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Mothers — the new hidden reserve? Germany and the U.S., a Comparison.

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Abstract

Do economic recessions change the labor market attachment of women with children? How is the reentry process after childbirth dependent on the welfare state regime that mothers have to negotiate? We use data from the NLSY and the German Life History Study to test the effects of parental leave and unemployment rates for changes in mothers' rate of return to employment after the birth of a child. We introduce and test two types of hypotheses of mothers' employment continuity after birth, the "new hidden reserve" hypothesis and the "agency" hypothesis. In western Germany it is mothers on parental leave who appear to constitute a modern, institutionally fostered "new hidden reserve." These mothers tend to return to their jobs later when unemployment is high. In the U.S., occupational prestige is a significant factor in supplying "agency" to mothers during economically tied situations. However, here, economic recessions come with increasing employment gaps, especially for mothers with lower socio-economic status.

Introduction

The current worldwide financial and economic crisis illustrates the importance of assessing whether labor market risks influence all parts of the workforce alike, or whether specific groups of workers are hit especially hard. First findings on the latest recession in the U.S. imply that employment of women and minorities is most at risk (Boushey, et al. 2010) and at the same time mothers were found to be drawn into the labor market (Mattingly and Smith 2010). These opposite trends may or may not be the outcome of the same political strategy: marginal welfare state support, combined with a liberal labor market in the United States. Many Western European countries, in contrast, have adopted extensive policy packages to meet challenges of economic fluctuation and employment risk in recent decades. The trend in Europe to expand caring time policies, such as maternity and parental leaves, has been identified as a governmental strategy to fight unemployment by making labor supply more flexible (Morgan 2009; Grunow 2006; Ellingsæter 2000). The main argument put forward is that by offering working women a wider range of work-family balance options, expanded leave policies spread available employment across more people, thereby reducing unemployment. If such policies were effective, we would expect recessions to affect female labor supply and unemployment indirectly through leave utilization and time-out durations of mothers. More specifically, more women would utilize family leaves during recessions, and time-out durations would have to be longer in order to yield the politically intended effects. However, this link between the economic cycle and time-out durations of mothers needs yet to be established empirically. In general, family leave measures have been found to both increase mothers' labor market attachment and, paradoxically, enforce mothers' role as homemakers by increasing gender inequality in the

labor market (e.g., Mandel and Semyonov 2005; 2006; Ruhm 1998; Sørensen 1983, Waldfogel 1997, Aisenbrey, Evertsson and Grunow 2009). Despite this growing body of cross-national research (i.e. Blossfeld & Hofmeister 2006; Lewis 1992, 2009; Mandel and Semyonov 2006; Mandel and Shalev 2009; Orloff 1993, 2006, Pettit and Hook 2009), the role played by parental leave policies in mitigating – or exacerbating – the impact of economic turmoil is still unclear.

This article seeks to contribute to closing this research gap in several ways. First, by studying how mothers in western Germany and the U.S. – two distinct contexts with respect to the “welfare triangle” (Esping-Andersen 2002) – are differently affected by downturns in the economy, we aim to contribute to the small but growing body of research that focuses on the social context of mothers’ time-out after birth.¹ Second, we study whether and how the availability of family leaves in a country mitigates the effects of economic recessions on mothers’ time-out duration. Thereby we provide empirical evidence to the ongoing scholarly debate about the boon and bane of family leave provision.² Third, we extend earlier theoretical attempts to describe the female workforce as part of the “reserve army of labor” (reviewed in Acker 1980) by linking new mothers’ labor supply to the specific role played by national institutions in mediating the fluctuating demand for workers (Morgan and Zippel 2003). Our theoretical approach takes up earlier criticisms of the reserve army theory by explicitly linking women’s role in the labor force to their unpaid role in the family (Acker 1980). The event of giving birth is especially salient in this respect because it connects women’s employment to specific national family policies. Our focus on new mothers also has a methodological advantage for cross-national research because we compare women in similar stages of their life course. Empirically, we measure the impact

of the unemployment rate and legal availability of leaves on mothers' actual time away from work after giving birth in western Germany and the United States. In particular, we investigate whether mothers' usage and duration of time-out varies depending on the economic cycle. Economic recession provides a hard test for national parental employment protection measures since new mothers are particularly vulnerable towards shifts on the demand side of labor. We are interested in the following questions: Does the economic situation influence how long mothers stay away from work after giving birth? Do leave policies shield mothers' return to work from the influence of economic turmoil? Or do these policies keep women out of the labor market during recessions? Do recessions have a different impact on the time-out of mothers, depending on their occupational status? And, finally, does the national context matter for these processes?

By using harmonized longitudinal life course data from the National Longitudinal Survey of Youth (NLSY) and the German Life History Study (GLHS), we test several hypotheses of how the two types of welfare states foster distinct responses by new mothers to economic recession.

Conceptual framework

Earlier scholarship described the female workforce as part of the reserve army of labor (e.g. Simeral 1978). We draw on this theoretical tradition and expand it by introducing and testing what we refer to as the “new hidden reserve” hypothesis. The hypothesis highlights the role of national institutions in mediating the fluctuating demand for workers and the resulting variation in new mothers' labor supply. Different from the original reserve army hypothesis, which predicted that a recession would push women out of the labor market and

into the hidden reserve, thereby invisibly absorbing cyclical unemployment (Simeral 1978), we argue that a similar absorbing function has nowadays been attributed to caring time policies (Morgan 2009). Consequently, the group of interest in this paper is not women per se but rather new mothers, who, according to this view, should enter the “new hidden reserve” in greater numbers or for longer durations during recessions by means of being on leave.³

A counter-argument about the function of caring time policies can be put forward: paid and job protected leaves, like in Germany, strengthen women’s agency in balancing paid work and care (Gornick and Meyers 2003, 2009). This so-called agency perspective suggests that by means of financially supporting mothers and granting them the right to return to their previous job or employer, leave policies enable mothers to time their return into the labor force independent of the current macroeconomic situation. In contrast, mothers lacking access to such policies embody agency in a different way, most likely by means of stronger job attachment and shorter time-out. Agency has been defined as the capacity of human beings to make choices and to impose these choices on the world (Buskens 2009). Bandura (1989) argued that these choices are regulated by anticipated outcomes and that people would strive to forestall adverse outcomes. Therefore, agency will be context-dependent.

Hence, both the “new hidden reserve” hypothesis and the agency perspective come with distinct implications, depending on the national institutional context that they are applied to. The national institutional context should furthermore account for different degrees of within country diversity in mothers’ responses to economic recession. We see our comparative study of these hypotheses in the German and U.S. context in the tradition

of Kalleberg and Rosenfeld (1990), who argued that observed differences in how women and men actually combine work and family reflect national variation in institutions, labor markets, and policies. We focus on the historical period from the early 1980s to the early 21st century. Thereby, we compare Germany and the U.S. at a time when female employment is the norm but mothers' roles in society are contested, as is illustrated by the distinct family policies available in both countries (Misra, Buding and Moller 2007; Aisenbrey, Evertsson and Grunow 2009). We assess whether the contexts of Germany and the U.S. involve different types of agency in times of recession and whether family leave leads to longer time-out, thereby contributing to a "new hidden reserve" of mothers, during a recession.

Family leave policies in Germany and the U.S.

Paid family leave can be regarded as a policy measure responding to two major challenges in industrialized societies: cyclical fluctuation on the labor market and workers' needs to balance work and family obligations. While the latter function of family leave has dominated scholarly discussion in recent years, the former function received very little attention. Most notably, policy researchers have argued that rising unemployment helped build coalitions in Europe for policies that would reduce women's labor supply (Morgan and Zippel 2003). German family leave policies have been described as mirroring this trend, while an opposite development has been ascribed to the United States (Ibid.). Hence family leave policies in the two countries are very different, with Germany scoring much higher with respect to eligibility, duration, and compensation compared to the United States. An analysis of parental leave schemes in 21 "high income economies" found the

U.S. to be the only country lacking a nation-wide financial compensation scheme for mothers on leave (Ray et al. 2009). The first national option for parental leave was introduced in 1993, with the Family and Medical Leave Act (FMLA). The FMLA requires that employers with 50 or more employees provide 12 weeks of leave to mothers who have been employed at least 1,250 hours in the previous 12 months. Because of these restrictions, less than half (45%) of the female labor force are eligible (Waldfogel 2001). In stark contrast to European maternity leave policies the FMLA leave is unpaid. Mothers in high prestige occupations and mothers with higher education are more likely to have access to the FMLA and/or to additional employer-specific parental leave arrangements (Han et al. 2009, Ray et al. 2009, Boushey 2008). Selective access to family leave may amplify existing socio-economic differences among U.S. mothers in how they enact agency under recession. In Germany, in contrast, maternity leave has been mandatory since 1952 and is fully paid (Gornick, Meyers and Ross 1997). In addition, more than 90 percent of new families are eligible for paid parental leave (Dressel et al. 2005). Recessions in Germany should therefore affect time-out durations on parental leave. This effect should be independent of mothers' socio-economic status or labor force experience. Parental leave was introduced in 1986. Its duration was extended several times to a maximum of three years per child from 1992 onwards.

