

A Cross-National Perspective on Gender, Parenthood, and Employment

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Draft: July 17, 2009

Acknowledge: NSF, Karen Mason, Janet Gornick, Eric Tranby, LIS Staff.

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There is remarkable variation in employment rates cross-nationally, particularly for women and even more so for mothers. Yet, the literature explaining these variations remains fairly contradictory. Some scholars emphasize cross-national differences in human capital and household specialization as driving the cross-nationally variation in women's employment. Other scholars focus on the role of structural factors, such as economic conditions and work-family policies, in shaping women's and mothers' employment (Stier, Lewin-Epstein, and Braun 2001; Hook and Pettit 2005, 2009; Stryker, Eliason and Tranby 2008; Kenworthy and Hicks 2008; Tranby 2008), although certain work-family policies or constellations of policies are also seen as limiting women's employment opportunities (Hook and Pettit 2005, 2009; Mandel and Semyonov 2006; Tranby 2008). Still others suggest that economic conditions, work-family and other labor market policies are mediated by cultural contexts which play an important role in determining women's and mothers' employment rates (Pfau-Effinger 1996, 2004; Auer 2002; Misra 1998; Kremer 2007; Misra and Jude 2008).

One challenge in this literature is the significant variability in how employment is conceptualized and studied. Analyses of employment rates often miss the remarkable variation between women's employment and women's full-time employment rates. At the same time, a focus on outcomes among only the employed (such as full-time employment, or wages, or access to professional/managerial occupations) may miss the fact that in some countries, relatively few women and mothers are employed. In this paper, we distinguish between *employment rates and full-time employment rates among men and women*, and examine how both *gender and parenthood* relate to employment vs. full-time employment for childless men, childless women, fathers, and mothers, controlling for other factors.

By doing so, we hope to provide clearer conceptual maps of how employment and full-time employment vary cross-nationally, and show how these mappings relate to factors such as household specialization and women's human capital, structural conditions, institutional factors such as work-family policies, cultural understandings of women's roles. We seek to untangle some of the conundrums that have complicated this important literature by mapping how employment and full-time employment are associated for mothers across countries. In doing so, we hope also to provide scholars, advocates, and policymakers with a greater comprehension of how to create policy contexts in which women are able to make real choices regarding care and employment, even when they are mothers.

### **Theoretical Context**

Over the last several decades, women's growing employment has profoundly changed both the economy and society with women's integration into the labor markets (OECD 2002b; Pettit and Hook 2009). Although women's employment outside the home has changed remarkably, men's participation in carework – while increasing – has not undergone the same remarkably high rate of change. Since care demands do not simply evaporate when women enter employment, there remain a variety of questions about the factors that shape women's employment.

High levels of women's employment and women's full-time employment are not necessarily the goal; instead women and men should have real choices regarding caregiving and employment. At the same time, choices and preferences must be understood as constrained

based on the resources and opportunities available to women, men, and their families. At the same time, these resources and opportunities may both shape and be shaped by cultural understandings of women's and men's roles in society. As Jane Lewis (2009, p. 18-19) notes, "further enlargement of choices for women depends on men changing their behaviour, and in particular on changes to the male career norm... Truly genuine choice can only exist in a perfect universe of fair and adequate wages, generous family policies, and secure work and family situations."

What factors affect women's choices regarding employment? How are these choices constrained in terms of economic and institutional structures as well as cultural norms? We first describe cross-national patterns of women's employment, and then identify individual and household, structural, institutional, and cultural explanations for these cross-national differences.

### Patterns of Employment

There has been a remarkable narrowing of the gap between men's and women's employment rates (Rubery et al. 1999; OECD 2002b; Tranby 2008). Yet, there remains substantial variation across countries in women's employment rates (Pfau-Effinger 2004; Kremer 2005; Kenworthy 2008). Mothers' employment rates remain considerably lower than childless women's employment rates, while fathers' employment rates are higher than for childless men, exacerbating gender gaps (OECD 2002b; Pettit and Hook 2009). Employment is particularly low for mothers of young children (Pettit and Hook 2009). Patterns around employment during childbearing years differ remarkably cross-nationally. In some countries, mothers retreat from the labor force permanently; in others, they retreat only when children are young. In others, mothers do not retreat at all, either because employment and childbearing are combined, or because few women enter the labor market (OECD 2002b).

Looking across a number of contexts as well as over time, Rubery et al. (1999, p. 87) argue that "motherhood disrupts women's activity levels less now than in the past." England (2006, p. 248, Table 8.1), focusing on the United States, similarly shows a remarkable growth in mothers' employment over time, including a jump from 38% in 1978 to 58% in 1998 of women with children under six employed. Although mothers remain less likely to be employed than childless women, the *growth* in mothers' employment is remarkable (England 2006; Tranby 2008; Lewis 2009).

Although mothers' employment rates have increased, much of this is due to part-time employment. Women, particularly mothers, are more likely to be employed in part-time jobs (Blossfeld and Hakim 1997; Rubery et al. 1999; Gornick and Heron 2006; Tranby 2008) while men are more likely than women to work in full-time employment and work longer than their contracted hours (Gardiner 2000). When mothers are employed, they are more likely to work part-time than either men (including fathers) or childless women (Gardiner 2000; Hook and Pettit 2009). Trends in the growth of employment need to be unpacked to understand how much of this growth is for full-time employment and part-time employment.

### Preferences, Human Capital, and Household Characteristics

Individual-level and neo-classical economic emphasize the importance of human capital in the employment decision, particularly for mothers. Women with less skill or education will command a lower wage in the labor market, and likely hold less rewarding jobs. The choice to exit the labor market in favor of increasing care for children should be more attractive to those with lower human capital. On the other hand, highly educated women have a higher opportunity

cost for labor market exit, both in terms of wages foregone and in careers potentially derailed by a significant break for child-raising. Indeed, highly educated women are more likely to benefit from well-paid employment (Pettit and Hook 2005, 2009; Hicks and Kenworthy 2008). More highly educated women are also less likely to leave the labor market after becoming mothers across countries (Rubery 1999; Evans 2002; OECD 2002b; Pettit and Hook 2005, 2009; Tranby 2008). Women with higher educational attainment not only reap the rewards of better pay, but are consequently in a position to pay for services like childcare even when they are not provided through the state. If there are differences in women's educational attainment across countries, this might explain any variation in women's employment. Similarly, other human capital measures, such as job experience (which might be captured through a proxy such as age), should be positively associated with women's employment.<sup>1</sup> From this perspective, cross-national differences in the rates of women's employment and the differences in women's working hours may simply be responses to different national costs and benefits structures to women's employment, or different rates of educational attainment across countries.

From a household specialization perspective, women's choices to be wage-earners may be based in economic calculations they make jointly with their partners, regarding each partner's mix of human capital and pre-existing gender differentials in pay in the relevant labor market (Becker 1981). Household specialization may mean that women (particularly mothers) with partners are somewhat less likely to be employed, or to be employed full-time. In addition, women who live in households with higher levels of household income other than their own earnings are somewhat less likely to be employed, or employed full-time. The additional income from a partner, other household earnings, or other resources may enable women to choose to spend time caring, rather than being employed or employed full-time outside the home.

From a different perspective, Catherine Hakim's (1991, 2000) argues that different pathways reflect different preferences, categorizing women as "work-centered," "home-centered," or "adaptive." She suggests that work-centered and home-centered women are unlikely to be affected by changing structural and institutional contexts (such as childcare provision). Yet, she does not adequately theorize about how women attain different preferences, making her argument less clear in how it might explain variations in women's employment cross-nationally. In addition, Hakim's model is based on the assumption that women in affluent societies are able to make real choices about whether to focus on employment or unpaid care. Yet, there may be different structural and institutional contexts bounding women's opportunities, as well as their preferences.

### *Structural Economic Conditions & Institutional Supports for Women's Employment*

If we still find cross-national variations in women's employment after controlling for individual level factors, other structural and cultural explanations should help explain the remaining variation. Structural and institutional conditions may weaken women's engagement with employment or may strengthen women's employment.

Explanations for variation in women's employment rates cross-nationally may include a variety of structural economic conditions, such as unemployment rates, per capital GDP growth,

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<sup>1</sup> Scholars who examine employment by age do note a variety of different patterns by country, but for our purposes, we focus on age as a measurement of potential experience. Since the LIS data does not provide information about the age that respondents finish their education and respectively enter the labor market, we use age as a proxy measure for potential work experience. Given that we constrain our sample to women of childbearing age (25-45), we believe this to be a reasonable approach.

service sector growth, public sector employment, and union coverage (Huber and Stephens 2000; Eliason, Stryker, and Tranby 2008; Tranby 2008; Pettit and Hook 2005, 2009). Unemployment should theoretically depress women's employment rates (though its effects on full-time employment are less clear), while service sector growth should stimulate it, since women are more likely to be employed in service sector jobs.<sup>2</sup> Public sector employment, especially public sector service delivery, is often filled by women, and therefore associated with women's employment (though the causal direction is not entirely clear (Huber and Stephens 2000; Tranby 2008; Stryker, Eliason, and Tranby 2008).

Another set of institutional explanations focus on how welfare state policies – and in particular, work-family reconciliation policies, may affect the opportunities women have for employment. Rubery et al. (1999) note that favorable labor market conditions and work-family policies particularly affect maternal employment. Certainly, labor market and social policies in European countries have focused on increasing employment rates broadly, including women's and mother's employment. In part, this reflects a concern that welfare states will only be sustainable with high levels of employment, but it also reflects changing gender norms around women's employment (Esping Andersen et al. 2002; Kenworthy 2008). Encouraged by European Union directives, countries have adopted a number of policies meant to help increase women's employment, including policies centering on equal opportunities and equal pay for women, as well as policies focused on ensuring women have access to the labor market, and to a smaller degree ensuring that men have rights to provide care, by addressing work-family reconciliation (Orloff, O'Connor, and Shaver 1999; Stier, Lewin-Epstein, and Braun 2001; Guerrina 2002; Orloff 2002; OECD 2002a, 2002b; Pettit and Hook 2005, 2009). Jane Lewis (2009) suggests that we can conceptualize work-family policies as focused on time (e.g., working-time regulations), money (e.g., cash transfer for care through parental leaves), and services (e.g., childcare provisioning).

One approach is through work-time policies, including regulation of average weekly hours or support for part-time employment. The regulation of working time to less than the traditional standard of forty hours may help create contexts in which both men and women are able to spend time in both paid employment and paid care (Mutari and Figart 2001; Gornick and Meyers 2003; Gornick and Heron 2006; Fagnani and Letablier 2004). As Gornick and Heron (2006) note, "One of the most powerful mechanisms for shaping working time is the establishment of a normal (or standard) full-time working week." And parents report that shorter average weekly hours makes managing family care easier (Fagnani and Letablier 2004). Where part-time employment is well compensated and integrated into the labor market, part-time employment may be an effective strategy for integrating women into the labor market (Rubery et al. 1999; Evans 2002; Gornick and Heron 2006). Yet, depending on the country and its policies, part-time employment may also be seen as an approach that marginalizes women's labor market incorporation (Blossfeld and Hakim 1997; Stier et al. 2001; Mandel and Semyonov 2006; Kenworthy 2008; Pettit and Hook 2009).

