Employment Outcomes in Eight High-Income Countries:

A Cross-National Analysis of Differentials by Parenting Status and Gender

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I.　Introduction and Background.

In this paper, we present first results from an exploratory analysis of employment-related differentials between women with and without children and between fathers and mothers. Numerous scholars have previously used the Luxembourg Income Study (LIS) microdata to assess employment gaps between mothers and non-mothers, and gender gaps among parents. Our primary contribution is that we include in our analyses a broader range of variables than has been included in prior research using the LIS data. More specifically, in this study, we draw on several variables newly available through LIS, as part of the Wave V.2 data. These new variables allow us to assess the employment outcomes of mothers, childless women, fathers, and childless men – accounting for, for the first time, self-reported caregiving status; as well as selected job characteristics, including contractual status, supervisory status, and job tenure; and consequential worker characteristics, including multiple-job holding and years of work experience.

This study includes eight countries. While all of these countries are high-income countries, they represent diverse social, cultural, and economic conditions. Three are from Continental Europe (Austria, Belgium, and Germany); two are from Southern Europe (Greece and Spain); and three are English-speaking countries (Ireland, the UK, and the US). Due to data limitations, we were not able to include any Nordic or Eastern European countries at this time. Their omission is unfortunate, as both of these groups of countries are characterized (albeit differently) by gender-egalitarian employment outcomes and, according to some prior research, smaller effects of parenting among women.

Several earlier studies have used the LIS data to assess commonality and variation, across high-income countries, in women's status in the labor market and/or gender differentials in employment outcomes. Most of this research has analyzed the effects of parental status and/or gender on employment rates, work hours, and/or earnings. Overall, this body of research has concluded that, across the LIS countries, women's employment rates consistently lag those of their male counterparts (Wolf 1990; Cancian and Schoeni 1992; Gornick 1999).[1] Likewise, employed women in all of these countries spend fewer hours at the workplace than do their male counterparts, partly because they are more likely to work part-time and partly because there is a gender gap in hours among full-time workers (Bardasi and Gornick 2000, 2007; Jacobs and Gornick 2001).

Throughout the LIS countries, several factors have been associated with reducing women's probability of employment and/or their hours, absolutely or relative to men's. First and most clearly, having children (especially young children) and having a larger number of children lowers both the likelihood and intensity of women's employment (Wolf 1990; Phipps 1993; Knudsen and Peters 1996; Gornick, Meyers and Ross 1996; Harkness and Waldfogel 1999; Jacobs and Gornick 2001; Pettit and Hook 2002) -- but not men's (Gornick 1999). In addition, nearly everywhere, women's employment rates and hours rise with their own educational level, suggesting that earnings' capacity universally affects female labor market behavior (Phipps 1993; Knudsen and Peters 1996; Gornick, Meyers, and Ross 1996, Pettit and Hook 2002). Other factors, especially marital status and women's unearned income (or their spouses' earnings), have inconsistent effects, both across studies and across countries.

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[1] In this paper, we cite the LIS Working Paper versions of earlier studies, to enable easy access. See: http://www.lisproject.org/publications/wpapers.htm. Many of these papers were subsequently published; publication information is also available on the LIS website.

While much LIS-based research finds that women's, especially mothers', employment lags men's everywhere, it also reveals dramatic cross-national variation. Women's employment tends to be high in the Nordic countries, moderately high in the English-speaking countries, and somewhat lower in the rest of Europe, especially in the southern European countries (Wolf 1990; Cancian and Schoeni 1992; Gornick 1999; Pettit and Hook 2002; Misra, Budig and Moller 2006). Part of the explanation for this pattern is that children exert smaller negative effects on women's employment probabilities in the Nordic countries than in the English-speaking and Continental countries (Gornick, Meyers, Ross 1996, Harkness and Waldfogel 1999). The intensity of women's labor market attachment has also been found to vary widely, although less systematically by region. LIS researchers have reported long employment hours among women, and/or low rates of part-time work, in a diverse set of countries, including Finland and Italy, followed by the US and Canada. In other countries, especially Germany, the Netherlands, and the UK, employed women tend to work substantially shorter hours, relative to men (Gornick 1999, Bardasi and Gornick 2000, Jacobs and Gornick 2001).

Several researchers have used the LIS data to analyze gender gaps in earnings, generally with the twin goals of capturing the magnitude of unadjusted gaps across countries and decomposing the gaps to assess the relative roles of differences in observed characteristics versus unexplained components. In two early LIS papers, Phipps (1988, 1989) assessed gender gaps in earnings across the English-speaking countries and in Sweden. She reported unadjusted female/male earnings ratios of .62-.64 in Canada, the UK, and the US, and substantially higher ratios in Australia (.71) and Sweden (.78). Other LIS researchers, including Callan and Adams (1995), Gornick (1999), and Harkness and Waldfogel (1999), have found similar results: higher gender earnings ratios in the Nordic countries and in Australia and lower ratios in Canada, the US, and the UK. Callan and Adams (1995) and Gornick (1999) find that adding human capital controls

narrows the cross-country variability. Both find, for example, that controlling for age and education -- and, in Gornick (1999), occupation as well -- reduces the gender earnings ratio in Sweden and raises it in the UK. Overall, substantial unexplained earnings gaps persist in all LIS countries.

