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Work-family policies and the effects of children on women's: Employment and earnings

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Luxembourg Income Study Working Paper Series

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Work-Family Policies and the Effects of Children on Women's Employment and Earnings

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Please direct questions and comments to Joya Misra, Social & Demographic Research Institute, W34A Machmer Hall, University of Massachusetts, Amherst, MA 01003, misra@soc.umass.edu. We are thankful to the National Science Foundation Sociology Program (Grants #0600926 and #0751505) for their support, and grateful to the comments raised by those attending the Sloan Network Panel meeting at Utrecht University, as well as participants in thematic session on work-family policies at the Eastern Sociological Society 2010 meetings.

Work-Family Policies and the Effects of Children on Women's Employment and Earnings
Joya Misra, Michelle Budig and Irene Boeckmann

The major expansion of the welfare state in the late 20th and early 21st century has been around work-family policies; efforts meant to help reconcile the competing demands between employment and care for family members. These policies range from maternity, paternity, and parental leaves, to subsidized childcare provisioning, to school scheduling, to efforts to regulate work-time (Gornick and Meyers 2003). They are, broadly, meant to boost fertility and ensure that women are able to maintain an attachment to the labor market, even if they have children. This attachment is important, because welfare states, in order to survive, require enough workers paying into the system; women (including mothers) therefore, have become a crucial group to incorporate into the welfare state's labor markets (Esping-Andersen 1999, 2001; Korpi 2000; Orloff 2002).

Yet, welfare state generosity around work-family policies appears to have somewhat contradictory effects, at least for some measures of gender equality. As Hadas Mandel (2009) and Moshe Semyonov (2005, 2006) have argued, these policies may create something of a welfare state paradox. While these policies may increase women's overall labor force participation and economic independence, they simultaneously may limit women's – or some women's – job opportunities and wages. Becky Pettit and Jennifer Hook (2009) build on Mandel and Semyonov, to further specify the “trade-offs” that are embedded in work-family policies. In particular, it appears that as work-family policies, in encouraging higher levels of women's labor market participation, have also contributed to higher levels of occupational gender segregation, and to lower wage-levels for women relative to men (Pettit and Hook 2009).

We argue that it is important to closely examine these apparent contradictions or trade-

offs, and consider how they may differ based on particular policies, or on the effects of policies on the employment outcomes of particular groups of women. Others have also analyzed these trade-offs in greater depth. For example, Mandel and Shalev (2009a, 2009b) have unpacked one piece of this question – how family policies may affect women of different class positions differently. Mandel and Shalev (2009b, p. 1901) note “the consequences of any given role of the welfare state vary quite dramatically for women in different class positions” – arguing that while these policies may help lower-class women, they may limit professional women’s advancement. Elsewhere Mandel (2009, p. 713), explores a variety of gendered outcomes and argues that tradeoffs are quite complex, “each pattern of state intervention, and the configuration of gender stratification it promotes, operates in a deeply rooted ideological and cultural context.” While these scholars focused on gender differences, we emphasize how policies relate to employment and earnings outcomes among women, structured by their responsibilities for children. Moreover, we separate policies to consider their potentially unique relationships with women’s employment and earnings (for example, parental leave versus childcare). In the next two sections, we briefly discuss why we focus on motherhood status and how and why we examine each policy separately.

Motherhood, Employment and Earnings, Cross-nationally

Despite cross-national variation in women’s employment and earnings, convergence between their rates with men’s has increased over the past several decades, especially for childless women and men. While some childless women are women who have not yet had children, there remain substantial differences in employment and earnings for childless women and mothers controlling for age. Some women will be permanently childless; indeed, approximately one-quarter of American women in their mid-40s are currently childless. The

permanently childless are significantly different from mothers in terms of human capital and socio-economic background (Lundquist, Budig, and Curtis 2009). Childless women, for the most part, have employment patterns that are much *more* similar to childless men's patterns. Patterns for women with one or more children, however, are distinctly different. Figure One summarizes differences in predicted employment hours for a thirty-year old partnered women, who did not complete post-secondary education or occupational training leading to certification, and whose other household income is average for her country. This data allows us to compare how women with no children compare to women with one or two children.¹

[Figure One About Here]

The black bars indicate the difference in expected weekly employment hours between childless women and a woman with one child; the grey bars indicate the difference in expected weekly employment hours between childless women and a woman with two children. In some countries, the effects of children on employment hours are quite large (the Netherlands, West Germany), while in others, they are smaller (Sweden, Czech) or non-existent (Hungary, Russia). Mothers are both less likely to be engaged in the labor market in many countries and, when they participate, they are likely to be part-time workers.

In Figure Two, we show expected earnings gaps between women with zero, one, and two children, assuming a thirty-year old partnered woman working part-time, without post-secondary education or occupational training leading to certification. Again, the graph shows the difference in annual earnings (in US 2000 dollars) between a woman with one child and a childless women (with the characteristics listed above), and the difference in earnings between a woman with two children and a childless woman. As Figure Three suggests, there are quite large differences cross-

¹ This data and those presented in Figure Two come from country-by-country regression models based on data from the Luxembourg Income Study described in greater detail below.

nationally in the effects of children on earnings. In Israel, Sweden, Slovak Republic, Hungary, France, Finland and Australia, there is no child penalty. On the other hand, women in West Germany and the Netherlands incur much larger penalties for each additional child.

These figures suggest that focusing on policy outcomes for all women generally may underestimate important variation among women – in particular, depending on whether they have children, and how many children they have. While gendered inequalities exist – the difference between mothers and childless women is even greater than the difference between childless men and women (Budig et al. 2010). However, these figures do not allow us to capture the remarkable variation in childless women’s employment hours – which are relatively low in certain countries, such as Spain and Italy, and on par with childless men’s employment hours in other countries, such as the Czech Republic and Australia (Misra et al. forthcoming). Yet, our analyses focus on the effects of children on employment hours and earnings. Work-family policies, for the most part, are meant to address conflicts between caregiving and employment. These conflicts are particularly acute for parents of young children. Therefore, focusing upon the effects of children in order to understand the relationship between work-family policies and women’s employment and earnings is a sensible strategy. In the next section, we discuss specific work-family policies, and our expectations.

Work-Family Policies

We argue that we can best understand the impact of policies if we disaggregate policies and look at their relationships with employment and earnings separately, rather than studying differences across welfare state regimes, or analyzing a single index of work-family generosity. Many scholars have examined the impacts of work-family contexts by looking at differences

across groupings of countries, or what Esping-Andersen terms “welfare states regimes” (Esping Andersen 1990, 1999; Korpi 2000; Orloff 2002). Another approach is to use generalized work-family generosity indices that group together leave, child-care policies and other country level factors (Gornick, Meyers, and Ross 1997; Gornick and Meyers 2003; Mandel and Semyonov 2005). For example, Mandel and Semyonov’s (2005) develop an index of welfare policies including maternity leave, public childcare coverage, and public sector employment. Although Mandel and Semyonov argue that the index “represents a composite phenomenon with consequences that go beyond the unique effects of each of its components” (2005, p. 964), we contend that combining them into one index obscures important differences.