Family leave policies are part of path-dependent national political strategies with which welfare states seek to support different goals. Germany is often referred to as a primary caregiver or secondary earner state, in support of women's care rather than employment (Misra, Budig and Moller 2007). Over the past twenty years Germany introduced some major changes to their family policies, such as the introduction of a legal

right to a daycare place for children and the possibility to take part-time parental leave. On the one hand, these policy changes increased the ambiguity of the German model (Leitner et al. 2004). On the other hand, the long-established combination of leave-related child benefits and part-time daycare places, available mostly for children aged three years and older, is still valid and continues to produce long time-outs for mothers (Sainsbury 1999). The political intent of long time-outs is further documented by the extensions of parental leave in Germany throughout the 1980s and 1990s.

The United States, in contrast, exemplifies a primary earner nation (Misra, Budig, and Moller 2007). Both parents are seen as invested in continuous employment while the state relies on market-based care in addition to unpaid in-family care (ibid.). The minimal family policy course taken by the U.S. has long been criticized by scholars who demanded more extensive work-family reconciliation policies (Gornick and Meyers 2003, 2009). More recently, however, scholars have argued that the U.S. course can also be seen as part of a welfare state strategy aimed at supporting gender equality (Orloff 2009). In this vein researchers have pointed out that the U.S. is pioneering worldwide in matters of antidiscrimination laws and leading in matters of integrating women in traditionally male occupations, management positions and universities (Orloff 2009). From this point of view the FMLA has been interpreted as being geared toward a modern family context, in which family time-out can be taken by both male and female workers to provide care for other family members (not only children) in need (ibid.).⁴

Paradox of welfare state support

Welfare state support of families in terms of legal parental leave coverage is often

considered to be the most important factor in strengthening mothers' position in the workforce. However, welfare state intervention in family policies has also been found to increase gender inequality in a country (e.g., Mandel and Semyonov 2005; 2006; Ruhm 1998). At the same time, earlier research on country specific leave policies and their effect on mothers' careers provides evidence that these policies "work" in terms of giving mothers the opportunity of an extended time to care for their newborns and, at the same time, granting them the chance to maintain their pre-birth occupational position (Aisenbrey, Evertsson and Grunow 2009). Research also demonstrates that the timing of return and the consequences for mothers' occupational careers are highly dependent on the country-specific policy structure in which these careers are embedded (Budig and England 2001; Anderson, Binder and Krause 2002; Lundberg and Rose 2000; Gangl and Ziefle 2009; Baum 2002; Waldfogel 1997; Kenjoh 2005; Author et al. 2006; BMFSFJ 2005; Engelbrech 1997). In particular, the policy contexts of Germany and the U.S. go hand in hand with cross-national variation in return patterns for mothers reentering the labor market after giving birth (Aisenbrey, Evertsson and Grunow 2009, Appendix 2). In the U.S., 40 percent of all mothers do not leave the labor market at all after the birth of their first child. After 3 months, 65 percent are back at work. Only 20 percent stay out longer than one year. The picture is very different for Germany, where 17 percent return right after the compulsory maternity leave period of eight weeks. After one year, only 30 percent are back at work, indicating that the vast majority claim extended family leave. After three years only about 50 percent have returned. Even though U.S. mothers display a much higher labor force attachment than German mothers, this study identifies a career punishment for U.S. mothers in terms of a higher downward mobility risk. In Germany, the authors find the

same pattern, but there it only holds true for longer interruptions. Even though these findings are illuminating with respect to understanding cross-national variation in mothers placement in the labor force, none of these studies looked at the effects of economic recession on mothers' time-out.

Recession and labor markets in Germany and the United States

During the period studied in this paper, between the late 1970s and 2005, the National Bureau of Economic Research identifies three periods of economic recession in the United States; the early nineteen eighties (1980-81), the early nineteen nineties (1990-91) and the beginning of the new century (2001). In Germany, the Federal Statistical Office (Raeth 2009) also identifies three periods of economic recession, even though these periods are delayed for a couple of years compared to the U.S. (1983-88, 1994-97, 2003-05). Appendix 1 presents an overview of the macroeconomic situation in Germany and the United States, based on yearly economic growth and the unemployment rates. Unemployment rates are a well-established indicator for a recession (Saxton 2008) since they directly reflect the cyclical demand for labor. Hence, in our analysis we use these national time-varying unemployment rates as our main indicator of economic recession.⁵

Earlier research, based on cohort studies, suggests that mothers' employment became more vulnerable over time due to increased globalization pressures on national labor markets, arguing that women with care obligations are less flexible workers (Hofmeister and Blossfeld 2006). Others have argued that time out of the labor market leads to the depreciation of women's human capital (Mincer & Polachek, 1974). Both arguments should contribute to weaken mothers' relative position in the labor force during

recession. However, as Acker (1980: 31) has argued, women's situation in the industrial reserve army needs to be studied in relation to their unpaid role in the reproduction of the labor force. Following this proposition, we discuss the role played by labor market policies and their gendering effects as contributing to women's placement in the labor force. Women's placement in the labor force mirrors variation in women's dependence on a breadwinner or the welfare state. Our main comparative argument is that the U.S. is a dual earner context while Germany is a primary caregiver context (Misra, Budig and Moller 2007). Hence, U.S. women and mothers are more centrally placed in the paid labor force, and have a longer tradition of continuous employment, compared to German women (Grunow, Hofmeister and Buchholz 2006). Consequently, U.S. mothers should be less responsive to declining labor demand under recession as compared to German mothers.

In particular, prevalence of women's part time work, dismissal protection and unemployment benefit provision should influence mothers' employment during recession, both directly as well as indirectly. Direct effects result from better employment protection in Germany. Indirect effects are a consequence of mothers prioritizing male breadwinner income over their own income (Fraser 1987). Women's jobs have been found to be better institutionally shielded in Germany as compared to the United States (Blossfeld and Hofmeister 2006). At the same time, however, German women often work more part time, compared to their U.S. peers. Almost 50 percent of German women work 34 hours per week or less, compared to only 20 percent in the United States (OECD Labour Force Statistics 2011). Moreover, 70 percent of U.S. women work 40 hours per week or more, compared to only 32 percent in Germany. Part time jobs usually do not pay enough to provide for a mother with a child, suggesting that many German women actually depend on

a breadwinner to provide sufficient income for the family. Even though part-time wages may be an important additional source of income, a flat-rate child care allowance for German parents on leave further compensates for forgone part-time wages in a family budget that mainly rests on a breadwinner income.⁶ In contrast, the U.S. is a dual-earner context in which both partners usually work full time and no financial incentive exists for mothers to become a full-time care giver. The cross-national differences between Germany and the U.S. in the degree of breadwinner dependency should lead to differences in how new mothers practice agency in times of recession. Dismissal protection shelters breadwinners from job loss in times of recession and generous unemployment benefits have been found to reduce men's downward mobility and income loss after a spell of unemployment (Gangl 2006) in Germany, hence strengthening their breadwinner position. Comparative findings from Germany and the U.S. indicate that unemployed Germans are in a better position to look for a job that matches the position held before, while their U.S. peers suffer long-term income losses (Gangl 2003). In addition, U.S. labor markets foster higher labor turnover, resulting in lower levels of job security and higher competition compared to the German market. The latter has been found to provide better employment chances for mid-career men than women in times of economic turmoil, and especially for fathers as compared to mothers (Grunow 2006). Consequently, German mothers find themselves in a family and employment context that strengthens male breadwinners even under recession, while offering mothers paid extended time away from work. U.S. mothers, in comparison, can rely to a much lesser extent on their own or their partner's job security during a recession. Even for those U.S. mothers eligible for maternity leave, usage comes with income loss. In order to adequately capture the family context in our analyses with

respect to women's placement in the labor force, we control for partnership status in our multivariate models. And we present our findings for a subset of partnered mothers only to address potential interactions between partnership status and other labor market characteristics.

Recession and fertility

Macro trends in economic cycles and fertility indicate that fertility rates tend to be endogenous to economic recession in most developed countries (i.e. Livingston and Cohn 2010; Wang, Yip and Scotese 1994). The relationship between economic cycles and individual fertility is important for our study because different groups of women might select into pregnancy in different economic situations. Evidence based on macro-level data about economic cycles and fertility has been found to be susceptible, however, to temporary fluctuations in marriage rates, age at first marriage, educational composition, and other individual-level characteristics (Adsera 2005, Mocan 1990). Hence, more recently social scientists turned to using individual-level longitudinal data to assess the impact of economic uncertainty on transitions to parenthood and childbirth (for a recent review see Özkan et al. 2010). Longitudinal evidence for Germany suggests no overall effect of economic uncertainty on women's fertility (Kreyenfeld 2009; Gebel and Giesecke 2009). Only for highly educated mothers Kreyenfeld (2009) reported variation in the relationship between economic uncertainty and first birth. However, using the same data Gebel and Giesecke (2009) found no such effect. Also for the U.S., no effect of unemployment on women's fertility was found (Rindfuss et al. 1988). However, evidence suggests a changing effect of educational level on fertility over time (Rindfuss et al. 1996). Even though these

findings are reassuring with respect to our sample composition over time, we control for the main determinants of potential selection (age, partnership status, education) and their interaction with economic recession.⁷

[Figure 1 about here]

Empirical Hypotheses

Figure 1 summarizes the central empirical differences that we expect to find in Germany and the United States. If the proposed theory of the “new hidden reserve” of mothers is accurate, we expect to find German mothers on legal maternity leave or parental leave to return to work more slowly during times of recession. In the U.S., where women maintain a central position in the labor force upon entering motherhood, we should not find this effect of a recession on the timing of reentry. Family leave legally mutually binds employers and employees during extended phases of mothers’ time-out. Hence, both supply and demand factors might contribute to the rise of a “new hidden reserve.” In times of recession, employers should have a preference for mothers being on leave as long as possible because this will temporarily reduce the firm’s direct labor costs. Such an interest might correspond with –or shape– mothers own preferences concerning their time away from work in Germany. In contrast to Germany, where family leave is long and employment protection high, the United States grants only very limited access to family leave. Low levels of employment protection in the U.S. further supersede the cyclical function of family leave

because employers can more easily lay employees off. Hypotheses one and two summarize these arguments:

H1: In Germany, economic recessions should slow down the reentry process for mothers who are in a spell of legally protected family leave.