Others LIS researchers have focused on differences in earnings (generally, annual earnings) between husbands and wives. The central concern in these studies is not in wage discrimination but instead in women's economic dependence within the family; in most cases, these measures conflate gender gaps in hourly wages with gender gaps in hours worked. Bianchi, Casper and Peltola (1996) compared "married women's economic dependency" across countries, where dependency is the difference between the two spouses' shares of their summed earnings. Among dual-earner couples, overall, they find lower levels of dependency in the Nordic countries and higher levels in the English-speaking and Continental European countries. Among all couples, including those with wives with no earnings, the Continental European countries (especially the Netherlands) stand out with especially high levels of married women's dependency -- driven upward by the high rates of non-employment among wives in these countries.

Yet other LIS studies have assessed wage differentials *among* women, which illuminate key factors that depress average female wages, both in the absolute and relative to men's. In particular, several studies have found that women's wages are lowered by motherhood status and by engagement in part-time work. Thus, two outcomes of interest are the wage gap between mothers and non-mothers and between women who are employed full-time and those employed part-time. Harkness and Waldfogel (1999) assessed the wage gap between mothers and non-mothers, which they label as the "family gap", and found that it too varies across the LIS countries. Not surprisingly, they found a strong positive correlation across countries between family gaps and gender gaps, that is, women's wages most lag men's where mothers' wages most lag those of non-mothers. In a follow-up study, however, Todd (2001) reported that education acts as a powerful

shock absorber with respect to family gaps; in the US and Canada, for example, high educational attainment virtually eliminates the differential between mothers' and non-mothers' wages. Sigle-Rushton and Waldfogel (2006) extend these analyses by comparing the *long-term* earnings (estimated over portions of the lifespan) of women with children, women without children, and men. They find a systematic pattern of variation. Mothers in Continental Europe report the largest earnings differentials, followed by mothers in the English-speaking countries; mothers in the Nordic group experience the smallest earnings differentials.

Gornick and Jacobs (1994), and Bardasi and Gornick (2000, 2007), analyzed part-time/full-time wage differentials among women. The part-time/full-time gap is an important differential through the lens of gender because part-time work is almost entirely women's work in all LIS countries, and because part-time work is prevalent among employed women in a number of LIS countries. These studies indicate that unadjusted part-time penalties vary widely across countries and that controls for productivity-related factors tend to reduce but not eliminate part-time/full-time gaps. Bardasi and Gornick (2007) find, for example, that unadjusted part-time wage penalties vary from 22% in the US, to 15% in the UK, to about 8% in Germany. The composition of these part-time/full-time differentials also varies across countries; controlling for age, education, occupation and industry (where available) reduces the US and German gaps only slightly, while the UK differential is nearly eliminated.

These lines of research indicate that factors that are not *directly* productivity-related (e.g., parenthood and engagement in part-time work) appear to depress women's average wages across several LIS countries. Both of these effects widen the gender earnings gap, as parenthood has little to no effect on average male earnings (at the individual level), nor does part-time status (as so few men work part-time). Further work is needed to untangle the complex causality underlying these findings. In this paper, we

contribute to this literature by broadening the set of explanatory variables, taking advantage of new data availability through LIS.

The paper is organized as follows. In Section II, we describe our data and key indicators in more detail, emphasizing the newly added variables that we use in this paper. In Section III, we present descriptive results on differentials in a number of employment-related indicators, comparing mothers and non-mothers (what we refer to as the "motherhood gap") and between mothers and father (henceforth, the "gender gap" among parents). In Section IV, we present the results of a multivariate analysis, with a focus on earnings as the dependent variable. In these analyses, we control incrementally for this enlarged set of independent variables. In Section IV, we offer a brief summary and some conclusions.

II.   Data and Variables.

LIS includes cross-sectional datasets from a large number of industrialized countries, organized into six "waves". The waves correspond to time periods spaced by approximately five-year intervals, starting at about 1980. In this paper, we use microdata from eight surveys made available as Release 2 of Wave V (Wave V.2), which is centered on the year 2000.

Although all of the datasets in LIS are cross-sectional, six of these Wave V.2 datasets were constructed from waves taken from longitudinal datasets. Five of the surveys are part of the 2001 wave of the European Community Household Panel (ECHP): Austria, Belgium, Spain, Greece, and Ireland. The dataset from Germany is from the 2001 wave of the German Socio-Economic Panel (GSOEP). The United Kingdom (UK) data come from the 1999-2000 Family Resources Survey (FRS) and the United States (US) data are from the 2001 Annual Demographic Survey (a.k.a., the March Supplement)

of the Current Population Survey (CPS). Each of the surveys is weighted so that results are representative of the population as a whole. The LIS staff transforms the data from the original surveys, and harmonizes them into a common template, to render the variables as comparable as possible across countries.