We examine how specific work-family reconciliation policies relate to outcomes such as earnings and employment, because we believe that different gendered assumptions underlie these policies. While short-term maternity and paternity leaves may help parents remain attached to the labor force immediately after the birth of their children, long-term parental leaves may instead be used to ease women out of the labor market, or perhaps reinforce “mommy-tracks,” such as part-time rather than full-time employment. For example, as Pettit and Hook (2009, p. 4) argue, “In contrast to policies that are conceptualized as ‘work-facilitating,’ parental leave may be thought of as a ‘work-reducing’ policy.” Yet, childcare may, more consistently, perform as a “work-facilitating” policy, providing support for parents who are involved in the labor market.

Following previous research, we explore policies that we think may most strongly influence mothers’ (and fathers’) abilities to combine work and care: maternity, paternity, and parental care leave policies, and childcare for very young and older children (Gornick and Meyers 2003; Gauthier and Bortnik 2001; Evans 2002; Pettit and Hook 2005, 2009; Morgan and Zippel

2003; Jaumotte 2003). While many policies may affect parents' employment and earnings, work-family reconciliation policies target the pressures families face in balancing care and employment.

Leave policies – maternity, paternity, and parental leave -- are meant to support caregiving, while allowing parents to stay connected to employment. Maternity and paternity leave refer to birth-related leave often accompanied by earnings-related benefits. Parental leave refers to longer leaves that enable parents to care for young children in the home. The absence of leave policies may also force women to withdraw from the workforce after a child's birth – as it is difficult to find childcare for infants. At the same time, moderate leaves may help mothers maintain labor force attachment. Yet, long parental leaves could decrease women's employment continuity and earnings, and reinforce traditional gender divisions of labor in the home, especially if only women take long parental leaves (Morgan and Zippel 2003; Pettit and Hook 2005). Indeed, studies show curvilinear relationships between leave length and women's employment outcomes and poverty (Pettit and Hook 2005; Kenworthy 2008; Misra et al. 2007b; Evertsson and Duvander 2010). Leave policies targeted at men may also increase mothers' employment and earnings. For example, paternity leave policies for fathers could strengthen women's employment continuity and earnings by providing incentives for men to engage in care (Gornick and Meyers 2003; Gornick 2004).

While childcare programs were adopted both to support parents' employment and to provide "early education," these programs – particularly those for children under 3 – are explicitly recognized as helping families balancing care and employment (Kamerman and Kahn 1991; Gornick and Meyers 2003). Indeed, childcare costs have strong links to women's employment; Han and Waldfogel (2002) argue that in the U.S., reducing childcare costs could substantially raise employment of both married and single mothers. Since government-funding and subsidies tend to

reduce the cost of childcare to parents, we focus on publicly supported, rather than market-based childcare. Cross-nationally, Pettit and Hook (2005), show that high levels of childcare positively affect women's labor market participation. These results may be particularly strong for early education for children under three, as childcare for older children is more broadly available in many societies.

Therefore, we focus our attention on how maternity, parental leave, paternity, and childcare provisioning are related to mother's outcomes regarding employment and earnings, cross-nationally. We expect to see higher employment hours, as well as higher earnings, for women with one or more children in those countries with generous childcare arrangements. We also expect to see better outcomes for women with one or more children in countries with more generous paternity leave and maternity leave policies. However, we expect a curvilinear relationship for parental leave – with very short/no leaves or very long leaves associated with large earning and employment penalties for mothers, and moderate leaves associated with relatively higher earnings and employment for women with children.

Overall, our contribution to this literature is to investigate: (1) differences in employment hours and earnings for women, based on their number of children in a broad range of countries across Eastern and Western Europe, North America, Israel, and Australia; (2) the distinct associations of maternity, paternity, and parental leaves, publicly funded child care for very young (0 to 2 years) and for older (3 to 5 years) children with estimated earnings and employment penalties.

Data and Measures

We use data from multiple sources. Individual-level data come from the Luxembourg Income Study (LIS). The LIS is an excellent source of secondary cross-national survey data on households, employment, and earnings. These data are derived from a range of national surveys indicated in Table 1. With a few exceptions analyses use Wave 5 (representing the years 2000/2001) of the LIS data for 21 countries. We list them here with their ISO 3166 three-character code, which we will use to identify each country in our analyses: Australia (AUS), Austria (AUT), Belgium (BEL), Canada (CAN), Czech Republic (CZE), Finland (FIN), France (FRA), East Germany (DEU-E), West Germany (DEU-W), Hungary (HUN), Ireland (IRL), Israel (ISR), Italy (ITA), Luxembourg (LUX), Netherlands (NDL), Poland (POL), Russia (RUS), the Slovak Republic (SVK), Spain (ESP), Sweden (SWE), the United Kingdom (GBR), and the United States (USA). We examine East and West Germany separately due to continuing differences in employment patterns and the impact of their socio-political legacies. For all countries, the sample is restricted to employed adult women, age 25 to 45 (prime years for childrearing), who are not self-employed² and not in military service. Table 1 presents the sample sizes before and after we apply our sample restrictions.

[Table 1 About Here]

In the LIS data we can only identify women as mothers if they have children currently living at home. Our measure of motherhood captures the number of all children living with them at the time of the survey. Because there are some differences across these countries in early adulthood³ in terms of cohabitation and marriage, parenthood and educational enrollment, we

² We do not include the self-employed because some crucial information, such as working hours, they are not consistently available across all of the countries in our sample, making analyses of them unreliable.

³ This includes differences in educational enrollment rates (which we are unable to measure consistently with the available data across all countries).

believe it is most sensible to focus on those who are at least age 25, though of course some of these women became mothers before age 25. By choosing an upper bound of 45, we try to limit the number of women who may not be categorized as mothers because their children have already left home. Consequently, our estimates of the impact of motherhood on employment outcomes may be somewhat conservative – since we are not capturing the immediate effects of motherhood on young mothers (those under 25), and we are likely to code some mothers whose children have left home as childless. These conservative biases should make it more difficult for us to identify significant differences between childless women and women with one or more children.

We focus on two dependent variables: the natural log of annual earnings, and the number of weekly hours worked by the respondent. Using logged earnings minimizes the effect of outliers and enables us to make comparisons across different currencies since coefficients can be interpreted in a straightforward manner as a percent change in earnings given a 1-unit increase in earnings in an independent variable (by multiplying the coefficient by 100).⁴ We also use a measure of weekly hours worked by the respondent; for most countries, this means drawing upon a measure of usual weekly hours. For Sweden, we calculate weekly hours by dividing the available measure of annual working hours (excluding vacation time) by 48 (52 weeks minus 4 weeks of statutory annual vacation). Unfortunately, LIS does not include hours worked measures for Finland, Poland, and the Slovak Republic⁵.

⁴ The exact formula for transforming coefficients into percentage change in a logged dependent variable given a 1-unit change in independent variables is $100(e^b - 1)$ (Allison 1999). However, if coefficients are relatively small, the differences between the transformation using simple multiplication times 100 and using the formula involving exponentiation are very small.