H2: In the U.S., economic recessions should not slow down mothers' reentry process.

In contrast to the “new hidden reserve” hypothesis, the agency perspective suggests that mothers’ agency in Germany is aimed at taking time out, independent of a recession. Variation in return patterns may well depend on individual or family considerations but not on economic cycles. Independence of the economic cycle would be provided by the German institutional context in which families do not anticipate loss of income when the economy is down. In the U.S., in contrast, where employment protection is weak, leave is unpaid, and families depend on a more equally distributed responsibility for the household income, mothers’ agency is, on average, more likely aimed at financially supporting the family, rather than staying at home for an extended period of time. Recessions would therefore lead to fewer and shorter time-out periods among U.S. mothers. In addition we expect that a high occupational status will further strengthen mothers’ agency in the U.S. based on two arguments. First, different from Germany, U.S. mothers with higher occupational status are more likely to be entitled to take parental leave granted either by the FMLA or by employer specific leave policies. These women would be the ones to decide not to claim leave during a recession. Second, the overall share of mothers not protected by leave policies in the U.S. is

high. These unprotected mothers have to rely on their own occupational status to negotiate a reentry into the labor market with either a former or a new employer. We can safely assume that this negotiation process is easier for women with a higher occupational status, thereby resulting in quicker reentries into the labor market.

H3: In Germany, the macroeconomic situation at childbirth should have no influence on mothers' labor market reentry process, independent of their socioeconomic status.

H4: In the U.S., the worsening of the macroeconomic situation at childbirth should shorten mother's time out. This effect should be stronger for women with higher occupational statuses.

Data and Methods

Dependent Variable. The dependent variable in the analyses is the length of time women interrupt their employment after childbirth. The process time begins at childbirth and continues until a mother is observed as returning to either her previous job or to a different job. For mothers with more than one child multiple time-out episodes are considered. If a second or higher order child is born while the mother is still out, the process under study is right-censored at childbirth. Right censoring further occurs when a mother does not return to work within our window of observation. In this case mothers are considered to be at risk of returning to work until the observation window closes. We consider all kinds of birth-related phases of “not being present at work” as an employment

interruption, hence as time out. Some women, especially in the U.S., do not interrupt their employment at all upon giving birth (40%). Because these women are theoretically part of the risk set, we include them in the analysis by ascribing them a very short artificial time out duration. These cases account for the steep drop in survival curves within the first month after giving birth (Appendix 2). The hypothesized effects of legal family leave provision and macroeconomic recession are modeled as independent variables which may significantly affect the duration of birth-related employment interruptions.

Independent Variables. The independent variable measuring the macroeconomic situation in the specific country is the annual unemployment rate (Appendix 1). In our multivariate models we lag the annual unemployment by one year to ensure that we correctly specify that the cause precedes the effect (Mills 2011; Box-Steffensmeier and Jones 2004). The unemployment rate measures are based on data from the Bureau of Economic Analysis in the U.S. Department of Commerce and from the German Federal Statistical Office.⁸

We include legal family leave protection as a time-varying individual level dummy variable, indicating if mothers are still within or in access of the maximum family leave period granted by law. We don't know for sure whether a woman has indeed been eligible for family leave. Rather, we proxy individual leave eligibility by ascribing all previously working mothers on time-out the maximum legal leave length covered by law at childbirth. This measure accurately captures the legal changes in leave length and leave provision in both countries. For Germany this includes several extensions that took place during the 1980s and 1990s. For the U.S. this variable captures the introduction of the FMLA in the U.S. in 1994. For the U.S., for instance, this variable is 1 for a period of three months after

giving birth for all mothers under study after 1994.

Occupational status is measured right before childbirth, using Treiman's Standard International Occupational Prestige Scale (SIOPS) (Treiman 1977; Ganzeboom and Treiman 1996). We use prestige as an indicator for several reasons. First, in contrast to income or earnings, which both fluctuate over time and context, SIOPS has been found to be remarkably consistent both across time and countries (Hout and DiPrete 2006). Second, especially in Germany, where a majority of women switch to part-time as long as kids are small, but start a second career when children get older, occupational prestige is an important concept in assessing mothers' future potential to realize a career and to provide for themselves and their children, if needed, without a breadwinning spouse. For all mothers, occupational prestige also serves as a proxy for their ability to enact agency. Following Cronbach (1987) we centered the prestige and unemployment measures at their mean value in order to avoid multicollinearity between the main variables and their interaction terms.

Control Variables. As outlined above, several individual characteristics may potentially impact access to family leave and time-out durations. These characteristics also control the models for differences in sample composition between Germany and the United States. Finally, within-country sample composition may vary over time, due to processes of self-selection into motherhood. In our analyses we therefore control for factors contributing to these variations.⁹

We include two variables to capture the effects of family structure on career moves. The first variable measures the number of children in the household. The second variable is a time-varying dummy, indicating the presence of a partner. This variable indicates

cohabitation, not necessarily legally defined marriage.¹⁰

Dummy variables for level of general schooling are introduced to capture differences in mothers' skill levels and career chances. We distinguish three levels of education: low, medium and high. For the U.S. these levels are indicated by "no high school degree," "only high school degree," and "at least some college." For Germany, we distinguish between "Hauptschule"(low), "Realschule" (medium), and "Abitur" (high).

We control for women's labor force experience by including a variable measuring the cumulative time spent in the labor force, as measured at childbirth. Women's age at childbirth is measured in years and is included as a continuous variable. For the U.S., we also include a dummy variable for race, distinguishing between African American women and others. For Germany we have no data on race. Our sample is restricted to women of German or U.S. nationality. Historical time dummy variables indicate in which time periods children are born. These time periods are supposed to reflect major political changes in family leave policy in the two countries. For the U.S. one dummy variable marks the introduction of the first nationwide parental leave policy (FMLA) in 1994. For Germany, two dummy variables mark the period before 1987, with short protected maternity leave in Germany and the period from 1987 to 1992. This period coincides with the introduction of German parental leave policy. The third period in Germany, from 1993 on, marks the longest parental leave thus far. In Appendix 3 we present a figure with descriptive statistics for all variables included in our models.

Data

For the individual data we use the longitudinal data from the National Longitudinal Study

of Youth (NLSY) for the U.S. and the German Life History Study West (GLHS-West) for the German part of our study.

The NLSY is a nationally representative sample of 12,686 young men and women born between 1957 and 1964. The sample was first interviewed in 1979 and re-interviewed every two years (for a detailed description of the NLSY, see Bureau of Labor Statistics 2004). Even though the NLSY79 is ongoing, the observation window for our analysis closes in 2000. This decision was motivated by the fact that the occupational codes, which we use to derive our measure of occupational prestige (SIOPS), changed notably and several times in the later waves. Because our analyses draw on the effects of SIOPS in interaction with over-time variation in unemployment rates, we decided to stick to the unambiguous coding at the expense of leaving out the most recent data.¹¹

For Germany, we use the West German component of the German Life History Study (GLHS West; Brückner & Mayer 1995). These data contain detailed retrospective life course information for seven cohorts of Germans born between 1919 and 1971 in a representative sample of 8,639 realized interviews. The retrospective data were collected in the period between 1981 and 2005, resulting in an observation window for birth related employment interruptions which opens in the late 1970s. For all cohorts, the survey instruments contained detailed questions about education, work life, work interruptions, and family formation, including the formation and dissolution of marital and non-marital unions, as well as children. The time period covered by our subsample (beginning with transitions to motherhood in the late 1970s), compares well with the time window used in the U.S. study.¹² In this study, we include previously employed mothers born in 1954-56, 1964 and 1971. For these cohorts, we have life course data up to the age of 35 (for the 1971

cohort up to 34).

To harmonize the two national samples and thereby maximize the comparability of the results, we show all models for the population up to age 35. This type of age censoring implies that highly educated women are underrepresented in the risk set, as they on average have their first child later than women with a lower education level (Rindfuss et al. 1996; Özcan et al. 2010). Consequently, our findings can be generalized only for younger mothers, not all mothers. In spite of this data restriction, previous studies of mothers' careers using the GLHS found similar effects and came up with similar substantial conclusions, as compared to studies drawing on other longitudinal data sets without explicit age bounds (Kenjoh 2005, Gangl and Ziefle 2009, Aisenbrey, Evertsson and Grunow 2009). For the U.S. we were able to run additional models for the total sample of mothers. We report minor differences in the findings when mothers over 35 are included in the estimations.

