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**Working Paper**

## The impact of social support networks on maternal employment: A comparison of West German, East German and migrant mothers of pre-school children

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# The Impact of Social Support Networks on Maternal Employment: A Comparison of West German, East German and Migrant Mothers of Pre-School Children

Mareike Wagner

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# **The Impact of Social Support Networks on Maternal Employment:**

## **A Comparison of West German, East German and Migrant Mothers of Pre-School Children**

Mareike Wagner<sup>1</sup>

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<sup>1</sup> The following paper is my master thesis which I completed at the University of Potsdam and the Social Science Research Center (WZB) in June 2012. Special thanks goes to my supervisors Anette Fasang and Wolfgang Lauterbach, as well as to Nicolas Griesshaber, Hannes Neiss and Fenella Fleischmann for their support and valuable discussions.

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## 1 Introduction

Despite numerous advantages of a quick re-entry into the labor market, it is still common for German mothers to interrupt employment for several years after child birth. From a macro perspective, better opportunities to combine work and family are expected to increase fertility and counter skills shortage at the same time. On the micro level, research has documented quite well that mothers face considerable wage and career penalties, especially if they interrupt employment for several years after birth. As cross-national comparisons show, German mothers face particularly strong penalties compared to women in other western countries (Gangl and Ziefle 2009; Ziefle 2004). A quick return to (full-time) employment was also found to be the best protection from switching to a traditional division of housework after child birth (Grunow, Schulz, and Blossfeld 2007; Huinink and Reichart 2008). Apart from that, women increasingly wish to combine motherhood and work simultaneously (Allmendinger, Puschmann, and Helbig 2009) to maintain their financial independence. Furthermore, the choice between transitions into full-time and part-time employment has strong implications for mothers' further careers, as part-time jobs are associated with lower earnings and reduced career opportunities, and transitions from part-time jobs to full-time positions are very rare (Blossfeld and Rohwer 1997; Ziefle 2004). Consequently, politicians as well as social scientists try to identify obstacles towards (full-time) maternal employment and to develop measures which can facilitate mothers' re-entry into the labor market.

Previous research on mothers' employment has concentrated firstly on the impact of their own and their spouses' human capital and secondly on the impact of family policies (parental leave, public child care) as explanatory factors (Kurz 1998; Klein and Braun 1995; Drasch 2011a, 2011b; Muszynska 2004; Rønsen and Sundström 2002; Büchel and Spiess 2002). Public child care can help to reduce mothers' responsibilities at home and thus reduce the opportunity costs for employment. Yet, non-employed mothers mention the lack of adequate child care as the major barrier to employment: existing public child care slots do not match the demand for child care particularly among children under the age of three. Moreover, most day care centers in West Germany are only available part-time (Wrohlich 2008). Given the fact that public child care has these severe limitations, it seems vital to consider whether social networks can step in and provide alternative resources for child care. Furthermore, spouses may not only affect maternal employment due to their human capital resources but also via means of social support, by participating in domestic work.

Thus, in my master thesis, I intend to bring social support into the discussion of maternal employment. I will consider three sources of social support: kinship networks, friendship networks and support by a spouse. My thesis then addresses the question whether social

support by kinship and friendship networks with child care and spousal support with domestic work can facilitate maternal employment by relieving mothers from a part of their responsibilities at home. This also includes the question whether different sources of social support will reinforce or compensate each other when mothers have access to more than one type of support. Furthermore, I will assess whether the impact of social support is moderated by the availability of public child care, since public child care can offer an alternative to informal child care by relatives and friends.

The fact that public child care is much more extensive in East Germany compared to the west makes it interesting to compare the employment trajectories of East German and West German mothers and test whether social support is equally important in both parts of the country. Furthermore, my analyses include migrant mothers from Turkey, Italy, Spain, Greece and former Yugoslavia as a third subgroup of mothers. These five countries of origin were chosen because they used to be the main countries of origin of guest workers, and thus migrants from these countries share a similar history. Little is known yet about the employment trajectories of migrant mothers. However, previous research could show that migrant mothers are less prone to enrolling their children in public child care (Engels et al. 2011; Kreyenfeld 2004), making them another interesting group to study the relationship between social support and public child care.

My analyses are based on data from the Socio-Economic Panel (SOEP) and comprise a sample of West German, East German and migrant mothers who experienced at least one birth between 1993 and 2009. I apply event history models for competing risks to estimate mothers' employment transitions into full-time and part-time positions within the first 72 months after birth. The distinction between transitions into full-time and part-time employment is important because part-time work allows mothers more time to care for their families and homes than full-time work, and may thus require less social support than full-time employment.

In the following section, I will discuss the theoretical framework of my thesis and give an overview of previous research on the topic. From this, hypotheses on the impact of social support networks on maternal employment among West German, East German and migrant mothers will be derived. Chapter 3 contains the description of my data and methodological approach, before the results are presented and discussed in Chapter 4.

## **2 Theoretical Framework and Previous Research**

The theoretical chapter is divided into three subsections. Section 2.1 addresses the micro-level effects of maternal employment, deriving hypotheses about the impact of social support networks and integrating the impact of social support within a rational choice model of maternal employment decisions. Section 2.2 addresses the different contexts for maternal employment among East German, West German and Migrant mothers and derives hypotheses on how these contexts can moderate the impact of social support networks. For each aspect of social support, I first present the theoretical ideas on the issue. Then, I summarize previous research and point out the contributions of my thesis. Section 2.3 provides a compact overview of all hypotheses.

### **2.1 Micro-Level Effects on Maternal Employment**

#### **2.1.1 Social Support Networks and Mothers' Labor Supply**

The idea of social support networks relates to Coleman's (1994) understanding of social capital. In the literature, social capital is applied as a multi-dimensional concept including firstly access to social networks and the resources embedded in these and secondly trust and social norms that enable cooperation among people (e.g. Coleman 1994; Putnam 2001). My thesis will concentrate on the aspect of transferring and exchanging resources with people from one's network. Thus, social capital is understood as access to resources that are embedded in social relations (Coleman 1994). Social relations or social networks are the source of social support whereas the resources provided by one's social network are the content of social support. These resources can be of various kinds, such as goods, information, money, time, labor or power. Which resources become relevant social support depends on what a person aims to achieve. Resources can either be goal-specific or general. An example of goal specific resources is information about job vacancies which is only relevant for someone who is looking for a job. In contrast, general resources such as time, money or labor can be used to achieve a wide variety of goals and can thus be useful in various contexts (Bühler 2007:403f). Another distinction between goal-specific and general resources is that goal-specific resources can only be obtained from specific people, whereas the number of people who can generate and provide general resources is much larger.

In order for mothers to become employed, several preconditions need to be met: mothers need to have enough time available for employment, which includes having access to child care for their children, and they need to find an adequate job. Consequently, important

resources can be time for child care and help with domestic work which relieve mothers from part of their responsibilities at home and thus facilitate employment. Another resource could be information on job openings. Previous research on the impact of social capital on employment opportunities has almost exclusively focused on access to job information that is made available via social networks (Granovetter 1995; Mouw 2003; Korpi 2001; Bramoullé and Saint-Paul 2010; Barbieri, Paugam, and Russell 2000). However, in the case of mothers who wish to become employed, I argue that job information is not the most important resource. If a mother was employed prior to birth, her employment position is protected for her within the first three years after birth according to the German parental leave law. Thus, a substantial proportion of mothers do not require job information as they intend to return to their former employer within the parental leave period.

In contrast, all mothers who wish to work need to organize child care for their children. Previous research underlines how important access to child care is for maternal employment. A lack of suitable child care was repeatedly found to be the major barrier for mothers who want to return to the labor market at the end of their parental leave period (Kurz 1998:156f; Büchel and Spiess 2002:97). Where public child care is unavailable, mothers can try to mobilize their social capital for this end. Hence, the most important resource they need from their social networks is time to provide child care. Furthermore, mothers risk bearing a double burden of gainful employment and domestic work, unless they can rely on help with chores at home. Support with housework thus becomes a second important resource for mothers who wish to work.

Consequently, my master thesis will focus on time for child care and help with domestic work as the central resources for maternal employment. This also relates to research on work-family conflicts which has identified social support as an important resource for persons who try to combine work and family life. This research distinguishes two dimensions of social support: emotional support and instrumental support. Emotional support refers to listening and providing empathy whereas instrumental support includes loaning money and practical assistance with a task (Ayman and Antani 2008). Instrumental social support is often operationalized as help with domestic work and thus corresponds to my understanding of social capital.

Having identified time for child care and help with domestic work as the most relevant resources for facilitating maternal employment, the next question is which social relations are best suited to provide these resources. Granovetter points out the importance of the strength of ties for access to social support, defining the strength of a tie as “a (probably linear)

combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie” (Granovetter 1973:1361). He emphasizes the strength of weak ties, as weak ties are more likely to be bridges to circles different from our own and can thus connect us to a wider range of people. Thus, when it comes to goal-specific resources, bridging, weak ties prove to be more efficient than strong ties (cf. also Burt 1995:27ff). The advantage of strong ties, however, is that those contacts are more motivated to help (Granovetter 1973:1361). This makes strong ties particularly important for the provision of general resources such as time for child care and domestic work. As I will lay out in the following, family members thus become the most likely source for support with child care and domestic work, followed by close friends.

### *Support by kinship networks*

Kinship networks constitute a formal and normative network which is characterized by intense, trusting relationships and mutual solidarity (Jakoby 2008:50f). Identification with the family and strong family norms induce family members to act selflessly in the family’s interest (Coleman 1988:104f; Portes 1998:7f; Igel and Szydlik 2011). Consequently, kinship networks can be understood as groups that practice indirect reciprocity where the donor does not expect to receive a resource in return himself. Instead, the recipient is expected to pass on resources to another family member in the future, so that eventually all exchanges will balance out at the group level (Bühler 2007; Degenne, Lebeauc, and Lemel 2004; Knijn and Liefbroer 2006). This is possible because members of kinship networks can expect to share a long common future during which a service can be repaid (Flap 2004). An advantage of exchange relations with indirect reciprocity is that they are more flexible because they do not depend on the capability of beneficiaries to offer resources in return that are attractive for the donor. However, the donor may profit nonetheless because his provision of support contributes to enforcing bonds within the group (Bühler 2007). In the case of family members who offer child care, this action does not only help mothers to enter employment, but also helps the family members to establish bonds with the child. This may make child care a particularly attractive type of support. In the Netherlands, child care is clearly the type of instrumental support that family members exchange most often (Knijn and Liefbroer 2006).

Previous research on family support has found that time and effort invested by parents in their adolescent children are decisive for the development of children’s human capital (Teachman, Paasch, and Carver 1996; McNeal Jr. 1999; Teachman et al. 1996). Yet, these investments are only useful if children are able to use their human capital in employment once they have grown up. Thus, particularly a mother’s parents should have an interest in

supporting their daughter with child care so that she is able to use her human capital on the labor market. Since women are more often involved in care activities than men, this means that the own mother is the most likely relative to supply child care. Previous research could show that women generally provide more support to their relatives than men do (Jakoby 2008:59; Knijn and Liefbroer 2006). Furthermore maternal grandmothers help with child care more frequently than paternal grandmothers (Igel and Szydlik 2011). Yet, even though the maternal grandmother is a particularly valuable source of child care, support is also regularly provided by other relatives. Descriptive statistics show that almost 40% of employed mothers rely on grandparents for child care, whereas approximately 15% receive regular child care from their siblings and 10% from other relatives (Dressel, Cornelißen, and Wolf 2005:341). Preconditions for family support are the physical presence of family members in or near the household, a strong relationship with them and further characteristics of the family members, e.g. whether they are employed, in good health, etc (Igel and Szydlik 2011).

Next to dyadic relations within the family, the kinship network constitutes an all-connected network of relations which mutually influence each other. According to Coleman (1994:318ff; see also Flap 2004:7), all-connected networks promote the willingness to cooperate and provide help to each other because network members who try to evade acting according to the group's norms can be pressured into conformity through sanctioning by other group members. Social control will be easier, when contact with each other is more frequent and intense. Thus, access to an extended family network within one's neighborhood will not only increase the opportunity of receiving support because more family members are available to provide it, but also because the presence of additional family members enforces the collective norms of helping each other. For example, grandfathers are more likely to engage in child care if they live together with a grandmother who organizes her spouse's share in child care (Igel and Szydlik 2011; Knijn and Liefbroer 2006; Leira, Tobío, and Trifiletti 2005:89). From this, I derive as first hypothesis:

Hypothesis 1: *The more relatives live in a mother's neighborhood, the easier it will be for her to work.*

As yet, there is only little research on whether child care provided by kinship networks can facilitate maternal employment. The first study to link mothers' employment to social support was conducted by Heckman (1974) who considered child care costs as an important factor in mothers' employment decisions and recognized informal care by relatives and friends as inexpensive source of child care. Indeed, he could show that the presence of a relative within the same household increased the likelihood of maternal employment. Yet, including only

relatives in the same household strongly underestimates the number of relatives available for help with child care. A study on West Germany could show that in 1991 only 9.2% of West German grandchildren lived in the same house (which is not necessarily the same household) as their grandparents. Yet, every fourth grandchild lived within 15 minutes walking distance of at least one grandparent (Lauterbach 2004:214) which is still close enough for grandparents to be available for regular child care. Later studies on maternal employment considered the presence of grandparents within the household in the US (Leibowitz, Klerman, and Waite 1992; Klerman and Leibowitz 1990; Wenk and Garret 1992) or the same town in Germany (Kreyenfeld and Hank 2000; Weber 2004), but neglected other relatives as a source of social support.

The German studies did not find any effect of the presence of grandparents. Kreyenfeld and Hank (2000:332) point out that a substantial number of women rely on “patchwork child care arrangements” in which different people join in. Thus, it is likely that no single indicator can capture the effect of social support. Nevertheless, it remains surprising that previous studies could not find a positive effect of kinship networks on maternal employment. This contrasts with studies (Bühler 2007; Hank and Kreyenfeld 2003; Hank, Kreyenfeld, and Spiess 2004) on the impact of social support networks on fertility decisions which find that access to kinship networks furthers fertility. The authors discuss this finding in the light of easier compatibility between work and family, i.e. couples are more likely to decide to have a child if they know that informal child care will be available and can enable maternal employment. This master thesis will address the relation between kinship support and maternal employment once more. It contributes to previous research by considering the entire kinship network as a source of support instead of limiting the analysis to the impact of grandmothers.

### *Support by Friendship Networks*

Friends can also be a source of informal child care. They cannot be expected to help out as selflessly as family members, but parents maintain strong ties with their friends, it is likely that they have established mutual obligations. In Coleman’s words (1994:306):

“If A does something for B and trusts B to reciprocate in the future, this establishes an expectation in A and an obligation on the part of B to keep the trust. This obligation can be conceived of as a ‘credit slip’ held by A to be redeemed by some performance of B. [...] There are a large number of these credit slips outstanding, often on both sides of a relation (for these credit slips often appear to be not fungible across different areas of activities, so credit slips from B held by A and those from A held by B are not fully used to cancel each other out).”

In this sense, child care by friends can be one example of credit slips that the parents of the respective child repay through other kinds of support. Thus, it is possible for parents to plan ahead and engage in an exchange of resources with their friends in anticipation of need for child care. Yet in contrast to kinship networks which are characterized by a long common future, it is less clear how long friendships will continue to last. This means that in contrast to the indirect reciprocity practiced within kinship networks, direct exchange relations can be expected among friends, and social support has to be discounted much faster. Thus, exchange relations will be less flexible and depend on the ability of mothers to offer an adequate resource in return, decreasing the expected value of support (cf. Flap 2004).

First results in this field could show that exchange of support with friends is indeed more often reciprocal than exchange of support with relatives, and that resources given to friends are regarded as an investment whereas resources given to relatives are not (Degenne et al. 2004). Consequently, I expect it to be more difficult to mobilize friends for help with child care compared to relatives, especially when intensive child care is required. That friends are nonetheless an important source of child care can be underlined by data which shows that in 2003, 20% of employed mothers had friends and neighbors who regularly took care of their children (Dressel et al. 2005:341). From this I derive as second hypothesis:

*Hypothesis 2: Friendship networks will be of lesser importance than kinship networks, but can have a positive impact on maternal employment when the need for support is limited, e.g. because a mother is only employed part-time.*

To my knowledge, Heckman's (1974) study has been the only one so far to consider friendship networks as an alternative source for child care next to relatives. He found positive effects of the friendship network on maternal employment. Yet, he used the number of years a family had been living in the current neighborhood as an indicator for friendship networks. It thus seems questionable whether the indicator he chose is a valid measure for assessing child care support by friendship networks. Maybe difficulties to measure access to friendship networks are the reason why later studies neglected friends as a source of social support with child care.

### *Spousal support*

As a third source of social support next to kinship networks and friendship networks, I consider support by a spouse. In the following the term spousal support refers to support from a cohabiting partner, irrespective of whether the couple is married or not. Similarly to

the case of relatives and friends, the mechanism by which spouses can facilitate maternal employment is by relieving mothers of part of their responsibilities at home. Yet, in the case of the spouse, the focus is on help with domestic work as channel of support. Tijdens (1997) assumes that a woman's paid working time is what remains from the time she needs for her household duties. Substantial household help from a partner can reduce household time, leaving more time for paid work. It is clear from previous research that there is no direct trade-off between women's hours of domestic work and their hours of paid work, but that some women bear a double burden of full-time employment in addition to their responsibilities at home (e.g. Bianchi 2000; Cooke 2011:Ch. 7). Nonetheless, mothers may be more inclined to work if they know that they can share domestic work with their spouses. Previous research could repeatedly show that mothers work longer hours if they receive substantial support with domestic work from their partners (Tijdens 1997; Abendroth, van der Lippe, and Maas 2012). This indicates that support with domestic work may be particularly important to encourage mothers to enter a full-time position, whereas part-time employment is more likely manageable in addition to full responsibility for domestic work. Hence, I will test whether spousal participation in domestic work can positively affect maternal employment, and hypothesize:

*Hypothesis 3: A spouse's participation in domestic work is more important for transitions into full-time than into part-time positions.*

A drawback of the studies by Tijdens (1997) and Abendroth et al. (2012) is that they are cross-sectional in design. Thus, it is not possible to draw conclusions about the causal direction of the association between spousal support with housework and female employment. Studies by Grunow et al. (2007) and Huinink and Reichart (2008) show that husbands increasingly withdraw from domestic work when their wives interrupt employment after child birth. This indicates reverse causality where mothers' employment status affects spouses' participation in domestic work and not vice versa. The longitudinal design of my master thesis thus promises to shed further light on the issue of causality between spousal support in domestic work and maternal employment.

Of course paternal involvement in child care can also have a positive impact on maternal employment. Hong and Corman (2005) find e.g. that Swedish mothers are 80% more likely to become employed if their spouses take paternity leave for more than one month. Paternity leave may also be an effective protection from a traditionalization of household labor since it seems likely that fathers on parental leave (continue to) participate in domestic work. However, in Germany only 3.5% of fathers participated in parental leave prior to 2007. Even

though the introduction of new leave regulations in 2007 led to a sharp increase in the proportion of fathers who take parental (25.7% in 2010, Bundesministerium für Familie, Senioren, Frauen und Jugend 2012), the number of cases where fathers take parental leave across the entire period studied in this thesis is still too low for including this factor in the analyses.

#### *Interactions between kinship networks, friendship networks and spousal support*

Having separately considered the effects of kinship networks, friendship networks and spousal support, another interesting question is how these three sources of social support interact with each other, i.e. whether they are complementary, compensating or reinforcing. Complementary sources would have independent effects on maternal employment, meaning that the interaction effect between these sources is insignificant. Different sources of support are reinforcing if they become more valuable when combined with other sources of support as indicated by a positive interaction effect. A compensatory relationship means a negative interaction effect in the sense that each source of social support will be most relevant if it is the only source available to mothers, and will lose in significance, the more different sources of support are available. Abendroth et al (2012) suggest that two sources will be compensating if both support maternal employment via the same function, e.g. by increasing the time mothers have available for employment. Since my thesis only addresses social support with child care and domestic work, all three sources of social support addressed aim at this same function. However, Abendroth et al. (2012) do not find any evidence of a compensating relationship between any two sources of social support. They point out that a possible explanation could be that many mothers combine different types of support. This corresponds to Kreyenfeld and Hank's (2000:332) notion of patchwork child care arrangements and suggests a reinforcing relationship between different sources of social support. Some people in one's support networks may be limited in the number of hours they are able or willing to help, as they also have other responsibilities and child care can be a strenuous task. Thus, I expect that especially when mothers consider working full-time, it will be helpful for them to have access to a large support network. For part-time work, in contrast, less social support may be sufficient, as mothers have much more time for child care and domestic work themselves. Consequently, when part-time work is concerned, the effects of different sources of social support are more likely to be compensating. I thus hypothesize:

*Hypothesis 4: Different sources of social support will have compensating effects on mothers' entries into part-time positions.*

Hypotheses 5: *Having access to several sources of social support will reinforce mothers' decisions to work full-time.*

### **2.1.2 A Rational Choice Approach towards Maternal Employment**

Previous studies have found rational choice models considering the impact of full wages and reservation wages well suited for explaining mothers' employment decisions (Even 1987; Leibowitz et al. 1992; Rønsen and Sundström 2002; Muszynska 2004). These models predict that a mother maximizes expected utility and enters employment when her full wage exceeds her reservation wage. The full wage is determined by a mother's opportunity costs for not working, comprising her current market wage as well as the losses in future earnings resulting from the non-accumulation and depreciation of her human capital during the time she stays at home. The reservation wage is the minimum wage at which a mother is willing to work. It depends on the utility of her time at home, her gender role values and on whether there is an economic need for her to engage in employment. In the following, I will outline a rational choice model of maternal employment and integrate the impact of social support on maternal employment within this framework.