⁵ It is however possible to construct categorical measures of full-time and part-time employment status, using information on the number of annual weeks worked full-time or part-time for

We are interested in whether children are associated with reduced weekly hours, and whether they are associated with earnings penalties (controlling for their employment hours). Specifically we ask whether the number of children negatively impacts women's earnings and working hours and whether there are cross-national differences in the size of these effects. Yet, cross-national differences in the child penalties for both hours of employment and for earnings could result from differential selection of women into employment across countries. To account for such selection processes, we employ a two-stage Heckman sample selection correction estimation procedure. Our selection criteria for the models focused on employment hours and earnings include high educational attainment (post-secondary education or occupational training leading to certification), other household income (household earnings minus the respondent's earnings), transfer income (household income from the state), and presence of a preschooler.

Other covariates include educational attainment, age, relationship status, other household income, and – for the earnings models – a measure of working time. Educational attainment is measured with a dummy variable indicating post-secondary education or occupational training leading to certification. We use respondent's age as a rough proxy for labor market experience. Family characteristics include marital status (married/cohabiting=1, otherwise=0). We ran models with married, and with married and cohabiting respondents grouped together; there are no notable differences, so we combine married and cohabiting couples as partnered respondents in these analyses. In the hours models, we include a measure of other household income, as well as a squared term, because we believe that women may make choices regarding employment depending on the other income available in their households, and this may not be a linear

Finland. In the Polish (2004) and Slovak (1992) datasets, categorical variables on full-time and part-time status are available.

process. Finally, for the earnings models, we also include a measure of full-time employment, coded as respondents working more than 30 hours a week.

We use our newly created Work-Family Policy Indicators⁶, modeled after databases developed by Gornick and Meyers (2003), Gornick, Meyers, and Ross (1997), Gauthier and Bortnik (2001), and Jaumotte (2003). Our database includes multiple time points for 22 countries (including Switzerland, which is not included in this analysis). We match our policy measures to the LIS survey year for each country, lagging the measurement of leave policies to two years prior to the survey year. For leaves, our measures distinguish between highly paid maternity and paternity leaves and generally low-paid or unpaid job-protected parental care leaves that begin after maternity leave is exhausted. We only include statutory, job protected leave provisions that can be taken full-time. Childcare coverage is measured as the percentage of children aged 0-2 and the percentage of children age 3-5 in publicly funded care.

Findings

We focus on whether children impact employment hours and earnings of women, and how these impact differ cross-nationally. We use a two-stage Heckman sample selection corrective estimation procedures, in order to take into account differential selection of women into employment across countries. Our independent variables in the employment hours models include number of children, partnered status, age, high educational attainment, other household income, and other household income squared. For the earnings models, our independent variable include number of children, partnered status, age, high educational attainment, and a dummy

⁶ This dataset collection and development was funded by the National Science Foundation Grants #0600926 and #0751505.

variable indicating whether the respondent is employed thirty or more hours a week. Table Two summarizes these regression findings.

[Table 2 About Here]

The columns on the left show the effect of the number of children on employment hours, after we have applied Heckman selection criteria, and controlling for the effect of age, education, partnered status, other household income, other household income squared, and high educational attainment. The controls act as expected in these models. Clearly, the effect of number of children varies substantially across these cases. For example, there is no statistically significant effect of number of children on employment in Russia or Hungary, yet significant coefficients range all the way up to -4.4 in West Germany, which suggests that each child reduces West German women's employment hours by 4.4 hours.

The columns on the right focus on the effect of the number of children on earnings, after we have applied Heckman selection criteria, and controlling for the effect of age, education, partnered status, full-time employment and high educational attainment. Again, effects vary from country to country – with no significant motherhood earnings penalty appearing in Australia, Canada, Finland, East Germany, Hungary, Ireland, or Sweden. Yet in Luxembourg, the effect of each child on a women's earnings is -.206, indicating that for each additional children, women earn 20 percent less. Indeed, in many countries, women's earnings are reduced by at least 5 percent per child, even controlling for full-time employment.

These models indicate, as we expected, that in most countries, there are differences in employment hours and earnings among women, based on the number of children that they have, and controlling for individual level differences and selection into employment. Clearly, children do affect most women's labor market involvement and earnings. Yet, we are most interested in

making sense of the cross-national variation in the effect of children on employment hours and earnings. Why are women with (more) children working similar hours in some countries, and relatively fewer in other countries, relative to women with fewer (or no) children? Why do women with (more) children have similar earnings in some countries, and much lower earnings in other countries, relative to women with fewer (or no) children?

We explore how these outcomes are related to specific policies by focusing on five different policy indicators. We present a series of figures that use scatterplots to display how the significant effects of children on employment hours and on earnings relate to measures of policy – including maternity leave length, paternity leave length, parental leave, public childcare for infants and toddlers, and public childcare for children 3-6. In these figures, the scale for the effect of number of children on employment is on the right side of the graph, while the scale for the effect of number of children on earnings is on the left side of the graph. Each country is marked using its ISO 3166 three-character code. Country names printed in black refer to earnings, while those printed in grey refer to employment hours. We also present a solid line showing the correlation between all countries' earnings penalties with the policy measure, plus a dashed line showing the correlation between the policy measure and employment hours penalties.

Figure Three describes the relationship between child penalties for employment hours and earnings and maternity leave length. We measure maternity leaves as short-term birth-related leave accompanied by earnings-related benefits, and only include statutory, job protected leave provisions that can be taken full-time. We hypothesized that maternity leave would protect women from child penalties – that job protected and paid maternity leaves would allow women to remain attached to the labor force, even after the birth of a child. As Figure Three suggests, maternity leave length is associated with lower child penalties for both employment hours and earnings; the

per child penalty is smaller in countries with more generous maternity leave policies. While this relationship is present for both employment hours and earnings, the line is much steeper for hours, suggesting that these policies may be more effective at maintaining mothers' attachment to the labor force in terms of hours of employment.⁷ This is interesting, given the absence of variation in these measures across countries – most countries have paid maternity leave for around 12-16 weeks (the United States and Australia are the exceptions here).

[Figure Three About Here]

In Figure Four, we look at parental leave length and its association with the effect of children on earnings and hours of employment. We measure parental leave as job-protected parental care leaves that begin after maternity leave is exhausted. We hypothesized that parental leave (in weeks) would have curvilinear relationship with penalties for children: moderate parental leaves would be associated with smaller penalties, by allowing women to maintain employment after giving birth, while both no leave and very long parental leaves would be associated with larger penalties, because the absence of leave and long leaves might both reduce labor force attachment. Consistent with our hypotheses (and the larger literature) parental leave appears to have curvilinear associations with employment and earnings – where parental leaves are of moderate length (between 40 and 100 weeks) such as in Hungary and Sweden, they are associated with smaller child penalties for employment and earnings. Where leaves do not exist, or are very short such as in the Netherlands, or are very long such as in West Germany, they appear to be associated with greater child penalties for women's employment hours and earnings. However, parental leave length cannot explain all of the observed variation. Both Hungary and Austria have

⁷ The correlation between maternity leave and the effect of children on earnings is .135, compared to the correlation between maternity leave and the effect of children on employment hours of .31.

moderate parental leave lengths, but Austrian mothers work significantly fewer hours and earn significantly less with each additional child, while Hungarian mothers appear to experience fewer penalties to having more children.