Methods

In order to explore whether the length of mothers' employment interruptions in Germany and the U.S. varies with economic cycles, we use a Cox proportional hazards model (Blossfeld, Golsch and Rohwer 2007) to estimate job reentry probabilities. We present models with and without interaction terms. The main effect models serve the purpose of assessing whether economic cycles and legal family leaves have an overall effect on mothers' time out durations, controlling for individual characteristics. The models containing interaction effects are supposed to address our hypotheses. The first interaction variable, which addresses hypothesis 1 and 2, refers to the hidden reserve theory. This

variable is supposed to capture recession effects as conditional on the availability of legal family leave coverage. With the second interaction variable we test hypotheses 3 and 4, which refer to the different types of agency in Germany and the U.S. Here we assess whether recessions have a different impact on time-out durations for mothers with high and low occupational status. The respective interaction term multiplies occupational status with the lagged unemployment rate.

Results

Our results follow in the sequence of the models displayed in Tables 1 and 2, first identifying the contributing factors to mothers' transitions back into employment (Model 1, Tables 1 and 2) and then moving to the hypothesized conditional impact of unemployment rates on mothers time-out, based on legal leave protection and occupational prestige in the U.S. and Germany (Model 2, Tables 1 and 2). We present exponentiated coefficients, which can be interpreted as the estimated chance of survival after adjustment for all other explanatory variables that are included in the models. Values above one indicate a positive effect on mothers return to employment, hence shorter interruptions. Values below one indicate a negative effect on mother's return to work, hence longer interruptions. For example, the coefficient for African American, $\exp(b)=1.255$, (table 1, second column) reflects that African Americans return to the labor market about 1.3 times quicker than non African Americans after childbirth.

Mothers on both sides of the Atlantic show remarkable similarities in their patterns of return to employment after giving birth. Most notably, the unemployment rate seems to have no effect on the reentry process in neither Germany nor the U.S (Table 1, Model 1).

This finding suggests that even though mothers were found to be the more vulnerable employees compared to childless women (Blossfeld and Hofmeister 2006), this disadvantage doesn't seem to be a cyclical effect for new mothers in general. The non-significant effect of the unemployment rate for the U.S. also contradicts the expectation formulated in hypothesis 4, that U.S. mothers would, in general, return faster when unemployment is high. Rather, in both Germany and the U.S., some groups of mothers tend to return faster than others. In particular, mothers with higher education and higher occupational status tend to interrupt for shorter periods than their lower educated and lower occupationally positioned peers. These findings confirm earlier research on the labor market attachment and career continuity of mothers from different social classes (Grunow, Aisenbrey and Evertsson 2011). Living with a partner does not seem to impact mothers' time-out experience in either country. In Germany though, childbearing singles are still an exception. Consequently, the percentage of partnerless new mothers remains in the single digits (cp. Appendix 3). Even though single motherhood is more common in the U.S., we find no partner effects here either. We estimated an additional model in which we controlled for the partner's income for the U.S. sample. However, this variable did not change the effects of other variables on mothers' time-out duration as reported here.¹³ The number of children in the household slows down mothers' return to work after giving birth in Germany. This suggests that combining paid work and care work becomes more difficult when more children need to be cared for. Perhaps extended time out also becomes a more attractive alternative to arranging costly daycare for several children after a higher order birth. In the U.S. the number of children has no significant effect on the return process. Though U.S. mothers, in contrast to German mothers, return faster, the more labor force

experience they have and the younger they are at childbirth. This finding might indicate that in the U.S. older women and women with more labor force experience can afford more time away from work. In Germany, where access to maternity leave is mandatory and family leave almost universal, such an effect cannot be detected. In both countries, extensions of legal leave availability tend to result in longer time-out durations. In Germany, after the introduction of parental leave in 1987, mothers stay out longer than in the previous period. We find no indication, though, that later reforms resulted in even longer time-outs in Germany. In the U.S. we observe longer employment interruptions after the enactment of the FMLA in 1994. In both countries, mothers have a higher likelihood of returning to employment, as long as they don't exhaust the officially granted family leave length. This positive effect of legal protection can be interpreted as a first indication that family leave policies help mothers to maintain their ties to the labor market after an employment interruption. Even though not all mothers are eligible for family leave, the existence of a legal norm for protected time-out might increase the legitimacy of short-term interruptions in general.

[Table 1 about here]

Looking at the same model for partnered mothers only, we find no differences for Germany, but some differences for the United States (Model 1, Table 2). For partnered U.S. mothers, education is no longer a significant predictor of time out after birth. This suggests that the effects in Table 1 are mainly driven by single mothers who return more quickly, the higher their level of education. In the U.S. context, higher education therefore seems to be a

marker of two different things. For some partnered women, high education indicates membership in a higher social class in which mothers can afford to take time-out, financially. For others, especially single mothers, education increases the chances of having a continuous career and of financially providing for the family.

[Table 2 about here]

In the second model (Model 2, Table 1) we address our “new hidden reserve” hypothesis by including an interaction term for the unemployment rate and the legally protected family leave time. The main effects for the variable “out within legally protected leave period” now refer to the impact of leave protection when the centered unemployment rate has a value of zero. For both countries this effect is positive and statistically significant. The interaction coefficient of $\exp(b)=0.912$ for Germany is significant and below one, indicating that mothers on parental leave return more slowly in times when unemployment is high. For the U.S., unemployment rates do not seem to change the return rates for mothers who stay out of the labor market for the official maternal leave period. The interaction term of $\exp(b)=1.042$ is even positive, though not statistically significant. Our analyses for the subsample of partnered mothers confirm these findings (Model 2, Table 2). The results are in line with the hypothesized country-specific expectations about the cyclical function of family leave. For both countries we can therefore conclude that our predictions derived from the “new hidden reserve” theory are supported by the data.

We now turn to the interaction between the unemployment rate and mothers’ occupational prestige, with which we seek to address the second part of the “agency”

hypotheses (Model 2, Table 1). Recall that our expectation that U.S. mothers return, on average, faster in times of high unemployment, has not been confirmed by the data. By adding the interaction term we can now assess whether this finding might have to do with different capacities of U.S. mothers in high and low occupational positions to embody agency. For the U.S., this interaction term is significant and positive with $\exp(b)=1.002$. This indicates that the positive effect of having a higher occupational status on mothers' return to work becomes even more pronounced when the economy is down. We interpret this as evidence that U.S. mothers in higher status occupations are better able to enforce their agency in a recession, as compared to mothers in low status occupations. For Germany, the respective interaction effect is positive but not significant. This evidence is in line with our claim that the German context fosters a different type of agency, by offering job protection under extended parental leave and by strengthening men's rather than women's breadwinner position in the family. We find all effects unchanged for the subgroup of partnered mothers (Model 2, Table 2). Hence, we conclude that our country-specific agency hypotheses are mostly confirmed by the data as well.¹⁴

Discussion

European and U.S. welfare state policies of recent decades have followed distinct pathways in terms of securing individuals and families against market risks and helping parents to balance work and care. Against the background of recurrent recessions and increases in mothers' labor force participation on both sides of the Atlantic, the minimal family policy course adopted by the U.S. and the growing prevalence of expanded family policies in Europe draw attention to the importance of understanding how family policies work in

times of economic recession and high unemployment. We used harmonized longitudinal data from the NLSY and the GLHS to assess whether changes in mothers' time-out in the U.S. and Germany corresponded with changes in economic growth and recession and whether family policies minimized or amplified these effects. We followed the subsequent return to employment of women who gave birth to a child. We estimated the effects of family leave availability and previous socio-economic prestige, and their interactions with unemployment rates on the duration of mothers' time out after childbirth.

Our empirical results tested and confirmed two types of hypotheses about the role that welfare state policies play in mothers' position in the workforce in times of high unemployment. First, and in line with the predictions of the "new hidden reserve" hypothesis, the availability of long parental leaves in Germany seems to work as a buffer for the highly regulated German labor market by linking mothers time-out durations to the macro economic situation. In other words mothers on family leave tend to return to their jobs later when unemployment is high and they return sooner when unemployment is particularly low. Because mothers on leave are considered gainfully employed according to official registers, their cyclical labor surplus is hidden from official statistics. German mothers who already exhausted their legally protected leave duration are not affected in the same way. They show no sensitivity to economic turmoil. Hence, German mothers on leave can be regarded as a modern form of the cyclical reserve army of labor (Simeral 1978). Different from previous generations in the female reserve though, the legal right to return to the same or a similar job in their company mutually binds mothers in the "new hidden reserve" with their former employer and creates a legal tie to the labor market. We interpreted this as evidence highlighting the cyclical function of expanded caring time

policies (Morgan 2009; Grunow 2006; Ellingsæter 2000). In the U.S., where legal family leaves are short and available only to a minority of women, recessions have no effect on mothers' time-out in general. This finding is in line with our expectation that the U.S. context, with its weak employment protection and dual earner policy framework, has no need for a "new hidden reserve." When the U.S. economy is down, workers can be laid off. At this point we can only speculate about the causal micro-level processes that link mothers' time out decisions to cyclical labor demand in Germany. Qualitative studies indicate that pregnant women have clear and explicit knowledge about their bosses' preferences concerning their take up and duration of parental leave and that conflict of interest between employer and employee on this issue is not a rare exception (Rinklake, Rost, Rupp and Grunow 2008). Because pregnant employees have to file an application for parental leave with their employer, direct communication between both parties is institutionalized. So even though the decision to take parental leave legally rests with the employee, employers can interfere in this process. Future research should investigate in depth how these communication processes work in practice, and how they influence new parents leave-taking behavior.