The model assumes that fertility decisions have already been made. The reservation wage rises when a child is born since the demand for mothers' time in child care increases, so that mothers usually choose to interrupt employment for some time after child birth. Yet, a child also increases the household's demand for goods, thus lowering the reservation wage (Hotz and Miller 1988). A child is most time-intensive when it is very young, and since it needs less supervision when it grows older, the demand for time decreases. In contrast, children become more goods-intensive as they grow older. Thus, the reservation wage will fall with time since birth, predicting that mothers increasingly return to work as their children grow older. However, the full wage will also decrease with the duration of employment interruption as human capital depreciates, predicting that mothers become less likely to return to work the longer they interrupt employment. Results from previous research point in the direction that the depreciation of human capital advances faster than time-gains resulting from the child growing older. Thus, the full wage falls faster than the reservation wage, and mothers' return to work becomes increasingly less likely the longer they remain out of the labor force (Klein and Braun 1995; Drasch 2011a).

The full wage of a mother is determined by her human capital stock. The more human capital a woman has accumulated, the higher are her expected earnings, and the sooner will she

become employed after birth. One component of human capital is education, another work experience. The return to education and work experience is income. Previous studies on mothers' employment decisions in Germany have repeatedly shown that mothers are more likely to work if they have higher education (Kreyenfeld and Geisler 2006; Drasch 2011a, 2011b; Klein and Braun 1995; Weber 2004) or are better educated than their partners (Kreyenfeld and Geisler 2006). Work experience seems to be less decisive. Drasch (2011b) found a positive impact of work experience for women in West Germany before 1990, but not for women in the GDR or in reunified Germany since 1990. However, there is evidence indicating that unemployment experiences prior to birth, during which human capital could depreciate, slow down mothers' return to work (Drasch 2011a). Concerning income, previous research could confirm the expectation that mothers who earned higher incomes (Weber 2004) or a higher share of the total household income (Kurz 1998) prior to birth returned to work sooner than mothers with lower earnings.

Turning to the reservation wage, the time spent at home will be more valuable for mothers with more traditional gender role values than for mothers who believe it is possible to reconcile work and family life. Gordon and Kammeyer (1980) found women's beliefs about motherhood to be decisive for their participation in the labor market. Other studies have relied on religiosity as a proxy for gender role attitudes and came to the conclusion that religious denomination was irrelevant for employment decisions, but more regular church attendance or higher self-reported religiousness were associated with longer employment interruptions after birth (Klein and Braun 1995; Muszynska 2004). Furthermore, a mother's marital status can also capture gender role attitudes, as mothers who have children out of wedlock are assumed to be less traditional. In fact, several studies report higher labor market participation of unmarried mothers in West Germany, but marital status seems less relevant for East German mothers (Kreyenfeld & Geisler 2006; Drasch 2011b; Klein & Braun 1995). Arguably, marriage is less important for employment in the latter group because child birth out of wedlock is more common in the east.

Moreover, mothers' time at home is not only more valuable the younger the youngest child, but also the more children live in the household. Thus, mothers who have only one child are expected to enter employment sooner than mothers who have two or more children. This relationship could be confirmed by several studies that analyze employment decisions of mothers in West Germany (Drasch 2011b, 2011a; Kreyenfeld and Geisler 2006), though findings for East Germany are not consistent: Kreyenfeld and Geisler (2006) found highly reduced employment levels among East German mothers with more than one child, whereas

Drasch (2011b) did not. Since public child care is more highly developed in the east, employment for East German mothers may be easier even if they have more than one child.

Some studies restricted their sample to women who worked within the months prior to birth and found that mothers of two children started to work sooner than mothers of just one child (Kurz 1998; Weber 2004). Since most women work prior to their first birth, but a large proportion of mothers are non-employed before giving birth to subsequent children, this finding can be explained by the fact that the sample of mothers who gave birth to the second child is strongly biased in favor of women with high work orientation whereas the sample of first-time mothers is not.

The reservation wage depends furthermore on the economic need for mothers to work. The more household income apart from the mother's earnings is available, the lower her economic need to work and consequently the higher the value of her time spent at home. The most important source of additional household income are the earnings of a partner. Thus partnered women are less likely to enter employment than single mothers (Drasch 2011a) and their work interruptions last longer, the higher their partner's absolute or relative income (Kurz 1998; Weber 2004).

The impact of social capital can easily be integrated within this framework, and affects both the full-wage and the reservation wage. Costs for child care during the hours when the mother works are regarded as a regressive tax on mothers' earnings, and thus can severely reduce the full wages if informal care by relatives and friends or subsidized public child care are not available, and mothers have to rely on expensive private care. Furthermore, social support lowers the reservation wage: if child care by relatives and friends (or public daycare centers) is available and the father of the child participates in housework and child care, the opportunity costs of maternal employment will be lower, as this social support reduces the demand for mothers' time at home. Consequently, the reservation wage falls and employment becomes more likely.

However, I expect that the impact of social support on maternal employment varies according to mothers' socio-economic status. Jakoby (2008:228) points out that kinship networks which offer easy and cheap access to social support are most important for persons of lower socio-economic status who cannot afford to acquire these resources elsewhere. In contrast, mothers with high earnings potentials or mothers who live in a household with high household income, have the possibility to buy help with child care and domestic work if they do not receive support from their networks. In line with this, Del Boca et

al (2009) find that availability of public child care affects mothers with tertiary education to a lesser extent than mother without tertiary education. Furthermore, Stadelmann-Steffen (2007) argues that mothers with lower socio-economic status may make their employment decisions independent of access to support, because they face a strong economic need to work. Her results show that supply with public child care is more important for mothers with upper secondary education compared to mothers with either higher or lower education. I expect to find a similar pattern concerning the impact of social support, and hypothesize:

*Hypothesis 6: Employment transitions of mothers with medium socio-economic status (education, household income) will be more sensitive to the availability of social support compared to employment transitions of mothers with either higher or lower socio-economic status.*

## **2.2 Macro-Level Determinants of Maternal Employment**

So far, the rational choice model assumes that the employment decisions of mothers in all societies will be affected in the same way. However, as a large body of cross-national research reveals, the institutional and cultural context in which women are embedded has a strong impact on their employment patterns across the life course (Blossfeld and Drobnič 2001a; Blossfeld and Hakim 1997; Blossfeld and Hofmeister 2006). Employment outcomes thus have to be understood as rational choices within a particular context of structural opportunities and constraints, and within a cultural context which defines what is legitimate and acceptable (cf. Bernardi 2001:125). Thus, in the following I will give a general overview of how the institutional and cultural context of West Germany, East Germany and the countries of origin of migrant mothers affects female employment patterns. As a second step, I will come back to the core issues of my thesis and consider how these contextual conditions can moderate the impact of social support networks on maternal employment.

### **2.2.1 West German, East German and Migrant Mothers**

West Germany counts among the conservative welfare states which support mothers who give priority to family activities (Esping-Andersen 1990). During the 1950s, West Germany has established one of the most comprehensive male-breadwinner, female-homemaker models in Europe. While men earned sufficient wages to provide for the whole family, a number of policies were designed to support women to stay at home and care for the family.

Couples profit from the tax splitting system if one partner is not employed or only works part-time. Furthermore, non-employed wives are covered by their spouses' health insurances and are entitled to receive widow's pensions if they outlive their spouses (Cooke 2011; Kreyenfeld and Geisler 2006).

In contrast, the socialist regime of the German Democratic Republic promoted the integration of all women into the labor market. Extensive coverage of full-time public child care enabled mothers to be employed full-time despite their children. Since 1972, a baby year allowed single mothers to stay at home for the first year after giving birth, and in 1986, the baby year was expanded to cover all mothers. Yet, after this one year of leave, mothers generally returned to the labor market. In 1988, 90% of all women, including mothers, were employed, and mostly on a full-time basis (Drasch 2011b).

With the German reunification in 1990, West German policies came into force in East Germany from one day to another. Yet, the contrasting historical developments continue to affect employment patterns after. 20 years after reunification, East German mothers of pre-school children still work more often and more often full-time than their West German counterparts (Mayer and Solga 2010:48). Another striking difference is that a substantial proportion of West German mothers take the role of non-employed housewives (32.5% in 2002) whereas the proportion of non-employed mothers is much lower in the east (12.1% in 2002). It is rather high unemployment that keeps East German mothers out of the labor force (Kreyenfeld and Geisler 2006:345).

The migrant mothers considered in this study originally came from Italy, Spain, Greece, Turkey and former Yugoslavia. These Mediterranean welfare states display extremely low levels of public provisions such as social assistance and family benefits. Thus, the Mediterranean countries do not encourage a male-breadwinner, female-homemaker model to the same extent as conservative welfare states. However, religious influences by Catholicism, Greek Orthodoxy or Islam made Mediterranean countries distinct in the centrality of the family as a provider of care and ultimate responsibility-taker for its members' welfare, strengthening women's roles as caregivers. Consequently, female employment rates have traditionally been low, and women often exited the labor market upon marriage or the birth of their first child. A low incidence of part-time jobs and difficulties to re-enter the labor market after a period of employment interruption force couples to choose between a traditional model with a female homemaker and a dual-earner model where suppressed fertility enables the wife to remain continuously employed full-time. (Blossfeld and Drobníč 2001b; Bernardi 2001; González-Lopéz 2001; Symeonidou 1997; Dedeoglu 2012). Among

women aged 30-50 in Italy, for example, 40% have continuously been employed, 21% have always been housewives, and 23% used to be employed for some time before exiting the labor market and have remained housewives ever since. Consequently, only 16% of Italian women followed more fragmented careers, underlining the difficulties to combine work and family (Bernardi 2001:129). Similarly, in Greece 23% of women aged 15-44 have never worked at all, and 55% of those who have ever worked either were employed continuously or quit around the time of marriage and never resumed employment thereafter (Symeonidou 1997).

The situation in former Yugoslavia is slightly different from the situation in the other countries of origin of migrant mothers. Similar to East Germany, Yugoslavia has been influenced by socialist ideas which encouraged female employment. However, Yugoslavia has been a very heterogeneous country with strong ethnic differences, and not all regions have been affected by socialist ideas to the same extent. Three cultural traditions can be identified: Catholic Slovenians and Croatians bear the strongest resemblance to Central Europeans, whereas Orthodox Serbs, Montenegrins and Macedonians adhere to endemic Balkan cultural traditions, and the Muslim population is strongly influenced by Turkey and the Middle East (Milewski 2010:47). In terms of female employment this means that employment patterns among Slovenian women closely resemble those of East Germans, with the vast majority of Slovenian women being employed full-time, except for a baby year after child birth (Drobníč 1997; Ule 2004). Yet, the situation in Macedonia which represents the cultural tradition of most successor states of former Yugoslavia has been very different: patriarchal, traditional family models with a male breadwinner and female homemaker continued to be wide-spread during the socialist period. Only recently, women increasingly become employed outside the home (Lakinska-Popovska and Bornarova 2004). Thus, the employment behavior of Macedonian women is more similar to that of Turkish, Greek, Spanish or Italian women than to Slovenian women.

Table 1 displays employment patterns of women in general and mothers of pre-school children in particular in 2006 in Germany as well as in the countries of origin of the migrant mothers. Unfortunately, the data do not distinguish between West and East Germany, but they are helpful to compare employment patterns in the countries of origin of migrants to employment patterns in Germany. As can be seen in the first column, employment rates among women aged 25-49 are higher in Germany than in all countries of origin of migrant mothers but Slovenia. Likewise, non-employment rates are lower in Germany than in all countries but Slovenia. A comparison of employment rates in Slovenia, Croatia and Macedonia underlines again the strong regional differences in former Yugoslavia. Given the

three cultural traditions within former Yugoslavia where Slovenians and Croatians deviate from the other ethnicities in former Yugoslavia, Macedonia should be the most representative case for former Yugoslavia at large.

It is also interesting to compare employment rates in the country of origin to employment rates of migrants in Germany. Whereas employment rates of migrant women from Italy are lower than in the country of origin, they are at about the same level among Greek women and higher than in the country of origin among Turkish women. Employment rates among migrant women from former Yugoslavia are lower than female employment rates in Slovenia and Croatia but higher than female employment rates in Macedonia. Furthermore, migrants from all countries of origin have lower employment rates than natives. Migrant women of Turkish origin are clearly least integrated into the labor market despite their improvement compared to women in Turkey, and previous research concludes that these differences between women of Turkish descent and other groups of migrant women persist even when socio-structural characteristics are controlled for (Stichs 2008).

Child care is a strong motive for non-employment in Germany, Italy, Spain, particularly Macedonia and to a lesser extent Croatia. In Greece and Turkey, in contrast, general family reasons are more important, indicating that marriage alone is an important reason for women to remain out of the labor force. In Slovenia, neither child care nor other family responsibilities are a major reason for the comparatively few incidences of non-employment.

Finally, a striking result is that mothers with children under the age of six display slightly higher employment rates in Spain, Italy, Greece and Croatia than in Germany, even though the total female employment rates are lower in these countries. In line with total female employment rates, maternal employment in Germany is clearly less common than in Slovenia, and clearly more pronounced than in Macedonia and Turkey. Yet, the employment levels of migrant mothers in Germany are consistently lower than those of mothers in their countries of origin, and also lower than those of native Germans.

There are two main approaches to explaining differences in maternal employment patterns across countries. The first focuses on structural and institutional aspects of the welfare state, which includes state support for continuous female employment as implemented by family and social policies. Another aspect of structural differences is the general situation on the labor market, e.g. unemployment rates. The second approach concentrates on differences in gender culture and social norms towards maternal employment across countries.

Table 1: Female Employment in Germany and the Countries of Origin of Migrant Mothers

	Employment Status of Women aged 25-49 <sup>a</sup>			Migrants aged 25-44 in Germany <sup>b</sup>	Reasons for non-employment <sup>a</sup>		Maternal Employment (child under six years)	
	Employed	Unemployed	Non-employed	Employed	Child Care	Other Family	In Country of origin <sup>a</sup>	In Germany <sup>c</sup>
Germany	73.1	9.3	19.4		33.0	32.2	51.0	
Spain	65.8	10.6	26.4		31.1	37.4	57.7	
Italy	60.5	8.4	33.9	55.6	35.8	10.8	52.8	37.5
Greece	62.7	13.2	27.7	64.9	14.8	51.1	54.4	43.5
Slovenia	83.6	6.8	10.3		9.7	27.0	82.0	
Croatia	69.5	12.0	21.0		20.4	38.0	63.1	
TFYR Macedonia	41.6	35.9	35.0		72.4	n/a	29.1	
Former Yugoslavia				51.9				26.7
Turkey	26.3	7.7	71.5	31.5	5.6	84.3	19.9	14.2

<sup>a</sup>Eurostat data base 2006

<sup>b</sup>Stichs (2008:13)

<sup>c</sup>Stichs (2008:21)

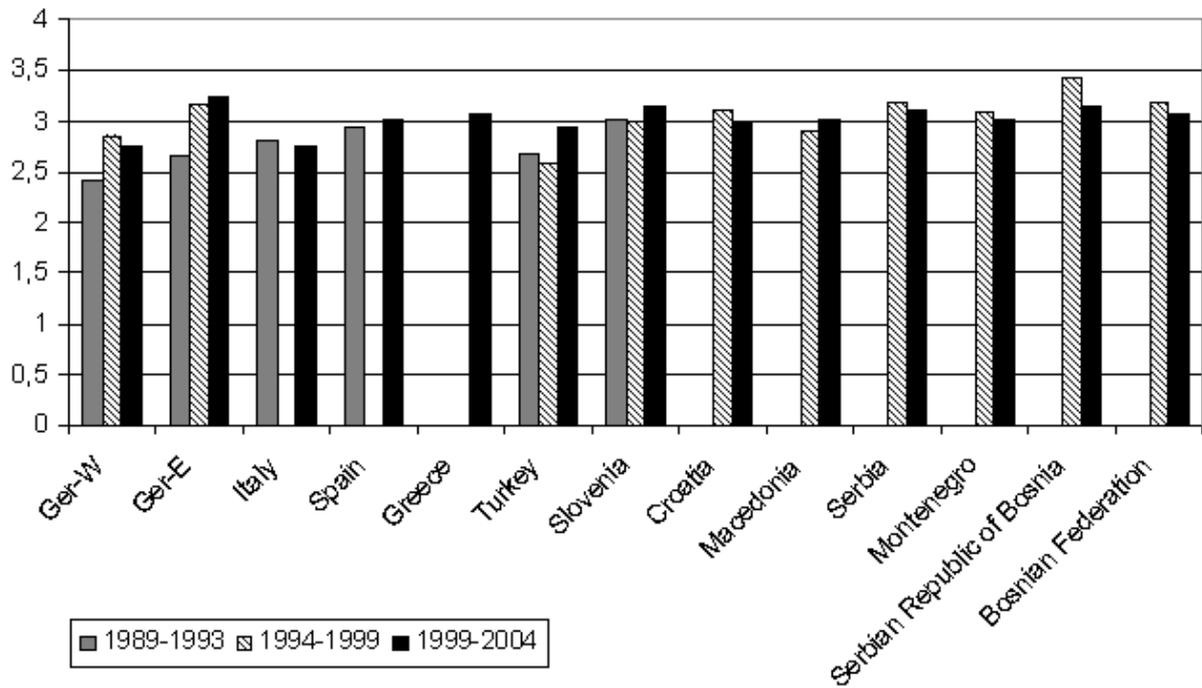
### *Cultural factors*

Religious traditions have played an important part in shaping gender role values within countries: in Catholic, Orthodox and Islamic countries (countries of origin of migrant mothers, south West Germany), a traditional division of labor within the household is preferred to a larger extent than in Protestant (north West Germany) or highly secularized countries (East Germany) (Treas and Widmer 2000:1416). Traditional gender role attitudes in a country can guide maternal employment decisions for two reasons: firstly, mothers themselves are more likely to endorse traditional gender role values and secondly the gender role attitudes of people around mothers have an impact as social norms. Both factors raise mothers' reservation wages. The time spent at home will be more valuable if mothers hold traditional gender role attitudes, and social norms sanction maternal employment.

Figure 1 and 2 display attitudes towards gender roles in East and West Germany as well as in the countries of origin of migrant mothers. Figure 1 displays average attitudes on whether a working mother can establish just as warm and secure a relationship with her children as a mother who does not work. The item was reversed so that answer categories range from 1 "strongly disagree" to 4 "strongly agree". The believe that a child will suffer if his mother is employed is still wide-spread in West Germany, even though attitudes towards maternal employment have become more liberal in the last few years (cf. also Drasch 2011b). In fact, West Germans together with Turks and Italians are most hesitant in this respect whereas attitudes in East Germany and former Yugoslavia are more positive.