In some countries, part-time employment strategies are viewed as short-term solutions when children are young, operating more as "a 'bridge' to full-time employment later in life than a 'trap' in marginal employment" (Stier et al. 2001, p. 1737). Although part-time employment is clearly associated with higher overall women's employment, the availability of part-time

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<sup>2</sup> For Pettit and Hook (2009), economic growth is negatively associated with women's employment, when controlling for growth of the service sector. Without the measure of service sector growth, we would expect economic growth to be associated with higher women's employment rates.

employment seems to depress the employment of mothers of older children, suggesting that part-time employment may be a short-term, rather than long-term strategy for maintaining women's ties to employment (Pettit and Hook 2009). As Rubery, Smith, and Fagan (1999, p. 2) argue, "the position of women within the labour market depends not only on the level of part-time work opportunities, but also on the form of part-time working across societies, whether it is organized as a marginalized and casual employment form or as an integrated and protected employment form." In most, if not all, countries part-time work also reflects gendered assumptions that can reinforce inequalities. Yet support for part-time employment may raise the quality and availability of part-time work, so that both men and women can be engaged in meaningful part-time work, while also being able to spend time on care (Mutari and Figart 2001; Gornick and Heron 2006).

Welfare state policies such as maternity leave, parental leave, and childcare provisioning have shaped women's employment and mothers' employment.<sup>3</sup> Most of the research from a welfare state perspective considers either how a certain complex of work-family policies (visible in groups or clusters of countries) or how specific policies shape women's employment. For example, Jane Lewis' (1992) early formulation described countries as either strong male-breadwinner, modified male-breadwinner countries, or weak male-breadwinner in orientation, with associated differences in women's employment rates. Since then, the relationship between women's employment and welfare state policies, including work-family or work-life reconciliation policies have been studied by many scholars; most argue for a positive relationship between generosity of policy and employment effects (Gauthier 1996; Gornick, Meyers, and Ross 1998; O'Connor, Orloff, and Shaver 1999; Daly 2000; Korpi 2000; Stier et al. 2001; Orloff 2002; Gornick and Meyers 2003; Pettit and Hook 2005; Mandel and Semyonov 2005; Misra et al. 2007a; Kenworthy 2008).

Much scholarship supports the idea that specific reconciliation policies boost women's employment (Pettit and Hook 2005; Kenworthy 2008). Maternity and parental leave policies may maintain women's labor market attachment; rather than quitting their jobs after giving birth, the leaves make it possible for them to return to the labor market. Well-paid parental leaves of short duration (less than one year) also help mothers negotiate the early months when infants require substantial care, without risking their jobs. Yet long leaves or leaves that are poorly compensated may have a paradoxical effect, dampening women's employment and weakening their opportunities in the labor market (Ronsen and Sundstrom 2000; Bainbridge, Meyers, and Waldfogel 2003; Morgan and Zippel 2003; Pettit and Hook 2005; Lewis 2006; Misra et al. 2007a, Misra et al. 2007b; Kenworthy 2008; Tranby 2008; Pettit and Hook 2009).<sup>45</sup>

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<sup>3</sup> As Guerrina (2002, p. 63) notes, reconciliation policies, "which despite the artificial gender neutrality enshrined in the language are actually targeted at women."

<sup>4</sup> Tranby (2008) notes that parental leave has a significant positive effect on women's employment – until controlling for part-time, when the effect becomes non-significant. Tranby also finds, unexpectedly, that longer parental leaves have *positive* effects on women's employment, though this effect also drops out when controlling for part-time employment. He suggests that this may be an indication that women combine part-time work with childcare leave (allowed in many countries).

<sup>5</sup> Paternity leaves, on the other hand, particularly when they are reasonably compensated can help increase women's employment, by making men appear more similar to women, and weakening employers' sense that women are "risky" employees (Korpi 2000). Certainly, there is evidence that – under the right kinds of conditions (such as Iceland's policy of one-third paid parental leave to men, one-third to women, and one-third joint), men have taken up parental leave (Lewis 2006).

There is also clear evidence that childcare provisioning, when provided not simply as half-days two or three days a week for 4 and 5 year old children, but more consistently and for younger children, has positive effects on women's employment (Korpi 2000; Pettit and Hook 2005, 2009; Stryker and Eliason 2004; Misra et al 2007a). Simply put, childcare allows mothers to remain employed. Childcare is exceptionally costly, and the costs for childcare, particularly for more than one child, may exceed the potential wages women (or men) might earn. Yet, when childcare is subsidized or provided by the government, and universally available, these costs go down (while also stimulating job growth through childcare workers). Public provision of childcare appears to increase women's employment rates, particularly childcare for very young children (0-2) (Pettit and Hook 2005, 2009; Misra et al. 2007a, 2007b; Tranby 2008). At the same time, market-provided childcare may also encourage women's employment, though childcare costs may suggest a trade-off in terms of childcare quality (Morgan 2005).

In a twist in this literature, Mandel and Semyonov (2006, p. 1911), while arguing that the "the welfare state contributes to increased labor force participation, enhances the economic independent of women and mothers, and strengthens their power within the household and with society at large," also suggests that "none of [these state actions] seriously challenge the traditional division of market-family responsibilities between men and women." Although more focused on the glass ceiling that public sector employment and family policies may produce, Mandel and Semyonov (2006) examine women's labor force participation, as well as their part-time employment. They find that "well-developed" welfare states (defined by maternity leave policies, childcare, and public sector employment) have higher rates of employment, but also of part-time employment. In supplementary analyses they also note that women in these well-developed welfare states have been reducing their hours of employment (while women in countries without a well-developed welfare state, like the U.S., have instead been increasing hours). Their arguments are worth examining more closely, yet with separate policy measures, since (as the above discussion suggests) combining measures of generous parental leave and childcare and public sector employment may make it difficult to assess what is happening, especially when these factors may have differing effects on women's employment. Mandel and Semyonov (2006) also tend to emphasize women's full-time employment as a measure of greater gender equality, yet if women adopt men's employment behaviors without a concomitant change in men's time spent on care, quality of life may suffer (Lewis 2009).

### *The Importance of Cultural Factors in Shaping Employment Levels*

In addition, structural explanations may not fully explain the remarkable variation found in women's labor market participation. For example, the United Kingdom has somewhat better work-family policies and part-time employment opportunities than then United States, yet lower levels of women's employment. In order to make sense of these variations, a number of scholars have stepped in to posit the importance of cultural factors. Although structural factors, such as availability of childcare, may explain some of the variation in women's employment rates, much variation remains unexplained. Pfau-Effinger (2004; see also Misra and Jude 2008) also notes that statistically significant associations (such as between childcare and women's employment) do not necessarily identify causal relationships (for example, childcare availability may go up in *response* to high levels of women's employment, rather than childcare availability driving women's employment).

Birgit Pfau-Effinger (1998, 2004) argues that there are three dimensions that affect women's employment, including the *gender culture* (values regarding work, care, and gender),

the *gender order* (welfare and labor market policies, which reinforce the gender culture), and the *gender arrangement* (the division of labor within families). Pfau-Effinger (2004) focuses on differences in West-Germany, the Netherlands, and Finland – as well as change over time in these countries – to consider how cultural traditions interact with social institutions – including the welfare state, labor market, and family – to shape women’s employment and changes in women’s employment. For Pfau-Effinger (1998, 2004), policies do not instigate employment choices in a vacuum, instead policies (the gender order) interact with the gender culture and gender arrangement. Although she notes that “gender arrangements can be fairly stable and coherent in the long term,” “inconsistencies may develop in the cultural or social system which then result in a falling degree of cultural or social integration,” increasing the opportunities for social change (Pfau-Effinger 2004, p. 48). One of the key strengths of Pfau-Effinger’s (1998, 2004) analyses is that she recognizes the impact of cultural traditions on behaviors, within a *dynamic* model that also recognizes that there are always alternative cultural values and cultural change.<sup>6</sup>

With a similar intent, though greater focus on care, Monique Kremer (2005) suggests that welfare states promote certain “ideals of care,” which define both what good care is and who provides it, and these ideals are embedded in the welfare state policies. For Kremer (2005, p. XX?), analyzing Belgium, Denmark, the Netherlands, and the United Kingdom, “the question that gives the most insight into women’s and men’s employment and care patterns is not whether women want to work, but what is the most appropriate care when mothers are at work.”

In earlier research that focused on only nine countries, we showed that motherhood significantly decreased the likelihood of employment in every country, controlling for age, education, and marital status (Misra et al. 2007a). Yet, there was tremendous variation in this effect, from 24% in Sweden to 85% in the Netherlands. We also examined how motherhood affected the likelihood of part-time employment, relative to non-employment or full-time employment. In countries where childless women participate in relatively high levels of part-time employment (e.g., Germany), motherhood had little effect. However, where childless women are mostly employed full-time, motherhood increased the odds of part-time employment (e.g., U.S. and Sweden).

In this study, we examine how gender and parenthood affect the probability of employment, controlling for a number of individual factors. We pay attention both to employment, and – among the employed – full-time employment, since part-time and full-time employment clearly has different consequences for workers’ earnings and career trajectories, and, in Mandel and Semyonov’s (2006) words, different “trade-offs.” We pay particular attention to the ways in which not just gender, but parenthood, shapes these outcomes for both men and women. We then focus on women, to compare how different mothers are from childless women, controlling for individual level characteristics. Finally, we examine the associations between a variety of structural, institutional, and cultural factors with our outcomes for mothers, which may help understand the trends we observe.

## **Methods & Data**

We use data from multiple sources. The individual-level data comes from the Luxembourg Income Study (LIS). The LIS harmonizes separately collected national survey data on households,

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<sup>6</sup> Pfau-Effinger also (2004) challenges normative assumptions about women’s best interests lying in full-time employment.

income (including transfer income), and employment. Surveys and samples are detailed in Table 1. We mainly use data from LIS wave 5 (data from around 2000) for 19 countries. We examine former East and West Germany separately, due to the persistent differences in employment patterns and different policy legacies (Rosenfeld, Trappe, and Gornick 2004). This results in 20 cases included in the analysis. For all countries, the sample is restricted to adults aged 25 to 45 (prime years for childrearing), who are not in the military.<sup>7</sup>

We conduct two sets of analyses applying different restrictions on the samples.<sup>8</sup> First we estimate employment rates and the effects of gender and parenthood on the probabilities of employment. Next, we restrict the sample to employed persons and estimate full-time employment rates and then examine the ways gender and parenthood impact the probabilities of full-time employment. Respondents working 30 hours per week or more are coded as full-time employed.<sup>9</sup>

[Table 1 About Here]

To examine the impact of gender and parenthood on overall and full-time employment, we run separate logistic regressions for each country. For the first set of regressions the dependent variable is a dichotomous variable coded 0 if not employed and coded 1 if employed, regardless of the number of usual hours worked.<sup>10</sup> Respondents on temporary leave (such as maternity, parental or sick leave) and respondents in on-the-job training programs are only coded as employed if there is a clear indication that they still have a link to their job, for example if they report earnings (Luxembourg Income Study 2009). For the second set of models run on employed persons only, the dependent variable is a dichotomous variable coded 0 if part-time and 1 if full-time employment (i.e. working 30 hours or more per week).