Second, our findings for Germany and the U.S. support our hypotheses that both contexts create different kinds of agency for mothers during recession. In the U.S., where employment protection is weak, leave is unpaid, and most families depend on two full time incomes, we hypothesized that mothers' agency is mostly aimed at returning to work as soon as possible when the economy is down. We therefore expected recessions to come with fewer and shorter time-out periods among U.S. mothers. We found this to be true only for mothers with higher occupational status. We conclude that a high occupational status

strengthens U.S. mothers' agency in times of recession, while market forces tend to hinder mothers in low occupational positions from enacting agency. First, mothers with higher occupational status are more likely to be entitled to take family leave in the U.S., and therefore to choose *not* to take it. Second, among the high share of U.S. mothers not eligible for family leave, the ones in low occupational positions have an even weaker negotiation basis as compared to their high prestige peers when the economy is down. In Germany, in contrast, mothers' placement in the labor force is institutionally weaker and leave eligibility is independent of mothers' previous occupational status. Even in a recession jobs are rather well protected and breadwinner wages appear secure. Hence, in line with our agency hypothesis for the German context, we found no interaction effect of unemployment rate with occupational prestige on mothers' rate of return to work. We conclude that the German institutional context largely shields families from loss of income when the economy is down. Our models show that different socioeconomic groups of German mothers tend to embody different types of agency when it comes to the balancing of paid work and care work, though. These different types of agency do not interact with the economic cycle in Germany, while they do interact with the economic cycle in the United States.

Conclusion

Until recently, the scholarly debate about welfare state intervention mainly focused on the importance of family leave to help parents, especially mothers, to balance work and care (Gornick and Meyers 2009). Such claims may appear difficult to maintain in times of major economic shocks, when welfare states seek to cut expenditure and firms struggle to survive.

Such claims have further been weakened by cross-national studies suggesting that high levels of welfare state intervention increase gender gaps in earnings and female occupational attainment (Mandel and Semyonov 2006). We argue that a narrowly defined care perspective on family policies tends to overlook the fact that in the past family policies intentionally or unintentionally also have served as an instrument to make the labor force more flexible and to reduce unemployment (Morgan 2009; Morgan and Zippel 2003). Our analyses have shown that both functions can be met in practice. However, as long as family policies continue to affect women more than men and mothers more than fathers, they possibly contribute to the creation of a new cyclical reserve of labor, whose members may be disadvantaged in their careers later on.

We introduced and tested two theories of mothers labor supply after birth, the new hidden reserve hypothesis and the counter hypothesis of agency support. Both theories extended earlier theories of female employment and non-employment by confronting them with institutional context and explicit policies for mothers' time-out. Our findings supported the new hidden reserve hypothesis: German mothers are the "new hidden reserve" of the workforce, taking extended time-out during phases of high unemployment. U.S. mothers, in contrast, did not adjust their time-out after childbirth during recession. We have argued that the national institutional frameworks in both countries account for mothers' distinctive responses to economic cycles. Compared to the U.S., the German welfare state regime creates more labor supply elasticity for mothers. Prevalence of women's part-time work, high dismissal protection, and generous unemployment benefit provision, together with direct and indirect financial incentives for long parental leaves, support a secondary earner model among parents and stimulate extended time-out after

childbirth. In this framework, the process of claiming parental leave in negotiations with employers seems to make time-out durations to some extent elastic to the needs of firms and the interests of employers. The problem is that, for Germany, extended time in parental leave translates, in many cases, into non-employment or unemployment, instead of return to work. Eight years after the birth of a child less than 75 percent of previously working mothers are back at work in Germany (Aisenbrey, Evertsson and Grunow 2009). This pattern cannot be found in the U.S., where only about every second woman has a right to maternity leave and time-out is in most cases unpaid and short. In other words, as far as return to employment is concerned, U.S. mothers are less responsive to economic forces than German mothers, even though U.S. mothers enjoy much less protection by labor laws and leave regulations. In the U.S., economic recession comes with increasing employment gaps between mothers with high and low socio-economic status, though. Mothers previously employed in the lower ranks of the socioeconomic hierarchy tend to return to their jobs more slowly, and those previously employed in the higher ranks of the socioeconomic hierarchy tend to return faster when the economy is down. Previous research has shown that time away from the labor force directly translates into income loss of U.S. mothers later in their career (Anderson, Binder and Krause 2002, Gangl and Ziefle 2009). Against this background, the dynamics we identified in this paper are important in understanding that recessions affect certain groups of workers more than others. In Germany it is mothers on parental leave who constitute a modern, institutionally protected version of the “new hidden reserve.” In the U.S., it is mothers with low socio-economic employment positions who appear less able than their peers in higher socio-economic positions to maintain strong ties to their former jobs when the demand for labor is low.

References

- Acker, Joan R. 1980. "Women and Stratification: A Review of Recent Literature." *Contemporary Sociology*, 9(1): 25-35.
- Aisenbrey, Silke, Evertsson, Marie, and Daniela Grunow. 2009. "Is there a career penalty for mothers' time out? Germany, Sweden, and the U.S. Compared." *Social Forces* 88:573-606.
- Anderson, Deborah J., Melissa Binder, and Kate Krause. 2002. "The Motherhood Wage Penalty: Which Mothers Pay It and Why?" *The American Economic Review* 92:354-358.
- Adsera, Alicia. 2005. "Vanishing children: From high unemployment to low fertility in developed countries." *American Economic Review* 95(2): 189-193.
- Bandura, Albert. 1989. "Human Agency in Social Cognitive Theory." *American Psychologist* 44(9): 1175-1184.
- Baum, Charles L. 2002. "The Effect of Work Interruptions on Women's Wages." *Labour* 16:1-37.
- Benston, Margaret. 1969. "The political economy of women's liberation." *Monthly Review* 21(4): 13-27.
- Blossfeld, Hans-Peter, Katrin Golsch and Rohwer, Götz. 2007. *Event History Analysis with Stata*. New York: Lawrence Erlbaum.
- Blossfeld, Hans-Peter, and Heather Hofmeister. 2006. *Globalization, Uncertainty, and Women's Careers: An International Comparison*. Edward Elgar.
- Box-Steffensmeier, Janet M. and Bradford S. Jones. 2004. *Event history modeling: a guide for social scientists*. New York: Cambridge University Press.
- Boushey, Heather, 2008: Family Friendly Policies: Helping Mothers Make Ends Meet. *Review of Social Economy* 66/1: 51-70.
- Boushey, Heather, Karen Davenport, Joy Moses and Melissa Botreacj. 2010. „What the census data tells us about the great recession.“ Center for American Progress. Retrieved August 8, 2011. (http://www.americanprogress.org/issues/2010/09/joint_poverty_memo.html)
- BMFSFJ, Bundesministerium für Familie, Senioren, Frauen und Jugend. 2005. Gender-Datenreport. Retrieved August 8, 2011. (www.bmfsfj.de/Publikationen/genderreport/root.html)
- Brückner, Hannah, and Karl Ulrich Mayer. 1995. "Lebensverläufe und gesellschaftlicher Wandel: Konzeption, Design und Methodik der Erhebung von Lebensverläufen der Geburtsjahrgänge 1954-1956 und 1959-61." Berlin: Max-Planck-Institut für Bildungsforschung.
- Budig, Michelle J., and Paula England. 2001. "The wage penalty for motherhood." *American Sociological Review* 66:204-225.
- Bureau of Labor Statistics. 2004. U.S. Department of Labor. National Longitudinal Survey of Young Women, 1968-2003 (rounds 1-23) [computer file]. Produced and distributed by the Center for Human Resource Research, The Ohio State University. Columbus, OH: 2004.
- Buskens, Ineke. 2009. Reflecting on Social and Gender Injustice In The Context of Human