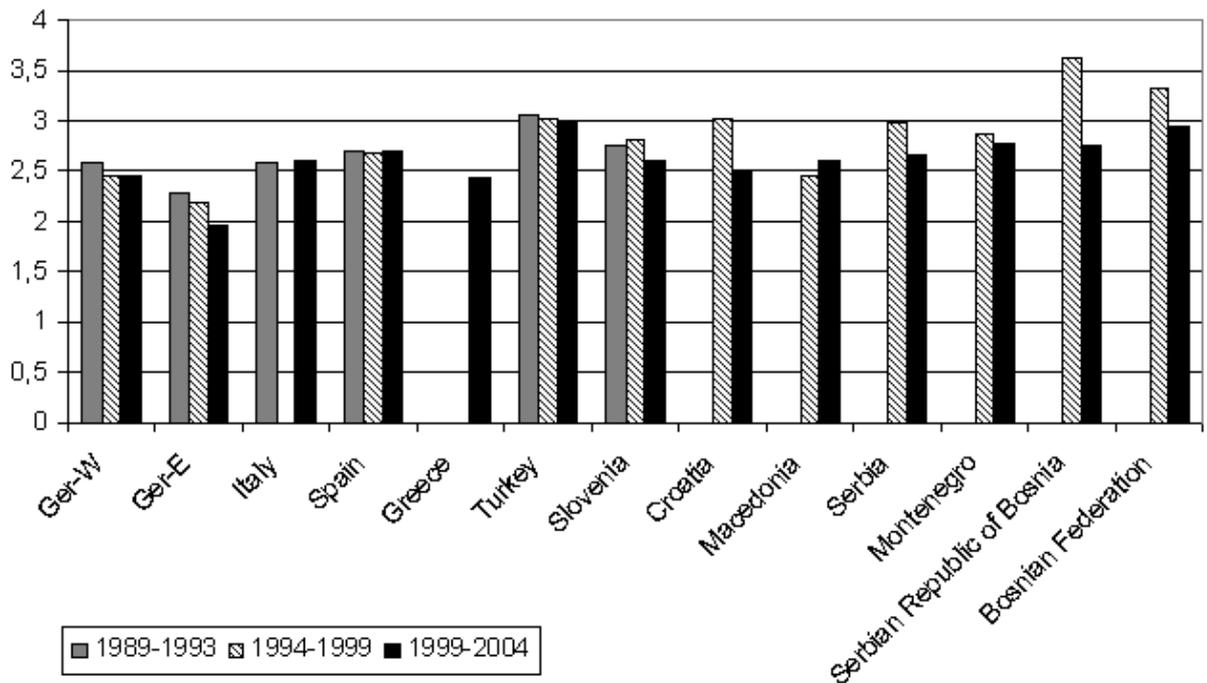
Figure 2 displays average attitudes on whether being a housewife is just as fulfilling as working for pay. The item was reversed so that answer categories range from 1 "strongly disagree" to 4 "strongly agree". Again, West Germans express more traditional attitudes than East Germans, but people in the countries of origins of migrants tend to be even more traditional than West Germans on this item. Thus, even though West Germans are more concerned about the well-being of a child whose mother is employed, they generally value homemaking less than people in the countries of origin of migrant mothers. This corresponds to the observations in Table 1 that the total female employment rate is higher in Germany than in the countries of origin of migrants, whereas maternal employment rates are lower than in several of these countries. Concerning migrants, previous research found some evidence that migrants of Turkish origin display more traditional gender role-values than migrants of Yugoslavian origin, and migrants from Yugoslavia are in turn more traditional in their gender-role attitudes than natives (Stichs 2008:22).

Figure 1: A working mother can establish just as warm and secure a relationship with her children as a mother who does not work



Source: European and World Values Surveys four-wave integrated data file

Figure 2: Being a housewife is just as fulfilling as working for pay



Source: European and World Values Surveys four-wave integrated data file

### *Structural factors*

Concerning the structural context, migrant mothers face the same conditions as West German mothers, since all migrant mothers included in this analysis live in West Germany. Moreover, most family policies are the same for East and West German mothers. Next to the tax-splitting system and insurance regulations mentioned above, the parental leave regulations provide an important context for mothers' employment transitions. Since 1992, mothers have the right to take three years of parental leave, which is exceptionally long in comparison to most other West European countries (Saraceno 2011). Until 2007, all mothers received the same flat-rate benefits of 300€ per month within the first 24 months of the parental leave period, which made paid leave particularly attractive for women with lower earnings. Since 2007, benefits are earnings related and thus became more attractive for women with higher earnings. At the same time, mothers' entitlement to paid parental leave was reduced to twelve months, but the duration of total parental leave remains three years (Gerlach 2010:269ff). Taken together, these social benefits for homemaking mothers decrease mothers' economic need to work and thus raise the reservation wage within the initial years after child birth.

The possibility to return to the previous employer at the end of the parental leave period is also important for mothers' employment decisions. Job retention rights lower the opportunity costs of not working during the parental leave period and encourage employment entry at its end. Thus, employment transitions are much higher at the end of the parental leave period than during the parental leave period or after its expiration (Drasch 2011a, 2011b; Klein and Braun 1995). Mothers who are not eligible for parental leave because they are either not employed or self-employed prior to birth were found to return to employment at a slower rate because they lack the incentive of job retention (Drasch 2011b).

Whereas parental leave regulations are the same in east and west, there are pronounced differences in the provision of public child care resulting from historical legacies. In the German Democratic Republic, public child care was regarded as a means to enable maternal employment. This resulted in high coverage of public child care. Since mothers have usually been employed full-time, day care centers are usually also open full-time. In contrast, most child care slots in West Germany are only available part-time, i.e. four hours a day. In contrast to East Germany where public child care directly aimed at maternal employment, public child care in West Germany was rather established to provide pre-school education for children (Kreyenfeld 2004). For mothers who wish to work, child care hours will often be too short to be employed full-time, and even part-time employment may be difficult if time for

commuting is taken into account (Büchel and Spiess 2002). In line with this reasoning, the availability of public child care was found to have no influence on mothers' employment (Kreyenfeld and Hank 2000) unless the difference between part-time and full-time child care, as well as part-time and full-time employment is considered: a high coverage of full-time child care slots was found to increase maternal employment in general, whereas a high coverage of part-time slots only has a positive impact on mothers' part time employment (Büchel and Spiess 2002).

Another issue is the limited number of child care slots in public day care, particularly for children under the age of three.<sup>2</sup> Despite expansions of public child care within the last years, slots are available for only 10% of this age group in West Germany, whereas 45% of these children queue for a slot. Even though supply with child care is higher in East Germany, demand for public child care for the under-threes considerably exceeds supply in this part of Germany, as well. Together, this leaves 1,260,000 children without a child care slot although their parents demand one. Among children aged 3-6 coverage is much better. Nevertheless, 279,000 children of this age group queue for a slot, as well (Wrohlich 2008; Hank et al. 2004). Hence, queuing for public child care may considerably delay mothers' return to the labor market, and especially in the west public child care alone is far from sufficient to correspond to mothers' needs.

Furthermore, the overall situation in the labor market differs between east and west, with unemployment rates being higher in the east. Theoretically, there are two mechanisms how high unemployment rates can affect maternal employment. On the one hand, the full wages depend on the general situation in the labor market and are expected to be lower during times of high unemployment, slowing down mothers' employment entries during such time periods (Muszynska 2004). Yet, on the other hand, mothers might be more inclined to use their job retention rights in times of economic recession since they know that their options of finding a different job will be limited. This would result in higher transition rates into employment when unemployment is high. Previous studies have produced ambivalent findings: Grunow and Aisenbrey (2011) found that West German mothers extend their time at home after birth in times of economic recession, whereas Klein and Brown (1995) and Drasch (2011a) did not find any effect of regional unemployment on mother's transitions into

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<sup>2</sup> In contrast to countries such as the United States where costs of child care prevent mothers from working (Heckman 1974; Leibowitz, Klerman, and Waite 1992; Klerman and Leibowitz 1990), child care costs are usually no obstacle for enrolling children in public child care. The state subsidizes public child care so that earnings related fees cover only 0-30% of the costs, amounting to 3% of household income, respectively 110€ per month on average. Thus, limited access to public child care is a greater barrier than the fees for public child care. Yet, for those who do not have access to public child care, private child care arrangements by or child minders, will cost about 800€ per month. Thus not every family is able or willing to bear the cost and for some women costs for private child care would even exceed their wages, especially if the family has more than one child (Wrohlich 2006).

the workforce, and a study by Weber (2004) found that mothers return sooner to the labor market if regional unemployment is high.

### *The situation of migrant mothers*

While it is possible to distinguish between cultural and structural factors on a theoretical level, it is difficult to disentangle the impact of these two factors empirically, as they mutually influence each other. Consequently, state support for maternal employment tends to be highly correlated with cultural norms about maternal employment. Steiber and Haas (2012) suggest that studying migrants is a promising approach to comparing the impact of structural versus cultural factors in shaping maternal employment because migrants were socialized according to the cultural norms in their country of origin, but are exposed to the institutional setting of the country of destination (cf. also Grunow and Müller 2012). Unfortunately, the patterns outlined in Table 1 do not support the idea that employment patterns of migrant mothers can be explained by a combination of the cultural context of their countries of origin and the structural context of West Germany. As Table 1 displayed, migrant mothers of pre-school children are less likely to be employed than mothers who remained in their countries of origin even though West Germany offers more favorable conditions for maternal employment: part-time jobs which offer better options for combining work and family responsibilities are largely available in West Germany but remain rare in migrants' countries of origin. Furthermore, migrant mothers should be more likely to be employed than West German mothers because they come from a cultural background where people tend to hold more positive attitudes towards maternal employment than West Germans do. Yet, the employment patterns displayed in Table 1 contradict this expectation.

The reason for this is that migrants from the former guest worker countries are a highly selective group, and thus selection effects need to be taken into account next to cultural and structural factors (cf. Grunow and Müller 2012): male guest workers were recruited to work as low-skilled workers in industrial production. They themselves and their wives were usually lower educated, and a substantial number of them lacked school-leaving certificates. Even though the second generation has been able to achieve higher educational degrees than their parents, they are on average still lower educated than the native population. Migrants have also gradually improved their occupational positions, but continue to be disproportionately employed in unskilled and semi-skilled positions, and are less successful than natives in using their educational credentials for obtaining good jobs (Milewski 2010:51ff; Kogan 2011; Bender and Seifert 1998; Engels et al. 2011; Höhne and Koopmans 2010). Deficits in the command of the German language and discrimination may play a role

in this. Given the unfavorable conditions on the labor market, migrant mothers may be inclined to revert to the socially accepted role of full-time homemaker and mother (Stichs 2008:22f), which leads to reduced employment levels.

Compositional differences may also account for part of the differences between East and West German mothers. Next to differences in religiosity and unemployment, there is an enduring earnings gap between the east and the west, so economic need may be a stronger motive for maternal employment in the east compared to the west. Other differences include the educational stratification which is more homogenous in the east, and the timing of first motherhood, which occurs at an earlier age in the east compared to the west (Goldstein and Kreyenfeld 2011).

To sum up, this chapter showed that labor market participation is highest among East German mothers, followed by West German mothers and then migrant mothers. Previous research has focused on cultural and structural factors for explaining cross-national differences in employment. As laid out, structural and cultural factors can alter mothers' full wages and reservation wages and thus affect overall employment patterns. A combination of cultural and structural differences appears to be well-suited for explaining differences in employment patterns between West and East German mothers, but fails to explain the employment patterns of migrant mothers. In this case, selection effects play an important role. After this general overview, the following chapter will come back to the issue of social support, and theorize on how the impact of social support on employment trajectories varies across the three groups of mothers.

### **2.2.2 Context-Specific Effects of Social Support Networks**

As outlined above, public child care alone is far from sufficient to correspond to the needs of West German mothers who intend to become employed. Consequently, grandparents, the larger kinship network and friendship networks are of major importance in West Germany. In East Germany where supply with public child care is higher, in contrast, kin are approached for child care less often (Knijn, Jönsson, and Klammer 2005).

In the countries of origin of migrant mothers, the kinship network plays an even more important role than in West Germany, and migrants from southern countries were found to hold much stronger feelings of family obligations than native Western Europeans (Liefbroer and Mulder 2006). Due to the strong familialism in these countries and the low levels of

public provisions by the state, the extended family assumes primary responsibility for the welfare of its members. Given the low prevalence of part-time jobs and public child care, mothers are only able to work if they can rely on their families ties for child care (Blossfeld and Drobnič 2001b; Leira et al. 2005; see also Bernardi 2001 for Italy; González-Lopéz 2001 for Spain; Dedeoglu 2012; Aycan and Eskin 2005 for Turkey; Lakinska-Popovska and Bornarova 2004 for Macedonia).

Although mothers in migrants' countries of origin have access to support from the whole family network, the maternal grandmother is clearly the central provider for child care. As traditional gender roles persist, women continue to bear most responsibility for the care of family members and consanguineous relatives provide higher levels of support than in-laws (Leira et al. 2005; Aycan and Eskin 2005). This large extent of support is possible because family members usually live close to each other. In Spain e.g., 77% of mothers have at least one relative living in the neighborhood, in 56% of cases their own mothers (González-Lopéz 2001). In Macedonia, it is very common for young couples to live in the same household as their parents (Lakinska-Popovska and Bornarova 2004). Even in Slovenia, where public provisions are higher than in the other countries, strong family ties and family solidarity are a cultural norm (Ule 2004). Grandmothers are often available for help with child care because they usually remained full-time homemakers after first child birth, or in the case of Slovenia retire at an early age (Leira et al. 2005; Hrženjak 2012). These grandmothers have strong relationships with their daughters and are willing to support their daughters in maintaining a good job and gaining the financial independence that grandmothers themselves were not able to attain (Leira et al. 2005).

In Italy and Greece, 20% of women over the age of 50 provide free child care on a daily basis. This is the highest provision of free child care by elderly women throughout Europe. In most cases, the children of their daughters are the recipients of this care, but in some cases they also care for the children of their nieces or daughters-in-law. From the perspective of the children, 50% of all children are cared for by their grandparents when their mothers work, and research on Italy could show that child care by grandparents significantly increases mothers' probability to work. Grandparents are particularly crucial when children are younger than three, as public child care is scarcest for this age group. But even when children attend public day care, grandparents serve as a back-up and fill all possible care gaps (Leira et al. 2005; Del Boca 2002). The prominent role of the maternal grandmother can be illustrated with data from Turkey: 38% of employed mothers rely on the maternal grandmother for child care, whereas 22% receive child care from the paternal grandmother. Other child care arrangements such as the use of day care centers or help from other relatives are of minor

importance (Aycan and Eskin 2005). Even in Slovenia, where public child care is well-established, subsidized and easily accessible, families prefer child care by the grandmother for children under the age of three (Hrženjak 2012).

In sum, kinship networks and in particular maternal grandmothers are the main providers of public child care in the countries of origin of migrant mothers. To my knowledge, there are no previous studies about the prominence of kinship networks for child care among migrants in Germany, but it is well known that migrants enroll their children in public child care less often than native mothers (Engels et al. 2011; Kreyenfeld 2004). This might indicate a preference for informal child care by kin. However, it may also result from the lower levels of maternal employment among migrant mothers. An interesting finding of migration research is that migrants engage in kin-reconstruction in the absence of kin: they include friends with whom they have kinship-like ties in their family network and refer to them using kinship terms, e.g. brother etc. (Foner 1997). This supports the idea that friendship networks may also be an important source for help with child care among migrant mothers.

#### *Interactions between social support networks and public child care*

An interesting question is how public child care and informal child care through social networks interact. Coleman (1994:307) argues that welfare services may replace social relations in providing support. Thus, the more public child care slots become available, the more they will crowd out demand for informal child care and solidarity among relatives and friends (cf. van Oorschot and Arts 2005; Igel and Szydlik 2011:213). Indeed, there is some evidence that the intensity of grandparents' involvement in child care is lower in countries where the coverage of public child care is higher (Igel and Szydlik 2011; Esping-Andersen 2009:92). This corresponds to the pattern outlined above that East German mothers rely on kinship networks to a lesser extent than West German mothers because they have better access to public child care. Similarly, kinship networks appear to be more important in the countries of origin of migrant mothers than in West Germany, as public provision of child care is even lower in most of these countries. Thus, the observation that child care intensity by grandparents declines as the provision of public child care increases suggests a compensating relationship between support by kinship networks and public child care, i.e. a negative interaction effect. This leads to the hypothesis:

*Hypothesis 7: The effect of kinship networks on maternal employment is lower, the better the coverage with public child care. This also means that kinship networks are less important for East German mothers compared to West German and migrant mothers.*

A contrasting argument is that public child care alone may not be sufficient to satisfy child care demand. Mothers may be more likely to enter employment if they know they can rely on their networks as an addition to public child care to cover the time between the end of part-time child care and the time the mother comes home from work. This includes the possibility that mothers are able to work full-time even though the child is enrolled in a part-time slot. Furthermore, mothers may be more at ease to become employed if they have a back-up option when the child gets sick or the day care center is on holidays. Likewise, on the supply side, ties may be able to help with child care for a few hours, but caring for a child the whole day on a regular basis would be too burdensome. This is in line with the notion of patchwork arrangements for child care and suggests that public and informal child care reinforce each other, leading to the expectation of a positive interaction effect. This reinforcement effect seems particularly likely where support from friendship networks is concerned. As outlined in Chapter 2.1.1, friendship networks are expected to support maternal employment only when the amount of support required is limited, suggesting that friendship networks can be particularly valuable if they are available in addition to public child care. Thus, concerning friendship networks I hypothesize:

*Hypothesis 8: Friendship networks are most valuable as a source for maternal employment if they are available in addition to public child care.*

In short, my interest in how the social context moderates the impact of social support networks focuses primarily on the interaction between public child care and social support. The strong differences in public child care coverage between East and West German mothers leads to the expectation that social support networks are more important for maternal employment in the west. Concerning migrant mothers, the impact of social support may be affected to a lesser extent by the availability of public child care since migrant mothers appear to be more reserved towards public child care and to display a clear preference for informal care.

#### *Spousal support in context*

Another question is whether the effect of spousal support on maternal employment varies across the three groups. In West Germany and the countries of origin of migrant mothers (with the exception of Slovenia and Croatia), women used to be responsible for household maintenance and men for earning money. In the former German Democratic Republic, women and men shared the task of earning money, but the division of household labor

remained unreconstructed, meaning that women generally shouldered a double burden (Pascall and Manning 2000). Within the last decades, men have slowly increased their participation in the domestic work, but the choice of full-time employment among women continues to be associated with bearing a double burden.

Yet, the prospect of a double burden may not discourage all three groups of mothers from full-time employment to the same extent. Whether full-time employment is incompatible with full responsibility for domestic work depends on the social norms and routines within mothers' cultural contexts. East German mothers live in a social context where full-time employment has been the norm for mothers and hardly any women identify as homemakers. Hence, they may perceive lower barriers to full-time employment than West German and migrant mothers for whom homemaking is an acceptable alternative to employment. Ayca and Eskin (2005) argue accordingly that spousal support is particularly important for maternal employment in cultures where women have internalized traditional gender role attitudes and believe that the marital and parental relationship will suffer as a consequence of women's employment. Furthermore, East German mothers may have found ways to adapt to the double burden. Research could repeatedly show that the division of housework is more evenly distributed among East German couples than among their West German counterparts. Yet, the reason for this is not that East German men are more involved in domestic work, but that East German women spend less time on it (Knijn et al. 2005; cf. also Cooke 2011:193, Table 7A.2). Thus, East German mothers may perceive the perspective of bearing the double burden as a smaller barrier to employment than West German and migrant mothers. This leads to the hypothesis:

*Hypothesis 9: Spousal support will be more important for transitions into full-time employment among West German and migrant mothers compared to East German mothers.*

### **2.3 Summary of Hypotheses**

Table 2 gives a compact overview of all hypotheses that have previously been derived. Pluses indicate that a positive effect is expected whereas minuses indicate that a negative effect has been hypothesized. As laid out in chapter 2.1.1, kinship networks are expected to have a positive impact on transitions into both full-time and part-time employment among all three groups of mothers (Hypothesis 1). As derived from chapter 2.2.2, kinship networks are expected to be most important, if public provision with child care is low. This includes the

expectation that kinship networks are less important for the employment of East German mothers compared to West German and migrant mothers (Hypothesis 7).

In contrast to kinship networks, friendship networks are expected to have a positive impact only if the amount of support required by mothers is limited because mothers either only work part-time (Hypothesis 2) or rely on friendship networks in addition to public child care (Hypothesis 8).

Spousal support is expected to be more important for transitions into full-time employment compared to transitions into part-time employment (Hypothesis 3) as the perspective of facing a double burden of gainful employment in addition to the undivided responsibility for domestic work may discourage mothers from entering a full-time position. However, the perspective of a double burden may be less daunting for East German mothers compared to West German and migrant mothers (Hypothesis 9) because full-time employment in addition to full responsibility for domestic work was the norm for East German mothers in the German Democratic Republic, so that East German mothers may have adapted to this situation.