All of the LIS datasets include standard demographic measures, such as age and marital status. The LIS datasets used in this analysis also include information on whether the non-married are living with a partner, as well as the number and ages of children in the household. Furthermore, nearly all of the LIS datasets include an indicator of educational attainment. Using standardized recodes provided by LIS, we group educational attainment into three levels: low, medium, and high. Low educational attainment includes those who have not completed upper secondary education; medium refers to those who have completed upper secondary education and non-specialized vocational education; and high includes those who have completed specialized vocational education, post-secondary education and beyond.

The LIS datasets (starting in the early waves) include several labor market outcomes, including employment status, annual earnings and, in some datasets, earnings over periods of time of less than a year. Some also report weekly work hours, although this variable is missing in several LIS datasets. Most also contain employment activity, that is, waged work versus self-employment. In addition, most LIS datasets include data on occupation and industry. For the current analysis, we recoded occupation and industry into relatively broad groupings. We recoded occupation into professional/administrative, service/sales/clerical, blue collar, and agricultural; we recoded industry into

manufacturing, trade, finance, transportation, public administration, services, and agriculture.

Beginning with Wave V.2, LIS introduced several entirely new variables. These new variables include several characteristics of the primary job, such as permanency of job contract; supervisory status; and tenure in current job – all of which are valuable markers of job quality that we anticipate will vary by gender and parenting status. The new variables also include some that capture worker characteristics, such as holding more than one job; the total duration of all work experience; and current caregiving status. While these variables are not universally available, most of the job quality variables are available across the ECHP datasets (i.e., Austria, Belgium, Spain, Greece, and Ireland), but less available in the other datasets. We use all of these new variables in our analyses to the extent that they are present in these datasets. We know of no other studies that make use of them.

Throughout our analysis, we analyze a sample of adults aged 20 to 54 who are either household heads, or the partners of household heads, and who are not currently serving in the military. The resulting samples range in size from 2,292 (Austria) to 52,246 (US).

III. Results: Descriptive Findings on Motherhood and Gender Gaps.

Before presenting the results of our multivariate analysis, in Section IV, we present descriptive findings that highlight both similarities and differences across countries with respect to the demographic and employment characteristics of the four groups in which we are interested: women with children, women without children, men

with children, and men without children. Clear bivariate differentials emerge between mothers and non-mothers and between mothers and fathers.

Table 1 reports average age, education, family characteristics, and caregiving status, by country, gender, and parenting status. Not surprisingly, in all of these countries, mothers and non-mothers have somewhat different age distributions. In all countries, mothers are more likely to be aged 25-49 than are non-mothers, and less likely to be in either the youngest (20-24 years old) or oldest (50-54 years old) groups. The age differentials between mothers and fathers are also as expected: a larger share of mothers compared to fathers fall into the youngest group (20-24) everywhere. Clearly, throughout these countries, young women with children tend to be younger than their male partners.

In most (six of eight) of these countries, women with children are less likely to have attained the highest educational level than are non-mothers; in two countries – Belgium and especially Greece – mothers are substantially more likely to report high educational attainment than are childless women. The gender differentials among parents are also noteworthy. In five of these countries, mothers are less likely than men with children to have completed post-secondary education; in two countries, Belgium and Spain, we find the reverse; and in Ireland mothers and fathers are equally likely to attain the highest education level.

Not surprisingly, among women (as well as men), in all countries, marriage and partnership rates are higher for parents than among non-parents. Furthermore, in all countries, fathers are more likely than are mothers to report that they are in relationships. This difference is especially large in the UK, where 97 percent of fathers are partnered, compared to 77 percent of mothers. In Austria, Belgium, Germany, Ireland, and the US,

TABLE 1
Age, Education, Family Characteristics, and Caregiving Status
persons aged 20-54
by gender and parenthood status, approximately 2000