The independent variables of interest are gender of respondent (man=0, woman=1) and a dichotomous variable indicating whether the respondent has children living at home (childless=0, parent=1).<sup>11</sup> Other individual-level independent variables include relationship status (=0 if single, =1 if cohabiting or married), respondent's age (in years), educational attainment measured with a

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<sup>7</sup> The samples include respondents in dependent employment, self-employed and not employed respondents. For our analyses of full-time employment, we exclude the self-employed because the measure of working hours are not reliably included for self-employed across all the countries under study. As Budig (2006) shows, self-employment can be a solution for women who wish to be employed, but do not have access to childcare and other services. We would rather include the self-employed, yet imputing hours data for the self-employed in the countries that did not include hours data would mean that for many of our analyses, we would be working with an imputed dependent variable. We believe the better solution is to focus on the dependent employed for our equation predicting full-time employment.

<sup>8</sup> An alternative approach is multinomial logistic regressions, which differentiate between outcomes of not employed, part-time employed, and full-time employed. Yet, in our experience, interpreting these models is less straightforward, leading to our choice of running two sets of logistic regressions.

<sup>9</sup> In Finland weekly hours are not available. To construct a measure of full-time employment, we used the number of weeks worked full-time and weeks worked part-time in the survey year. If a respondent spent a majority of the weeks in full-time employment he or she was coded as full-time employed.

<sup>10</sup> For a majority of countries we use a measure of labor force status at the time of the survey to construct our measure of employment status. In Finland, Italy, and Sweden labor force status in the income reference period is used.

<sup>11</sup> Due to data limitations, only mothers and fathers with children living in their household can be identified. This likely leads to underestimation of the effects of parenthood.

dummy variable=1 to indicate post-secondary education or occupational training leading to certification, other household income and other household income squared (total household income minus respondents' earnings). These individual-level control variables capture the factors that matter for the household specialization argument: parenthood, marriage or cohabitation, low human capital, and high other household income should all reduce the probability of employment, and of full-time employment.

The country-level measures are taken from the 2002 Family and Changing Gender Roles Surveys that are part of the International Social Survey Program (attitudes toward women's employment).<sup>12</sup> Like LIS, the ISSP collects data across a range of countries, in order to ensure comparability. Although this data was collected slightly *after* our period of interest, we prefer these data to the earlier (1994) wave, since these measures of cultural values regarding women's roles changed substantially over time in some countries. We focus on three questions: the percentage agreeing that a "woman should work when a child is preschool aged"; the percentage agreeing that a "woman should work when the youngest child is school aged"; and the percentage disagreeing with the statement "Both [men and women] should contribute to household income."

The policy measures are taken from our own comprehensive policy database, the NSF funded "UMass Welfare State Work-Family Policy Indicators," covering family leave policies, childcare coverage, working time regulations, school scheduling indicators and tax policies. The database consolidates information from numerous sources, including existing policy databases (incl. Gauthier and Bortnik 2001; Gornick and Meyers 2003; Gornick, Meyers, and Ross 1997; Jaumotte 2003). Our database includes multiple time points for 22 countries: Australia, Austria, Belgium, Canada, Czech Republic, Finland, France, Germany (East and West), Hungary, Ireland, Israel, Italy, Luxembourg, Netherlands, Poland, Russia, the Slovak Republic, Spain, Sweden, Switzerland, the United Kingdom, and the United States.<sup>13</sup> We match our policy measures to the LIS survey year for each country, generally lagging the measurement of the policies to two years prior to the survey year.<sup>14</sup> While the database includes a wide variety of policy measures, we focus here on parental leave length, parental leave benefits, childcare for children 0-2, and normal weekly working hours.<sup>15</sup> Following current practice (Gauthier and Bortnik 2001; Gornick and Meyers 2003), we include measures of the policy (e.g., number of weeks and benefits levels), and measures of policy usage.<sup>16</sup> Childcare policy includes the percentage of children age 0-2 and the

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<sup>12</sup> These data are available through the Leibniz Institute for the Social Sciences:

<http://www.gesis.org/en/services/data/survey-data/issp/modules-study-overview/family-changing-gender-roles/2002/>.

<sup>13</sup> We do not include Switzerland, Poland and the Slovak Republic in this analysis due to limitations in the available individual level data.

<sup>14</sup> Of course, it is likely that the lagged effect is longer, especially given our measurement of motherhood. Without longitudinal individual-level data, however, we believe that this is the best approach to take.

<sup>15</sup> Previous research primarily uses generalized indices that group together leave, work-time, child-care, and schooling policies (Gornick and Meyers 2003) or measures of leave, child-care and public sector employment (Mandel and Semyonov 2006). We argue that combining them into one index obscures important differences.

<sup>16</sup> For example, we include the percentage of children in publicly funded care, which taps the availability of government-sponsored childcare slots (for example, though subsidized childcare exists in the United States, it can be difficult to access).

percentage of children age 3-5 in publicly funded care.<sup>17</sup> For leaves, measures include the number of weeks of parental leave, along with the level of parental leave benefits.<sup>18</sup>

## Findings

### Descriptive Analyses

One thing is clear: men in their prime childbearing years (between 25-45) are more likely to be employed than women of the same age group. Table Two summarizes employment and full-time employment rates for men and women between 25 and 45, divided between those who are childless and those who are parents.<sup>19</sup> It is important to note that the denominator in the full-time employment columns is different from that for the employed columns; for full-time employment, the denominator includes only those who are employed.

[Table 2 about Here]

Differences in employment rates within gender by parenthood status are oppositional: among men, parenthood is associated with higher overall and full-time employment, while among women parenthood reduces full-time employment and overall employment (with the exception of Sweden and Russia). Gender differences are also pronounced: Table Two shows that for every country in our sample, men have higher employment rates than women; yet there is tremendous variation in how men and women's rates compare. While only 48% of Spanish mothers are employed, compared to 95% of fathers, 87% of mothers in Sweden are employed, compared to 94% of fathers.

Even if we focus simply on childless men, we find a remarkable degree of variation in employment rates. Indeed, childless men's *overall* employment rates vary from 75% in Russia and Hungary to 98% in Luxembourg<sup>20</sup>, most likely signaling difficult economic circumstances in

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<sup>17</sup> Ideally, these measures represent the % of children enrolled in formal publicly funded childcare for the age groups of 0-2 year olds and 3-6 year olds. However, data availability varies from country to country: age groups included may differ slightly and some sources do not distinguish between publicly and privately funded care arrangements (primarily in countries where privately funded care does not play a major role).

<sup>18</sup> The parental leave measure represents the number of weeks of parental leave available to women (not including weeks of maternity leave) as of two years prior to the LIS survey data. Only schemes that allow parents to take time off work completely for a period of time were included in the measure. Consequently, the Dutch scheme that allows parents to *reduce* working time for a maximum of six months was not included. The number of weeks of parental leave in Canada, for example, refers only to leave provisions under federal jurisdiction. The provisions vary by jurisdiction. Provincial regulations may exceed the federal regulation in terms of the length of leave. Parental leave benefits are often paid in form of a flat-rate. In these cases, the flat-rate is expressed as a percentage of women's median earnings. Means-tested schemes are recorded as zero.

<sup>19</sup> We define full-time employment rates quite liberally, as employment for 30 hours or more a week. Had we used a stricter definition of full-time employment, such as 38 hours a week, the ratios of men's to women's employment that we present below would be even larger.

<sup>20</sup> The Luxembourg Income Study data for Luxembourg represents only one slice of the population, specifically "The population covered is limited to those persons who are directly or indirectly linked to the Social Security system of Luxembourg, and not the totality of the population residing in the country. This means that foreigner civil servants, employees of foreign firms who are only temporarily installed in Luxembourg and who are linked to the social security system of their country, as well as the Luxembourg nationals who live in the country but work abroad are not covered" (Luxembourg Income Study 2000).

Eastern Europe at the time of the surveys. In comparison, there is less variation in fathers' employment. Indeed, fathers' overall employment rates vary from 84% in Israel to 98% in Luxembourg. Except in Luxembourg (where fathers and childless men are employed at the same rate) and Israel (where childless men slightly pull ahead of fathers), fathers are more likely to be employed in every country. While most employed men work full-time in these countries, there is some variation. Among childless men who are employed, full-time employment ranges from 82 percent in Russia to 99 percent in the Czech Republic. There is slightly less variation among fathers: from 89 percent (Russia) to 99 percent (Austria, Czech Republic, Finland, and Luxembourg). Fathers are more likely to be working full-time than childless men.

If we focus instead on women, we find a different story, although still great variation in employment and even more so in full-time employment. Childless women's overall employment rates vary from 73% in Spain to 92% in Luxembourg, Netherlands, West Germany and the Czech Republic, while full-time employment for childless women varies from 78% in Sweden (where part-time employment appears to be normalized for childless women as well as mothers) to 97% in Czech Republic. Mothers' employment rates vary more dramatically, from 48% in Spain to 87% in Luxembourg. Conversely to men, childless women are more likely to be employed than mothers *except* in Sweden and Russia, though there is a great deal of variation. In Spain and Italy, childless women are approximately 1.5 times as likely to be employed as mothers are; yet in many countries, childless women are only slightly more likely to be employed. There is greater variation in full-time employment. Approximately 23% of Dutch mothers who are employed work full-time, compared to 96% of mothers in Czech Republic. While the Netherlands is clearly an outlier, if we exclude it, there remains a range between 36% in West Germany and 96% in Czech Republic. Employed childless women are more likely to be working full-time than mothers in every country. Again, the range is remarkable – with very little difference between mothers and childless women in the Czech Republic and Russia, and dramatic differences between mothers and childless women in the Netherlands and West Germany. It appears that Dutch and West German mothers use part-time employment as a strategy for combining unpaid family carework and employment.