Hypotheses 4 and 5 refer to the question whether there is a compensating or reinforcing relationship between kinship networks, friendship networks and spousal support. Since part-time employment requires less social support than full-time employment, Hypothesis 4 expects that one source of support is sufficient to encourage mothers to enter part-time. This suggests a compensating relationship between any two sources of support, i.e. a negative interaction effect for transitions into part-time employment. In contrast, mothers may be particularly inclined to work full-time if they can rely on more than one source of social support. This suggests a reinforcing relationship between any two sources of support, i.e. a positive interaction effect for transitions into full-time employment (Hypothesis 5).

Finally, socio-economic status may moderate the impact of social support networks. The reasoning here is that mothers with high earnings potentials or high additional household incomes may not be as dependent on social support as mothers with lower socio-economic status because they can afford to buy help with child care and domestic work if social support is not available. Mothers of lower socio-economic status, in contrast, may work even when social support is absent because they need the additional income. This suggests that the availability of social support has the largest effect on mothers with medium socio-economic status (Hypothesis 6).

Table 2: Overview of Hypotheses

		West		East		Migrant	
		Part-time	Full-time	Part-time	Full-time	Part-time	Full-time
H1	Main Effect: Kinship networks	+	+	+	+	+	+
H2	Main Effect: Friendship networks	+		+		+	
H3, H9	Main Effect: Spousal support		+				+
H4, H5	Interaction effects between the 3 sources of support	-	+	-	+	-	+
H6	Social support*low SES						
	Social support*medium SES	+	+	+	+	+	+
	Social support*high SES						
H7	Kinship networks*public child care	-	-	(-)	(-)	-	-
H8	Friendship networks*public child care	+	+	+	+	+	+

+ positive effect  
 - negative effect

### **3 Data, Variables and Methods**

#### **3.1 Data**

My analyses are based on data of the German Socio-Economic Panel (SOEP). The SOEP is a panel study which annually interviews all members of a sample of households who are above the age of 16. In the case where a person leaves a sampled household and forms a new household, this new household and all its members will also be followed. The SOEP started in West Germany in 1984. From the beginning, immigrants from the five most important guest worker countries, i.e. Turkey, Italy, Spain, Greece and (former) Yugoslavia, were oversampled, and in 1995 another subsample of immigrants was added to include more recent immigrants. An East German sample was added in June 1990 to obtain data on East Germany already a few months prior to reunification. Furthermore, refresher samples were introduced at several times in order to enlarge the number of cases and to replace persons who dropped out of the panel with new ones. Having originally started with 12,000 respondents in 6,000 households in 1984, the SOEP collected information on approximately 25,000 respondents in 12,500 households 2006 (Wagner, Frick, and Schupp 2007).

The SOEP has been specifically designed to allow for the analysis of the life course and life trajectories. It collects monthly data on employment status, differentiating among others between full-time employment, part-time employment, non-employment and parental leave. Furthermore, information on the year and month of each birth is included in the data. The combination of this information allows for conducting analyses on the timing of mothers' return to the labor market after birth. Another important feature of the SOEP is that it allows for combining the data of mothers with the data of their cohabiting spouses.

My sample includes native West German and East German mothers, as well as migrant mothers from the five main guest-worker countries Turkey, Italy, Spain, Greece and (former) Yugoslavia who experienced at least one birth between 1993 and 2009. The migrant sample also includes the second generation of migrants who were born in Germany but whose parents immigrated from one of the five guest-worker countries. In total, the sample includes 1409 West German mothers, 528 East German mothers and 411 migrant mothers.

#### **3.2 Variables**

The dependent variable is the timing of mothers' transition into either full-time or part-time employment after giving birth. The variable is based on respondents' self reported monthly

employment status and measures the duration until mothers report working full-time or part-time for at least two subsequent months. Mothers who report marginal employment are treated as not employed, so that employment transitions capture a substantial number of hours worked.

Since this thesis concentrates on the employment decisions of mothers with pre-school children, spells of mothers who have not returned to employment within 72 months after giving birth are right censored. If another child is born, the spell for the previous child is right-censored, as well, since only the length of employment interruption after the birth of the currently youngest child is considered. Right-censoring also applies to cases where mothers moved from East to West Germany or from West to East Germany within the period of observation. If mothers had already experienced one or several births before 1993 or before they joined the SOEP, their subsequent births are nonetheless included in the analyses.

Concerning the explanatory variables, previous research has developed three approaches for measuring social support. One can either collect data on accessed social support, mobilized social support or perceived social support. Accessed social support measures the availability of networks which could potentially serve as sources for social support. Mobilized social support, in contrast, captures whether mothers currently receive social support by any of their ties. Perceived social support, finally, assesses whether mothers *believe* that they can access their networks for support when they need it (Ayman and Antani 2008; see also Lin 1999). The SOEP contains data on both access to kinship and friendship networks and on whether any friend or relative has been mobilized for social support and is regularly involved in child care. For my analysis I chose the first approach and assessed access to social support for child care rather than mobilized social support for the following reason: if mothers do not mobilize social support, this does not necessarily mean that they cannot mobilize support. Maybe, they simply remain non-employed for other reasons than lack of support and do not mobilize their support networks because they can perform child care themselves. Thus, it is possible that a positive relation between mobilized social capital and maternal employment measures in fact a selection effect and not a causal impact of social support. However, a limitation of using accessed social support is that the data lack any specific information on the ties available in mothers' networks, including information on whether relatives and friends are employed or not, which is an important criteria for whether they are able to perform child care. Access to ties is thus a conservative measure to assess social support.

Three indicators are used to measure social support networks. The first indicator is an additive index of the number of grandparents, aunts, uncles and other relatives of the child that live in the neighborhood. If a mother is partnered, the number of relatives of her partner are included in the index, in addition to her own relatives. Information on the presence of relatives was only gathered in 1996, 2001 and 2006. However, the variables are highly correlated across the three time points. Thus, the number of relatives who live in the neighborhood is assumed to be constant between 1993 and 1998, 1999 and 2003, and 2004 and 2009. The resulting variable is centered on the group-specific mean in order to facilitate the interpretation on the interaction effects.

The second indicator measures the extent of social support within friendship networks. It is a scale ( $\alpha=0.67$ ) comprising how frequently the child's mother and her partner a) meet with friends and neighbors and b) help friends and neighbors. The single items are measured on a four-point scale. They were reversed so that higher values indicate a higher frequency of meeting with and helping friends and neighbors, ranging from 0 "never" to 3 "weekly". If no partner is present, this is equivalent to a partner who never meets with or helps friends and neighbors. Since items are missing in 1993, 2000, 2002, 2004 and 2006, the data for these waves was imputed as the average of the score from the previous and subsequent year. The measure is lagged by one year, to avoid the possibility of reversed causality in the sense that non-employed mothers maintain stronger ties to their friends and neighbors because they have more time available than employed mothers. The variable is centered on the group-specific mean.

Finally, participation of the partner in domestic chores is used as an indicator for spousal support. Partners' participation in housework is measured in average housework hours on a normal week day. Since this variable is strongly skewed, it is recoded into a dummy variable which indicates whether the partner spends at least one hour per day with housework. If no partner is present, this is equivalent to 0 hours of help with housework. Again, this variable is lagged by one year in order to avoid reversed causality in the way that a partner becomes more engaged in housework because the mother starts to work. A measure on involvement of a spouse in child care is not included in the analyses because it is not possible to lag this indicator in the first year.

Data on total supply with public child care and supply with full-time public care per Bundesland are provided by the federal statistical office for the years 1991, 1994, 1998, 2002, 2006, 2007, 2008 and 2009. I assume a linear development of the number of slots for

the years where no official data is available. The data distinguish child care slots for children younger than three and slots for children aged three to six. Thus, for the first 36 months after birth, the constructed indicators use the number of childcare slots for the under-threes, whereas from the 37<sup>th</sup> month onwards, they contain the number of slots available for children aged three to six. Unfortunately the indicator for public child care changed between 2002 and 2006. Until 2002, public child care was measured as provision rates, i.e. the share of public child care slots available per 100 children per Bundesland and year, and the number of full-time slots among them. Since 2006, the measure captures the usage rates, i.e. the proportion of children per Bundesland who attend public child care. This may be problematic since it is possible that the provision rate is higher than the usage rate because not all child care slots provided are also used. However, given the short supply with public child care and the long queues waiting for a slot (Wrohlich 2008), it can be assumed that almost all available slots are used which means that the usage rate should be almost identical to the provision rate.

As mentioned, data on public child care are available at the Bundesland-level. Ideally, data at the local level would be preferable, yet Kreis-level data on public child care was collected for the first time in 2002, and is thus unavailable for the first ten years covered in this analysis. Consequently, the indicator used for the analyses may prove to be too imprecise to adequately capture the local supply with child care, and the effects of public child care on maternal employment may be underestimated. Since the total number of slots in public child care is highly correlated with the number of full-time slots ( $r=0.81$  within the West German sample,  $r=0.98$  in the East German sample and  $r=0.70$  in the migrant sample), including both measures in the same model would lead to multicollinearity. Consequently, I only included the number of total child care slots in the main analysis, but replicated each model using the number of full-time slots and found results to be robust.

Further control variables include marital status (distinguishing between married women, cohabitating women and lone mothers), age at birth and age at birth squared, year of birth and the number of children (distinguishing between one, two and three or more children). Indicators of the women's human capital include education measured by the CASMIN classification and distinguishing between basic (Hauptschule with and without vocational training), secondary (Realschule or Abitur with or without vocational training) and tertiary education (cf. SOEP n.d.:58f), work experience in months accumulated prior to birth, and whether the woman has worked full-time or part-time or was not employed within the last three months prior to birth. Another control variable is the regional unemployment rate per year and Bundesland. In order to capture traditional attitudes, the frequency of church

attendance which ranges from 0 “never” to 3 “every week” is included in the models. This variable was not collected in 1993, 2000, 2002, 2004 and 2006. Thus, the data for these waves was imputed as the average score from the previous and the subsequent year. This results in a seven-point scale. The variable is lagged by one year to avoid reverse causality in the sense that employed mothers attend church less often because they have less free time available. Finally, the logarithm of net residual household income, measured as the total household income earned by someone else than the mother herself is included in the models. The variable is corrected for inflation, taking the consumer price index of 2005 as a reference. SOEP provides five values of multiply imputed household income for cases where this information is missing. In the analysis, each model is estimated five times, using the five variables of multiply imputed household incomes in turn. As outlined by Allison (2000), the values of the parameter estimates are averaged across the five models and used Rubin’s formula to calculate the standard errors (Allison 2000:304f):

$$\sqrt{\frac{1}{M} \sum_k s_k^2 + \left(1 + \frac{1}{M}\right) \left(\frac{1}{M-1}\right) \sum_k (b_k - \bar{b})^2}$$

$b_k$  is the estimated regression coefficient in model  $k$  of  $M$  models and  $s_k$  the corresponding standard error. The mean of  $b_k$  is  $\bar{b}$ . The estimated standard error is then computed as the square root of the average of the sampling variance plus the variance of the coefficient estimates multiplied by a correction factor of  $1+1/M$ . Having obtained the standard error, I can compute the z-scores from which in turn the p-values can be derived.

For migrants, the models contain an additional variable indicating whether they or their parents came from Turkey, the southern EU (Italy, Spain, and Greece) or former Yugoslavia. A more detailed distinction is not possible because of a limited case number. Whereas migrants of the first generation can be identified via their country of birth, it is more difficult to identify the country of origin of the second generation who were already born in Germany. Information on the country of birth of the parents is only available if the parents participated in SOEP themselves. When information about parents’ country of birth was missing, citizenship was used as an indicator of country of origin, checking whether respondents indicated citizenship of one of the five countries of origin at any point in time. This also includes citizenship of a country which emerged from Yugoslavia after its breakup. Furthermore, the SOEP-questionnaire of 2002 included an item on previous citizenship for migrants who have obtained German nationality. This questions should identify all migrant mothers of the second generation who participated in the 2002 questionnaire, since obtaining German citizenship at birth is only possible since 2000 (Milewski 2010). Nonetheless, my

sample may exclude some migrants of the second generation who obtained German citizenship before they participated in the SOEP for the first time, and who did not participate in the SOEP in 2002.

Another distinction which is often used among the migrant population is migrant generation, i.e. whether migrants immigrated to Germany as adults (first generation), as children or youths (in-between generation) or were born in Germany to parents who immigrated to Germany (second generation). Yet, the differences between generations turned out to be insignificant when the other control variables were included in the model, and did not significantly influence the effects of other covariates. Given the small sample size of migrant mothers and in order to keep the model as similar as possible to the models for native mothers, I decided not to include generation in the final models.

Finally, the situation of migrant mothers is distinct because not all of them have a work permit in Germany. Most of the migrant mothers in my sample came to Germany via family reunification to join their spouses who entered Germany as guest workers. Until 2001, family members of immigrants from non-EU countries were generally forbidden to work, whereas family members from EU countries have been exempt from this prohibition due to the rules of free movement of workers within the EU. Since 2001, family members of immigrants from non-EU countries have been allowed to work after staying in Germany for twelve months (Milewski 2010:50). This means that a substantial proportion of mothers from Turkey and former Yugoslavia did not have a work permit, which should affect their transition rates into employment after birth. Yet, whether or not mothers had a work permit turned out to be insignificant for their transitions into employment once employment status and work experience prior to birth were controlled for, so this variable was not included in the final models.

### **3.3 Methods**

I use piecewise constant event history models for competing risks to analyze mothers' transition rates into a full-time and part-time jobs after giving birth to a child. Event history analysis estimates transitions from one state into another. In the case of maternal employment, the event of interest is mothers' transition into full-time or part-time positions after a period of employment interruption following child birth. Yet, event history analysis does not only take into account whether an event occurs or not, but also when an event occurs. This refers to the timing of a transition, i.e. the history preceding the event. Thus,

event history analysis models both the duration of mothers' employment interruptions after child birth and the transition into employment, and estimates how these two components are affected by covariates of interest. To be precise, the event history model estimates how covariates affect the "risk" for mothers to experience a transition into employment at a certain point in time. This risk is also called hazard. The hazard rate gives the rate at which mothers experience a transition at time  $t$  given that they have interrupted employment until time  $t$ . This rate may be increasing or decreasing as time passes or display a non-monotonic shape (Blossfeld, Golsch, and Rohwer 2007; Box-Steffensmeier and Jones 2004; Yamaguchi 1999; Cleves, Gould, and Gutierrez 2002)

In the case of mothers' timing of employment entry after birth, it can be expected that the hazard rate depends on the duration of the employment interruption a mother has already experienced. However, it is difficult to define the shape of the hazard rate a priori, because, as laid out in Section 2.1.2, there are two opposing mechanisms which affect the shape of the hazard rate: on the one hand mothers' reservation wages will fall as their children grow older, making transitions into employment more likely. Yet, since human capital depreciates with the duration of employment interruption, the full wage will fall, as well, making transitions into employment less likely. These two mechanisms are difficult to measure and moreover, they may not affect West German East German and migrant mothers in the same way.

The advantage of the piecewise constant model is that it does not require to define the shape of the hazard rate a priori. Rather, the duration time is divided into several discrete time units by introducing a dummy variable for each time period. The hazard rate is assumed to be constant within each period, but can vary across time periods. The number of time periods can be chosen arbitrarily as long as some mothers enter the labor force within each interval. However, there is always a trade-off between a model with a larger number of intervals which allows more precise modeling and a more parsimonious model where fewer coefficients have to be estimated (Blossfeld et al. 2007). I chose to use six time periods of twelve months each. This seems to be a good choice because family policies often use full-year intervals, as well: parental leave ends after 36 months. Until 2007 mothers on parental leave were entitled to flat-rate leave benefits for the first 24 months, and according to the new parental leave scheme of 2007, mothers can receive earnings related leave benefits for twelve months. Furthermore, many daycare centers provide child care only to children who are at least 3 years old.

The hazard that a mother starts to work at time  $t$ , conditional on having been at home up to this time is:

$$h_m(t_k) = \begin{cases} h_{0m}(t_1)e^{(x_1\beta_m)} & t \in (0, T_1) \\ h_{0m}(t_2)e^{(x_2\beta_m)} & t \in (T_1, T_2) \\ \vdots & \vdots \\ h_{0m}(t_K)e^{(x_K\beta_m)} & t \in (T_{K-1}, T_K) \end{cases}$$

where  $h_m(t_k)$  is hazard rate for event  $m$  (i.e. full-time or part-time employment) at time  $t$  within time period  $k$ .  $h_{0m}(t_k)$  is the baseline hazard to experience event  $m$  at time  $t$  that every observation faces. The baseline hazard to experience event  $m$  is constant within each of the  $K$  time periods but may differ between them.  $x$  is a row vector of predictors at time  $t$  and  $\beta$  a column vector of regression coefficients for event  $m$ . The values of covariates may vary across the  $K$  time periods but are fixed within each time period. Regression coefficients predicting the hazard to experience event  $m$  are constant across the whole observation period. Observations that experience an event other than  $m$  are censored at the time of the other event.

Censoring occurs when a mother is not observed to experience the event of interest. Mothers may not be observed to enter a full-time/ part-time position because they a) interrupt employment for more than 72 months, b) stopped participating in the SOEP before entering employment or c) entered a part-time/ full-time position and were thus no longer at risk of experiencing a transition from non-employment to full-time/ part-time work. The event history of these mothers is incomplete. However, the information that their non-employment spell lasted at least until the last point of observation can nonetheless be utilized in the analysis.

Since the models include two control variables (regional availability of public child care and regional unemployment rate) which are measured at the Bundesland-level, standard errors will be correlated within each Bundesland. In order to correct for this, data are clustered by Bundesland.

As a check for robustness, the analyses have been replicated using a Cox model instead of a piecewise constant model (Yamaguchi 1999; Box-Steffensmeier and Jones 2004; Cleves et al. 2002; Blossfeld et al. 2007). This could confirmed the robustness of the results.

## **4 Results**

In this section, I will present and discuss the results of my empirical analyses, starting with some descriptive findings on maternal employment and an overview of all independent and control variables. This will be followed by the presentation of the main effects of the piecewise constant analysis. The last part of this chapter will be dedicated to exploring the interaction effects among the three sources of social support, as well as the moderating effects of public child care and socio-economic status.

### **4.1 Descriptive Analyses**

As can be seen from Figure 3, West German and East German mothers barely differ in the timing of their return to the labor market, whereas the rate at which migrant mothers enter the labor force is much lower. During the first twelve months, West German mothers are more likely to become employed than East German mothers which shows that East German mothers continue to take a baby year off in accordance to the policies of the former German Democratic Republic. After these initial months, however, East German mothers catch up and the transition rates into employment barely differ between the two parts of the country. Altogether, more than three quarters of German mothers in both parts of the country have returned to work within the first six years after giving birth, whereas the same applies to only roughly two thirds of migrant mothers. Furthermore, there are pronounced differences in the choice between full-time and part-time positions among the three groups: East German mothers have by far the highest transition rates into full-time employment, as both West German mothers and migrant mother display very low transition rates into full time employment. Transitions rates into part-time employment are highest among West German mothers, whereas migrant mothers again display lower transition rates than East German mothers.

This pattern can be underlined by Table 3 which shows that almost half of all East German mothers who enter employment within the first 72 months after birth choose a full time position, whereas the same is true for only one quarter of migrant mothers and one fifth of West German mothers.