[Figure Four About Here]

In Figure Five, we explore how the length of paternity leave may be associated with the effect of children on earnings and hours of employment. We measure paternity leave in terms of the number of weeks of paternity leave, associated with the birth of a child, available to men. We hypothesized that paternity leave policies for fathers could strengthen maternal employment hours and earnings by providing incentives for men to engage in care, and may also indicate a commitment to more gender egalitarian divisions of care and employment. This measure has little variation – in many countries fathers receive no leave, or only a few days of leave. Sweden, Finland, and Israel have more generous leaves. We find that child earnings penalties are smaller where paternity leave lengths are longer. This association between paternity leave and the effect of children on earnings is strong, but the association between paternity leave and the effect of children on hours of employment is flat, and slightly indicates that longer paternity leaves might be associated with larger child penalties in terms of working hours.⁸ Yet the relationship between paternity leave and earnings appears to be driven by Israel, Finland, and Sweden, so we interpret it with caution.

[Figure Five About Here]

Finally, we hypothesized that the availability of state-provided childcare might impact the effect of children on earnings and hours of employment. We measure childcare in terms of the

⁸ The correlation between maternity leave and the effect of children on earnings is .32, compared to the correlation between maternity leave and the effect of children on employment hours of -.007.

percentage of children age 0-2 and age 3-5 in publicly funded care. State provided childcare for children under 2 are explicitly meant to help families balance care and employment – and therefore we hypothesized that this care should be associated with smaller penalties for children on women’s employment hours and earnings. Programs for children three to six are often seen as providing educational support for young children; in some countries, these programs include long lunch breaks or hours that make it difficult for parents to both work full-time. Therefore, we hypothesized a weaker association between programs for children three to six and the size of the child penalties, cross-nationally. We examine these trends in Figures Seven and Eight. It does appear that where childcare for infants and toddlers is more pervasive, we observe smaller child penalties on women’s employment hours and earnings, although there are clearly other factors also influencing these outcomes.⁹ On the other hand, as hypothesized, childcare for children 3-6 has a less strong relationship – the relationship between penalties per child and childcare for 3-6 is somewhat flatter.¹⁰

[Figures Seven and Eight About Here]

Overall, our findings suggest that work-family policies cannot be read as being associated in simple ways with women’s employment outcomes. Certain policies – such as paid maternity leave and childcare for young children – appear to support mothers’ labor force participation and earnings. Other policies – notably parental leave – have more ambivalent associations with child penalties for hours and earnings, with no or very short and very long leaves linked to greater negative effects of children on employment hours and earnings. While many scholars combine

⁹ The correlation between the public provision of childcare for children 0-2 and the effect of children on earnings is .26, compared to the correlation between public provision of childcare for children 3-6 and the effect of children on employment hours of .19.

¹⁰ The correlation between the public provision of childcare for children 3-6 and the effect of children on earnings is .07, compared to the correlation between public provision of childcare for children 3-6 and the effect of children on employment hours of .115.

leave measures with childcare, for example, to develop indexes of policy generosity – these analyses suggest that such an approach might be less effective.

Discussion

The literature on welfare state policy and gender equality has focused – rightly so – for a number of years on the potential of family policies to lead to unexpected consequences regarding gender equality. Responding to an earlier wave of scholarship that appeared to view family policies as an unmitigated “good” for women’s employment and earnings, recent scholarship has pointed out the flaws in these assumptions, pointing to the potential for trade-offs in policy effects (Mandel and Semyonov 2005, 2006; Mandel 2009; Pettit and Hook 2009).

Understanding the welfare state paradox, however, requires understanding that different policies may have different effects by groups of women. Recent attempts to point out how women in different class positions may stand to gain (or lose) from certain policies have been an important next step (Mandel and Shalev 2009a, 2009b). In this paper, we focus on how women with different relationships to parenthood may have different experiences in welfare states. In a few countries, the number of children has little effect on women’s employment hours and earnings. Yet, in many countries there are dramatic differences between women without children, and women with varying numbers children – differences well worth considering and analyzing.

In addition to focusing on how women with different responsibilities for children compare to one another, we examined how these differences (or child penalties) might be associated with different policies. We explored these relationships for a number of major policies – maternity leave, paternity leave, parental leave, and childcare coverage. What we find suggests

that some of the tradeoffs that others have identified may truly be due to generous parental leave policies combined with a lack of childcare for children under 3. Parental leaves and childcare may be based on different underlying gendered assumptions. Childcare coverage for children under 3 may be based on assumptions of the importance of women maintaining their attachment to the labor force, even when children are young; long parental leaves, on the other hand, may be based on assumptions of the importance of mothers' providing primary care for infants and toddlers. While parental leave policies are, in some senses, meant to help mothers maintain relationships with the workforce, very long parental leave policies might actually have "cooling out" functions, reinforcing a sense that mothers should expect long periods outside of the labor market. This may backfire if the goal is gender equality in the workforce – as employers will be less likely to want to support and hire workers who are likely to leave for long periods, and may be more likely to "mommy-track" women with children.

Parental leave and childcare for young children may be viewed as two sides of the same coin – where publicly provided, high quality childcare for infants and toddlers exists, parents may be able to return to the labor force more quickly, and need not rely on long parental leaves. Where long parental leaves exist, parents may be less likely to return to the labor market quickly, and may be less likely to be able to find childcare. At the same time, these policies may create feedback loops – where long parental leave policies exist, the development of childcare programs may be weaker; where infant and toddler childcare coverage is strong, parental leave policies may be shorter.

At the same time, family policies clearly do not explain all of the variation that exists, as there are variations in outcomes among countries with similar levels of parental leave or childcare coverage (such as the Netherlands and the United States). Simultaneously,

employment patterns can help drive policy change – rather than policy change driving employment patterns (Huber and Stephens 2000; Misra and Jude 2008). A variety of other structural (unemployment, economic growth, income inequality) and cultural (values regarding care, employment, and gender) factors might also help drive cross-national variation.

We expect that family policies both reflect and reinforce larger cultural notions of what mothers should be doing when their children are young. In her analyses of Belgium, Denmark, the Netherlands, and the UK, Monique Kremer (2007) specifically argues that “ideals of care” about mothers’ roles in society, have played a crucial role in determining men’s and women’s employment and care patterns. Neither women’s “preferences” nor policy are can fully explain the variations that exist in these patterns. Yet, interestingly, countries that have highest level of support for mothers’ employment when children are young (e.g., Israel) also have greater childcare provisioning for children under 3, while countries that have low levels of support for mothers’ employment when children are young (e.g., West Germany) provide longer parental leaves.¹¹ Policies and culture appear to be fairly in synch, making it difficult to determine “which comes first.” However, clearly, by attending to cultural ideals, we can better understand why women’s employment and care patterns differ across welfare states.

