)***
Relative Income	(*Reference:* even Income Level)											
Traditional (♂ 1/3 above ♀)									1.16	(0.10)*	1.21	(0.12)**
Fem. Main Earner (♀1/3>♂)									1.05	(0.17)	1.07	(0.11)
n of person months:	386758		308436		386758		308436		109388		115238	
n of subjects / events:	5.225/1.319		4.508/1.493		5.225/1.319		4.508/1.493		2.563/1.099		2.659/1.168	
Log pseudolikelihood:	-704.19		-390.51		219.95		256.10		631.18		709.41	
Wald chi2:	38425.40		38419.64		30768.50		34046.10		20829.32		21246.48	

Source: GSOEP 1991 to 2006; (author's calculations).

Notes: (1) Significance levels based on p < 0.10 (*), p < 0.05 (**) and p < 0.01 (***).
(2) Robust standard errors in parentheses.
(3) Independent variable coded with '1' for birth; all dummy variables coded '0/1' with 1 when true.

Table 5: Determinants of First Birth Risk - Piecewise Constant Estimates for the UK Cohorts 1956 – 1985 during 1991 – 2004 (note: this table continued on next page)

	Model I				Model II (+Controls)				Model III (+Partner)			
	Men		***Women***		***Men***		***Women***		***Men***		***Women***	
	haz.	**b**	**haz.**	**b.**	**haz.**	**b**	**haz.**	**b**	**haz.**	**b**	**haz.**	**b**
Baseline age	(Measured in Months)											
16 to 21 Years	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.01	(0.01)***	0.01	(0.00)***
22 to 26	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***
27 to 33	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.01	(0.00)***	0.00	(0.00)***
33 to 38	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.01	(0.00)***	0.00	(0.00)***
39 to 45	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***	0.00	(0.00)***
Activity Status (*Reference:* Full-time Employed w. Permanent Contract; omitted Categories: Public & Self Employed)												
Fixed Term Contract (& Full-T.)	0.82	(0.14)	0.87	(0.15)	1.00	(0.16)	0.95	(0.16)	1.03	(0.19)	1.16	(0.21)
Part-Time Employed	0.71	(0.22)	3.81	(0.35)***	0.70	(0.21)	2.41	(0.23)***	0.89	(0.26)	2.51	(0.25)***
In Education/Apprenticeship	0.21	(0.06)***	0.29	(0.06)***	0.34	(0.11)***	0.37	(0.08)***	0.76	(0.26)	0.85	(0.24)
Economically Inactive (n/a)												
Unemployed	0.94	(0.15)	2.26	(0.34)***	1.32	(0.21)*	1.90	(0.29)***	1.22	(0.22)	2.03	(0.38)***
Partner's Employment Status												
Partner Unemployed / Inactive									2.06	(0.25)***	0.87	(0.17)
Overtime Index	(0-1 with 0 = No Overtime)											
Overtime/Working Hours	1.11	(0.30)	0.47	(0.18)*	0.61	(0.19)	0.53	(0.19)*	0.55	(0.18)*	0.54	(0.23)
Occupational Mobility Since Last Year?												
Downward Mobile	1.35	(0.14)***	1.01	(0.11)	1.38	(0.14)***	1.03	(0.11)	1.26	(0.14)**	1.00	(0.12)
Upward Mobile	1.04	(0.11)	1.10	(0.11)	1.07	(0.11)	1.11	(0.11)	1.05	(0.12)	1.07	(0.11)
Duration of Continuous Employment:												
More than 24 Months	0.73	(0.07)***	1.01	(0.10)	0.81	(0.08)**	1.06	(0.11)	0.84	(0.09)*	1.10	(0.12)
Long-term UE (>12Months) During the last 3 Years? (*Reference:* Not Long-Term UE during last 3 years)												
Yes (1)	0.73	(0.12)**	0.96	(0.14)	1.02	(0.16)	1.04	(0.16)	0.87	(0.16)	0.92	(0.19)
Performance at Labour Market Entry / First Job (*Reference*: Average Performance)												
Bad Performance / 1st Job below Educational Qualifications	1.10	(0.11)	1.07	(0.11)	0.84	(0.08)*	1.19	(0.13)	0.82	(0.09)*	1.20	(0.14)
Good Performance/ 1st Job above Educat. Qualifications	1.25	(0.15)*	1.50	(0.17)***	0.85	(0.10)	1.12	(0.13)	0.82	(0.10)	1.09	(0.13)
Time Since Leaving Full Time Education (*Reference*: Still in Education)												
Up to 36 Months	0.37	(0.07)***	0.85	(0.14)	0.68	(0.15)*	1.16	(0.20)	0.77	(0.17)	1.29	(0.23)
37 – 72	0.78	(0.11)*	1.02	(0.14)	1.06	(0.16)	1.12	(0.16)	0.87	(0.14)	1.02	(0.16)
73 – 120	1.14	(0.12)	1.26	(0.15)*	1.25	(0.14)**	1.19	(0.14)	1.18	(0.14)	1.13	(0.14)
121 – 160	0.94	(0.10)	1.12	(0.14)	1.03	(0.11)	1.04	(0.13)	0.98	(0.11)	1.06	(0.13)
More than 160 Months	6.15	(3.14)***	2.15	(0.55)***	3.50	(1.84)**	1.45	(0.37)	1.16	(0.88)	0.96	(0.32)