Figure 3: Kaplan-Meier Survival Estimates

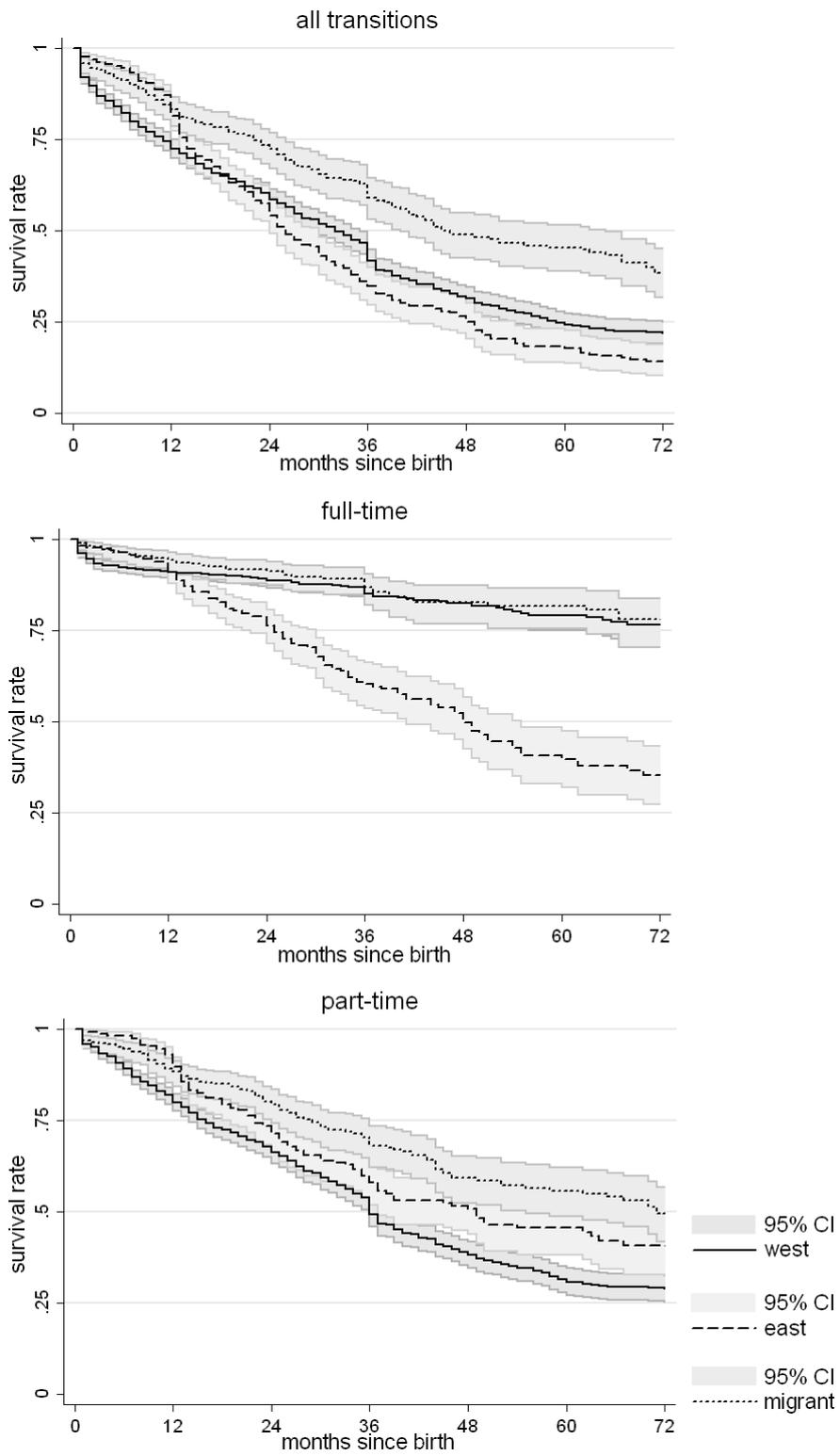
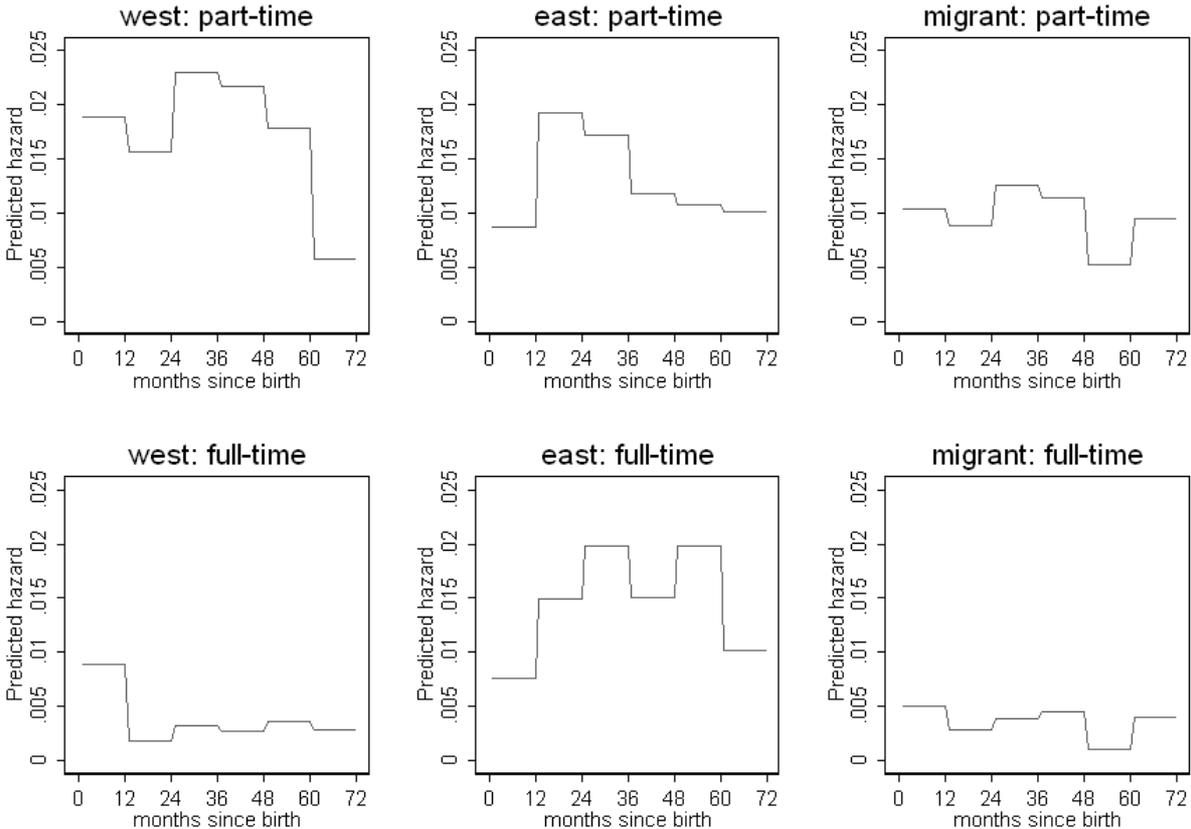


Table 3: Transition into full-time and part-time jobs

	West	East	Migrant
Part-time	79%	51%	72%
Full-time	21%	49%	28%

Figure 4 displays the baseline hazards of returning into part-time or full-time employment within the six time periods specified by the piecewise constant model. Among West German mothers differences between transitions into part-time and full-time employment are most pronounced. Transitions into part-time employment peak around the end of the parental leave period and drop thereafter. In contrast, transitions into full-time employment occur mostly within the first year after birth and appear to be very rare in subsequent years. Thus, there seems to be a selective group of work oriented mothers who are characterized by short employment interruptions and subsequent transitions into full-time employment. Nonetheless, the hazard of entering full-time employment within the first year after birth is lower than the hazard of entering part-time employment within this time period.

Figure 4: Piecewise Constant Transition Rates



Among East German mothers, the low transition rates into both full-time and part-time positions within the first year after birth are striking. Figure 4 thus confirms the findings of Figure 3 that East German mothers continue to take a baby year off in accordance to the

policies of the former German Democratic Republic. Transitions into part-time employment occur most often when the child is between one and three years old, i.e. before the end of parental leave. Transitions into full-time employment also peak within the last year of parental leave, but there is a second peak when the child is five years old. Thus in contrast to West Germany, transitions into full-time employment are not necessarily associated with short employment interruptions in the east.

As was already shown in Figure 3, Migrant mothers display the lowest transition rates into both full-time and part-time employment. The fluctuations in transition rates across the six time periods are much smaller than among native mothers, and the pattern is similar for transitions into full-time and part-time employment, with a small peak around the end of the parental leave period and a minimum within the fifth year after birth. Given the rather small fluctuations in transition rates, it seems that employment transitions of migrant mothers are only weakly associated with parental leave regulations.

Having depicted the dependent variable, I now turn to giving an overview of the prevalence of social support and the distribution of the control variables among the three groups of mothers. Table 4 displays descriptive statistics for the three groups of mothers in the year in which they gave birth to their children. The majority of mothers in all three groups are partnered although the proportion of single mothers is clearly highest in East Germany, as is the proportion of cohabiting in contrast to married mothers. Partnered mothers have more access to social support than single mothers, not only because the spouse himself can be a valuable source of support, but also because his networks may provide resources to mothers. Cohabitation is least common among migrant mothers which is a first indicator that migrants have more traditional ideas of the family than natives.

Concerning the main explanatory variables, Table 4 shows that about half of all spouses of West German and East German mothers participate in domestic work for at least one hour per week day whereas the same is true for only one in three spouses of migrant mothers. East German mothers have on average two relatives who live in the neighborhood, whereas West German and migrant mothers have access to about 1.5 relatives on average. Friendship networks are most intense among migrant mothers, followed by West German and East German mothers. This is in line with Foner's (1997) observation that migrants often establish very close, kinship-like ties with their friends. Yet, even though there are some differences in access to support among the three groups, they are not very pronounced.

Differences in access to public child care are clearly more marked. As expected, supply with public child care is much lower for West German and migrant mothers compared to East German mothers, especially where child care for the under-threes and full-time slots are concerned. Whereas only 5 percent of the under-threes have a slot in public child care in the west and only 3 percent of these a full-time slots, total coverage for this age group is 37 slots per 100 children in the east, with 32 full-time slots per 100 children. Among children aged three and above, 20 percent have access to a full-time slot in the west compared to 96 percent in the east. Note also that the total number of child care slots available in this age group exceeds full coverage in the east.

Table 4: Descriptive Statistics (Mean and Standard Deviation) as of Year of Birth

	West	East	Migrants
Married	0.81 (0.39)	0.53 (0.50)	0.90 (0.30)
Cohabiting	0.10 (0.30)	0.28 (0.45)	0.03 (0.18)
Single	0.09 (0.28)	0.19 (0.39)	0.07 (0.26)
Spouse housework	0.48 (0.49)	0.50 (0.50)	0.35 (0.48)
Kinship networks	1.48 (1.91)	1.97 (2.36)	1.39 (2.02)
Friendship networks	1.86 (0.56)	1.72 (0.62)	2.04 (0.59)
Public care/ child aged 0-2	0.05 (0.05)	0.37 (0.09)	0.05 (0.06)
Public care/ child aged 3-6	0.89 (0.12)	1.07 (0.17)	0.93 (0.15)
Full-time slots/ child aged 0-2	0.03 (0.04)	0.32 (0.08)	0.03 (0.05)
Full-time slots/ child aged 3-6	0.20 (0.19)	0.96 (0.26)	0.19 (0.13)
Basic education	0.24 (0.43)	0.11 (0.32)	0.64 (0.48)
Secondary education	0.44 (0.50)	0.57 (0.50)	0.31 (0.46)
Tertiary education	0.32 (0.47)	0.32 (0.47)	0.05 (0.23)
Work experience in years	7.13 (4.54)	4.87 (4.11)	3.88 (4.22)
Full-time bf. birth	0.34 (0.47)	0.33 (0.47)	0.22 (0.42)
Part-time bf. birth	0.22 (0.41)	0.13 (0.34)	0.12 (0.32)
Age at birth	30.93 (4.86)	28.47 (5.04)	27.90 (4.72)
1 child	0.42 (0.49)	0.48 (0.50)	0.34 (0.48)
2 children	0.41 (0.49)	0.35 (0.48)	0.42 (0.49)
3+ children	0.17 (0.38)	0.17 (0.38)	0.24 (0.43)
Monthly HH-income (1000 €)	2.35 (1.26)	1.77 (1.06)	1.96 (1.03)
Church attendance	0.81 (0.86)	0.45 (0.86)	0.83 (0.95)
Birth 2007-2009	0.11 (0.31)	0.15 (0.36)	0.08 (0.28)
Reg. unemployment	9.16 (2.38)	17.83 (2.27)	9.23 (2.58)
Turkey			0.58 (0.49)
Southern EU			0.25 (0.44)
Ex-Yugoslavia			0.16 (0.36)
No. of subjects	1409	528	411

Migrant mothers are clearly less educated than native mothers, and also have accumulated less work experience. East German mothers have on average one more year of work experience than migrant mothers whereas West German mothers have accumulated more than three additional years of work experience prior to child birth. This can partly be explained by differences in age at birth among the three groups. Within the three months prior to birth, one third of West German and East German mothers but only one fifth of

migrant mothers was employed full-time. Every fifth West German mother and every sixth East German and migrant mother was employed part-time. It is surprising that total employment rates in the three months prior to birth are lower among East German compared to West German mothers. The reason for this is probably high unemployment, as indicated by the high unemployment rates in the east.

Concerning variables that affect the reservation wage, mothers with only one child dominate in East Germany, whereas two children are most common within West German and migrant families. Migrant mothers are more likely than natives to have three or more children. West German mothers have the highest net residual household incomes available and attend church more frequently than East German mothers, but about as often as migrant mothers. Nonetheless, frequency of church attendance is fairly low among all three groups of mothers.

8 to 15 percent of all births occurred between 2007 and 2009 and are thus subject to the new parental leave regulations which offer earnings related leave benefits to mothers within the first 12 months after birth.

In the migrant sample, more than half of all mothers (or their parents) come from Turkey, another quarter of mothers from the southern EU countries Italy, Spain and Greece, and the remaining mothers from former Yugoslavia. This corresponds roughly to the prevalence of these three groups of migrants among the population at large, but means that Turkish mothers, who are known to be less educated and less integrated into the labor market than mothers from the southern EU and former Yugoslavia (Stichs 2008), have the largest impact on total employment rates in this group.

#### **4.2 Main Effects of the Piecewise Constant Model**

I now turn to the question of how social support networks affect the timing of mothers' return to the labor force. Results of the piecewise constant models for competing risks are displayed in Table 5. As the results illustrate, having a spouse who assists with housework at least one hour per day increases the hazard that West German mothers of pre-school children return to a full-time position by 50%. For migrant mothers, the hazard of returning to full-time employment even increases by 70% when their spouse participates in domestic work. In contrast, spousal participation seems to be irrelevant for the transition rates of East German mothers or for transitions into part-time positions among West German and migrant mothers. The results thus support Hypothesis 3 that spousal support with domestic work is more important for transitions into full-time compared to part-time employment. Mothers will

hesitate to enter full-time employment if this means bearing a double burden of employment in addition to the undivided responsibility for household tasks. Furthermore, the results support Hypothesis 9 that spousal support is less important for East German mothers than for West German and migrant mothers. This finding may be explained by the legacy of the German Democratic Republic: since almost all women were employed full-time although the domestic division of labor remained unreconstructed (Pascall and Manning 2000), East German mothers appear to have adapted to the double burden and have gotten used to combining full-time employment with domestic chores.

Table 5: Piecewise Constant Model: Main Effects

	West		East		Migrant	
	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time
Months 1-12 (ref.)	1		1			
Months 13-24	0.93	0.28***	2.52***	2.30*	0.95	0.84
Months 25-36	1.47**	0.54*	2.73***	3.65***	1.59*	1.54*
Months 37-48	0.94	0.22	2.48*	0.64	0.74	1.36
Months 49-60	0.85	0.32	2.57	0.96	0.42	0.24
Months 61-72	0.28 <sup>+</sup>	0.26 <sup>+</sup>	2.68	0.61	0.78	0.48
Married (ref.)	1	1	1	1	1	1
Cohabiting	1.37	1.19	1.45***	1.06	1.32	0.40**
Single	1.09	0.63	0.52	1.94	0.83	1.49
Spouse housework	1.04	1.48**	1.34	1.14	1.13	1.70 <sup>+</sup>
Kinship networks	1.04 <sup>+</sup>	1.06*	1.11	0.90*	1.01	1.06
Friendship networks	1.22 <sup>+</sup>	0.73*	1.08	0.99	0.89	1.35
Basic education (ref.)	1	1	1	1	1	1
Secondary education	1.37***	1.08	4.02 <sup>+</sup>	1.78	1.28	1.02
Tertiary education	2.46***	1.79*	6.08*	2.27 <sup>+</sup>	1.64	1.39
Work experience	1.07***	1.04	1.06*	1.08**	1.01	1.24***
Full-time bf. birth	1.56***	4.88***	2.30***	1.89***	1.33	4.96***
Part-time bf. birth	3.34***	0.64	3.34***	0.62 <sup>+</sup>	6.59***	0.52
1 child (ref.)	1	1	1	1	1	1
2 children	0.98	1.27	1.10	0.86	0.62	0.78
3+ children	0.98	1.29	0.87	0.32***	0.75***	0.73
ln(household income)	0.88	0.48***	1.17	0.97	1.07	0.18***
Church attendance	0.91	0.84	1.18**	0.92	0.78*	0.52*
Age at birth	1.07	1.15	0.81	0.88	1.43***	0.76
Age at birth squared	1.00	1.00	1.00	1.00	0.99***	1.00
Birth 2007-2009	0.52***	1.81***	1.02	1.47	0.64	0.43
Public care	1.88	2.92	0.91	6.65 <sup>+</sup>	2.28	1.81
Reg. unemployment	0.96**	1.00	1.08*	1.08***	0.95	1.00
Turkey (Ref.)					1	1
Southern EU					1.55**	0.67
Ex-Yugoslavia					1.17	1.09
No. of subjects	1409	1409	528	528	411	411
No. of failures	578	156	148	142	117	45
Time at risk	31510	31510	11315	11315	11725	11725
Log pseudolikelihood	-1247.09	-614.86	-314.08	-311.44	-284.34	-117.02

Exponentiated coefficients

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Kinship networks have a positive impact on transitions into full-time and part-time positions among West German mothers, but do not facilitate employment transitions of East German or migrant mothers. Whereas the absence of an effect for East German mothers may have to do with the high availability of public child care in the east, the absence of an effect among migrant mothers is surprising. As reviewed in chapter 2.2.2, previous research on all countries of origin of migrant mothers stresses the great importance of the availability of kin, and in particular grandmothers for maternal employment. I thus conducted additional analyses to check whether there is a positive impact of kinship networks if only the presence of a grandmother, or only the maternal grandmother is considered. The results of these analyses are displayed in Table 6. Model 1 displays again the results from Table 5 that kinship networks only have a positive effect on maternal employment in West Germany, when kinship networks are assessed as a linear additive index of the number of relatives in the neighborhood. Model 2 tests whether the presence of at least one grandmother has a positive impact on maternal employment when controlling for all variables that are included in Table 5. This is the case for transitions into full-time employment among both West German and migrant mothers. If only the maternal grandmother is considered (Model 3), there is a positive effect on transitions into part-time and full-time employment among migrant mothers. The presence of the maternal grandmothers also positively affects transitions of West German mothers into full-time employment and transitions of East German mothers into part-time employment. As the total number of relatives in the neighborhood, the presence of the maternal grandmother has a negative impact on transitions into full-time employment among East German mothers.

Table 6: The Impact of Grandmothers vs. all Relatives on Maternal Employment

	West		East		Migrant	
	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time
M1: no. of relatives	1.04 <sup>+</sup>	1.06*	1.11	0.90*	1.01	1.06
M2: at least 1 grandmother	1.18	1.37**	1.32	1.00	1.09	1.28 <sup>+</sup>
M3: maternal grandmother	1.11	1.50 <sup>+</sup>	1.31*	0.59***	1.36**	1.51*

Exponentiated coefficients

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Full model including all control variables

To sum up, there is clear evidence of a positive effect of kinship networks on employment transitions among West German mothers, confirming Hypothesis 1. For transitions into full-time employment grandmothers appear to play a key role whereas for transitions into part-time employment, the size of the kinship network appears to be more important than the presence of a specific relative. This supports the notion of a patchwork child care

arrangement in which different relatives join in. Concerning migrant mothers, the results underline the importance of the maternal grandmother as a source of child care which is in line with traditional care patterns in their countries of origin.

Another surprising finding is that the availability of kinship networks decreases the hazard of East German mothers to work full-time. It is possible that this negative effect is a selection effect: mothers who live near their relatives have not been geographically mobile. Consequently, they are on average more likely to live in an area where unemployment is high. I tried to control for this selection effect by including the regional unemployment rate into the model, but even within Bundesländer there are strong variations in unemployment for example between rural and urban areas. I checked whether controlling for the size of the place of residence would turn the negative effect of the presence of relatives on maternal employment in East Germany insignificant, but this was not the case.

The availability of friendship networks also only affects the employment transitions of West German mothers. Close relations to friends encourage mothers to work part-time but discourage mothers from working full-time. This finding is in line with Hypothesis 2 which holds that friendship networks will only be of value if mothers require support for a limited amount of time.

Turning to the control variables, there is some evidence that mothers in all three groups have the highest transition rates into employment within the twelve months before the end of the parental leave period. An exception are the transitions of West German mothers into full-time employment, which are clearly most likely within the first twelve months after birth. In the case of East German mothers transition rates are also elevated within the second year of parental leave. These patterns have already been visible among the baseline hazards in Figure 4, but became more pronounced in the full model presented in Table 5.

Marital status seems to be of limited importance for employment transitions. The employment behavior of single mothers does not differ significantly from that of married mothers. In East Germany, cohabiting mothers have higher odds of working part-time than married mothers. Among migrant mothers, those who are cohabiting have lower odds to enter a full-time position. This does not support the idea that marital status can capture traditional attitudes.