When we shift perspective again to explore gender differences, childless men and childless women look relatively similar, although childless women are less likely to be employed in every country except Russia, Hungary, and East Germany. *Yet, notably, there are smaller differences between childless men and women (with an average ratio of 1.06 for both overall and full-time employment rates), than there are between childless women and mothers (with an average ratio of 1.26 for overall employment rates and 1.42 for full-time employment rates).* By the turn of the 21<sup>st</sup> century, gender made remarkably little difference in employment among the childless, with the exceptions of Spain and Italy. Parenthood has become a more crucial axis of differences in employment, although parenthood itself is gendered, with – for the most part – fathers being more likely to be employed than childless men, and mothers being less likely to be employed than childless women (see also, OECD 2002b).

When we compare differences across countries in mothers' and fathers' employment rates, we see that the largest gaps are here, though there remains remarkable cross-national variation. Mothers are only slightly less likely to be employed than fathers in Sweden; yet mothers in Italy and Spain are almost half as likely to be employed than fathers. *The dramatic differences in full-time employment are among employed mothers and fathers (with an average*

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The LIS data for Luxembourg may overestimate men's employment, but we are, of course, limited by the data available.

*ratio of 1.57*). While there are only slight differences between working full-time for mothers and fathers in Russia and Czech Republic, there are large differences in most countries. Employed fathers are more than twice as likely to work full-time as employed mothers in the United Kingdom, West Germany, and more than four times as likely to work full-time as employed mothers the Netherlands. These variations suggest that parenthood plays an important role in shaping employment for both men and women.

These trends should make clear two points: (1) the difference in employment rates and full-time employment is larger between fathers and mothers than childless women and childless men, and (2) full-time employment among mothers is relatively rare, even where women's employment levels are high. Since childless women's patterns look more similar to childless men's patterns, caregiving responsibilities for mothers (as well as expectations of breadwinning for fathers) may help explain more of the variation in women's employment rates cross-nationally. This suggests that *gender* and *parenthood* intersect to create different employment patterns, and that understanding women's employment requires a focus on how *employment and full-time employment are associated*.

### Multivariate Findings

After identifying the importance of considering both gender and parenthood to explaining employment and full-time employment, we move to multivariate analyses, which allow us to control for a variety of individual and household-level factors and may help explain differences in women's employment rates. We estimate logistic regression models, predicting the likelihood of employment for all adults between 25-45, and then separate logistic models, predicting the likelihood of full-time employment for all employed adults between 25-45.<sup>21</sup> We test for significant differences in employment probabilities by gender and parenthood status by including interaction terms between gender and parenthood in the models.

We include a number of control measures that predict employment – age, whether the respondent is married or partnered, educational attainment, and any other income in the household (household income minus the respondents' income), as well as this other household income squared (on the assumption that other income will have a curvilinear effect). In these equations, these controls acted as expected, with education showing the strongest effects (Kenworthy and Hicks 2009) outside of our variables of interest. We focus on the net effects of gender and parenthood on the probability of overall and full-time employment.<sup>22</sup> What is important to note is that, although the controls did act as expected, the remarkable cross-national variation in women's employment remains. Therefore, other structural and cultural factors may be important to understanding women's employment rates.

Table Three presents the predicted probabilities for overall employment for childless men, fathers, childless women, and mothers between 25-45, as well as the predicted probabilities for full-time employment from among employed childless men, fathers, childless women, and mothers, controlling for age, education, partnered status, income, and other income squared.

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<sup>21</sup> As noted earlier, we do not include the self-employed in the models presented predicting full-time employment, because hours data for the self-employed were not consistently available for the countries in our sample, and we did not want to impute the dependent variable (full-time employment). We also ran the same models – including the self-employed – for a smaller group of countries. These findings did not vary in significant ways, so we present the findings for the larger groups of countries, but constrained to those who are not self-employed.

<sup>22</sup> Full regression models are available on request from the authors.

These trends are surprisingly similar to the bivariate results presented in Table Two, suggesting that it is not simply differences in household specialization or in human capital driving the cross-national variation we observe.

[Table Three About Here]

Another way to present this data is to show the difference between predicted probabilities of fathers' employment and childless men's employment, childless women's employment, and mothers' employment, net of controls. Figure One shows these differences; the black bars show the differences between mothers' and fathers' predicted probabilities of employment; the dark gray bars show the difference between childless women's and fathers' predicted probabilities of employment; and the light grey bars show the difference between childless men's and fathers' predicted probabilities of employment. The figure shows that childless men's predicted probabilities typically fall only a little below fathers', and childless women's predicted probabilities are fairly similar to childless men's predicted probabilities. In striking contrast, the black bars draw attention to how much lower mothers' predicted probabilities of employment are, even net of controls. For every country, other than Sweden and East Germany, mothers are remarkably less likely to be employed, particularly in comparison to fathers. Only Spain and Italy also seem to have dramatic lower levels of childless women's predicted probabilities, but even here, mothers' predicted probabilities are even lower.

Figure Two presents the same information, for the difference between predicted probabilities of fathers' full-time employment and childless men's, childless women's, and mothers' full-time employment, net of controls. Again, the black bars show the differences between mothers' and fathers' predicted probabilities of full-time employment, using the same bar shading scheme as the prior graph. Again, the differences between mothers' and fathers' predicted probabilities of full-time employment are the most dramatic. It is interesting, as well, to note that the differences between fathers' and mothers' predicted probabilities for full-time employment leads to a different line-up of countries from the difference between fathers' and mothers' predicted probabilities for employment, displayed in Figure One. While the differences between fathers and mothers are relatively small in both figures for Russia, for Sweden they are small for employment, but larger for full-time employment. And while West Germany shows relatively large gaps for both employment and full-time employment, the Netherlands has smaller employment gaps and much larger full-time employment gaps.

Figure Three summarizes the association between predicted probabilities for mothers' employment, and predicted probabilities for mothers' full-time employment, (using the predicted probabilities that control for other factors, such as age, education, partnered status, other household income, and other household income squared). This mapping allows us to identify clear differences in the ways mothers are engaged in employment and full-time employment across these countries, controlling for individual/household level factors. Of course, the clusters we draw are only one potential way of mapping the countries; there can be a great deal of variation within each cluster; the figure should make this clear. In Figure Three, we also identify countries as those with high levels of women's employment (including both mothers and childless women), which are represented by bold text in the figure; those with moderate levels of women's employment, which are italicized in the figure; and finally, those with lower levels of women's employment, which are underlined in the figure. The correlation between women's employment, mothers' employment, and mothers' full-time employment is not perfect, but there

is a clear association. It appears that there are a variety of strategies that countries have taken regarding mothers' employment.

[Figure Three About Here]

In the high employment/full-time cluster (Czech, East Germany, Russia, and the United States), mothers have relatively high levels of both employment and full-time employment. Here, mothers may be relying on family care, market-provided care (as in the United States), or state provisioning developed during the Soviet period.<sup>23</sup> In either case, these women do not appear to have a great deal of choice – in many cases, their incomes are likely important to the wellbeing of their families. In the high employment/moderate full-time cluster (Canada, France, Belgium, Luxembourg, Sweden, Austria), employment for mothers is quite high, but full-time employment is somewhat moderated. For example, in Sweden, mothers' employment itself is remarkably high, yet a relatively large group of employed mothers work part-time (less than 30 hours a week). These countries' policies may support part-time employment strategies, although we cannot tell from this data whether these part-time strategies are marginalizing or integrating (Rubery et al. 1999). In the moderate employment/high full-time cluster (Finland, Hungary), it appears that mothers are slightly less likely to be engaged in employment, but once they are engaged, they are likely to work at full-time levels. This may relate to a lack of support in these countries for part-time employment as a strategy. Yet these three clusters represent countries where mothers are quite highly engaged in the labor force.

This leaves us with three other clusters, where mothers are more variably engaged in the labor force. In the high employment/low full-time cluster, the Netherlands stands alone. While the employment rate is amazingly high (particularly relative to mothers' employment a decade earlier; see Misra and Jude 2008), most mothers work part-time. Although Holland's "combination model" of shared care and employment for men and women has been much touted (Gardiner 2000), in actuality the model promotes part-time employment for mothers and full-time employment for fathers. This strategy is quite similar in the moderate employment/low full-time cluster (Australia, Ireland, UK, and West Germany), although full-time rates are somewhat higher, and employment broadly is somewhat lower. Here, it is clear that (at least some partnered) mothers have a choice between employment and care, and that once employed, part-time employment serves as a strategy to balance employment and care. As Jane Lewis (2009, p. 33) argues, part-time is "recognizably *the* way of reconciling work and family in the UK, the Netherlands, Germany, and Austria." Finally, the last low employment/moderate full-time employment cluster (Spain, Italy, and Israel) presents a quite different balance. Here, fewer mothers enter the workforce (more in Israel than either Spain or Italy), while those employed have moderate levels of full-time employment.

These cluster that identify differences in *what proportion* of women are employed *and* whether that employment is *full-time or part-time* might help explain some of the contradictory results in the welfare state literature. For example, women in Spain and Italy may be less constrained to lower-level jobs (Mandel and Semyonov 2006); yet their performance may be related to the "creaming effect" that relatively low levels of women's (and mothers') employment might create. At the same time, the explosion in Dutch mothers' employment is not necessarily due to successes at drawing Dutch men into shared work and care (Gardiner 2000),

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<sup>23</sup> Levels of provision have decreased dramatically in the 1990's in Central and Eastern European countries, especially for young children.

but due to Dutch mothers' very high integration into part-time employment.

### Cross-National Explanations for Women's Full-Time Employment

Keeping these clusters in mind, we next use our predicted probabilities to examine whether structural, institutional, and cultural factors may affect mothers' employment. From this point on, when we refer to "net employment probabilities" or "net full-time employment probabilities," we are referring to these predicted probabilities controlling for age, relationship status, education, other household income, and other household income squared. We present a series of figures, which plot the associations between structural, institutional, and cultural factors against mothers' full-time employment.<sup>24</sup>

A number of structural measures might influence women's employment, including the strength of the economy and unemployment. In Figure Four, we examine the relationship between mothers' net full-time employment probabilities and GDP per capita, which is a measure of countries' economic strength. In those countries with lower levels of GDP per capita, mothers are somewhat more likely to work full-time. This relationship is almost entirely driven by three countries with much weaker economies – Czech Republic, Russia, and Hungary, although the negative relationship remains even with these outliers removed.<sup>25</sup> Surprisingly, we see a positive relationship in Figure Five between the predicted probability of women's full-time employment and female unemployment – where women's unemployment rates are higher, predicted probabilities of women's full-time employment is higher. This does not hold for predicted probabilities of mothers' employment, where the relationship is negative (as we would expect).<sup>26</sup> In economically difficult times, different groups of women may play different roles. Some women may retreat from the labor market (as the "reserve army of labor"), while others may work longer hours to provide for their families.