Pfau-Effinger (1998, 2004) has powerfully argued that three dimensions affect women’s employment: the gender arrangement (how men and women divide labor within the household), the gender order (welfare and labor market policies, and their gendered effects), and the gender culture (values regarding work, care, and gender). Examining West Germany, the Netherlands, and Finland over time, Pfau-Effinger (2004) shows that cultural traditions interact with social

¹¹ These data refer to the “Family and Changing Gender Roles” modules (1994 and 2002) of the International Social Survey Program (ISSP), 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/>.

institutions (including labor market policies, welfare policies, and families) to shape changes in women's employment. Policies (the gender order) cannot dictate women's employment; instead, they interact with the gender culture and the gender arrangement. Yet, for Pfau-Effinger, all three of these dimensions are also dynamic, and can help prevent or promote social change regarding women's employment (Pfau-Effinger 2004).

We have tried to show the importance of considering policy outcomes, recognizing the potentially countervailing consequences of different kinds of family policies. We believe that is crucial to recognize that inequalities among women, related to their care of children, are important, particularly when a significant proportion of women are forgoing motherhood in many of these countries. Even as childless women's employment and earnings are converging with men's, there remain persistent gendered inequalities that are focused around parenthood and responsibilities for care. At heart, we believe that gender equality requires both men's and women's engagement in both care and employment. As we see more generous and paternity leave and "daddy month" measures – as well as men's take up of these policies – we hope to see more egalitarian outcomes. Yet, our analyses also suggest the importance of designing effective leave policies – that promote parental attachment to the labor force rather than "cooling out" parents, and public provisioning for high quality, employment-enabling childcare.

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Figure One: Difference in Predicted Weekly Employment Hours between a Childless Woman and a Mother of One Child and between a Childless Women and a Mother of Two Children for a 30-year old Partnered Woman, Not Highly Educated, Living in a Household with Average Other Household Income and Average Other Household Income Squared

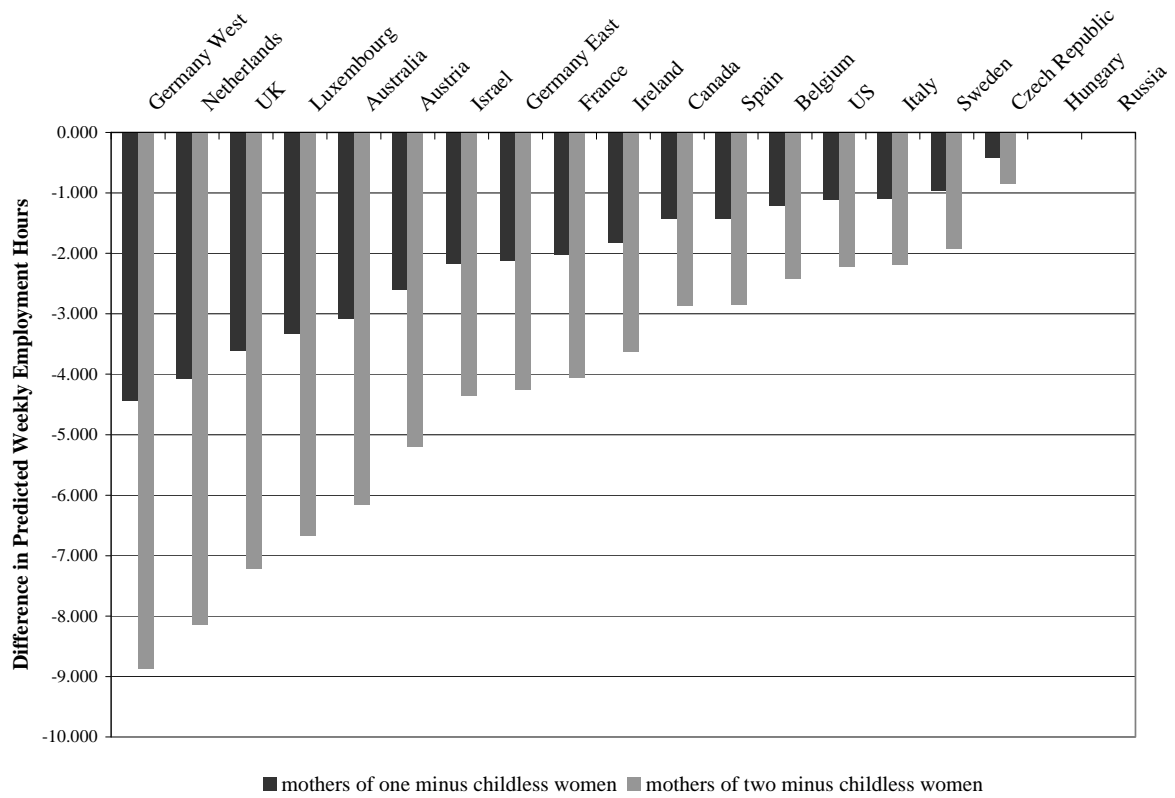


Figure Two: Difference in Predicted Annual Earnings between a Childless Woman and a Mother of One Child and between a Childless Women and a Mother of Two Children for a 30-year old Partnered Woman, Not Highly Educated, Working Part-time, Presented in 2000 US Dollars