Table 5 continued on next page…

Table 5 continued…

	Model I				Model II				Model III			
	Men		***Women***		***Men***		***Women***		***Men***		***Women***	
	haz	**b**	**haz.**	**b.**	**haz.**	**b**	**haz.**	**b**	**haz.**	**b**	**haz.**	**b**
Biographical Planning – Importance of Having:	*(Reference:* Average Importance**)**											
Children – Low					0.21 (0.05)***		0.24 (0.05)***		0.18 (0.05)***		0.21 (0.06)***	
Children – High					3.73 (0.36)***		3.36 (0.31)***		3.50 (0.36)***		3.66 (0.40)***	
Good job – Low					0.41 (0.17)**		1.10 (0.28)		0.42 (0.18)**		0.93 (0.26)	
Good job – HIgh					0.72 (0.06)***		0.64 (0.05)***		0.74 (0.06)***		0.70 (0.06)***	
Income	(Effects per 100€ / Month)											
Individual Net Labour Earnings					1.00 (0.00)***		1.00 (0.00)		1.00 (0.00)*		1.00 (0.00)	
Individual Transfers Received					1.01 (0.01)		1.07 (0.05)		0.99 (0.04)		1.10 (0.05)**	
Educational Attainment	(*Reference:* Comprehensive Schooling or Less)											
Third Level / University Degree					0.64 (0.08)***		0.62 (0.09)***		0.71 (0.10)**		0.69 (0.11)**	
A Level Degree					0.73 (0.08)***		0.66 (0.08)***		0.71 (0.09)***		0.70 (0.10)**	
O Level Degree					0.80 (0.09)*		0.82 (0.10)		0.80 (0.10)*		0.80 (0.12)	
Partnerinformation	(Reference A / O Level Education)											
Partner's Education (Third Level Education)									0.88 (0.08)		0.87 (0.07)	
Partner's Education (Lower Secondary or below)									1.11 (0.14)		1.40 (0.16)***	
Partner's Net Income (Effects per 100€ / Month)									1.00 (0.00)***		1.00 (0.00)***	
Type of Relationship	(*Reference:* Single*)*											
Consensual Union					5.42 (0.68)***		2.74 (0.28)***		*(Reference*: Consensual Union)			
Married					12.33 (1.50)***		6.14 (0.63)***		2.23 (0.17)***		2.21 (0.18)***	
Relative Income	(*Reference:* even Income Level)											
Traditional (♂ 1/3 above ♀)									0.96 (0.08)		0.92 (0.08)	
Fem. Main Earner (♀1/3>♂)									1.03 (0.13)		1.06 (0.11)	
n of person months:	266323		216034		266323		216034		89931		89792	
n of subjects / events:	4.014/956		3.318/1.062		4.014/956		3.318/1.062		2.034/860		1.940/882	
Log pseudolikelihood:	-482.54		-119.86		260.36		444.94		587.88		724.15	
Wald chi2:	28126.54		26761.60		22606.17		23339.36		16853.24		18186.78	

Source: BHPS 1991 to 2005; (author's calculations).

Notes: (1) Significance levels based on p < 0.10 (*), p < 0.05 (**) and p < 0.01 (***).
(2) Robust standard errors in parentheses.
(3) Independent variable coded with '1' for birth; all dummy variables coded '0/1' with 1 when true.
(4) Economic Inactivity omitted due to limited case numbers.

Notes for Table 4 & Table 5:

(1) Method: piecewise constant exponential hazard (see Jenkins 2005).

(2) Estimates controlled for repeated observations (robust standard errors).

(3) All estimated chi^2 values significant on basis of $p < 0.0001$.

(4) Dependent variable set at t-10 months prior to the time of first-birth.

(5) Process time measured in months since respondent's birth.

(6) Time spans for piecewise constants defined as month of age 0 to 252 (effectively month 193 to 252, as only adult respondents starting with the 16th year are being considered), month 253 to 312, month 313 to 396, months 397 to 456, months 457 to 540.

(7) Time at risk specified as 16th to 45th year of age (month 193 to month 540) within cohorts 1956-1985.

(8) Estimated but not displayed variables include dummy variables for year of observation, flag variable for missing values within dummy sets (education, activity status, occupational mobility, job-start/initial labour market performance, time since leaving education, etc.)

(9) All dummy variables coded '0/1' with 1 when true.

(10) Variable East/West included for Germany, to account for region specific effects.

(11) Income including net working income and assets; Income calculated per 100 currency units. For the UK only gross income data is available.
Currency units: Germany: Euro, UK: British Pounds.

(12) Due to backdating of the birth information by 10 months (see (3)) the last available panel wave cannot be implemented in the model estimates (i.e. 2006 for the GSOEP & 2005 for the BHPS).

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