		Age			Education			Partnership Status		Number of Children < 18 in Household				Age of Youngest Child		Self-reported Care Responsibilities	
		% 20-24	% 25-49	% 50-54	% low	% medium	% high	% with Partner	% Married	% 1 child	% 2 children	% 3 children	% 4+ children	% age 0-5	% age 6-17	% caregivers of children	% caregivers of others
Austria A. mothers		2.6	93.2	4.2	17.6	70.8	11.6	85.6	77.3	50.3	39.5	7.6	2.6	37.1	62.9	90.1	3.8
B. women with no children		5.2	64.3	30.4	19.3	64.2	16.6	68.6	55.4	-----	-----	-----	-----	-----	-----	6.5	5.0
C. fathers		1.4	92.0	6.6	7.8	79.3	12.9	99.5	89.0	45.5	42.7	8.7	3.0	41.6	58.4	45.9	1.3
D. men with no children		3.3	71.7	24.9	10.7	77.6	11.7	58.3	43.4	-----	-----	-----	-----	-----	-----	1.7	1.4
ratio mothers to non-mothers		0.49	1.45	0.14	0.91	1.10	0.70	1.25	1.40	-----	-----	-----	-----	-----	-----	13.93	0.76
ratio mothers to fathers		1.87	1.01	0.63	2.24	0.89	0.90	0.86	0.87	1.10	0.93	0.87	0.86	0.89	1.08	1.96	2.93
Belgium A. mothers		1.8	96.0	2.2	23.3	34.3	40.1	87.7	78.7	38.2	42.5	15.1	4.1	38.8	61.2	73.7	6.7
B. women with no children		6.8	63.3	29.8	28.5	35.0	32.6	69.7	53.0	-----	-----	-----	-----	-----	-----	16.3	7.3
C. fathers		1.1	93.9	5.0	26.9	30.5	33.7	98.5	89.5	35.6	44.3	15.9	4.2	40.7	59.3	40.4	2.9
D. men with no children		5.9	65.0	29.1	33.1	25.8	34.3	67.9	51.5	-----	-----	-----	-----	-----	-----	5.6	3.0
ratio mothers to non-mothers		0.26	1.52	0.08	0.82	0.98	1.23	1.26	1.48	-----	-----	-----	-----	-----	-----	4.52	0.91
ratio mothers to fathers		1.62	1.02	0.45	0.87	1.13	1.19	0.89	0.88	1.07	0.96	0.95	0.99	0.95	1.03	1.83	2.28
Germany A. mothers		2.5	94.1	3.4	14.0	55.6	23.0	86.5	75.3	51.4	36.9	9.2	2.5	38.9	61.1	84.9	4.3
B. women with no children		10.7	65.1	24.3	11.2	57.2	24.1	66.6	47.4	-----	-----	-----	-----	-----	-----	4.1	5.2
C. fathers		0.8	91.5	7.7	8.8	48.5	35.6	98.7	86.4	47.8	39.2	10.3	2.7	40.5	59.5	65.2	2.1
D. men with no children		6.1	71.5	22.4	7.3	53.5	31.8	54.9	36.4	-----	-----	-----	-----	-----	-----	1.8	1.4
ratio mothers to non-mothers		0.23	1.45	0.14	1.25	0.97	0.95	1.30	1.59	-----	-----	-----	-----	-----	-----	20.91	0.83
ratio mothers to fathers		3.18	1.03	0.44	1.60	1.15	0.64	0.88	0.87	1.07	0.94	0.90	0.93	0.96	1.03	1.30	2.08
Spain A. mothers		2.1	91.3	6.6	57.6	25.0	17.0	94.6	92.0	51.4	40.5	7.2	0.8	40.9	59.1	79.7	7.3
B. women with no children		5.6	69.6	24.9	52.0	26.9	20.3	81.8	72.9	-----	-----	-----	-----	-----	-----	5.4	7.8
C. fathers		0.9	88.7	10.4	57.1	27.1	15.0	99.7	96.8	49.8	41.8	7.5	0.9	44.4	55.6	38.2	1.4
D. men with no children		3.8	70.9	25.3	51.2	27.9	19.2	80.6	71.2	-----	-----	-----	-----	-----	-----	2.0	1.2
ratio mothers to non-mothers		0.38	1.31	0.27	1.11	0.93	0.84	1.16	1.26	-----	-----	-----	-----	-----	-----	14.68	0.93
ratio mothers to fathers		2.27	1.03	0.64	1.01	0.92	1.13	0.95	0.95	1.03	0.97	0.96	0.95	0.92	1.06	2.09	5.17
Greece A. mothers		1.8	94.2	4.0	36.4	43.2	20.5	95.0	95.2	41.0	50.1	8.1	0.7	36.2	63.8	86.7	3.9
B. women with no children		3.6	60.5	35.9	55.1	32.3	12.1	78.2	78.0	-----	-----	-----	-----	-----	-----	18.4	7.0
C. fathers		0.4	88.8	10.8	44.4	29.4	26.2	99.3	99.2	38.5	52.3	8.6	0.7	39.2	60.8	34.0	1.0
D. men with no children		3.0	58.1	38.9	46.2	32.6	20.6	70.2	69.8	-----	-----	-----	-----	-----	-----	1.5	2.4
ratio mothers to non-mothers		0.50	1.56	0.11	0.66	1.34	1.70	1.21	1.22	-----	-----	-----	-----	-----	-----	4.70	0.55
ratio mothers to fathers		4.27	1.06	0.37	0.82	1.47	0.78	0.96	0.96	1.07	0.96	0.95	0.99	0.92	1.05	2.55	3.84
Ireland A. mothers		8.1	84.1	7.8	39.3	41.8	18.9	85.5	80.2	35.7	35.1	18.6	10.5	48.2	51.8	85.4	6.2
B. women with no children		17.2	55.2	27.6	33.5	32.5	34.0	62.6	51.6	-----	-----	-----	-----	-----	-----	8.1	5.1
C. fathers		0.5	85.5	13.9	57.0	24.3	18.7	99.8	93.4	31.2	36.4	19.9	12.5	48.3	51.7	42.6	2.7
D. men with no children		11.9	64.2	23.9	44.8	26.6	28.6	59.2	50.0	-----	-----	-----	-----	-----	-----	3.8	2.9
ratio mothers to non-mothers		0.47	1.52	0.28	1.17	1.29	0.56	1.37	1.55	-----	-----	-----	-----	-----	-----	10.50	1.22
ratio mothers to fathers		15.59	0.98	0.56	0.69	1.72	1.01	0.86	0.86	1.14	0.96	0.94	0.84	1.00	1.00	2.01	2.30
United Kingdom A. mothers		5.1	90.2	4.7	80.6	6.0	13.4	77.7	69.1	39.0	41.0	14.4	5.5	45.7	54.3	3.4	2.4
B. women with no children		7.6	61.6	30.8	73.1	6.3	20.6	76.8	58.5	-----	-----	-----	-----	-----	-----	0.4	2.8
C. fathers		1.9	88.6	9.5	74.0	4.9	21.1	97.4	85.8	37.2	43.0	14.6	5.2	46.7	53.3	1.3	1.5
D. men with no children		7.2	67.0	25.7	71.1	6.0	22.9	60.8	43.5	-----	-----	-----	-----	-----	-----	0.0	1.4
ratio mothers to non-mothers		0.67	1.47	0.15	1.10	0.95	0.65	1.01	1.18	-----	-----	-----	-----	-----	-----	9.45	0.84
ratio mothers to fathers		2.73	1.02	0.49	1.09	1.21	0.64	0.80	0.81	1.05	0.95	0.99	1.06	0.98	1.02	2.56	1.55
United States A. mothers		6.5	89.5	4.1	12.0	51.3	36.7	80.8	77.3	38.6	39.2	15.6	6.6	45.4	54.6	-----	-----
B. women with no children		9.7	64.0	26.2	8.9	49.8	41.3	64.0	56.4	-----	-----	-----	-----	-----	-----	-----	-----
C. fathers		3.3	88.5	8.2	12.5	48.2	39.2	95.8	91.0	37.3	40.4	15.9	6.4	47.3	52.7	-----	-----
D. men with no children		8.4	69.0	22.6	9.7	50.7	39.6	57.7	50.1	-----	-----	-----	-----	-----	-----	-----	-----
ratio mothers to non-mothers		0.67	1.40	0.15	1.35	1.03	0.89	1.26	1.37	-----	-----	-----	-----	-----	-----	-----	-----
ratio mothers to fathers		1.98	1.01	0.50	0.96	1.06	0.94	0.84	0.85	1.04	0.97	0.98	1.03	0.96	1.04	-----	-----