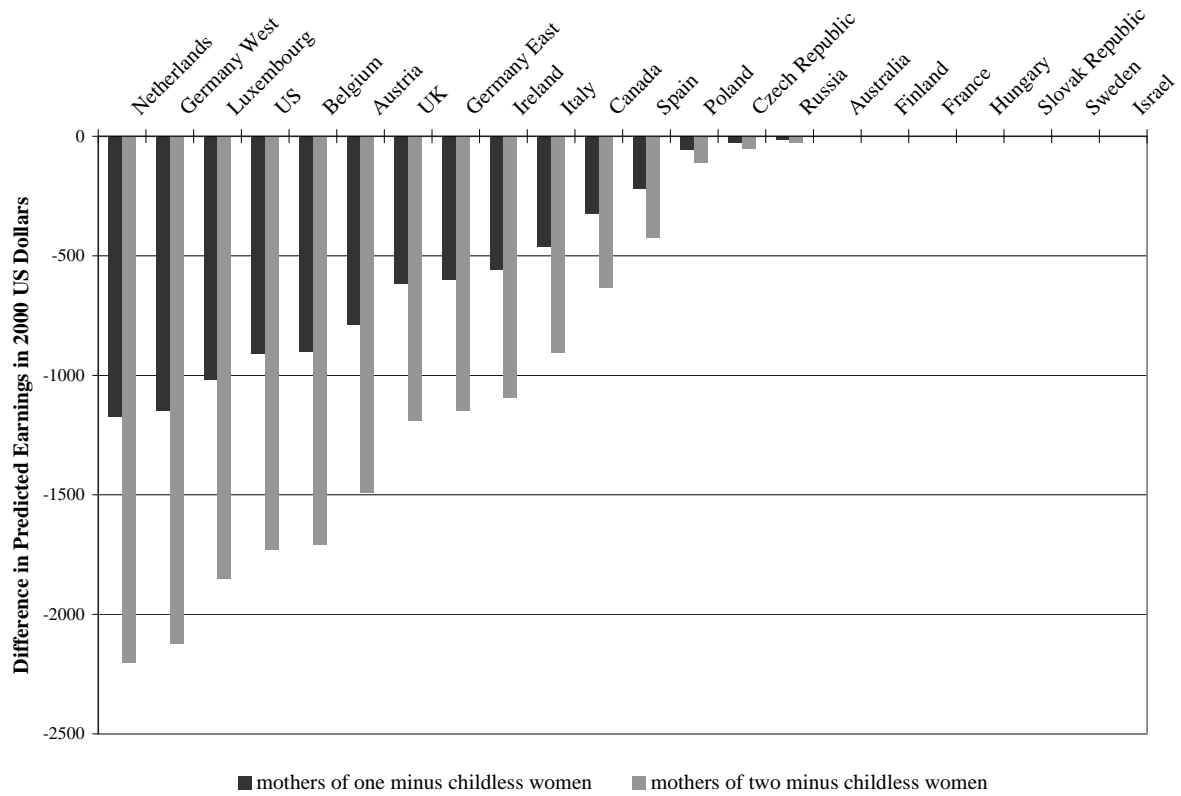


Table 1. Original Surveys, Survey Years and Sample Sizes

Country	Original Data Source	Survey Year	Full LIS Sample	Sub-sample of 25-45 year old women
Australia	Survey of Income & Housing Costs	2001	13,183	2,267
Austria	European Community Household Panel	2000	6,845	775
Belgium	Panel Study of Belgian Households	2000	6,935	1,017
Canada	Survey of Labour & Income Dynamics	2000	72,850	9,769
Czech Republic	Czech Microcensus	1996	71,836	8,965
Finland	Income Distribution Survey	2000	27,841	3,144
France	Household Budget Survey	2000	25,803	3,588
Germany East	German Social Economic Panel Study	2000	6,776	948
Germany West	German Social Economic Panel Study	2000	22,075	3,329
Hungary	Household Monitor Survey	1999	5,517	592
Ireland	Living in Ireland Survey / ECHP	2000	9,131	916
Israel	Household Expenditure Survey	2001	19,555	2,299
Italy	Survey on Household Income and Wealth	2000	22,268	2,307
Luxembourg	Socio Economic Panel	2000	6,240	979
Netherlands	Socio-Economic Panel	1999	12,445	2,028
Poland	Polish Household Budget Survey	2004	99038	10,980
Russia	Russia Longitudinal Monitoring Survey	2000	9,248	1,209
Slovak Republic	Slovak Microcensus 1992	1992	47715	6,783
Spain	European Community Household Panel	2000	14,320	1,613
Sweden	Income Distribution Survey	2000	33,139	4,034
United Kingdom	Family Resources Survey	1999	59,010	8,193
United States	Current Population Survey	2000	128,821	17,164

Table 2. Effect of Number of Children on Women's Weekly Employment Hours and the Natural Log of Annual Wages

	Employment Hours		Wages	
	B	p	B	p
Australia	-3.081	0.000	-0.004	0.767
Austria	-2.603	0.000	-0.114	0.000
Belgium	-1.207	0.001	-0.112	0.000
Canada	-1.431	0.000	-0.049	0.000
Czech Rep.	-0.421	0.000	-0.013	0.058
Finland	NA		-0.021	0.154
France	-2.031	0.000	-0.015	0.330
Germany East	-2.127	0.000	-0.088	0.008
Germany West	-4.441	0.000	-0.165	0.000
Hungary	-0.349	0.636	-0.014	0.745
Ireland	-1.818	0.000	-0.046	0.085
Israel	-2.180	0.000	0.007	0.619
Italy	-1.093	0.004	-0.052	0.002
Luxembourg	-3.337	0.000	-0.206	0.000
Netherlands	-4.070	0.000	-0.126	0.000
Poland	NA		-0.044	0.000
Russian Federation	-0.076	0.903	-0.118	0.009
Slovak Republic	NA		-0.010	0.164
Spain	-1.427	0.002	-0.079	0.009
Sweden	-0.960	0.002	0.008	0.799
United Kingdom	-3.612	0.000	-0.071	0.000
United States	-1.111	0.000	-0.101	0.000

Note: These models control for selection into employment using a two-stage Heckman Selection Procedure, and for individual level factors. The Heckman selection criteria include high educational attainment, presence of a preschooler, other household income and transfer income. For the employment hours models, independent variables include number of children, partnered status, age, other income, other income squared, and high educational attainment. For the wages models, independent variables include number of children, partnered status, age, full-time employment, and high educational attainment. Employment hours cannot be modeled for Finland, Poland, and Slovak Republic, due to lack of information, although we do have measures of full-time employment for these countries and they are included in the wage models

Figure Three: Number of Weeks of Paid Maternity Leave and the Effect of Number of Children on Women's Earnings and Weekly Employment Hours