- Development, Poverty and ICTs. Published on Publius Project. Retrieved August 8, 2011. (<http://publius.cc>).
- Cronbach, Lee J. 1987. Statistical Tests for Moderator Variables: Haws in Analyses Recently Proposed. *Psychological Bulletin* 102(3): 414-417
- Dressel, Christian, Cornelißen, Waltraud, and Wolf, Karin. 2005. Gender-Datenreport. Kommentierter Datenreport zur Gleichstellung von Frauen und Männern in der Bundesrepublik Deutschland, Deutsches Jugendinstitut & Statistisches Bundesamt.
- Ellingsæter, Anne L. 2000. "Scandinavian Transformations: Labour Markets, Politics and Gender Divisions." *Economic and Industrial Democracy* 21 (3): 335-359.
- Engelbrech, Gerhard. 1997. "Erziehungsurlaub - und was dann? Die Situation von Frauen bei ihrer Rückkehr auf den Arbeitsmarkt. Ein Ost/West-Vergleich." *IAB Kurzbericht* 8:1-5. Nürnberg.
- Esping-Andersen, Gøsta. 2002. "A new European social model for the twenty-first century?". In Maria João Rodrigues eds. *The New Knowledge Economy in Europe: A Strategy for International Competitiveness and Social Cohesion*. Cheltenham: Edward Elgar.
- Ferrarini, Tommy. 2006. *Families, States and Labour Markets. Institutions, Causes and Consequences of Family Policy in Post-War Welfare States*. Celtenham, UK: Edward Elgar Publishing.
- Fraser, Nancy. 1987. "Women, Welfare and the Politics of Need Interpretation." *Hypatia*, 2(1): 103-112.
- Gangl, Markus. 2003. *Unemployment dynamics in the United States and West Germany: Economic restructuring, institutions, and labor market processes*. Heidelberg, New York: Physica/Springer.
- Gangl, Markus. 2006. "Scar effects of unemployment: An assessment of institutional complementarities." *American Sociological Review* 71 (6): 986-1013.
- Gangl, Markus and Andrea Ziefle. 2009. "Motherhood, labor force behavior and women's careers: An empirical assessment of the wage penalty for motherhood in Britain, Germany and the United States." *Demography*, 46 (2): 341-369
- Ganzeboom, Harry B. G. and Donald J. Treiman. 1996. "Internationally Comparable Measures of Occupational Status for the 1988 International Standard Classification of Occupations." *Social Science Research* 25: 201-239.
- Gebel, Markus and Johannes Giesecke. 2009. "Ökonomische Unsicherheit und Fertilität. Die Wirkung von Beschäftigungsunsicherheit und Arbeitslosigkeit auf die Familiengründung in Ost- und Westdeutschland." *Zeitschrift für Soziologie* 38(5): 399-417.
- Gornick, Janet C., Marcia K. Meyers. 2003. *Families That Work: Policies for Reconciling Parenthood and Employment*. New York: Russell Sage Foundation
- Gornick, Janet C., Marcia K. Meyers. 2009. "Institutions that Support Gender Equality in Parenthood and Employment." Pp. 3-64 in *Gender Equality. Transforming Family Divisions of Labor*, edited by Janet C. Gornick and Marcia K. Meyers.
- Gornick, Janet C., Marcia K. Meyers, and Katherine E. Ross. 1997. "Supporting the Employment of Mothers: Policy Variation Across Fourteen Welfare States." *Journal of European Social Policy* 7(1): 45-70.

- Grunow, Daniela. 2006. *Convergence, Persistence and Diversity in Male and Female Careers: Does Context Matter in an Era of Globalization? A Comparison of Gendered Employment Mobility Patterns in West Germany and Denmark*. Opladen / Farmington Hills: Barbara Budrich.
- Grunow, Daniela, Aisenbrey, Silke, and Marie Evertsson. 2011. "Familienpolitik, Bildung und Berufskarrieren von Müttern in Deutschland, USA und Schweden." *Kölner Zeitschrift für Soziologie und Sozialpsychologie*. 63(3): 395–430.
- Grunow, Daniela, Hofmeister, Heather, and Sandra Buchholz. 2006. "Late 20th-century persistence and decline of the female homemaker in Germany and the United States." *International Sociology* 21:101–131.
- Han Wen-Jui, Christopher Ruhm, and Jane Waldfogel. 2009. "Parental Leave Policies and Parents' Employment and Leave-Taking." *Journal of Policy Analysis and Management* 28(1): 29-54.
- Hofmeister, Heather, and Hans-Peter Blossfeld. 2006. "Women's careers in an era of uncertainty: Conclusions from a 13-country international comparison." p. 436–454 in *Globalization, Uncertainty, and Women's Careers: An International Comparison*, edited by Hans-Peter Blossfeld, and Heather Hofmeister. Edward Elgar.
- Hout, Michel, and DiPrete, Thomas A. 2006. "What we have learned. RC28's contributions to knowledge about social stratification." *Research In Social Stratification And Mobility* 24(1): 1-20.
- Kalleberg, Arne, and Rachel A. Rosenfeld. 1990. Work in the family and in the labor market: A crossnational, reciprocal analysis. *Journal of Marriage and the Family* 52, 331 – 346.
- Kenjoh, Eiko. 2005. "New Mothers' Employment and Public Policy in the UK, Germany, the Netherlands, Sweden, and Japan." *Labour* 19 (Special Issue) 5–49.
- Kreyenfeld, Michaela. 2009. "Uncertainties in female employment careers and the postponement of parenthood in Germany." *European Sociological Review* 26(3): 351-366. doi:10.1093/esr/jcp026.
- Leitner, Sigrid, Ostner, Ilona, and Margit Schratzenstaller. 2004: Einleitung. p. 9-27 in: S. Leitner, I. Ostner, M. Schratzenstaller (Eds.) - Wohlfahrtsstaat und Geschlechterverhältnis im Umbruch - Was kommt nach dem Ernährermodell? Jahrbuch für Europa- und Nordamerikastudien Nr. 7, Wiesbaden: Verlag für Sozialwissenschaften
- Lewis, Jane. 1992. "Gender and the Development of Welfare Regimes." *Journal of European Social Policy* 3:159-73.
- Lewis, Jane. 2009. *Work–family balance, gender and policy*. Edward Elgar, Cheltenham, UK.
- Livingston, Gretchen, and Cohn, D'Vera. 2010. U.S. Birth Rate Decline Linked to Recession. Report. A social and demographic trends report. PewResearchCenter. Retrieved August 8, 2011. (<http://pewsocialtrends.org/files/2010/10/753-birth-rates-recession.pdf>)
- Lundberg, Shelly, and Elaine Rose. 2000. "Parenthood and the Earnings of Married Men and Women." *Labour Economics* 7:689-710.
- Mandel, Hadas, and Moshe. Semyonov. 2005. "Family policies, wage structures, and gender gaps: Sources of earnings inequality in 20 countries." *American Sociological Review*

70:949-967.

- . 2006. "A welfare state paradox: State interventions and women's employment opportunities in 22 countries." *American Journal of Sociology* 111:1910-1949.
- Mandel, Hadas, and Michael Shalev. 2009. "How Welfare States Shape the Gender Pay Gap: A Theoretical and Comparative Analysis." *Social Forces* 87(4): 1873-1912.
- Mattingly, M. J. and K. E. Smith. 2010. "Changes in Wives' Employment When Husbands Stop Working: A Recession-Prosperity Comparison." *Family Relations* 59(4): 343-357.
- Milkman, Ruth. 1976. "Women's work and the economic crisis: Some lessons from the Great Depression." *The Review of Radical Political Economics* 8, 1:73-97.
- Mills, Melinda. 2011. *Introducing Survival and Event History Analysis*. London: Sage.
- Mincer, Jacob, and Solomon Polachek. 1974. "Family Investments in Human Capital: Earnings of Women." *The Journal of Political Economy* 82: 76-108.
- Misra, Joya, Michelle J. Budig, and Stephanie Moller. 2007. "Reconciliation Policies and the Effects of Motherhood on Employment, Earnings and Poverty." *Journal of Comparative Policy Analysis* 9: 135-155.
- Mocan, Naci H. 1990. "Business Cycles and Fertility Dynamics in the United States: A Vector Autoregressive Model." *Journal of Population Economics* 3(2): 125-146
Stable URL: <http://www.jstor.org/stable/20007311>
- Morgan, Kimberly J. 2009. "Caring time policies in Western Europe: Trends and implications." *Comparative European Politics* 7: 37-55.
- Morgan, Kimberly J., and Kathrin Zippel. 2003. "Paid to Care: The Origins and Effects of Care Leave Policies in Western Europe." *Social Politics* 10:49-85.
- OECD Labor Force Statistics. 2011. Usual weekly working hours among men and women by broad hours group. OECD Family Data Base. Retrieved June 10, 2011. (http://www.oecd.org/document/4/0,3746,en_2649_34819_37836996_1_1_1_1,00.html)
- Özcan, Berkay, Mayer, Karl Ulrich Mayer, and Joerg Luedicke. 2010. "The impact of unemployment on the transition to parenthood." *Demographic Research*. 23(29): 807-846
- Orloff, Ann Shola. 1993. "Gender and the Social Rights of Citizenship: The Comparative Analysis of Gender Relations and Welfare States," *American Sociological Review* 58:303-28
- Orloff, Ann Shola. 2006. "From Maternalism to 'Employment for All': State Policies to Promote Women's Employment Across the Affluent Democracies," pp.230-68 in *The State After Statism: New State Activities in the Era of Globalization and Liberalization*, edited by Jonah Levy. Cambridge: Harvard University Press.
- Orloff, Ann S. 2009. "Should feminists aim for gender symmetry? Why the dual-earner/dual-carer model may not be every feminist's utopia." In *Gender equality, transforming family divisions of labor*, Ed. Janet Gornick und Marcia Meyers, 129-160. New York: Verso.
- Pettit, Becky and Jennifer Hook. 2009. *Gendered Tradeoffs: Family, Social Policy, and Economic Inequality in 21 Countries*. New York: Russell Sage Foundation.