women also report substantially higher rates of single parenthood than do their male counterparts (with differences in the range of 11 to 15 percentage points.) In the two Southern European countries, Greece and Spain, where single-parenting is less common, mothers are only 4 to 5 percentage points more likely than fathers to be without a partner.

The results on family size reveal, first, that there is substantial variation across these countries. In Austria, Germany, and Spain, families with one child are most prevalent; in the other countries, two-child families are most prevalent. It is interesting that, in general, mothers (relative to fathers) are somewhat more likely to have one child and slightly less likely (except in the UK and the US) to have four or more – presumably because more mothers than fathers are rearing children without a partner. Among families with children, in Spain, Ireland, the UK, and the US, roughly 40 to 50 percent are households with children under six years of age. In the other five countries, only 30 to 40 percent of households have pre-school children. Again, we see a small but interesting pattern of difference between mothers and fathers; mothers are slightly but consistently less likely to have preschool age children than are fathers.

Finally, we present findings on self-reported caregiving responsibilities, an indicator that is available in all of these countries, except for the US.[2] Clearly, in all countries, women with children report substantially more caregiving of children than do women without children – although the differential varies widely across countries, with especially large differentials reported in Austria, Germany and Spain. At the same time, non-mothers still report notable levels of child caregiving (presumably in extended family arrangements) ranging from a low 4 percent in Germany to as high as 18 percent

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[2] Information for the UK is asked only of those individuals currently absent from work and concentrates primarily on maternity and/or paternity leave. In the ECHP countries, all individuals are asked about the time spent caring for children and for others in the household.

in Greece (excluding the UK from this comparison). Also, not surprisingly, mothers are about two to three times as likely to report having child-caregiving responsibilities than are fathers.

The results on caregiving for others, primarily for elderly and disabled family members, are quite different. Across the board, this type of caregiving is reported much less frequently, with levels under 10 percent in all subgroups in all of these countries. Nevertheless, among women, this type of caregiving falls more on those without children, except in Ireland where we find the reverse (although the difference is small). We also find that mothers are about two to five times as likely as fathers to provide care for persons other than children; the ratio of mothers to fathers engaged in (non-child) caregiving ranges from about 1.5 in the UK to over 5 in Spain.

In Table 2, we report our main employment outcomes: employment rates, weekly work hours, annual earnings, and wage rates[3] by country, gender, and parental status. Not surprisingly, men's employment rates are high everywhere and relatively uniform, ranging from about 85 to 95 percent in all of these countries. As is well-known, women's employment rates are much lower and much more varied, especially among mothers. Mothers' employment rates range from 46 percent in Spain, to 54-57 percent in Greece and Ireland, to 63 percent in Germany and in the UK, to a high of 70-73 percent in Austria, Belgium and the US. In six countries, women with children are less likely to be employed (about ten to nearly thirty percent less likely) than are their counterparts with children. Belgium and Greece are exceptional here, in that women with children have

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[3] The wage rate is the average earnings per hour worked calculated from earnings of the shortest period of time available. In the US, hourly wage is calculated as (annual earnings)/(total weeks worked x hours worked per week). In the UK, weekly earnings are divided by weekly hours. In the remaining countries, the hourly wage rate is constructed as monthly earnings / (4.33 x hours worked per week).