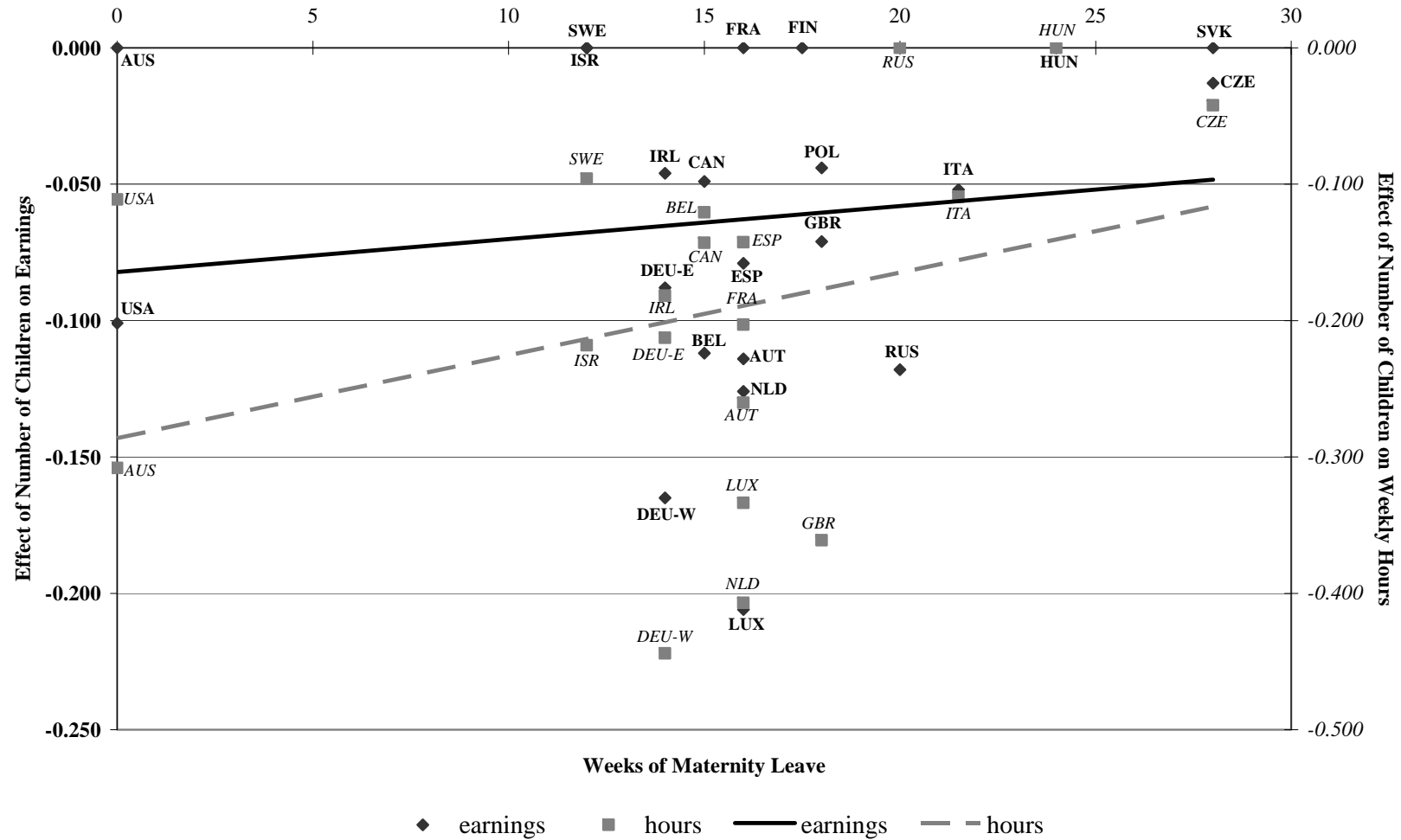


Figure Four: Maximum Number of Weeks of Parental Leave Available to Women and the Effect of Number of Children on Women's Earnings and Weekly Employment Hours

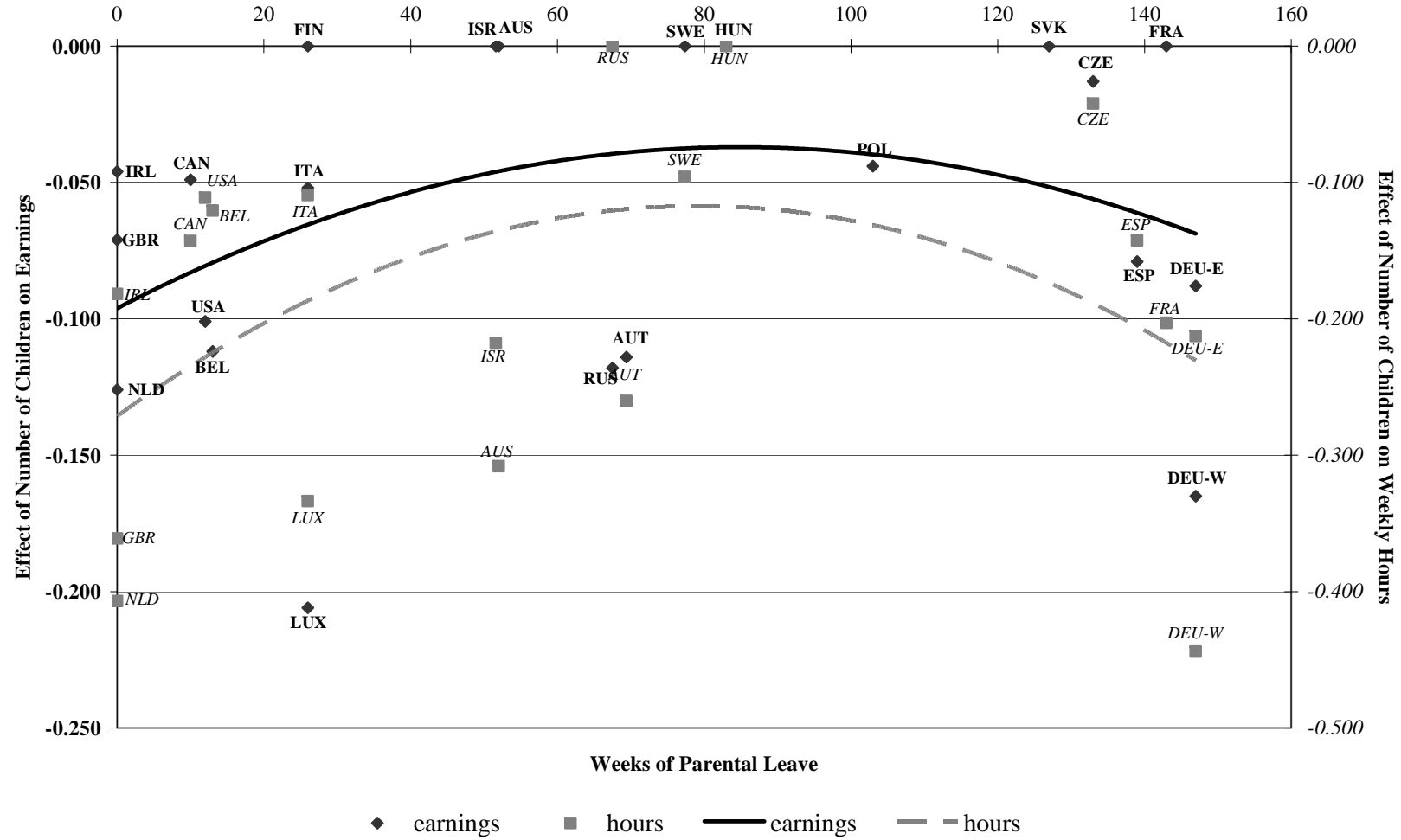


Figure Five: Weeks of Paid Paternity Leave Available to Men and Effect of Children on Women's Earnings and Weekly Employment Hours