- Raeth, Norbert. 2009. "Rezessionen in historischer Betrachtung" *Wirtschaft und Statistik* 3, 2009: 203-208.
- Ray, R., Gornick, J.C. and Schmitt, J.,2009: Parental Leave Policies in 21 Countries: Assessing Generosity and Gender Equality, Center for Economic and Policy Research. Retrieved August 9, 2011. (http://www.cepr.net/documents/publications/parental_2008_09.pdf)
- Rindfuss, Ronald R., Morgan, Philip, and Kate Offutt. 1996. "Education and the changing age pattern of American fertility: 1963-1989." *Demography* 33(3): 277-290.
- Rindfuss, Ronald R., Morgan, Philip S., and Gray Swicegood (1988). *First Births in America: Changes in the Timing of Parenthood*. Berkeley: University of California Press.
- Rinklake, Annika, Rost, Harald, Rupp, Marina, Grunow, Daniela. 2008. Project "Zwischen Wunsch und Wirklichkeit. Der Alltag erwerbsorientierter Paare nach dem Übergang zur Elternschaft." Staatsinstitut für Familienforschung an der Universität Bamberg. Retrieved August 30, 2011. (http://www.ifb.bayern.de/forschung/inap_quali2.html).
- Ruhm, Christopher J. 1998. "The economic consequences of parental leave mandates: Lessons from Europe." *Quarterly Journal of Economics* 113:285-317.
- Sainsbury, Diane. 1999. "Gender, policy regimes, and politics." in *Gender and Welfare State Regimes*, edited by Diane Sainsbury. Oxford: Oxford University Press.
- Saxton, Jim. 2008. "Employment numbers as recession indicators. A joint Economic Committee Study." Joint Economic Committee United States. United States Congress. Retrieved August 9, 2011. (<http://www.house.gov/jec/studies/2008/Employment%20Numbers%20as%20Recession%20Indicators.pdf>)
- Simeral, Margaret H. 1978. "Women and the Reserve Army of Labor." *Insurgent Sociologist* 8: 164-179.
- Sørensen, Anne-Mette. 1983. "Children and Their Mothers' Career." *Social Science Research* 12(1):26-43.
- Treiman, Donald, J. 1977. *Occupational Prestige in Comparative Perspective*. New York: Academic Press.
- Waldfoegel, Jane. 1997. "The Effect of Children on Women's Wages." *American Sociological Review* 62: 209-217.
- Waldfoegel, Jane. 2001. "International Policies toward Parental Leave and Child Care." *The Future of Children* 11:98-111.
- Wang, Ping, Yip, Chong K. , and Carol A. Scotese. 1994. Fertility Choice and Economic Growth: Theory and Evidence. *The Review of Economics and Statistics*. MIT Press. 76(2): 255-266.

Tables and Figures

Table 1: Predictors of Mother's Timing of Return to Work after Childbirth in the U.S. and Germany

	United States		Germany	
	Model 1	Model 2	Model 1	Model 2
Unemployment rate, lag(1)	0.998 (0.012)	0.993 (0.013)	0.966 (0.024)	1.029 (0.043)
Education middle (ref. lowest)	1.102* (0.052)	1.104* (0.052)	1.335** (0.115)	1.331** (0.115)
Education highest (ref. lowest)	1.186** (0.063)	1.190** (0.063)	1.439** (0.175)	1.426** (0.175)
Occupational prestige prior to birth	1.005*** (0.001)	1.005*** (0.001)	1.010** (0.004)	1.010** (0.004)
Labor force experience	1.244*** (0.012)	1.244*** (0.012)	0.981 (0.019)	0.980 (0.019)
No. of children	0.961 (0.022)	0.961 (0.022)	0.646*** (0.046)	0.649*** (0.046)
Partner (ref. no partner)	1.015 (0.043)	1.014 (0.043)	0.862 (0.112)	0.868 (0.112)
Mother's year of birth	0.891*** (0.008)	0.892*** (0.009)	1.065*** (0.014)	1.066*** (0.014)
Mother's age at childbirth	0.849*** (0.008)	0.849*** (0.008)	1.005 (0.017)	1.004 (0.017)
Legal leave available/extended: Germany, 1987-92 (ref. <1986)			0.482*** (0.063)	0.484*** (0.064)
USA, >1993 (ref. <1994) Germany, >1992 (ref. <1986)	0.585*** (0.072)	0.589*** (0.073)	0.433*** (0.076)	0.451*** (0.080)
Out within legally protected leave period	1.807*** (0.223)	1.864*** (0.248)	1.438* (0.212)	1.341 (0.203)
African American	1.255*** (0.046)	1.252*** (0.046)		
<i>Interaction terms</i>				
Unemployment rate x Legally protected		1.041 (0.054)		0.912* (0.041)
Unemployment rate x Occ. prestige		1.002* (0.001)		1.001 (0.002)
Number of episodes	4574	4574	1736	1736
Number of Failure events	3977	3977	790	790
-2*LogL	-30364	-30361	-5357	-5355

Notes: Exponentiated coefficients; robust standard errors in parentheses ;* p < .05, ** p < .01, *** p < .001
Source: GLHS-West birth cohorts 1954-56, 1964, 1971, NLSY birth cohorts 1957-64.

Table 2: Predictors of Mother's Timing of Return to Work after Childbirth in the U.S. and Germany, only mothers with partners

	United States		Germany	
	Model 1	Model 2	Model 1	Model 2
Unemployment rate, lag(1)	0.989 (0.014)	0.980 (0.015)	0.952 (0.025)	1.026 (0.045)
Education middle (ref. lowest)	0.957 (0.053)	0.959 (0.053)	1.318** (0.120)	1.314** (0.120)
Education highest (ref. lowest)	1.044 (0.063)	1.047 (0.063)	1.432** (0.187)	1.419** (0.185)
Occupational prestige prior to birth	1.006*** (0.001)	1.006*** (0.001)	1.010** (0.004)	1.010** (0.004)
Labor force experience	1.256*** (0.013)	1.256*** (0.013)	0.981 (0.020)	0.980 (0.020)
No. of children	0.967 (0.022)	0.967 (0.023)	0.662*** (0.050)	0.665*** (0.051)
Mother's year of birth	0.876*** (0.010)	0.877*** (0.010)	1.075*** (0.015)	1.075*** (0.015)
Mother's age at childbirth	0.833*** (0.009)	0.833*** (0.009)	1.016 (0.020)	1.014 (0.021)
Legal leave available/extended: Germany, 1987-92 (ref. <1986)			0.429*** (0.060)	0.430*** (0.060)
USA, >1993 (ref. <1994)				
Germany, >1992 (ref. <1986)	0.645** (0.084)	0.651** (0.085)	0.394*** (0.073)	0.411*** (0.077)
Out within legally protected leave period	1.720*** (0.225)	1.781*** (0.250)	1.408* (0.221)	1.298 (0.209)
African American	1.394*** (0.059)	1.391*** (0.059)		
<i>Interaction terms</i>				
Unemployment rate x Legally protected		1.046 (0.056)		0.898* (0.043)
Unemployment rate x Occ. prestige		1.002* (0.001)		1.001 (0.002)
Number of episodes	3698	3698	1606	1606
Number of Failure events	3147	3147	707	707
-2*LogL	-23479	-23477	-4748	-4748

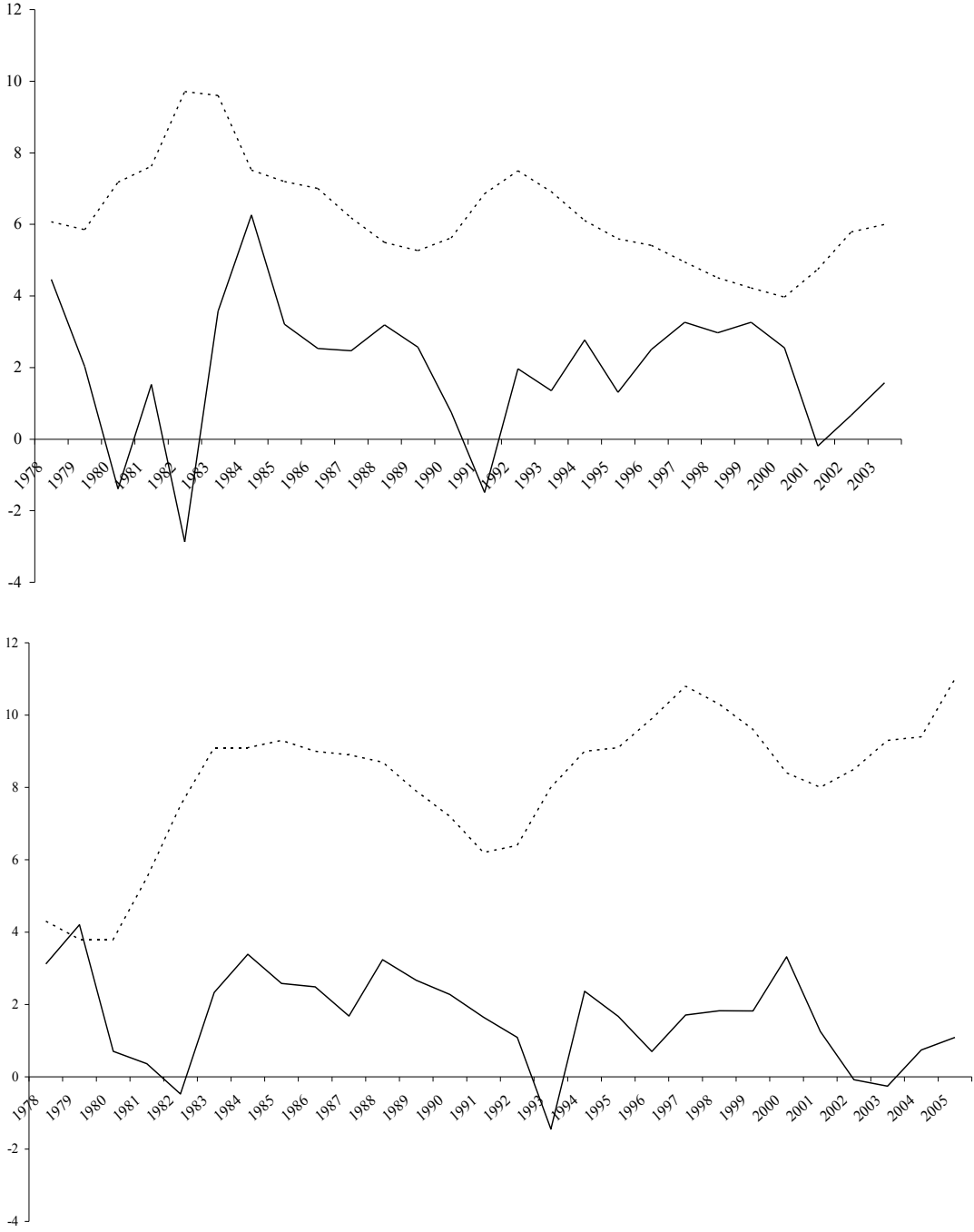
Notes: Exponentiated coefficients; robust standard errors in parentheses ;* p < .05, ** p < .01, *** p < .001
Source: GLHS-West birth cohorts 1954-56, 1964, 1971, NLSY birth cohorts 1957-64.