		% Employed	Weekly Work Hours (mean, among paid employed)	Annual Earnings (mean, among paid employed)	Hourly Wage (mean, among paid employed)
Austria	A. mothers	72.8	30.3	107 893	68.3
	B. women with no children	79.1	37.9	197 240	87.6
	C. fathers	95.5	44.1	250 443	94.8
	D. men with no children	91.3	43.3	239 790	99.1
	ratio mothers to non-mothers	0.92	0.80	0.55	0.78
	ratio mothers to fathers	0.76	0.69	0.43	0.72
Belgium	A. mothers	73.4	33.1	486 634	330.1
	B. women with no children	68.4	35.8	550 929	349.5
	C. fathers	93.3	43.6	818 242	391.3
	D. men with no children	86.5	42.2	737 311	375.0
	ratio mothers to non-mothers	1.07	0.92	0.88	0.94
	ratio mothers to fathers	0.79	0.76	0.59	0.84
Germany	A. mothers	62.7	27.5	26 053	8.8
	B. women with no children	81.2	36.3	39 444	9.4
	C. fathers	88.3	45.1	62 746	12.8
	D. men with no children	85.8	42.8	52 430	11.3
	ratio mothers to non-mothers	0.77	0.76	0.66	0.94
	ratio mothers to fathers	0.71	0.61	0.42	0.69
Spain	A. mothers	46.2	34.7	1 601 331	860.6
	B. women with no children	59.5	38.0	1 638 938	825.3
	C. fathers	92.2	44.9	2 271 212	920.9
	D. men with no children	89.6	44.0	2 190 157	876.4
	ratio mothers to non-mothers	0.78	0.91	0.98	1.04
	ratio mothers to fathers	0.50	0.77	0.71	0.93
Greece	A. mothers	53.5	38.7	2 227 581	1 097.0
	B. women with no children	50.5	39.3	1 971 973	953.4
	C. fathers	96.5	47.1	2 800 392	1 163.8
	D. men with no children	89.3	45.9	2 905 532	1 184.5
	ratio mothers to non-mothers	1.06	0.99	1.13	1.15
	ratio mothers to fathers	0.55	0.82	0.80	0.94
Ireland	A. mothers	56.8	29.3	8 292	5.9
	B. women with no children	79.2	33.7	12 455	7.9
	C. fathers	92.1	47.2	14 193	6.2
	D. men with no children	88.2	42.8	13 675	6.7
	ratio mothers to non-mothers	0.72	0.87	0.67	0.75
	ratio mothers to fathers	0.62	0.62	0.58	0.96
United Kingdom	A. mothers	63.9	28.4	9 365	6.2
	B. women with no children	79.4	36.6	13 650	7.0
	C. fathers	88.5	47.1	21 072	8.7
	D. men with no children	82.8	45.5	19 755	8.4
	ratio mothers to non-mothers	0.80	0.78	0.69	0.89
	ratio mothers to fathers	0.72	0.60	0.44	0.71
United States	A. mothers	70.4	36.8	24 875	11.3
	B. women with no children	79.5	40.2	29 664	10.9
	C. fathers	92.4	44.9	50 888	13.0
	D. men with no children	86.8	44.2	41 759	12.4
	ratio mothers to non-mothers	0.89	0.92	0.84	1.03
	ratio mothers to fathers	0.76	0.82	0.49	0.87

TABLE 2
Main Employment Outcomes,
persons aged 20-54
by gender and parenthood status, approximately 2000

modestly higher employment rates than non-mothers. In all eight countries, mothers' employment rates lag those of fathers, with the most striking differentials seen in the two Southern European countries, Spain and Greece, where mothers are about half as likely as father to work for pay.

The results on weekly work hours are also largely as expected. Across all of these countries, employed men in this prime-age group, both with and without children, work remarkably long hours: 42 to 47 hours per week. Women's hours are consistently shorter and more varied. Among mothers, mean weekly hours range from 27-28 in Germany and the UK, to a high of 35 weekly hours, or more, in the two Southern European countries and in the US. With respect to weekly hours, we find a consistent cross-national pattern in which mothers work for pay fewer hours each week than do employed women without children (although in Greece the motherhood gap is negligible), and where mothers' hours substantially lags fathers' hours everywhere. The gender gaps in hours, among parents, are especially large in Germany and in the UK, where historically employed mothers have typically worked part-time, and at relatively few hours.

Turning to annual earnings, in six of these countries, mothers earn less per year than do non-mothers, which reflects in part their shorter weekly work hours. The motherhood gap is especially large in Austria, Germany, Ireland and the UK, where mothers earn less than 70 percent of what fathers earn. Again, the Southern European countries shape up differently; in Spain there is virtually no motherhood gap in annual earnings and, in Greece, mothers earn more than women without children. Mothers earn less, per year, than do fathers everywhere, from a low of 42 to 44 percent (women to men) in Austria, Germany, and the UK to a high of 71 to 80 percent in Spain and Greece.