[Figures Four and Five About Here]

Work-time regulations may also shape women's employment (Gornick and Meyers 2003). We would expect that where work-time regulations limit hours of employment, we might see more women in the labor market. Conversely, we might see more women employed full-time where the regulations governing hours of employment are relatively lax, as in Israel, where regulations are set at a 45-hour week. Figure Six shows the relationship between mothers' net full-time employment probabilities and work-time regulations governing regular weekly hours. In fact, there is relatively little variation in this measure. Yet, it is strongly and positively associated with women's full-time employment. Interestingly, there is a flat association between regulations regarding working hours and women's *employment*. In both the Netherlands and the

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<sup>24</sup> Of course, we have plotted these associations for predicted probabilities of mothers' employment as well, but space limitations made it prohibitive to present graphs for both employment and full-time employment outcomes. The graphs for both look quite similar, although in a number of cases, the association with predicted probabilities of mothers' full-time employment is stronger (which is not surprising). We comment on the graphs of mothers' employment in footnotes 23-23, 26-29, and in the text when the graphs differ enough for further discussion.

<sup>25</sup> The same relationship appears when we focus on predicted probabilities of mother's employment, though it is slightly weaker.

<sup>26</sup> For these graphs, we had to leave out Spain, since female unemployment was exceptionally high, and drove the association.

Czech Republic, mothers' employment rates are high, despite the differences in regulations regarding working hours. It does not appear that women are *more likely* to be employed when regulations limit work hours, but it does appear that women are more likely to be employed full-time when regulated work hours are high.<sup>27</sup>

[Figure Six About Here]

For welfare state policy measures, we focus on childcare, parental leave, parental leave benefits. Figure Seven shows the relationship between mothers' net full-time employment probabilities and the maximum parental leave available to women (in weeks). The literature suggests that parental leave helps women maintain ties to employment, although very long leaves may actually weaken women's attachment to employment (Pettit and Hook 2005, 2009; Misra et al. 2007a; Kenworthy 2008). This figure does show the expected curvilinear effect, with women's employment somewhat lower in countries with limited parental leave, higher when leave is between 60 and 100 weeks, and lower again when parental leave weeks climbs above 120 weeks. Yet, the picture also makes clear that West Germany's relatively low levels of full-time employment explains *all* of the downward curve.<sup>28</sup> Indeed, Ilona Ostner (2006) argues that the introduction of German parental leave helped women, particularly low-income women, leave the labor market rather than remain linked to the labor market. This suggests that it is not simply a generous leave policy that might dampen women's ties to employment; instead, generous leave policy may play out differently in different contexts.

[Figure Seven and Eight About Here]

Another expectation in the literature is that it is the generosity of the benefit that shapes how effective it is in helping women maintain ties to employment. Figure Eight shows the association between mothers' net full-time employment probabilities and the level of parental leave benefits available to women (flat rate benefits are expressed in percent of women's median earnings). Clearly, there is a positive relationship; countries with higher levels of benefits also show higher levels of mothers' full-time employment.<sup>29</sup>

Figure Nine shows the relationship between mothers' net full-time employment probabilities and the percentage of children 0-2 enrolled in public childcare. This childcare measure varies quite a lot, from 1 percent to 41 percent. While some countries with high levels of full-time employment do not also have generous childcare provisioning for infants and toddlers, generous childcare provisioning exists in many countries with moderate to high levels

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<sup>27</sup> In order to further unpack how work-time might influence mothers' employment, we also plotted the predicted probabilities for mothers' employment and mothers' full-time employment against men's average usual weekly hours. Here, we saw a negative relationship of mothers' employment with men's usual weekly hours (where men work more hours, women are less likely to be employed), although a relatively flat relationship between mothers' full-time employment and men's usual weekly hours.

<sup>28</sup> Indeed, when we plot predicted probabilities of mothers' employment against parental leave benefits, we find a relatively flat line.

<sup>29</sup> The same relationship is evident when we look at the association of parental leave benefits with predicted probability of mothers' employment.

of women's full-time employment.<sup>30</sup> As in other studies, we find a strong relationship between childcare and mothers' employment, with high childcare costs or lack of accessibility to childcare limiting women's employment and full-time employment (Gornick and Meyers 2003; Lewis 2009).

[Figure Nine About Here]

Finally, we explore associations between different measures of cultural preferences, particularly regarding care for children, and predicted probabilities of women's full-time employment. As Kremer (2005) argues, "ideals of care" may strongly influence women's choices to be employed, or to be employed full-time, even against institutional and structural supports. We looked at two measures: the percent of respondents who prefer women's full-time employment when children are under school age, and those who prefer women's full-time employment when youngest child is above school age. In Figures Ten and Eleven, we present the association between predicted probabilities of mothers' full-time employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and the percentage of respondents preferring women's full-time employment when children are below school-age, and percentage of respondents preferring women's full-time employment when the youngest child is over school age. Clearly, predicted probabilities of women's full-time employment in higher in countries where more people prefer women's full-time work when children are over school age.<sup>31</sup>

[Figures Ten and Eleven About Here]

Finally, Figure Twelve presents the predicted probabilities of mothers' full-time employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and % of respondents disagreeing with the statement "Both the man and woman should contribute to the household income." Not surprisingly, we see a strong negative relationship. In countries where more people challenge the notion that both men and women should contribute to the household income, predicted probabilities for women's full-time employment are considerably lower.<sup>32</sup>

[Figure Twelve About Here]

## Discussions and Conclusions

We have explored women's and mothers' employment patterns, relative to men's, and identified substantial variation across countries. Our findings also point out that in most countries, the variation between mothers' and childless women is larger than that between

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<sup>30</sup> When we examine the relationship with the percentage of children 3-6 enrolled in public childcare, we see the same positive relationship, though it is flatter, in part because most countries have adopted public provision of childcare for children 3-6.

<sup>31</sup> In addition, the relationship holds, but is somewhat flatter, when we focus on predicted probabilities for employment.

<sup>32</sup> The same relationship holds, but is somewhat flatter, when we focus on predicted probabilities for employment.

childless men and childless women. This suggests that differences in women's employment patterns are not so much driven by *gender*, as by *gendered parenthood*, with fathers employed at higher levels and mothers employed at significantly lower levels. In addition, this variation remains salient, even when we control for individual and household-level factors, such as women's human capital, and partnered status and household income. This suggests that women's, and particularly mothers' choices and preferences regarding employment remain bounded – structural and cultural contexts shape their opportunities.

We have also explored the way employment and full-time employment are associated, identifying clusters of countries based on patterns regarding both mothers' employment and full-time employment behaviors. We suggest that these clusters identify important differences in the strategies countries – and women – have pursued to balance work and family life. For example, countries with high employment and high full-time employment, such as the United States or the Czech Republic, are quite different from countries with high employment but only moderate full-time employment, such as France and Sweden. In the second grouping, mothers – particularly when their children are young – cut back on their hours of employment, but remain attached to the labor market. Another grouping of countries with moderate employment and low full-time employment, such as West Germany or the United Kingdom, takes this approach one step further, leading to even lower levels of labor force attachment. In the Netherlands, with high employment but very low full-time employment, this strategy is exaggerated further. Moderate employment but high full-time employment countries, like Hungary and Finland, take another tact; Finland does have exceptionally high full-time employment rates, but this must be read in a context where some (but not many) women leave the labor market altogether. Finally, low employment and moderate full-time employment countries, like Spain and Italy, have relatively few mothers employed, but more of employed mothers working full-time.

We would argue that recognizing these different strategies, and what they suggest, is important to understanding differences in women's employment trajectories – not only regarding employment, but also regarding wages and occupations. Future research should explore these issues in greater detail. If, for example, wage penalties or occupational gender segregation appear lower in countries with relatively low levels of mothers' employment, this might suggest a trade-off between inclusive labor markets (which engage a larger number of mothers, but do not reward them) and exclusive labor markets (which engage fewer mothers, perhaps those with higher levels of human capital, but reward them for their participation).

In addition, we examined how variation in mothers' employment, and particularly full-time employment, is correlated with their structural, institutional, and cultural contexts. Our findings provide good evidence that these associations do matter, although they are not able to establish a causal direction. Yet, mothers should not be seen as simply expressing their preferences regarding employment; their preferences are shaped by the contexts in which they find themselves, even as these contexts may be shaped by mothers' preferences. Mothers' full-time employment appears to increase as economies weaken. Work-time policies may affect mothers' choices regarding full-time employment; where regulated work hours are longer, mothers work longer hours; but where men work longer hours, mothers work fewer. Mothers' full-time employment also increases in contexts with supportive leave and childcare policies. And cultural contexts clearly reflect the patterns we see. Where mothers work more, there is greater support for mothers' employment; where there is greater support for mothers' employment, mothers work more. While we may not be able to untangle causal direction, we *would* argue that combinations of cultural and structural supports may provide our best answers

to why mothers' employment varies so much cross-nationally, net of individual and household-level factors.

There is always more to be done. Future research should attempt to unpack these relationships further. In our own work, we are using multilevel approaches to analyze how institutional (country) level factors affect the variation between mothers' employment and childless women's employment. In these models, we are able to examine how cultural and institutional factors may be associated jointly with these cross-national variations.

In this paper, we have tried to provide clearer conceptual maps of how employment and full-time employment vary cross-nationally, and show how these mappings relate to factors such as household specialization and women's human capital, structural conditions, institutional factors such as work-family policies, cultural understandings of women's roles. With these tools in hand, we hope to continue the dialogue, and create greater support for mothers' choices regarding employment and unpaid care.