Figure 1: Hypotheses; Conditional effect of unemployment rate on reentry into the labor market

	U.S.	Germany
New Hidden Reserve	0	Slow Down for mothers on leave
Agency	Accelerate, especially for mothers with higher occupational status	0

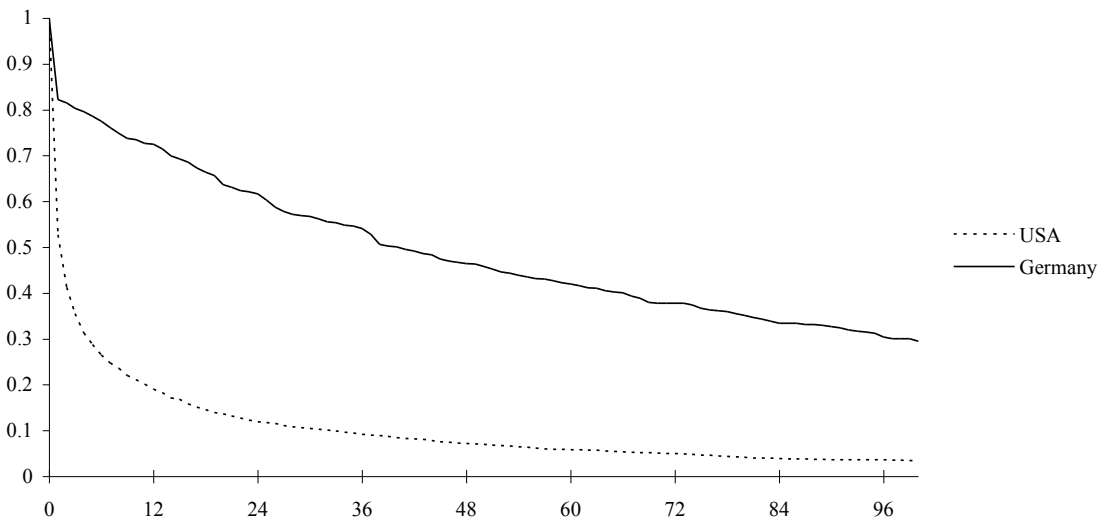
Appendix

Appendix 1. The Macroeconomic Situation in Germany and the United States during the Time of Analysis. Annual economic growth rates and unemployment rates in percent.



— Economic Growth Rate Unemployment Rate
 Source: U.S. National Bureau of Economic Research and German Federal Statistical Office.

Appendix 2. Kaplan-Meier Survival Curves of Mothers' Time Out after First Birth



Source: GLHS-West birth cohorts 1954-56, 1964, 1971, NLSY birth cohorts 1957-64.

Appendix 3. Descriptive statistics, percentages or means and standard deviation

	USA		All		Germany	
	Age: <36 Mean / %	SD	Mean / %	SD	Mean / %	SD
Education lowest (%)	14.4		13.9		41.7	
Education middle (%)	41.9		40.1		38.5	
Education highest (%)	43.7		45.1		19.8	
Occupational prestige prior to birth (mean)	44.8	14.0	45.1	14.0	43.2	12.4
Labor force experience in years (mean)	6.7	4.3	7.1	4.7	5.1	3.3
No. of children (mean)	1.7	.7	1.7	0.7	1.6	.7
Partner (%)	80.8		81.1		92.6	
Mother's year of birth (mean)	1961	2.04	1961	2.04	1963	5.8
Mother's age at childbirth (mean)	26.8	4.6	27.4	5.1	27.1	4.3
Germany: before 1987 (%)					30.2	
Germany: 1987-92, USA: <1994 (%)	85.8		81.3		28.9	
Germany: >1992, USA: >1993 (%)	14.2		18.7		40.9	
Out within legally protected leave period (%)	14.2		18.7		100.0	
African American (%)	19.9		19.8			

Notes: All descriptive statistics refer to episodes, not individuals. Statistics for time-varying variables were measured at the beginning of the episode. Source: GLHS-West birth cohorts 1954-56, 1964, 1971, NLSY birth cohorts 1957-64.

Endnotes

¹ Since our data cover the time period before German reunification and because our contextual arguments explicitly refer to the situation in western Germany, we limit our analysis to western Germany (the former FRG). We use the terms Germany and western Germany interchangeably.

² We use the term “family leave” because leave policies differ greatly among the countries, but also as our focus in this article is on time away from work, an activity status that may extend beyond the legal parental leave period (cp. Aisenbrey, Evertsson and Grunow 2009).

³ New mothers compete in similar occupations and for similar types of jobs with other women. Therefore our concept of the “new hidden reserve” acknowledges earlier criticism of the reserve army hypothesis that women and men compete in different segments, thereby questioning the cyclical role of a female reserve (Milkman 1976).

⁴ To be sure, though both the U.S. FMLA and the German parental leave are available to both men and women, men’s usage is still exceptional.

⁵ In our models we use the general unemployment rate and not the female unemployment rate because the female unemployment rate is already an outcome of the interplay between the national macro-economic situation and parental leave policies.

⁶ In Germany, until 2007, leave taking parents received a monthly amount of 300 Euro, for up to two years per child, with eligibility depending on household income. This amount would be a rather weak compensation for foregone full-time earnings (Ferrarini 2006). However, seen as compensation for forgone part-time earnings and considering that a stay-at-home parent means no costs for external day care, the monetary incentive to take parental leave is non-negligible.

⁷ The interactions with age, partnership status and education were not statistically significant and were therefore dropped from the final models presented in this paper.

⁸ For the U.S. we also ran all models presented here with the unemployment rate measured on a quarterly basis. We also ran analyses controlling for the annual change in employment rates. These alternative modeling strategies didn't change the substantive results. We therefore decided to present the more straightforward yearly measurement of the economic situation for both countries.

⁹ For Germany we also ran all models presented here, controlling in addition for the fertility rate. This control variable remained insignificant. It also didn't alter the robustness of any of the other coefficients. We therefore decided to drop this variable from the analysis.

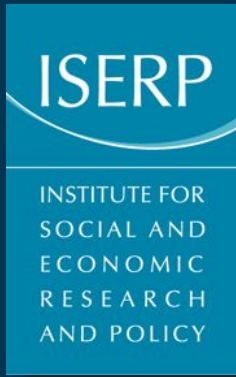
¹⁰ For the U.S. we also estimated all models, while controlling for partner's weekly income. As expected partner's income as a variable is significant in all models, but all other indicators hardly changed and the significant levels all stayed the same. Because of the retrospective nature of the German data, partner's income cannot be reconstructed for all cases as a time-varying measure. In order to keep the national models as similar as possible, we don't show the effects for U.S. partner's weekly income.

¹¹ To minimize mistakes in the translation process from the occupational codes to the appropriate SIOPS codes, the 1970 Census 3-Digit Occupation Code is used consistently for all years from 1979 to 2000. After 2000, the occupations in the NLSY are not coded in the 1970 Census codes anymore. Instead, the years 2000 to 2006 are based on three different Occupational Codes (NLSY 2006). As a result, for the analysis at hand, over the years from 1979 to 2006, four different codes would have to be translated to SIOPS. Since our results are very stable over the years of 1979 to 2000 and because we assume that the consequences of our theoretical argument wouldn't change if we included the latest waves, we decided not to risk biasing our results by including years that were inconsistently coded.

¹² There are two main advantages of using the GLHS for our purposes, compared to other German data sets, such as the German Socioeconomic Panel (GSOEP), which began not until 1984. First, our subset of the GLHS covers the additional period from the late 1970s to 1986, which is the time period before parental leave was introduced in Germany. Second, only the GLHS adequately covers the onset of the first economic recession in the 1980s. In comparative terms, being able to observe the full period of the 1980s for Germany and the U.S. is essential to see the impact of a major recession (cp. Appendix 1).

¹³ Model not shown, results available on request.

¹⁴ We refrain from discussing the other effects in model 2, table 2 because coefficients remained largely unchanged compared to the model without interaction terms.



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