The effects of variables measuring mothers' full wages are largely consistent with previous findings and the rational choice model outlined in Section 2.1.2. Native mothers with higher education have higher odds of becoming employed after child birth, particularly if they have

tertiary education. In contrast, the level of education does not significantly predict employment transitions of migrant mothers. This is in line with research showing that migrants have greater difficulties than natives to translate higher education into success at work (Engels et al. 2011; Kogan 2011). Work experience accumulated prior to birth has a positive impact on all employment transitions for East German mothers, transitions into part-time employment for West German mothers and transitions into full-time employment among migrant mothers. Furthermore, mothers who were employed full-time prior to birth have a higher odds to return full-time after child birth than mother who were not employed, and mothers who were employed part-time prior to birth have higher odds to return part-time than mothers who were not employed. Among natives, full-time employment prior to birth also increases the hazard of entering a part-time job after birth.

On the side of the reservation wage, having three or more children strongly reduces the hazard of East German mothers to work full-time and of migrant mothers to work part-time. It is surprising that the number of children shows so few effects since previous research could repeatedly show that mothers of two or more children enter the labor market at a slower rate than mothers with only one child (Drasch 2011a, 2011a; Kreyenfeld and Geisler 2006). Yet, closer inspection of the data shows that the effect of the number of children is largely mediated by accumulated work experience and employment status prior to birth. Mothers with several children are less likely to be employed prior to birth and usually have accumulated less work experience due to interrupting employment after the previous birth(s). If these variables are not controlled for, there are significant, negative effects of having two or more children compared to only one child among all three groups of mothers.

The strong negative effects of additional household income on transitions into full-time employment among native and migrant mothers support the idea that economic need of a second income is a strong motive for mothers to work full-time. If the earnings of their spouses are sufficient, they are discouraged from entering a full-time position. In contrast, the decision of East German mothers to work full-time does not depend on economic need. This underlines again the higher work orientation of East German mothers and the legacy of the German Democratic Republic where full-time employment among mothers was the norm. Regular church attendance as an indicator for traditional gender-role values reduces the hazard of migrant mothers to enter employment. Among East German mothers, religiosity does not suppress employment, but those who frequently attend church prefer to work part-time.

The introduction of a new parental leave regulation in 2007, according to which mothers receive earnings related leave benefits for a period of twelve months instead of flat-rate benefits for a period of 24 months, has affected employment patterns of West German mothers, but has not significantly altered employment transitions of East German or migrant mothers. Among West German mothers, those who gave birth to their child after the introduction of the new parental leave regulations have higher transition rates into full-time employment, at the expense of lower transition rates into part-time positions.

The effect of public child care slots is positive with the exception of transitions into part-time employment among East German mothers. Yet, it is only significant for transitions of East German mothers into full-time employment. The reason for this is probably that measuring the availability of public child care at the Bundesländer-level is too imprecise to adequately capture the local supply with public child care. In contrast, previous research using Kreis-level data could show that the provision of full-time slots increases maternal full-time and part-time employment rates, whereas the provision of part-time slots only contributes to facilitating mothers' part-time employment (Büchel and Spiess 2002).

Concerning the impact of the regional unemployment rate, East German mothers return to work faster in times of high unemployment in order to secure their employment contract with their current employer. In contrast, West German mothers delay their return into part-time positions when regional unemployment is high. Mothers who work part-time can be considered secondary earners in their families who earn a little extra money whereas their spouses provide sufficient income for the family. When high unemployment depresses their wages on the labor market, their time at home may be more valuable to them than the pay they receive from working (Muszynska 2004) Furthermore, employers may encourage mothers to use the full parental leave period during times of depression in order to reduce the firm's direct labor costs (Grunow and Aisenbrey 2011) The transition rates of migrant mothers, are unaffected by regional unemployment rates.

Age seems to be irrelevant for mothers' timing of employment entry after birth, with the exception of transitions into part-time employment among migrant mothers. Furthermore, among migrant mothers, those who originally came from countries of the southern EU (Greece, Italy, and Spain) display higher transition rates into part-time employment than mothers of Turkish descent, but there are no difference according to country of origin where entries into full-time positions are concerned.

### 4.3 Interaction Effects

The remaining hypotheses refer to interaction effects among the social support variables, interaction effects between social support the provision of public child care as well as interactions between social support and socio-economic status. According to Hypothesis 5, different sources of social support are expected to reinforce each other in facilitating maternal full-time employment, but they should be compensating for transitions into part-time employment according to Hypothesis 4. Table 7 displays the results of these interactions for the sample of West German mothers. The first three models test how the interaction of the social support variables affects mothers' transitions into part-time employment whereas the subsequent models refer to transitions into full-time employment. The models include in turn an interaction between kinship support\*friendship support, kinship support\*spousal support and friendship support\*spousal support.

In general, the results support Hypothesis 4 that different sources of social support are compensating in their effects on maternal transitions into part-time employment. We find the expected negative interaction effect between kinship networks and the other two sources of support, whereas the interaction between friendship networks and spousal support is insignificant. The main effects of the interaction variables indicate that for mothers who have average access to kinship networks, strong ties with friends have a positive effect. Likewise, kinship networks have a positive impact if mothers have average ties to their friends. Kinship networks also positively affect maternal employment when spouses participate less than one hour per weekday in domestic work whereas the impact of spousal support on transitions into part-time employment when mothers have average access to kinship networks is insignificant.

However, there is no evidence for Hypothesis 5. None of the interaction effects for mothers' transitions into full-time employment are significant. Spousal support facilitates maternal employment irrespective of the extent to which mothers have access to kinship and friendship networks. Likewise, kinship networks positively affect maternal employment irrespective of mothers' ties to friends. Access to friendship networks continues to support mothers' transitions into part-time rather than full-time positions even when other sources of support are available in addition to friendship networks. Thus, the results rather suggest that different sources of support are complementary in affecting maternal full-time employment. The effects of the control variables prove to be robust against the inclusion of the interaction effects.

Table 7: Interactions between Kinship Networks, Friendship Networks and Spousal Support among West German Mothers

	Part-time			Full-time		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Months 1-12 (ref.)	1	1	1	1	1	1
Months 13-24	0,93	0,93	0,93	0,28***	0,28***	0,28***
Months 25-36	1,48**	1,46**	1,47**	0,54*	0,54*	0,54*
Months 37-48	0,97	0,97	0,95	0,22	0,21	0,22
Months 49-60	0,87	0,87	0,86	0,32	0,31	0,32
Months 61-72	0,29 <sup>+</sup>	0,29 <sup>+</sup>	0,28 <sup>+</sup>	0,26 <sup>+</sup>	0,25 <sup>+</sup>	0,26 <sup>+</sup>
Married (ref.)	1	1	1	1	1	1
Cohabiting	1,37	1,36	1,37	1,19	1,19	1,19
Single	0,82	1,00	1,07	0,65	0,66	0,65
Spouse housework	1,04	1,04	1,03	1,48**	1,47*	1,48**
Kinship networks	1,05**	1,07*	1,04 <sup>+</sup>	1,06*	1,05	1,06*
Friendship networks	1,24 <sup>+</sup>	1,23 <sup>+</sup>	1,19	0,73*	0,73*	0,76
Kinship networks*	0,93*			1,01		
Friendship networks						
Kinship networks*		0,94 <sup>+</sup>			1,03	
Spouse housework						
Friendship networks*			1,07			0,93
Spouse housework						
Basic education (ref.)	1	1	1	1	1	1
Secondary education	1,38***	1,36***	1,37***	1,08	1,08	1,07
Tertiary education	2,48***	2,46***	2,46***	1,79 <sup>+</sup>	1,79*	1,79*
Work experience	1,07***	1,07***	1,07***	1,04	1,04	1,04
Full-time bf. birth	1,59***	1,54***	1,56***	4,88***	4,89***	4,87***
Part-time bf. birth	3,37***	3,32***	3,35***	0,64	0,64	0,63
1 child (ref.)	1	1	1	1	1	1
2 children	1,00	0,98	0,99	1,27	1,27	1,27
3+ children	0,99	0,97	0,98	1,29	1,28	1,29
In(household income)	0,88	0,89	0,88	0,48***	0,48***	0,48***
Church attendance	0,91	0,91	0,91	0,84	0,84	0,84
Age at birth	1,06	1,07	1,07	1,15	1,15	1,15
Age at birth squared	1,00	1,00	1,00	1,00	1,00	1,00
Birth 2007-2009	0,52***	0,52***	0,52***	1,81***	1,82***	1,81***
Public care	1,83	1,81	1,87	2,93	2,99	2,93
Reg. unemployment	0,96**	0,96**	0,96**	1,00	1,00	1,00
No. of subjects	1409	1409	1409	1409	1409	1409
No. of failures	578	578	578	156	156	156
Time at risk	31510	31510	31510	31510	31510	31510
Log pseudolikelihood	-1245.05	-1245.77	-1247.01	-614.86	-614.80	-614.84

Exponentiated coefficients

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*\*  $p < 0.01$ , \*\*\*\*  $p < 0.001$

In Table 8, the same interaction effects are tested for East German mothers. Neither Hypothesis 4 nor Hypothesis 5 can be confirmed. Friendship networks and spousal support turn out to be compensating in affecting transitions into part-time employment. Yet, the main effect of spousal support is insignificant (though clearly positive) for mothers with average ties to friends, and the same is true for the effect of friendship networks for mothers whose spouses hardly participate in domestic work. Interaction effects between the three support

variables are positive for transitions into full-time employment, but again the effects are insignificant. The results are underline findings from Tables 5 and 6 that social support networks do not facilitate maternal employment in East Germany. The effects of the control variables remain largely unaffected by the introduction of the interaction effects.

Table 8: Interactions between Kinship Networks, Friendship Networks and Spousal Support among East German Mothers

	Part-time			Full-time		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Months 1-12 (ref.)	1	1	1	1	1	1
Months 13-24	2,52***	2,52***	2,50***	2,32*	2,30*	2,32*
Months 25-36	2,73***	2,72***	2,76***	3,70***	3,65***	3,64***
Months 37-48	2,48*	2,52*	2,42*	0,64	0,64	0,64
Months 49-60	2,58	2,61	2,49	0,95	0,96	0,98
Months 61-72	2,69	2,72	2,58	0,60	0,61	0,63
Married (ref.)	1	1	1	1	1	1
Cohabiting	1,45***	1,46***	1,42***	1,06	1,07	1,08
Single	0,50	0,58	0,67	2,60	2,20	1,62
Spouse housework	1,34	1,40	1,50	1,14	1,22	1,06
Kinship networks	1,12	1,08	1,10	0,88*	0,87	0,90 <sup>+</sup>
Friendship networks	1,07	1,08	1,42	1,05	0,98	0,79
Kinship networks*						
Friendship networks	0,99			1,08		
Kinship networks*						
Spouse housework		1,06			1,07	
Friendship networks*						
Spouse housework			0,59 <sup>+</sup>			1,59
Basic education (ref.)	1	1	1	1	1	1
Secondary education	4,02	4,07	3,98	1,79	1,83	1,79
Tertiary education	6,10*	6,21*	5,95*	2,26 <sup>+</sup>	2,34 <sup>+</sup>	2,32 <sup>+</sup>
Work experience	1,06*	1,06*	1,06*	1,07**	1,08**	1,08***
Full-time bf. birth	2,30***	2,28***	2,27***	1,90***	1,87**	1,86**
Part-time bf. birth	3,34***	3,35***	3,35***	0,61 <sup>+</sup>	0,61 <sup>+</sup>	0,61 <sup>+</sup>
1 child (ref.)	1	1	1	1	1	1
2 children	1,10	1,09	1,07	0,85 <sup>+</sup>	0,84 <sup>+</sup>	0,86 <sup>+</sup>
3+ children	0,87	0,86	0,83	0,32***	0,32***	0,32***
ln(household income)	1,17	1,17	1,15	0,97	0,97	0,97
Church attendance	1,18*	1,18**	1,18*	0,92	0,92	0,92
Age at birth	0,80	0,80	0,80	0,88	0,88	0,88
Age at birth squared	1,00	1,00	1,00	1,00	1,00	1,00
Birth 2007-2009	1,02	1,01	0,98	1,51 <sup>+</sup>	1,47	1,49 <sup>+</sup>
Public care	0,90	0,88	0,95	6,58	6,56	6,50
Reg. unemployment	1,08**	1,08*	1,08*	1,08**	1,07**	1,08***
No. of subjects	528	528	528	528	528	528
No. of failures	148	148	148	142	142	142
Time at risk	11315	11315	11315	11315	11315	11315
Log pseudolikelihood	-314.08	-313.94	-312.69	-311.04	-311.26	-310.49

Exponentiated coefficients

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 9 displays the interactions among the three sources of social support for migrant mothers. Hypothesis 4 cannot be confirmed for migrant mothers. None of the interaction effects are significant as transitions into part-time employment are concerned, and neither are the main effects for social support. Since the presence of the maternal grandmother was shown to be more important for employment transitions of migrant mothers than the total number of relatives, I tested whether the expected interaction effects would show up when the presence of the maternal grandmother is included in the model instead. However, this was not the case.

The interaction between kinship networks and friendship networks is positive for migrant mothers' transitions into full-time employment. This result supports Hypothesis 5 that different sources of support will reinforce each other in facilitating maternal full-time employment. If the presence of the maternal grandmother is used as an indicator for kinship networks instead of the total number of relatives in the neighborhood, the reinforcing effect of kinship networks and friendship networks persists. The other two interaction effects (kinship networks\*spousal support and friendship networks\*spousal support) are insignificant. The effects of the control variables remain largely unaffected by the introduction of the interaction effects.

In sum, evidence from West German mothers partially supports Hypothesis 4 and evidence from migrant mothers partially support Hypothesis 5. The significant interaction effects point in the expected direction of a compensating relation between two sources of social support as transitions into part-time employment are concerned, and a reinforcing relationship as transitions into full-time employment are concerned. These relationships seem to apply in particular to the interaction between kinship networks and friendship networks, whereas interactions with spousal support mostly turn out to be insignificant. A reason for this may be that kinship networks and friendship networks both provide the same type of support, i.e. help with child care, whereas spousal support aims at help with domestic work, covering a different dimension of support. Sources of support which provide the same function are then more prone to interact with each other than sources of support which provide different functions.

In East Germany, in contrast, social support networks are neither reinforcing nor complementing each other. They appear to be rather irrelevant for maternal employment. One possible explanation for this is that social support networks are less important because supply with public child care is much better in the east and may provide an alternative source of support for working mothers. According to Hypothesis 7, kinship networks should be most

valuable as a resource for maternal employment, when the provision of public child care is low.

Table 9: Interactions between Kinship Networks, Friendship Networks and Spousal Support among Migrant Mothers

	Part-time			Full-time		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Months 1-12 (ref.)	1	1	1	1	1	1
Months 13-24	0,95	0,95	0,95	0,86	0,87	0,84
Months 25-36	1,59 <sup>+</sup>	1,59 <sup>+</sup>	1,60 <sup>+</sup>	1,53 <sup>*</sup>	1,59 <sup>*</sup>	1,57 <sup>*</sup>
Months 37-48	0,74	0,78	0,74	1,55	1,23	1,37
Months 49-60	0,42	0,43	0,42	0,31	0,23	0,24
Months 61-72	0,78	0,82	0,78	0,61	0,43	0,48
Married (ref.)	1	1	1	1	1	1
Cohabiting	1,32	1,32	1,32	0,39 <sup>***</sup>	0,41 <sup>*</sup>	0,42 <sup>**</sup>
Single	0,80	0,76	0,81	2,71 <sup>*</sup>	1,86	1,44
Spouse housework	1,13	1,08	1,12	1,68	1,75 <sup>+</sup>	1,58
Kinship networks	1,01	1,04	1,01	0,99	0,98	1,06
Friendship networks	0,89	0,90	0,87	1,39 <sup>+</sup>	1,32	1,23
Kinship networks*	0,99			1,21 <sup>*</sup>		
Friendship networks						
Kinship networks*		0,90			1,18	
Spouse housework						
Friendship networks*			1,08			1,29
Spouse housework						
Basic education (ref.)	1	1	1	1	1	1
Secondary education	1,27	1,26	1,27	1,06	1,01	1,04
Tertiary education	1,64	1,71	1,65	1,49	1,43	1,42
Work experience	1,01	1,01	1,01	1,24 <sup>***</sup>	1,25 <sup>***</sup>	1,24 <sup>***</sup>
Full-time bf. birth	1,33	1,31	1,32	4,86 <sup>***</sup>	5,09 <sup>***</sup>	4,94 <sup>***</sup>
Part-time bf. birth	6,59 <sup>***</sup>	6,57 <sup>***</sup>	6,62 <sup>***</sup>	0,51	0,52	0,52
1 child (ref.)	1	1	1	1	1	1
2 children	0,62 <sup>***</sup>	0,61 <sup>***</sup>	0,62 <sup>***</sup>	0,80	0,78	0,79
3+ children	0,76	0,75	0,76	0,75	0,73	0,75
In(household income)	1,06	1,06	1,07	0,19 <sup>***</sup>	0,18 <sup>***</sup>	0,18 <sup>***</sup>
Church attendance	0,78 <sup>*</sup>	0,78 <sup>*</sup>	0,78 <sup>*</sup>	0,50 <sup>*</sup>	0,52 <sup>*</sup>	0,52 <sup>*</sup>
Age at birth	1,43 <sup>***</sup>	1,41 <sup>***</sup>	1,43 <sup>***</sup>	0,79	0,79	0,76
Age at birth squared	0,99 <sup>***</sup>	0,99 <sup>***</sup>	0,99 <sup>***</sup>	1,00	1,00	1,00
Birth 2007-2009	0,64	0,63	0,64	0,41	0,42	0,41
Public care	2,28	2,21	2,29	1,48	2,04	1,80
Reg. unemployment	0,95	0,95	0,95	0,99	1,00	0,99
Turkey (Ref.)	1	1	1	1	1	1
Southern EU	1,54 <sup>**</sup>	1,56 <sup>***</sup>	1,54 <sup>***</sup>	0,64	0,62	0,66
Ex-Yugoslavia	1,18	1,19	1,17	1,00	1,07	1,06
No. of subjects	411	411	411	411	411	411
No. of failures	117	117	117	45	45	45
Time at risk	11725	11725	11725	11725	11725	11725
Log pseudolikelihood	-284.33	-283.95	-284.32	-116.07	-116.58	-116.97

Exponentiated coefficients

<sup>+</sup>  $p < 0.1$ , <sup>\*</sup>  $p < 0.05$ , <sup>\*\*\*</sup>  $p < 0.01$ , <sup>\*\*\*\*</sup>  $p < 0.001$

### *Interactions between social support networks and public child care*

Figure 5 displays the effect of kinship networks on mothers' transition into full-time and part-time employment in dependence of the availability of public child care when all control variables are included in the model. The y-axis denotes the effect of kinship networks on maternal employment, and the x-axis the number of child care slots per 100 children. The continuous line displays the effect of kinship networks on maternal employment, and the dashed lines around it are the 95%-confidence intervals.

There is no significant interaction between access to kinship networks and the availability of public child care for transitions into part-time employment. Consequently, Hypothesis 7 cannot be confirmed as transitions into part-time employment are concerned. Among West German mothers, kinship networks have a positive effect on transitions into part-time employment irrespective of regional supply with public child care, as the (marginally) significant effects indicate. For the transition of East German and migrant mothers into part-time employment, access to kinship networks is irrelevant irrespective of regional supply with public child care. Yet for migrant mothers, the availability of the maternal grandmother has a positive effect on transitions into part-time employment (see Appendix A), and the effect is significant when regional supply with public child care is below 50 slots per 100 children.