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Table One. Origins of individual level data and sample sizes

Country	Original Data Source	Survey Year	Full LIS Sample	Sub-sample I 25-45 year olds	Sub-sample II employed 25-45 year olds
Australia	Survey of Income & Housing Costs	2001	13,183	4,422	3,402
Austria	European Community Household Panel	2000	6,845	1,518	1,290
Belgium	Panel Study of Belgian Households	2000	6,935	2,027	1,720
Canada	Survey of Labour & Income Dynamics	2000	72,850	20,717	16,787
Czech Republic	Czech Microcensus	1996	71,836	17,773	15,313
Finland	Income Distribution Survey	2000	27,841	6,305	5,047
France	Household Budget Survey	2000	25,803	6,899	5,154
Germany East	German Social Economic Panel Study	2000	6,776	1,859	1,512
Germany West	German Social Economic Panel Study	2000	22,075	6,327	5,093
Hungary	Household Monitor Survey	1999	5,517	1,240	769
Ireland	Living in Ireland Survey / European Community Household Panel	2000	9,131	1,679	1,295
Israel	Household Expenditure Survey	2001	19,555	4,463	2,890
Italy	Survey on Household Income and Wealth	2000	22,268	4,500	3,208
Luxembourg	Socio Economic Panel	2000	6,240	1,973	1,603
Netherlands	Socio-Economic Panel	1999	12,445	3,770	3,256
Russia	Russia Longitudinal Monitoring Survey	2000	9,248	2,334	1,839
Spain	European Community Household Panel	2000	14,320	3,230	2,370
Sweden	Income Distribution Survey	2000	33,139	8,007	7,126
United Kingdom	Family Resources Survey	1999	59,010	15,927	12,432
United States	Current Population Survey	2000	128,821	34,161	28,004

Table Two. Employment and Full-Time Employment Rates for Childless Men, Childless Women, Fathers, and Mothers by Country

	Proportion Employed				Proportion Employed Full-Time			
	Childless		Parents		Childless		Parents	
	Men	Women	Men	Women	Men	Women	Men	Women
Sweden	0.87	0.85	0.94	0.87	0.86	0.78	0.94	0.70
Russia	0.75	0.79	0.89	0.82	0.82	0.87	0.89	0.86
Belgium	0.94	0.87	0.96	0.78	0.95	0.81	0.95	0.65
E Germany	0.81	0.89	0.89	0.78	0.91	0.88	0.97	0.80
Canada	0.89	0.85	0.92	0.75	0.97	0.89	0.98	0.75
Czech R.	0.94	0.92	0.97	0.75	0.99	0.97	0.99	0.96
Austria	0.92	0.9	0.96	0.74	0.97	0.93	0.99	0.51
Netherlands	0.95	0.92	0.97	0.72	0.95	0.82	0.97	0.23
US	0.89	0.83	0.93	0.71	0.92	0.9	0.93	0.80
France	0.90	0.85	0.95	0.70	0.94	0.87	0.97	0.74
Finland	0.85	0.8	0.94	0.68	0.97	0.95	0.99	0.92
UK	0.86	0.86	0.90	0.65	0.98	0.91	0.97	0.47
W Germany	0.94	0.92	0.95	0.63	0.94	0.86	0.98	0.36
Hungary	0.75	0.76	0.86	0.63	0.86	0.92	0.93	0.88
Ireland	0.91	0.88	0.93	0.61	0.93	0.86	0.96	0.51
Israel	0.86	0.78	0.84	0.61	0.94	0.83	0.97	0.75
Australia	0.88	0.87	0.92	0.59	0.95	0.87	0.97	0.51
Luxembourg	0.98	0.92	0.98	0.57	0.99	0.94	0.99	0.56
Italy	0.92	0.75	0.95	0.51	0.97	0.85	0.97	0.72
Spain	0.93	0.73	0.95	0.48	0.95	0.86	0.96	0.76

Table Three. Probability of Employment and Full-Time Employment by Gender and Parenthood (predicted probabilities controlling for age, relationship status, educational attainment, other household income, and other household income squared)

	Proportion Employed				Proportion Employed Full-Time			
	Childless		Parents		Childless		Parents	
	Men	Women	Men	Women	Men	Women	Men	Women
Sweden	0.902	0.872	0.949	0.847	0.883	0.802	0.936	0.657
Russia	0.763	0.794	0.892	0.829	0.818	0.866	0.892	0.860
Belgium	0.859	0.900	0.909	0.775	0.951	0.842	0.931	0.811
Netherlands	0.927	0.904	0.973	0.766	0.956	0.903	0.992	0.546
Austria	0.959	0.936	0.969	0.762	0.932	0.853	0.967	0.279
Canada	0.943	0.858	0.961	0.762	0.930	0.802	0.945	0.685
Czech R.	0.941	0.928	0.971	0.752	0.988	0.967	0.994	0.957
US	0.885	0.822	0.930	0.734	0.917	0.894	0.930	0.810
France	0.979	0.928	0.981	0.729	0.983	0.924	0.998	0.676
Finland	0.893	0.826	0.931	0.727	0.953	0.896	0.977	0.759
UK	0.904	0.849	0.948	0.690	0.923	0.856	0.979	0.751
W Germany	0.895	0.877	0.904	0.670	0.975	0.919	0.978	0.495
E Germany	0.943	0.939	0.937	0.652	0.920	0.892	0.968	0.400
Luxembourg	0.813	0.793	0.860	0.630	0.857	0.929	0.945	0.877
Australia	0.862	0.801	0.923	0.626	0.974	0.951	0.994	0.915
Ireland	0.910	0.902	0.954	0.611	0.961	0.814	0.966	0.513
Hungary	0.904	0.879	0.917	0.610	0.943	0.875	0.975	0.514
Israel	0.827	0.738	0.853	0.593	0.937	0.865	0.971	0.740
Spain	0.936	0.747	0.967	0.514	0.988	0.860	0.977	0.705
Italy	0.930	0.703	0.953	0.497	0.960	0.857	0.964	0.763

Figure One: Difference between Predicted Probability of Father’s Employment Rates and Employment Rates for Childless Men, Childless Women, and Mothers (controlling for age, relationship status, educational attainment, other household income, and other household income squared)

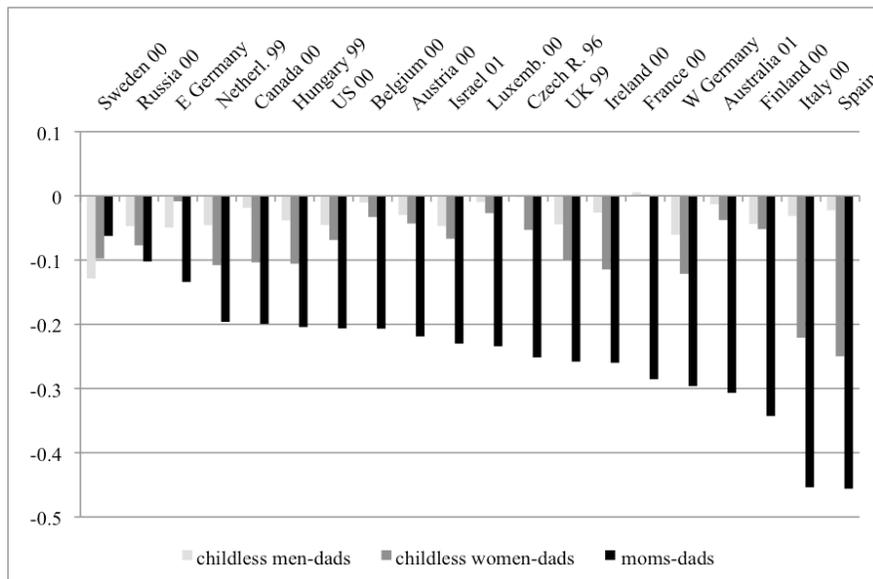


Figure Two: The Difference between Predicted Probabilities of Fathers' Full-Time Employment Rates and Full-Time Employment Rates for Childless Men, Childless Women, and Mothers (controlling for age, relationship status, educational attainment, other household income, and other household income squared)

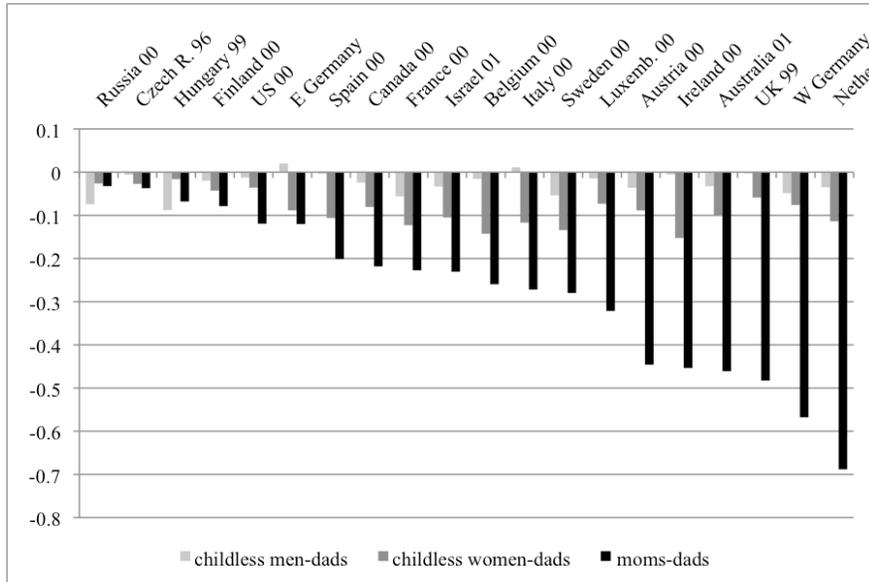
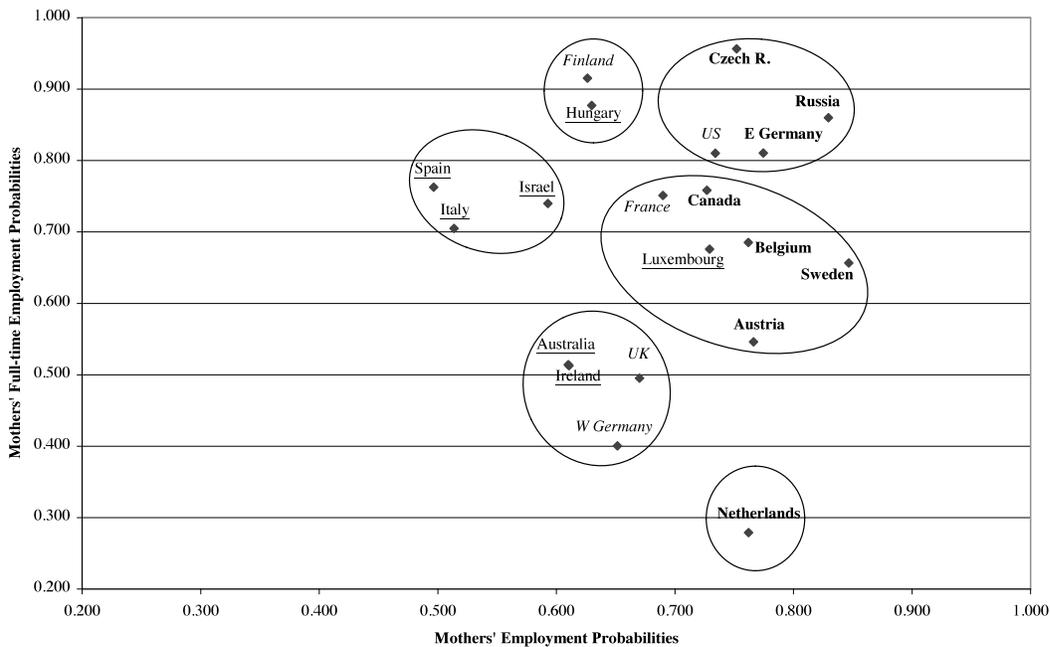
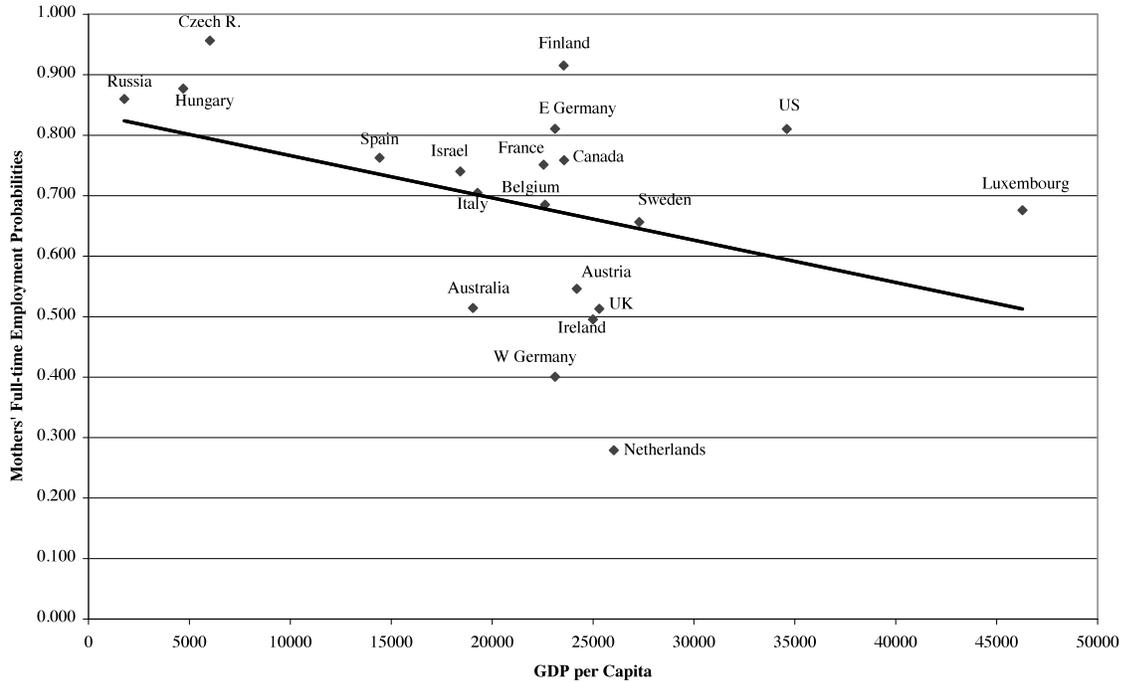