Finally, when we consider earnings controlling for hours worked, in all countries, mothers fare better relative to childless women; in other words, the mothers-to-non-mother ratios rise everywhere – and markedly. In Spain, Greece, and now also the US, mothers actually earn *more* per hour worked than do non-mothers, though these differences are very small. Likewise, the mothers-to-fathers ratio also rises everywhere, and usually by a substantial amount. Using this indicator, the ratio of mothers' earnings to fathers' exceeds 90 in Spain, Greece and Ireland.

Table 3 reports, across our subgroups, selected characteristics of the primary job. We report waged work versus self-employment, industry, and two indicators of worker characteristics: multiple job holding and (in five countries) years of work experience.

The first three columns report type of work, disaggregating employment into waged work, self-employment, or unpaid family work.[4] The data reveal a clear pattern in which self-employment is more prevalent among mothers than non-mothers (except in Greece where there is little difference), but much less common everywhere among mothers than among fathers. (Self-employment itself varies dramatically across countries, with especially high levels reported in Southern Europe.) We also see systematic differences in the industries in which these groups are employed;[5] overall, there is a small motherhood gap (with mothers slightly more likely than childless women to work in the service industries) but a large gender gap (with fathers far more likely than mothers to work in manufacturing).

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[4] The UK also contains an "other" category, which includes one percent or fewer of the employed sample, across subgroups (not shown).

[5] Detailed industry categories are not available in either Austria or Greece. For Austria, the only information is provided in the broad categories of agriculture, industry, services, and military. In Greece, the categories are agriculture, fishing, industry, and services.

TABLE 3
Selected Characteristics of the Primary Job (Activity, Industry) and Worker Characteristics (Multiple Job Holding, Experience), employed persons aged 20-54
by gender and parenthood status, approximately 2000