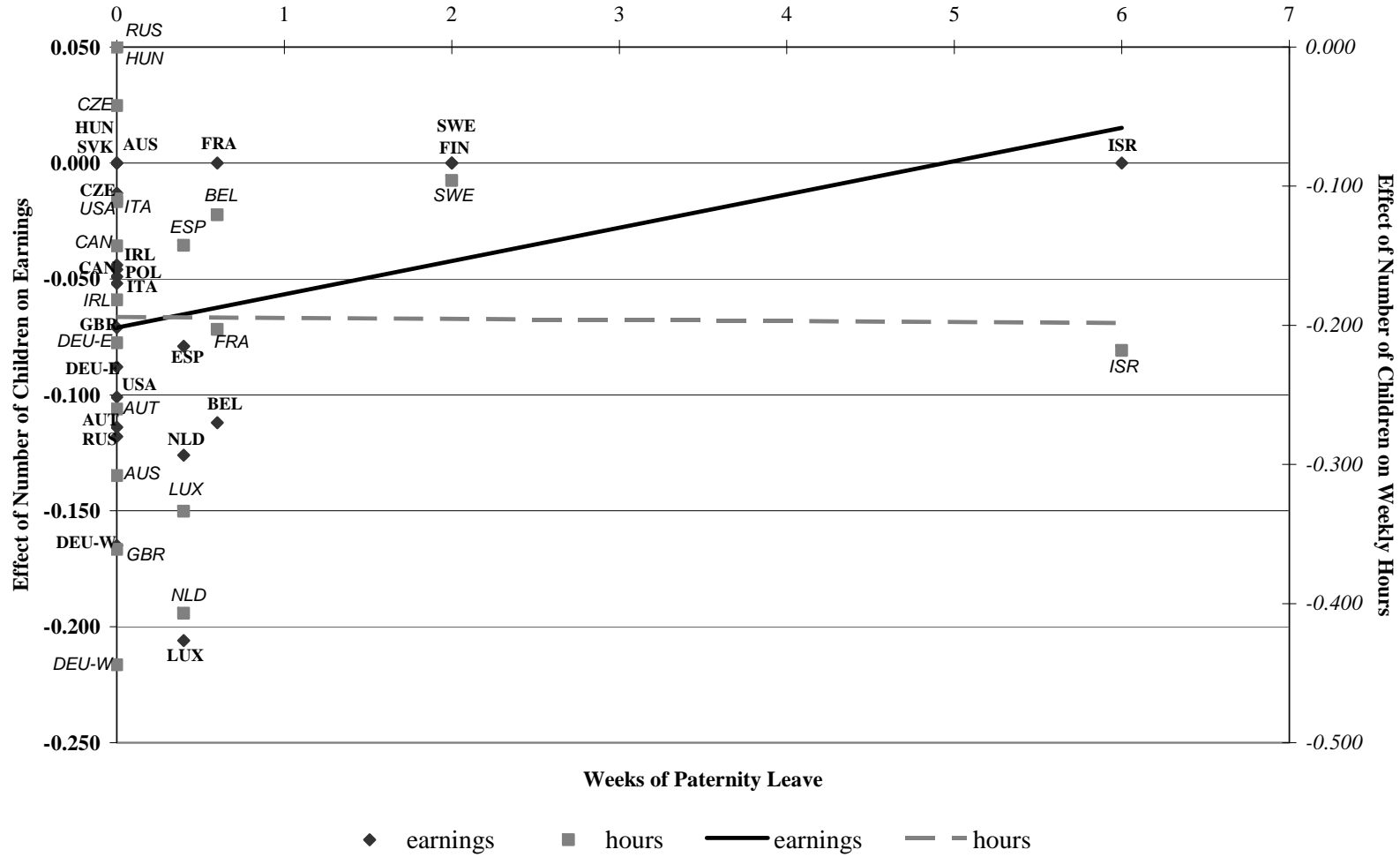


Figure Six: Percent of 0-2 Year Olds in Publicly Supported Childcare and the Effect of Number of Children on Women's Earnings and Weekly Employment Hours

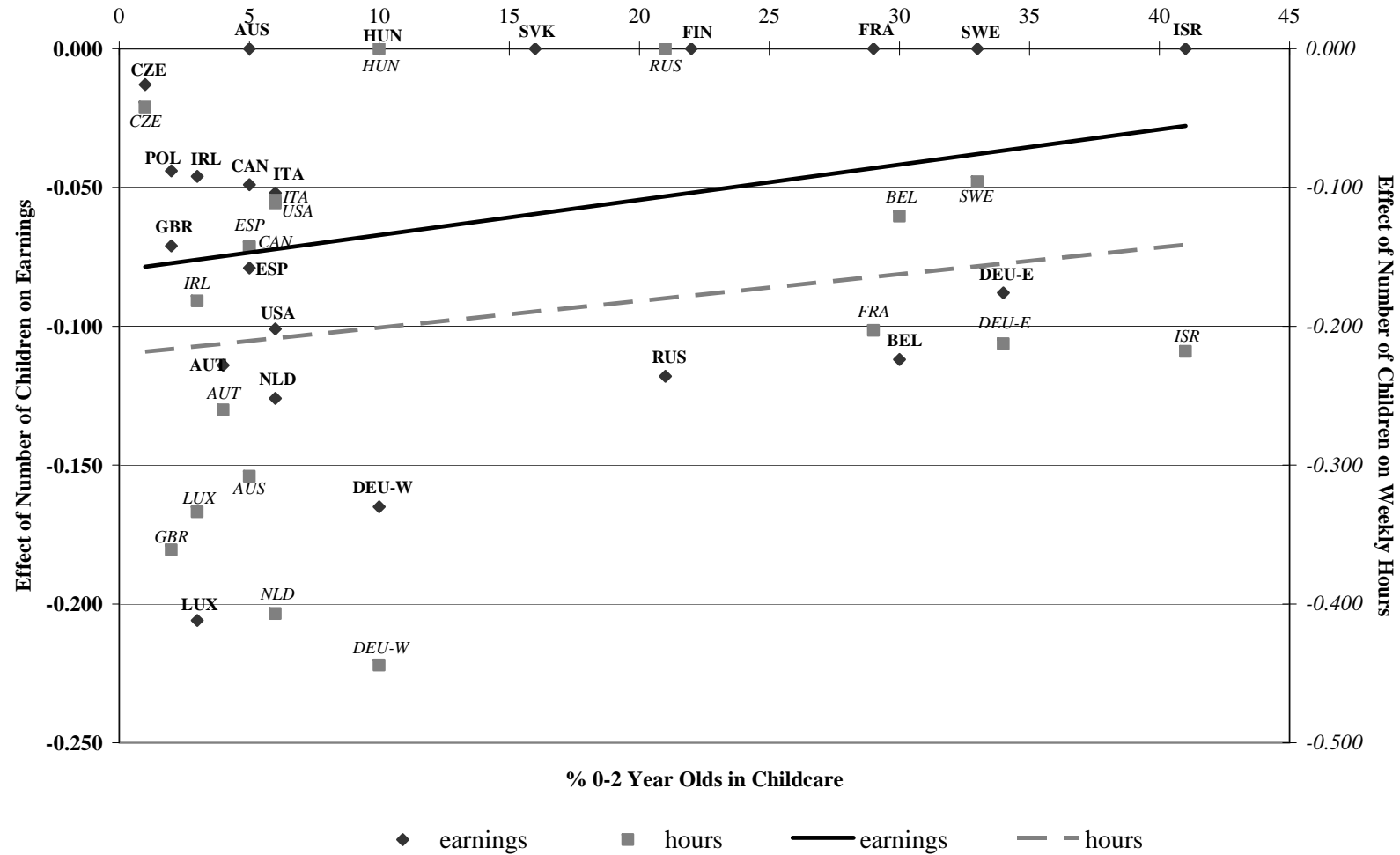


Figure Seven: Percent of 3-6 Year Olds in Publicly Supported Childcare and the Effect of Number of Children on Women's Earnings and Weekly Employment Hours