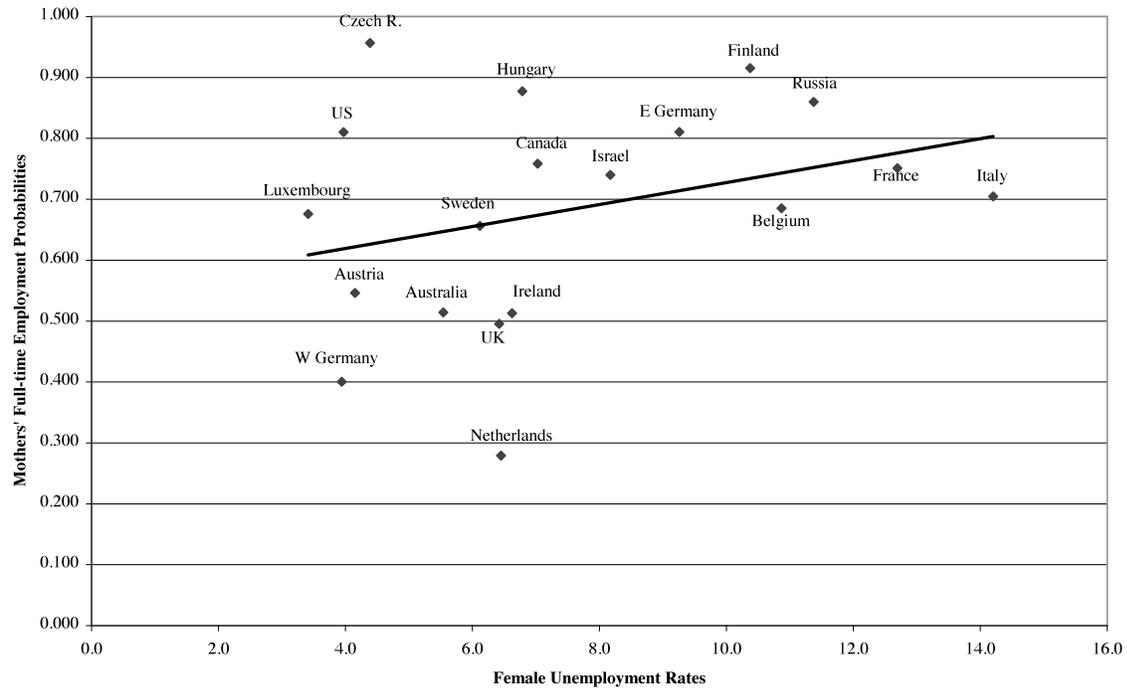
Figure Three: Predicted Probabilities of Mothers' Employment and Mothers' Full-Time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared)



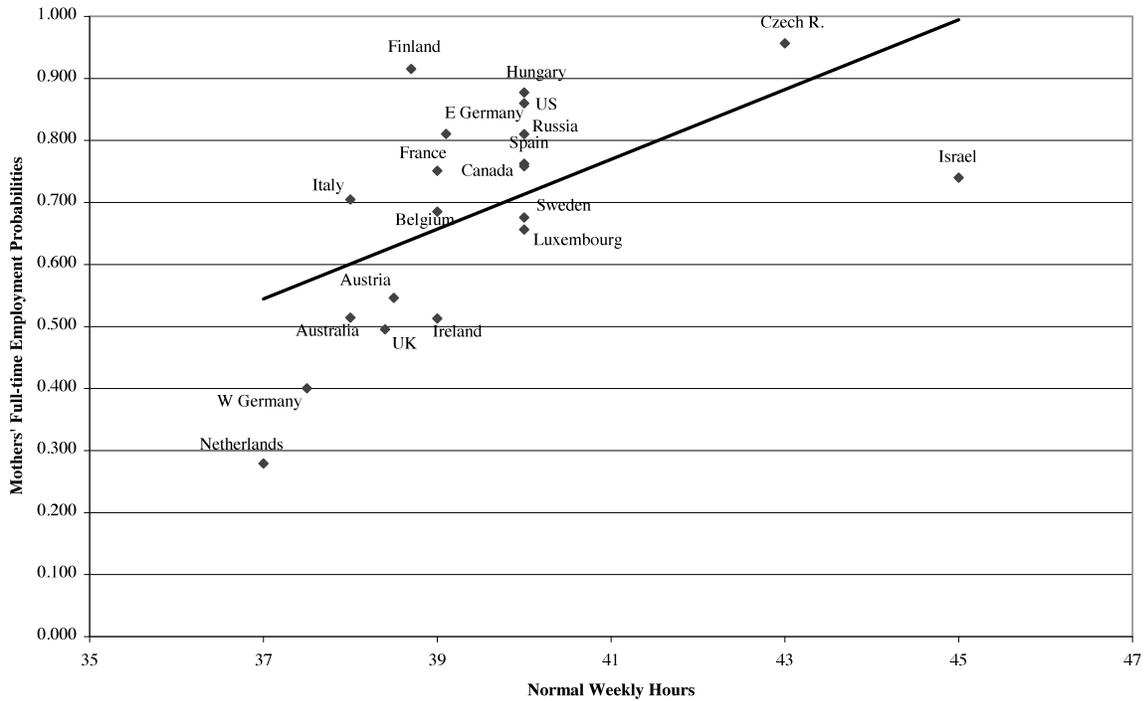
**Figure Four:** Predicted Probabilities of Mothers' Full-time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and GDP per Capita



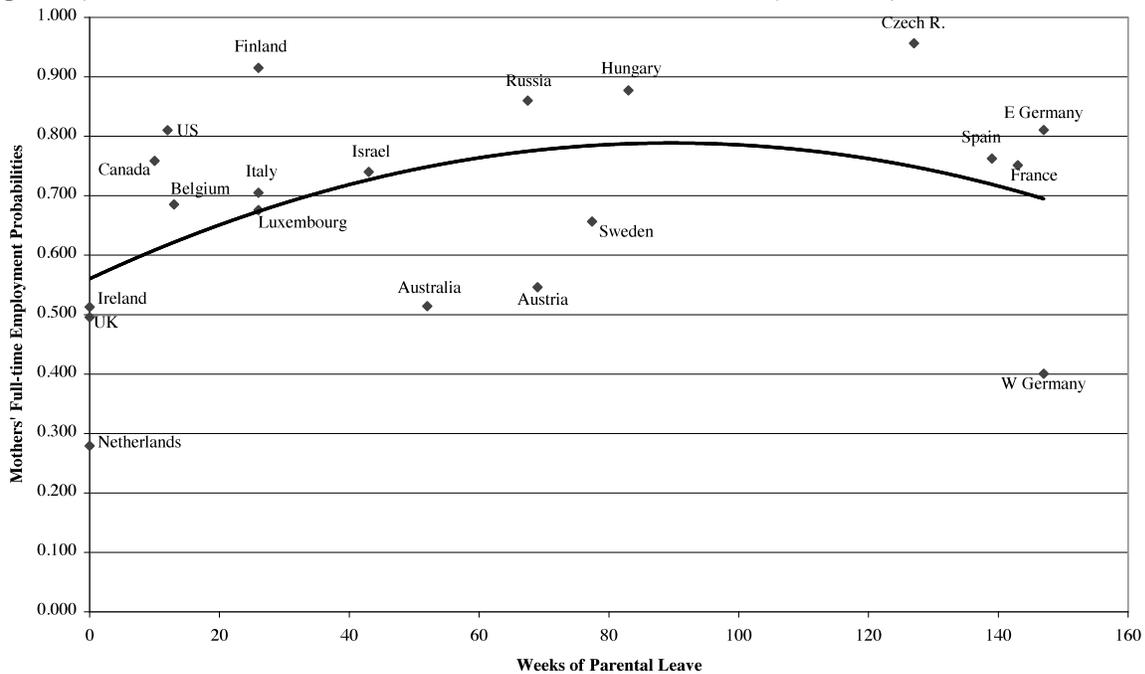
**Figure Five:** Predicted Probabilities of Mothers' Full-time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and Female Unemployment Rate