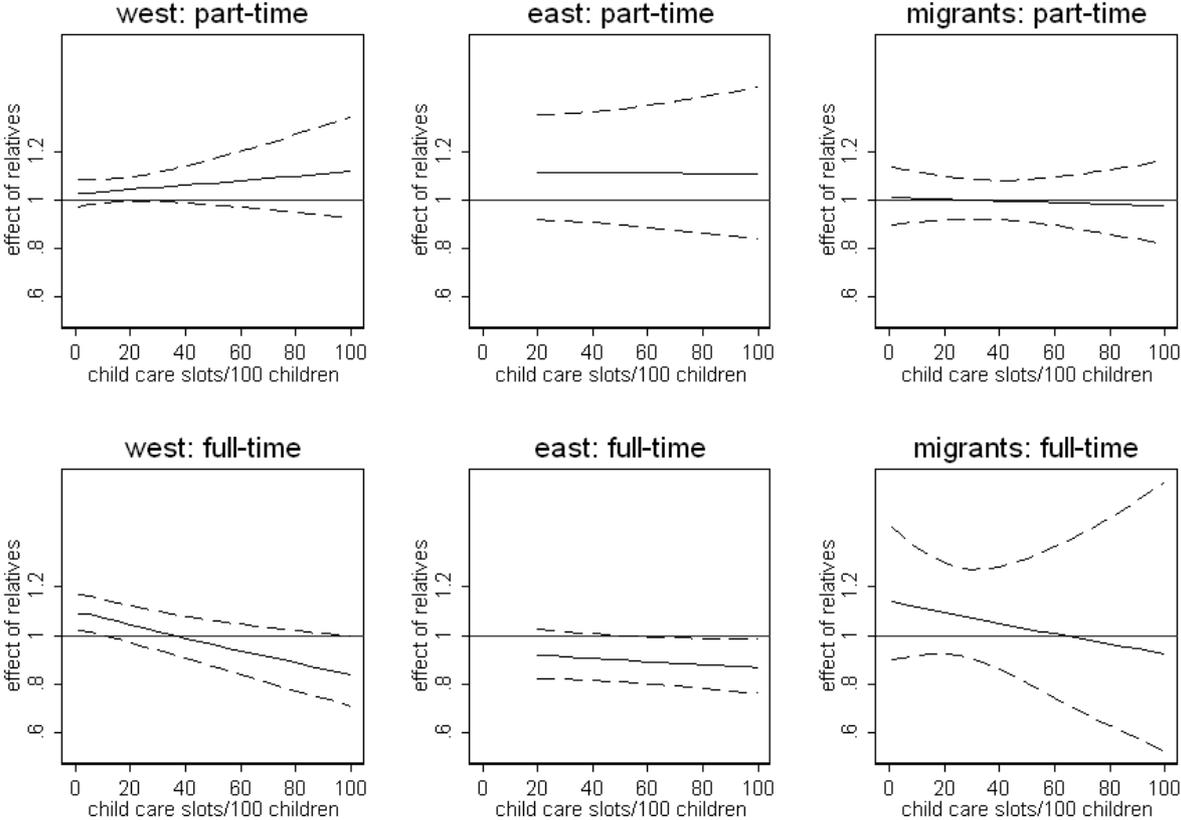
Coming to transitions into full-time employment, there is a negative interaction effect between kinship networks and supply with public child care for West German mothers. Kinship networks are particularly important for enabling maternal employment when supply with public child care is very low, i.e. below 20 slots per 100 children. Since supply with public child care for the under-threes is very scarce, this means that kinship networks have a positive effect on the employment of almost all West German mothers with children under the age of three. Exceptions are only mothers in Western Berlin where supply with public child care for the under-threes exceeds 20 slots per 100 children since 1995, and recently also mothers in Hamburg where supply with child care has approximated 20 slots per 100 children in 2006.

Among migrant mothers, there is a negative relationship between access to kin and access to public child care, but it is not significant. However, if the interaction effect between access to the maternal grandmother and supply with public child care is considered (see Appendix A), the pattern resembles that of West German mothers: the presence of the maternal grandmother is most important when supply with public child care is low, and positively affects maternal employment when supply with public child care is below 35 slots per 100

children. Public child care for the under-threes exceeds this threshold only since 2002 in Berlin. The threshold up to which the presence of the maternal grandmother has a positive effect on employment transitions of migrant mothers is higher than the threshold up to which kinship networks support employment transitions of West German mothers. This is in line with the gap in public child care usage rates between native German children and the children of migrants, which is particularly pronounced among the under-threes (Engels et al. 2011:31ff).

For East German mothers, the results from Figure 5 confirm that the number of relatives living in the neighborhood is irrelevant for maternal full-time employment irrespective of the supply with public child care. Yet, we have to consider that the lowest level of supply with public child care observed in East Germany is 20 slots per 100 children. Since results from West Germany point to the fact that kinship networks are particularly crucial if supply with public child care is lower than this, the absence of a positive effect of relatives can be explained by the better availability of public child care in East Germany.

Figure 5: Interaction between Kinship Networks and Public Child Care

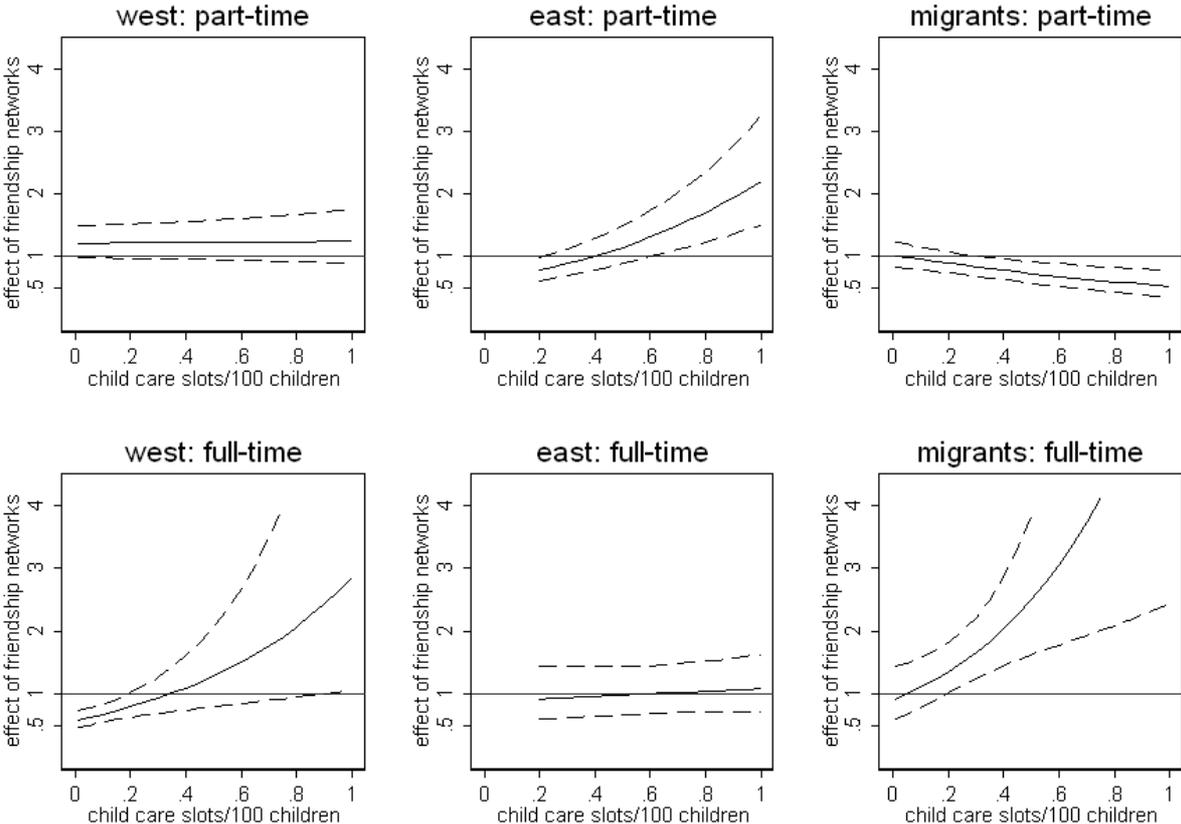


Taken together, the results for transitions into full-time employment confirm Hypothesis 7 that access to kinship networks is most important when supply with public child care is below a certain threshold. Transitions of West German mothers into full-time positions are positively

affected by kinship networks when supply with public child care is below 20 slots per 100 children. Transitions of migrant mothers into full-time positions are positively affected by access to the maternal grandmother when supply with public child care is below 35 slots per 100 children. This indicates that relatives are particularly important as a source for child care when children are younger than three years, as supply with public child care for this age group is generally below 20 slots per 100 children. In East Germany, where supply with public child care exceeds this threshold, access to kinship networks does not facilitate maternal employment.

Figure 6 displays the effect of friendship networks in dependence of the availability of public child care. According to Hypothesis 8, friendship networks should be of greater value if they are a back-up for public child care compared to a situation where friendship networks are the only child care option available to mothers as friends can only be expected to help with child care for a limited amount of time. Accordingly, Hypothesis 8 expects a positive interaction effect between friendship networks and supply with public child care. This interaction relationship should be more pronounced as mothers' transitions into full-time employment are concerned, since full-time employment generally requires more help with child care than part-time employment.

Figure 6: Interaction between Friendship Networks and Public Child Care



This pattern can be confirmed for West German and migrant mothers. In both cases, friendship networks only positively affect transitions into full-time employment if access to public child care is high. However, the minimum supply with child care that is required in order for friendship networks to be effective is much lower for migrant mothers compared to West German mothers. A tentative explanation for this could be that migrants are observed to establish kinship-like ties with their friends, when they lack real kinship ties in their country of residence (Foner 1997). This may lead to a stronger obligation among friends to support each other, and consequently migrant mothers can mobilize their friendship networks for help with child care more easily. Surprisingly, friendship networks in East Germany have a positive effect on transitions into part-time employment when supply with public child care is high, but they are irrelevant for mothers' transitions into full-time employment irrespective of how extensive coverage with public child care is.

#### *Interactions between social support and mothers' socio-economic status*

The next question is whether the impact of social support differs according to mothers' socio-economic status. Two opposing mechanisms are expected to be at play: on the one hand mothers with higher socio-economic status may not be as dependent on social support networks as mothers with lower socio-economic status because they have the financial means to buy support if they do not receive it from their networks. On the other hand, a lower socio-economic status may make it necessary for mothers to work and earn money, irrespective of whether they receive support at home or not. Consequently, mothers with medium socio-economic status should be most responsive to the availability of social support. The first indicator of socio-economic status is mothers' education (three categories) which is an indicator of their own income potential. The second indicator is net residual household income. Since the relationship between social support and income is expected to take an inverted u-shape, the models include  $\ln(\text{income})$  and  $\ln(\text{income})$  squared, as well as the interactions of  $\ln(\text{income})$  and  $\ln(\text{income})$  squared with social support.

Figure 7 graphs the effect of kinship networks in dependence of mothers' education and Figure 8 the effect of kinship networks in dependence of the net residual household income available to mothers. In fact, there is little variation in the effect of relatives across different levels of education and thus little evidence in support of Hypothesis 6. Only migrant mothers' transitions into full-time employment are affected in the expected way which means that access to kinship networks most strongly supports the transitions of mothers with secondary education. Among West German mothers, surprisingly those with tertiary education are most responsive to social support from their kin in their decisions to enter a full-time position.

Figure 7: Interaction between Kinship Networks and Education

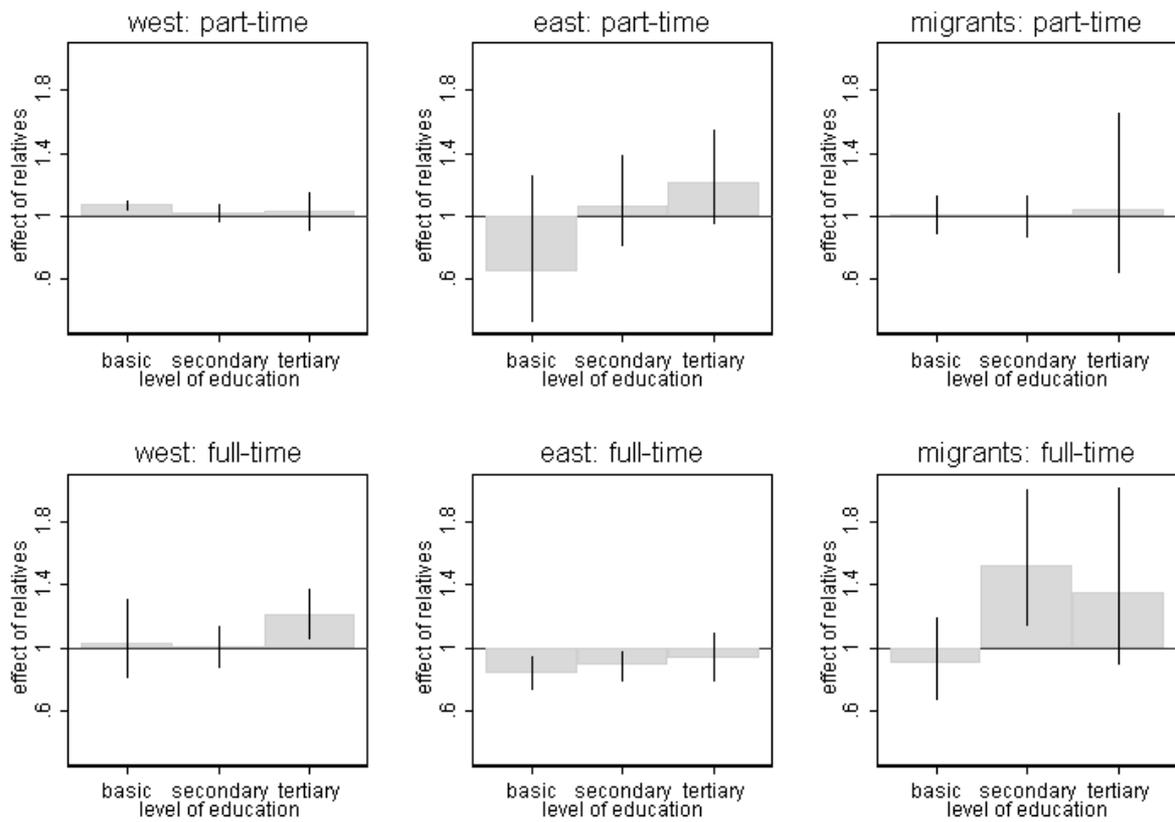
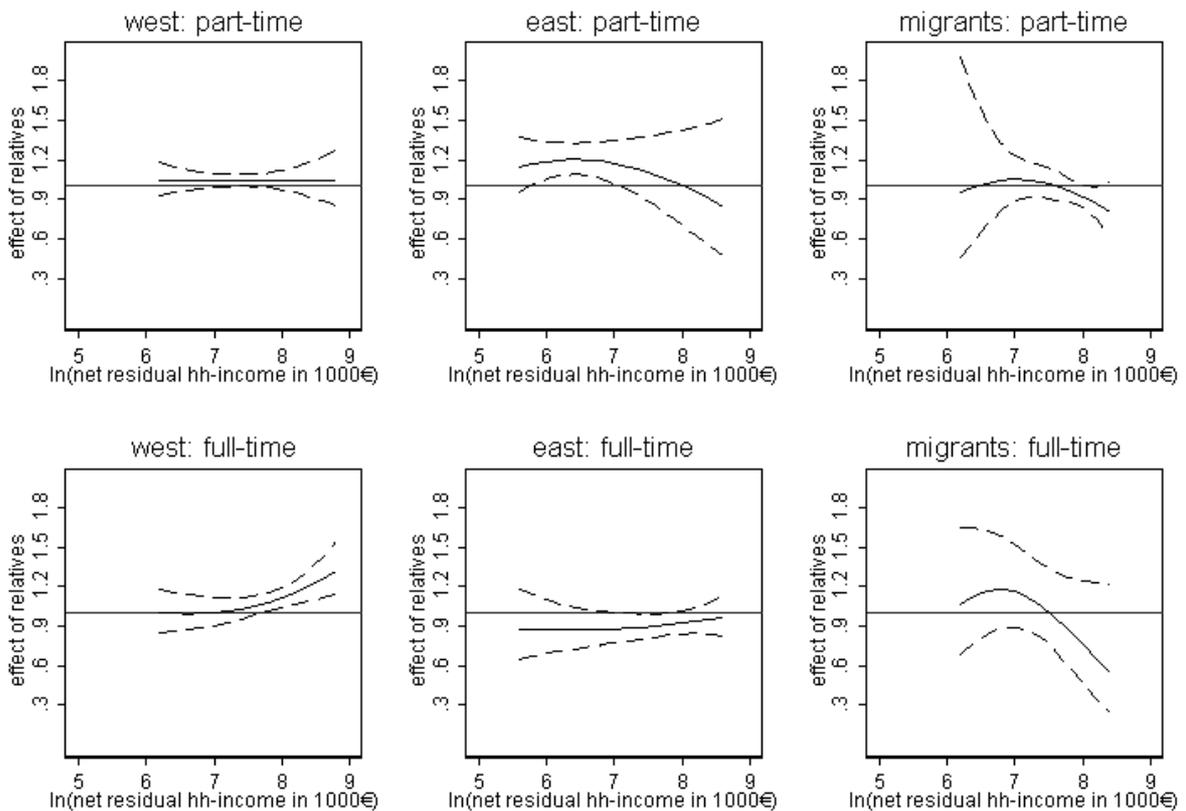


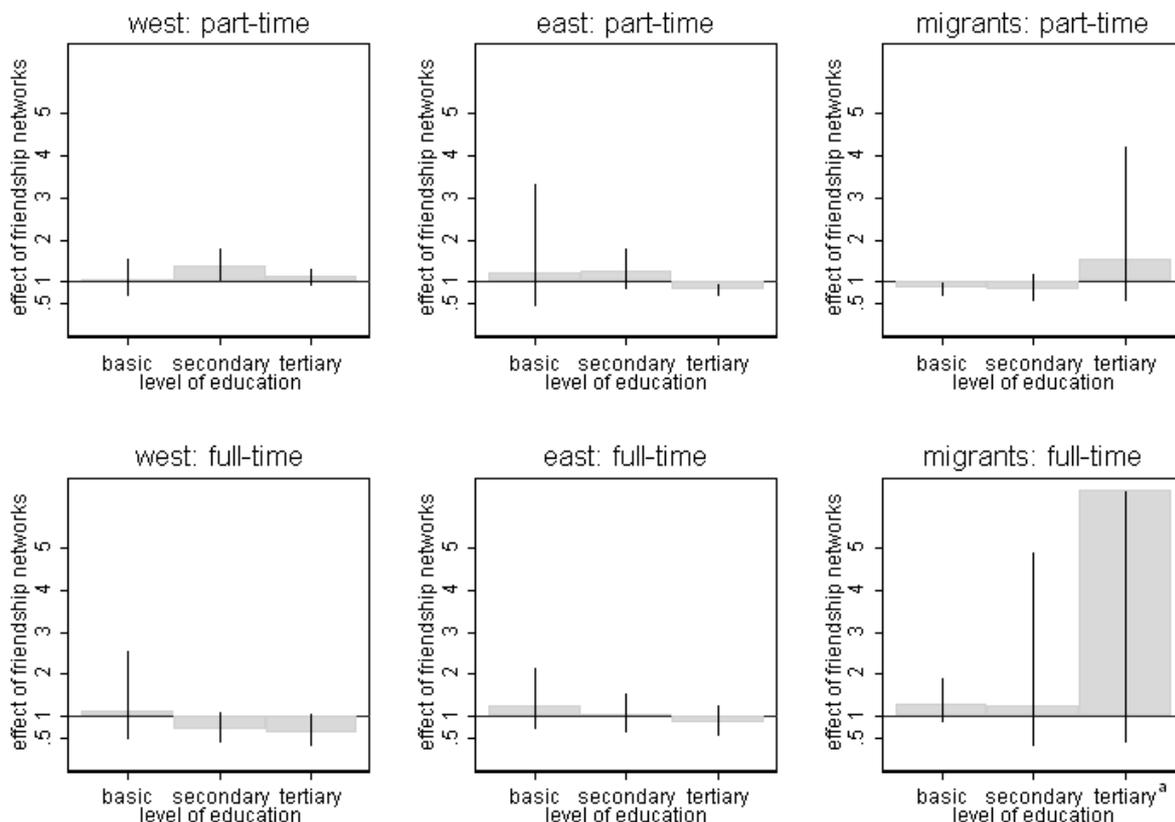
Figure 8: Interaction between Kinship Networks and Household Income



Likewise, West German mothers with the highest net residual household incomes are most responsive to support by kinship networks in their decisions to work full-time. Only the transitions of East German mothers into part-time positions follow the expected pattern that mothers with medium household incomes are most responsive to kinship support. For migrant mothers' transition into full-time employment, the expected inverted u-shape is also visible, but the effects are not significant.

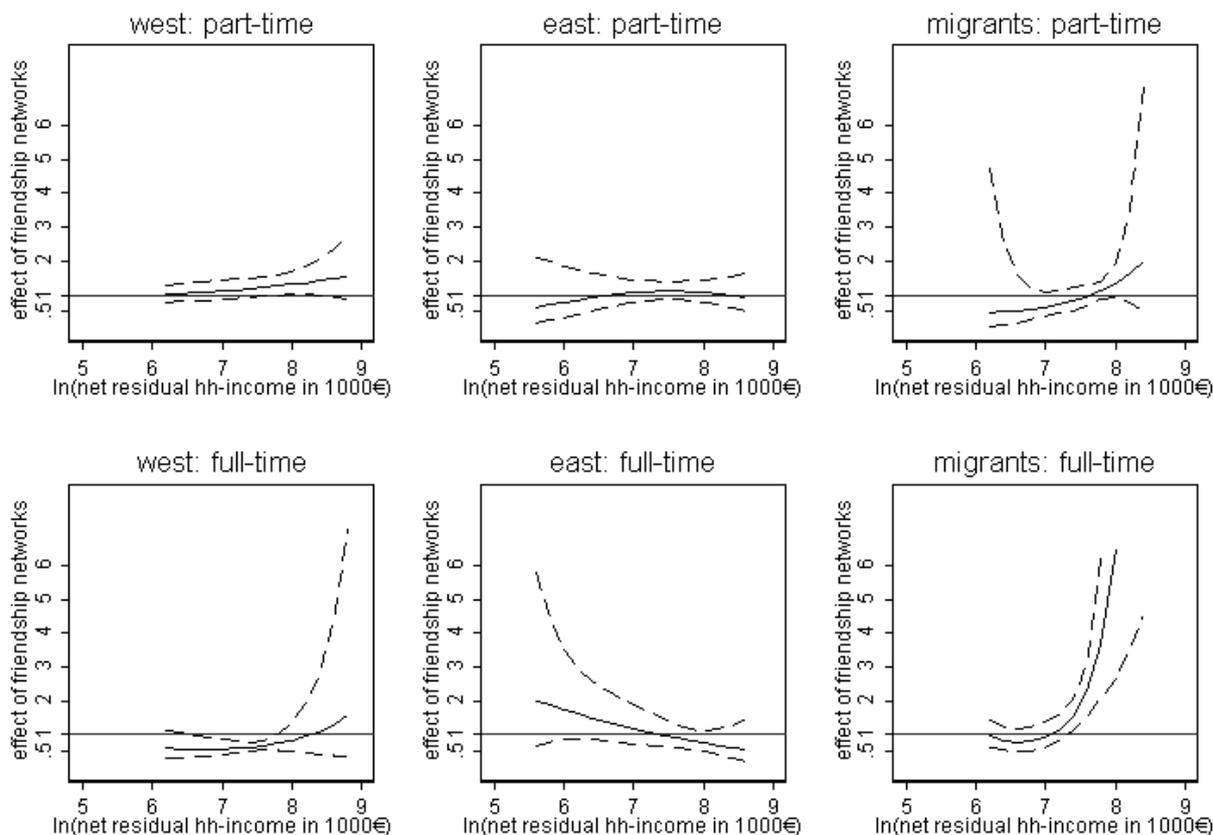
The interaction effects between friendship networks and socio-economic status also hardly support Hypothesis 6. As displayed in Figure 9 and Figure 10, there is little variation in the effect of friendship networks both across the different levels of education and across different levels of household income. The only evidence in support of Hypothesis 6 is that friendship networks positively affect transitions into part-time employment for West German mothers with secondary education, but do not significantly affect employment transitions of mothers with either higher or lower education. Migrant mothers' transitions into full-time employment yield unexpected results, i.e. mothers with the highest household incomes strongly respond to support from their friendship networks, whereas friendship networks are irrelevant for the employment transitions of mothers with medium or lower household incomes.

Figure 9: Interaction between Friendship Networks and Education



<sup>a</sup> Upper confidence interval could not be drawn because it was too large

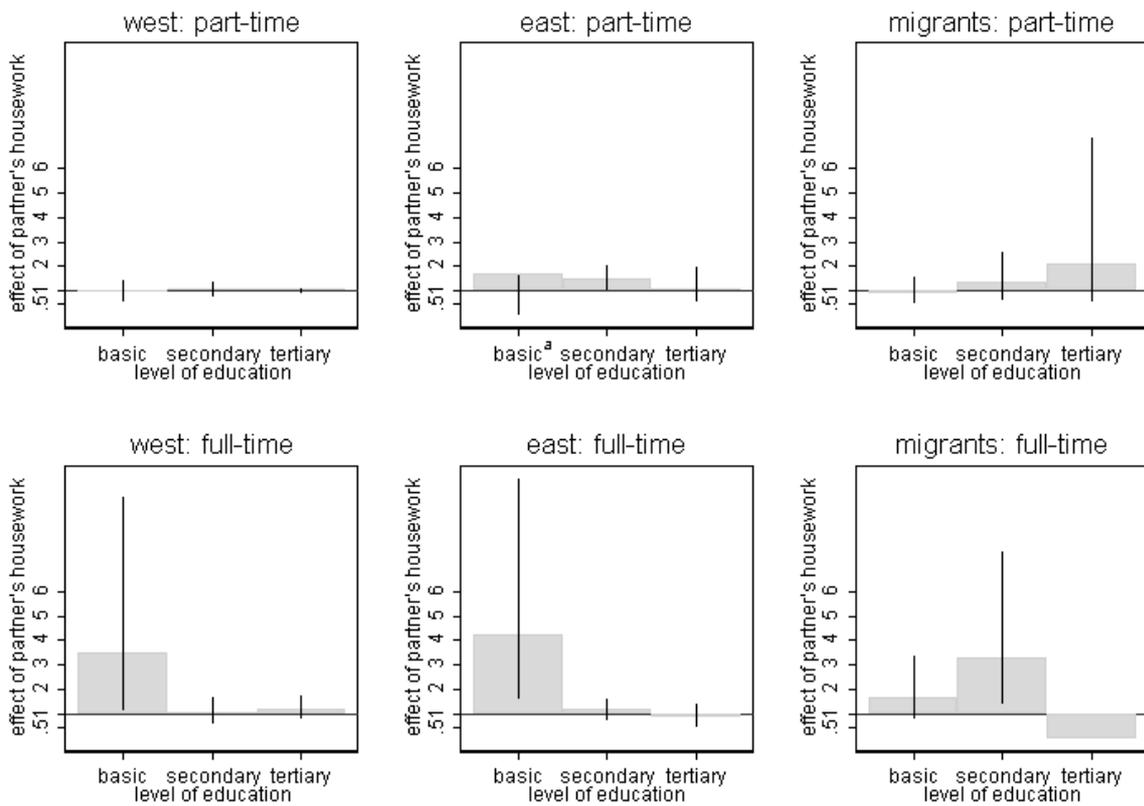
Figure 10: Interaction between Friendship Networks and Household Income



As interactions between socio-economic status and spousal support are concerned, there is some evidence that mothers of medium and lower socio-economic status are more responsive to spousal support than mothers of higher socio-economic status. Figure 11 displays the interaction effects between education and spousal support. Among West German and East German mothers with basic education, as well as among migrant mothers with secondary education, spousal support has a positive and significant effect on transitions into full-time employment. Furthermore, spousal support positively affects the transitions of East German mothers with secondary education into part time employment.

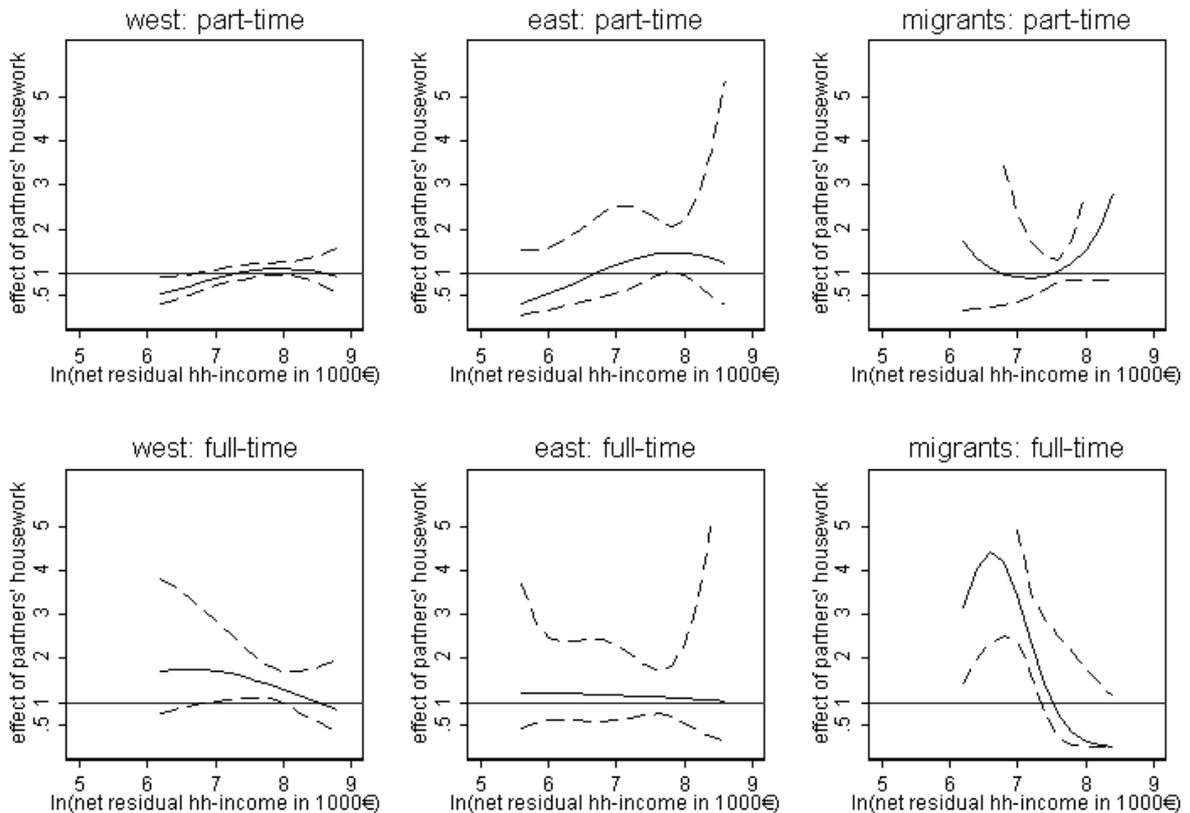
Interaction effects between spousal support and household income are displayed in Figure 12. There is some evidence that spousal support is most important for the employment transitions of West German mothers with medium household incomes, although the variation in the effect of spousal support across the range of household incomes is not large. The same observation applies to the transitions of East German mothers into part-time employment. Finally, as the transitions of migrant mothers into full-time employment are concerned, there is a strong impact of spousal support for mothers with lower household

Figure 11: Interaction between Spousal Support and Education



<sup>a</sup> Upper confidence interval could not be drawn because it was too large

Figure 12: Interaction between Spousal Support and Household Income



incomes which increases across medium incomes before decreasing again across higher incomes until it is no longer significant among mothers with the highest household incomes.

To conclude, all in all there is limited evidence for Hypothesis 6 that mothers of medium socio-economic status are more responsive to social support than mothers of either higher or lower status. Whereas the effect of kinship networks and friendship networks appears to be rather independent of mothers' socio-economic status, there is some evidence that spousal support is more important for mothers of medium and lower socio-economic status than for mothers of higher socio-economic status. Especially the pattern of migrant mothers' transition into full-time employment supports Hypothesis 6, as there are strong differences in the effect of spousal support across socio-economic status, and mothers of medium socio-economic status profit the most from support by their spouse.

As previous research showed (Wrohlich 2006:25), private child care is very rare in Germany which means that even mothers of high socio-economic status only rarely purchase private child care. It thus seems likely that mothers of higher socio-economic status use their economic resources to reduce their time in domestic work (for example by engaging a cleaning lady) rather than their time in child care. This could explain why the impact of spousal support with domestic work varies more strongly across socio-economic status than the impact of informal child care by kinship and friendship networks.

## **5 Conclusion**

Within the last decades, mothers have increasingly expressed the desire to combine work and family simultaneously. Yet, a lack of adequate child care continues to be a major barrier to maternal employment in Germany. Given the short supply of public child care, this thesis sought to answer the question whether social support by kinship networks and friendship networks with child care can facilitate maternal employment, and whether this informal type of support is particularly valuable when supply with public child care is low. Spousal support with domestic work was considered as another resource for maternal employment, as help with domestic work can also relieve mothers from part of their responsibilities at home. Next to assessing the main effects of these three kinds of support, I tested whether different sources of social support compensate or reinforce each other and whether the impact of social support on maternal employment varies according to mothers' socio-economic status.

In order to test the hypotheses, I conducted event history analyses for competing risks using data of the German Socio-Economic Panel.

The results show that social support can strongly affect mothers' employment transitions. The findings thus underline that it is fruitful to consider social support in addition to human capital and family policies as explanatory factors for maternal employment. Yet, by comparing employment transitions of West German, East German and migrant mothers, this thesis also shows that the institutional and cultural context moderates the impact of social support on maternal employment. Differences in the level of public child care were the focus of the comparative analysis. However, the results also revealed differences between natives and migrants concerning which kin can provide significant social support to mothers: whereas the entire kinship network in the neighborhood contributes to facilitating the employment of West German mothers, migrant mothers rely primarily on their own mother for substantive help with child care. This is in line with previous research which shows that mothers in migrants' countries of origin rely primarily on their own mothers for child care (Leira et al. 2005; Del Boca 2002; Hrženjak 2012; Aycan and Eskin 2005). In contrast, employed West German mothers receive substantial support with child care from their entire kinship network, even though grandmothers are the most important source for child care (Dressel et al. 2005).

Furthermore, the analyses distinguish between transitions into full-time and part-time employment. This distinction is important for two reasons: first, because future career prospects and earnings potentials of mothers strongly depend on whether they return to a full-time or part-time position after child birth. Second, the analyses could confirm that the impact of social support varies systematically between full-time and part-time employment. Mothers who work part-time still spend a considerable time per week day at home during which they can perform child care and domestic work themselves. In contrast, maternal full-time employment requires more intensive support with child care and domestic work as mothers commit a larger part of their own time to employment. This additional demand for child care is usually not covered by public child care in West Germany, as the majority of child care slots is only available part-time. Thus mothers generally require more social support for working full-time than for working part-time.

To summarize the key findings of this thesis, Table 10 revisits the overview of hypotheses which has already been presented in Table 2. Again, pluses indicate an expected positive effect whereas minuses indicate that a negative effect was hypothesized. If a hypothesized effect could be confirmed, this is marked in black, whereas hypotheses which were not

supported by the analyses are marked in grey. If there is some evidence in favor of a hypothesis, but the results are inconsistent, the effect is in parenthesis.

Regarding the impact of spousal participation in domestic work, Hypotheses 3 and 9 could be confirmed: having a partner who regularly contributes to housework encourages West German and migrant mothers to enter full-time positions. In contrast, it does not significantly impact on transitions into part-time jobs or employment transitions of East German mothers. An explanation for this pattern is that part-time jobs are generally compatible with women's roles as caretakers at home, whereas a full-time job in addition to full responsibility for housework and child care creates a double burden for mothers. These findings underline the importance of an egalitarian division of housework as a pre-condition for an egalitarian division of market work in families with children. In fact, the traditionalization of market work and housework after child birth seem to be a mutually reinforcing process, as previous research (Grunow et al. 2007; Huinink and Reichart 2008) could show that the best protection from switching to a traditional division of housework after child birth was a quick return to (full-time) employment.

The absence of any effects in East Germany may be explained by the fact that the former GDR integrated almost all women into full-time employment whereas the domestic division of labor remained unreconstructed (Pascall and Manning 2000). Mothers may thus have found ways to cope with the double burden and have gotten used to combining full-time employment with domestic work. Yet, even though the legacy of GDR policies is still reflected in the labor market behavior of East German women, employment patterns of East German mothers are slowly changing, and mothers increasingly choose to work only part-time (Mayer and Solga 2010). It remains to be seen, whether a partners' participation in housework becomes a more important precondition to full-time employment, as part-time employment becomes increasingly prevalent among mothers.

In line with Hypothesis 1, access to kin facilitates employment transitions of West German and migrant mothers into both full-time and part-time positions. Grandmothers play a key role for the transitions of West German mothers' into full-time employment. Yet, for part-time employment, the size of the kinship network is more important than the presence of a specific person. This supports Kreyenfeld and Hank's (2000) notion that child care arrangements are often patchwork arrangements in which several people join in. In contrast, employment transitions of migrant mothers depend solely on the presence of the maternal grandmother.

As expected, friends are more difficult to mobilize for child care compared to kin. Yet, in line with Hypotheses 2 and 8, friends can be a valuable source of support under two conditions: when mothers rely on friends as an addition to public child care or when the amount of time required is limited as mothers only work part-time. Friends were found to facilitate mothers' part-time employment in West Germany. Furthermore, both West German and migrant mothers display higher transition rates into full-time employment if friendship networks are available in addition to public child care.

The impact of kinship support on mothers' transitions into full-time employment also depends on the supply with public child care. As expected according to Hypothesis 7, access to relatives was found to be particularly relevant when supply with public child care is low. Consequently, the help of relatives is particularly important if the child is under the age of three. Only an average of five slots per 100 children have been available for this age group during the observation period.

In contrast to West German and migrant mothers, social support is irrelevant for the employment transitions of East German mothers. Given the higher supply with public child care in the east, these findings are in line with the observation that kinship support is most valuable when supply with public child care is below a certain threshold. For West German mothers, this threshold was estimated to be 20 slots per 100 children. Since supply with public child care has never been lower than that in any East German region at any point of observation, it is reasonable that social support networks do not affect maternal employment in the east.

In sum, these findings show that mothers' opportunities to work are highly dependent on access to informal networks when the supply with public child care is limited. Yet, current developments point in the direction that it will become more difficult in the future to find kin and friends who can provide extensive support with public child care, leaving mothers in vulnerable employment situations: female employment rates and the age at retirement are increasing. As one's social ties become increasingly attached to the labor market, they will have less time to help with child care. Furthermore, increased residential mobility leads to larger distances between mothers and their kin. This underlines the importance of expanding public child care for the under-threes and full-time slots in public child care for all children. Special efforts are also needed to attract more migrant children to public child care.

Table 10: Hypotheses Revisited

		West		East		Migrant	
		Part-time	Full-time	Part-time	Full-time	Part-time	Full-time
H1	Main Effect: Kinship networks	+	+	+	+	+ <sup>a</sup>	+ <sup>a</sup>
H2	Main Effect: Friendship networks	+		+		+	
H3, H9	Main Effect: Spousal support		+				+
H4, H5	Interaction effects between the 3 sources of support	(-)	+	-	+	-	(+) <sup>a</sup>
H6	Social support*low SES						
	Social support*medium SES	+	+	+	+	+	+
	Social support*high SES						
H7	Kinship networks*public child care	-	-	(-)	(-)	-	- <sup>a</sup>
H8	Friendship networks*public child care	+	+	+	+	+	+

<sup>a</sup> Results for kinship networks refer to the availability of maternal grandmother instead of the number of relatives in the neighborhood

+ positive effect

- negative effect

■ hypothesis could be confirmed

□ hypothesis could not be confirmed

( ) hypothesis could partially be confirmed

According to Hypotheses 4, I expected that access to one source of support would be sufficient to facilitate transitions into part-time employment. Hence, if mothers have access to several sources of child care, a compensating interaction effect between these sources was anticipated. In contrast, Hypothesis 5 expected a reinforcing effect between different sources of support as transitions to full-time employment are concerned. Among West German mothers, the compensating effect for transitions into part-time employment could be confirmed for the combination of kinship and friendship networks, as well as kinship networks and spousal support. Furthermore, the results indicate kinship networks and friendship networks reinforce each other in support of maternal full-time employment among migrant mothers. As regards East German mothers, the results reveal once more that social support is irrelevant for maternal employment even when mothers have access to different sources of social support.

Finally, there is little evidence for a systematic variation of the impact of social support by socio-economic status as specified in Hypothesis 6. Only where spousal support is concerned, there is some evidence that mothers of medium and lower socio-economic status are more reliant on spousal support in their employment decisions than mothers of higher socio-economic status. This pattern is most pronounced for the transitions of migrant mothers into full-time employment.

A limitation of this study is that several of the indicators are measured imprecisely: concerning support networks, we only have information on access to kin and friends but lack information on the employment status and other characteristics of these ties that would be relevant to determine whether they are able to provide child care. Furthermore, it would be preferable to use data on supply with public child care at the local level. Finally, due to low case numbers, it was not possible to analyze different groups of migrants separately. It would thus be desirable to replicate this analysis with more refined data in the future. Since the comparison of West German, East German and migrant mothers indicates that the effect of social resources is moderated by the institutional and cultural context, future studies addressing the issue in different institutional contexts may also prove to be valuable.

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## Appendix

### A) Interaction between Kinship Networks and Public Child Care among Migrant Mothers