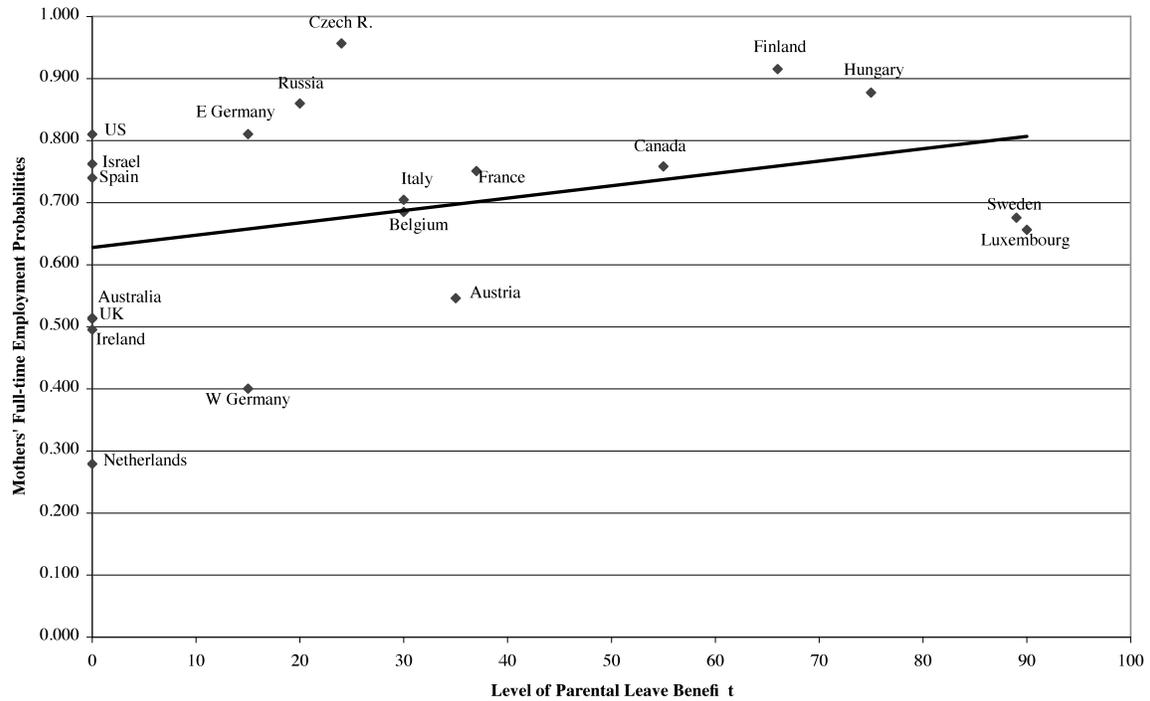
**Figure Six:** Predicted Probabilities of Mothers' Full-time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and Normal Weekly Hours



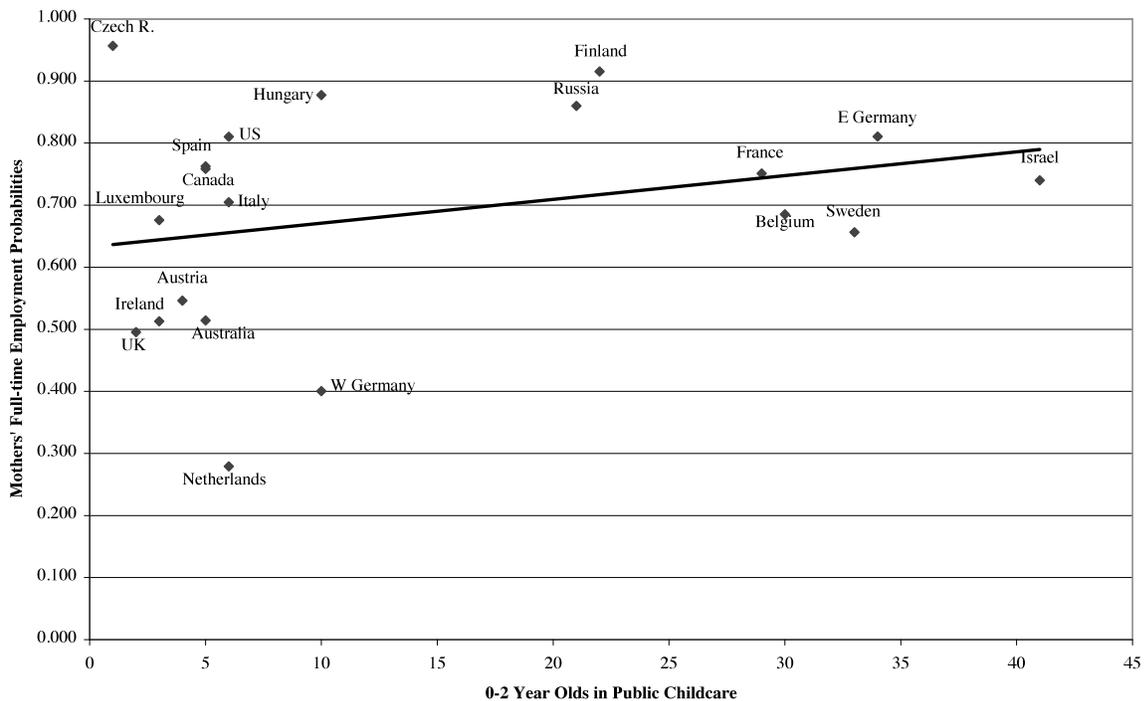
**Figure Seven:** Predicted Probabilities of Mothers' Full-time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and Maximum Parental Leave Available to Women (in weeks)



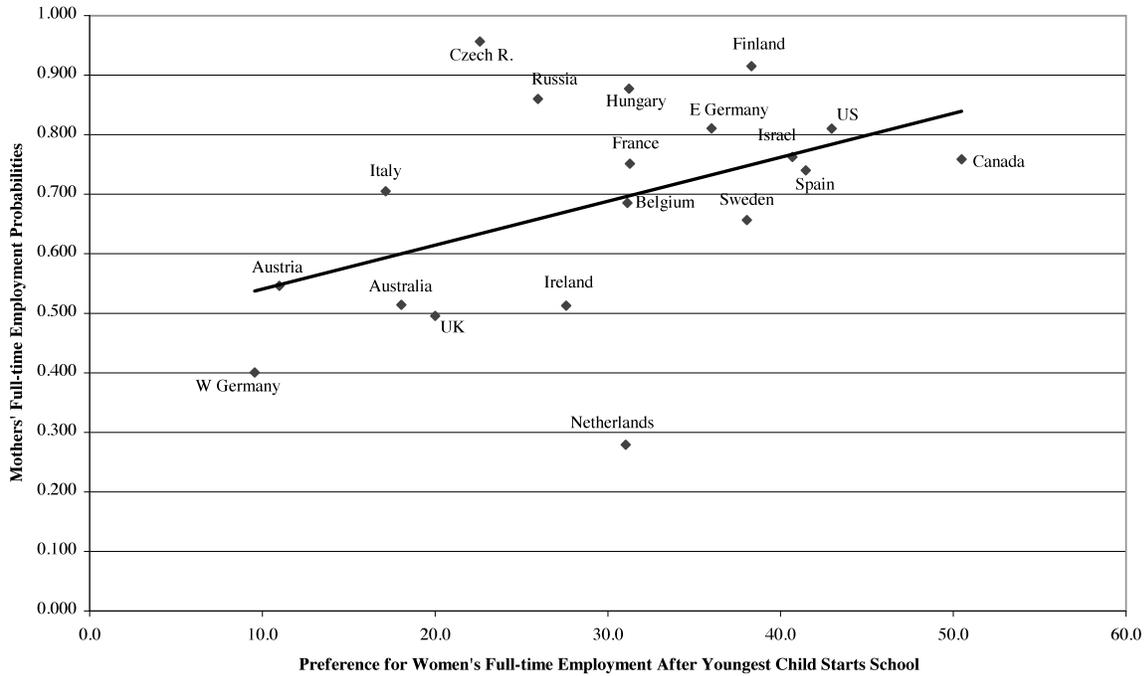
**Figure Eight:** Predicted Probabilities of Mothers' Full-time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and Level of Parental Leave Benefits Available to Women



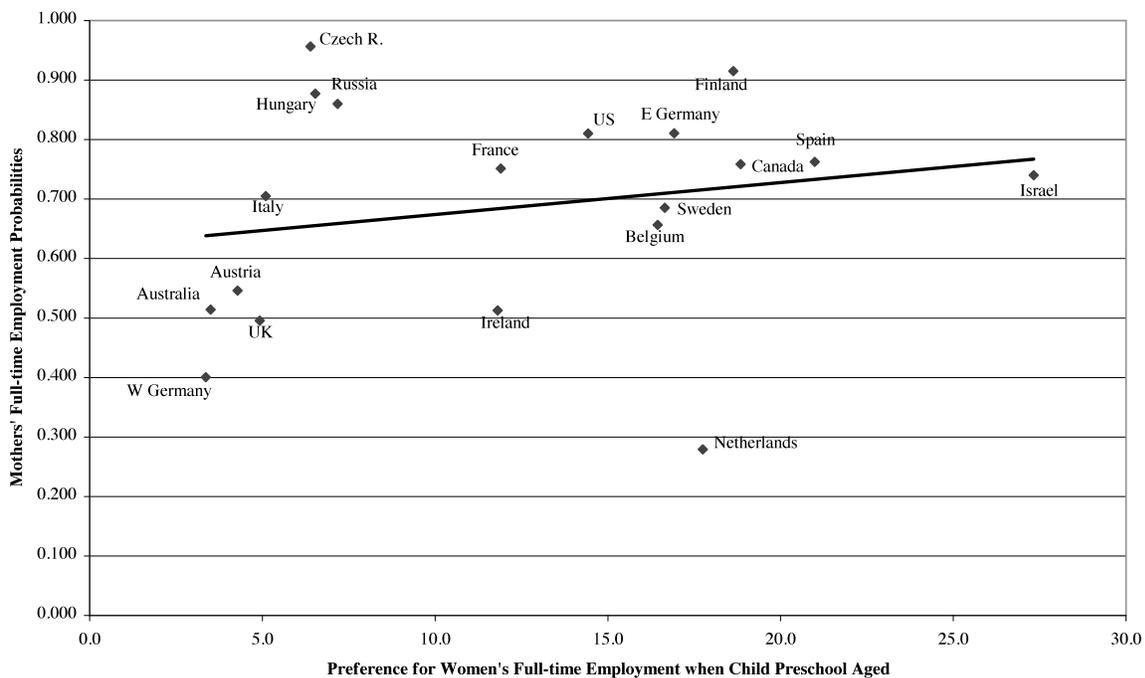
**Figure Nine:** Predicted Probabilities of Mothers' Full-time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and % of Children 0-2 Enrolled in Public Childcare



**Figure Ten:** Predicted Probabilities of Mothers' Full-time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and % of Respondents Preferring Women's Full-time Employment After Youngest Child Starts School



**Figure Eleven:** Predicted Probabilities of Mothers' Full-time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and % of Respondents Preferring Women's Full-time Employment when Child Under School Age



**Figure Twelve:** Predicted Probabilities of Mothers' Full-time Employment (controlling for age, relationship status, educational attainment, other household income, and other household income squared) and % of Respondents Disagreeing or Strongly Disagreeing with: Both the man and woman should contribute to the household income