			Employment Activity			Industry Group							% Holding Multiple Jobs	Work Experience (mean years)
			% waged	% self-employed	% unpaid employed	% manuf	% trade	% finance	% transp	% public admin	% services	% agric		
Austria	A.	mothers	88.2	10.0	1.84	14.4	-----	-----	-----	-----	78.8	6.8	1.6	19.8
	B.	women with no children	91.3	7.9	0.78	13.5	-----	-----	-----	-----	82.9	3.6	2.8	24.6
	C.	fathers	86.5	13.5	0.00	39.2	-----	-----	-----	-----	54.8	6.0	7.4	21.6
	D.	men with no children	86.1	13.9	0.00	33.1	-----	-----	-----	-----	62.3	4.6	4.1	24.5
		ratio mothers to non-mothers	0.97	1.27	2.37	1.07	-----	-----	-----	-----	0.95	1.88	0.58	0.80
		ratio mothers to fathers	1.02	0.74	-----	0.37	-----	-----	-----	-----	1.44	1.13	0.21	0.91
Belgium	A.	mothers	88.2	10.7	1.12	10.7	1.1	5.9	0.5	8.0	72.7	1.0	4.4	14.1
	B.	women with no children	91.2	7.0	1.87	9.6	1.4	5.3	2.6	6.9	72.5	1.6	7.6	16.6
	C.	fathers	83.4	16.4	0.17	27.0	10.9	7.4	6.8	8.8	37.2	1.8	7.5	18.3
	D.	men with no children	86.5	13.5	0.00	26.9	9.3	6.1	6.0	8.6	40.2	2.8	6.9	20.4
		ratio mothers to non-mothers	0.97	1.54	0.60	1.12	0.80	1.12	0.20	1.16	1.00	0.61	0.58	0.85
		ratio mothers to fathers	1.06	0.65	6.43	0.40	0.11	0.80	0.08	0.90	1.95	0.54	0.59	0.77
Germany	A.	mothers	88.7	9.1	2.17	13.9	1.6	2.8	2.1	7.7	70.4	1.6	6.4	7.9
	B.	women with no children	92.0	6.7	1.29	14.4	1.3	5.1	2.0	7.2	69.2	0.7	7.6	11.7
	C.	fathers	86.6	13.1	0.32	35.2	13.2	4.3	5.4	8.4	31.7	1.8	8.4	16.5
	D.	men with no children	86.7	12.0	1.34	31.3	10.3	4.2	5.4	8.0	39.1	1.6	6.7	15.8
		ratio mothers to non-mothers	0.96	1.35	1.68	0.96	1.16	0.54	1.02	1.07	1.02	2.31	0.83	0.68
		ratio mothers to fathers	1.02	0.70	6.84	0.39	0.12	0.65	0.39	0.91	2.22	0.90	0.75	0.48
Spain	A.	mothers	85.1	13.0	1.83	12.5	0.7	2.6	1.3	7.0	71.7	4.2	2.1	-----
	B.	women with no children	87.2	11.8	1.04	15.6	1.6	3.5	1.0	5.7	68.2	4.5	2.9	-----
	C.	fathers	78.5	21.3	0.22	21.4	18.8	4.5	7.1	4.8	36.0	7.4	3.9	-----
	D.	men with no children	79.2	20.7	0.13	25.3	16.8	2.8	6.7	5.8	35.2	7.2	3.9	-----
		ratio mothers to non-mothers	0.98	1.11	1.76	0.80	0.46	0.75	1.27	1.24	1.05	0.93	0.72	-----
		ratio mothers to fathers	1.08	0.61	8.36	0.58	0.04	0.58	0.18	1.47	1.99	0.57	0.55	-----
Greece	A.	mothers	69.6	20.3	10.04	13.7	-----	-----	-----	-----	76.8	9.5	2.1	-----
	B.	women with no children	64.6	21.1	14.25	12.7	-----	-----	-----	-----	71.0	16.3	4.5	-----
	C.	fathers	60.3	39.3	0.44	32.4	-----	-----	-----	-----	59.9	7.6	5.0	-----
	D.	men with no children	63.7	35.2	1.10	29.3	-----	-----	-----	-----	59.9	10.8	4.5	-----
		ratio mothers to non-mothers	1.08	0.96	0.70	1.07	-----	-----	-----	-----	1.08	0.58	0.47	-----
		ratio mothers to fathers	1.15	0.52	22.95	0.42	-----	-----	-----	-----	1.28	1.24	0.42	-----
Ireland	A.	mothers	92.1	7.3	0.64	10.5	0.8	4.4	2.3	5.7	74.6	1.7	2.4	20.3
	B.	women with no children	97.0	2.2	0.79	11.7	2.3	6.5	4.7	6.5	67.3	1.1	0.7	19.3
	C.	fathers	72.6	27.4	0.00	22.3	19.0	3.1	8.2	7.2	31.2	9.1	10.0	23.4
	D.	men with no children	85.2	14.8	0.00	18.4	9.6	5.0	8.3	6.9	44.2	7.5	7.1	20.3
		ratio mothers to non-mothers	0.95	3.24	0.82	0.89	0.35	0.68	0.50	0.88	1.11	1.59	3.57	1.05
		ratio mothers to fathers	1.27	0.27	-----	0.47	0.04	1.42	0.28	0.80	2.39	0.19	0.24	0.87
United Kingdom	A.	mothers	90.4	8.2	0.32	11.1	1.3	4.7	1.8	5.5	75.1	0.6	7.1	9.3
	B.	women with no children	93.3	6.3	0.10	14.2	1.3	6.7	2.7	7.1	67.3	0.7	5.2	13.2
	C.	fathers	82.6	17.2	0.00	28.4	12.6	3.7	6.5	5.7	41.2	2.0	3.7	19.9
	D.	men with no children	86.2	13.2	0.08	28.0	10.3	4.2	6.2	6.5	43.5	1.4	3.7	19.8
		ratio mothers to non-mothers	0.97	1.31	3.17	0.78	0.96	0.71	0.66	0.77	1.12	0.83	1.38	0.70
		ratio mothers to fathers	1.09	0.48	-----	0.39	0.10	1.27	0.28	0.98	1.82	0.28	1.90	0.47
United States	A.	mothers	91.3	8.6	0.10	13.7	17.0	8.6	2.9	4.5	52.1	1.3	5.8	-----
	B.	women with no children	92.8	6.9	0.24	15.3	16.6	9.1	2.7	5.1	50.2	1.1	6.6	-----
	C.	fathers	86.6	13.4	0.02	38.3	16.9	5.4	6.9	5.5	24.3	2.7	6.3	-----
	D.	men with no children	87.8	12.2	0.00	34.6	18.2	5.3	6.6	5.1	27.7	2.5	6.6	-----
		ratio mothers to non-mothers	0.98	1.24	0.40	0.90	1.02	0.94	1.10	0.88	1.04	1.23	0.89	-----
		ratio mothers to fathers	1.05	0.64	3.87	0.36	1.00	1.59	0.43	0.82	2.14	0.49	0.93	-----

Multiple job holding is reported in the second to last column. Throughout these countries, the prevalence of holding more than one job is fairly low – 10 percent (among Irish fathers) and less everywhere else. Except in Ireland and the UK, mothers are generally the least likely group to hold more than one job – less likely than their childless counterparts and less likely than fathers. The final indicator in Table 3 is mean years of work experience, where available. Mothers stand out again, with substantially fewer years of experience, relative to childless women, except in Ireland, where there is no substantial difference. Mothers' years of experiences lag fathers' everywhere; in Germany and in the UK, mothers report fewer than half as many years of work experience than do men with children.

In our final descriptive table, Table 4, we report information about four additional characteristics of the primary job: occupational group, supervisory status, contractual status, and years in the current job. All of these can be construed as markers of job quality. Occupational differences across our four subgroups are marked, and they vary substantially across countries. For example, in five countries (Austria, Germany, and all three English-speaking countries) mothers are substantially less likely than non-mothers to work in professional or administrative occupations; in three countries (Belgium, Greece and Spain) we find the reverse. Gender gaps are more consistent. In all countries, mothers are much more likely than are fathers to work in service occupation, approximately three times as likely in the three English-speaking countries.

The remaining results in Table 4 concern three other aspects of job quality, although they are not available in all of our study countries.[6] We report the percentage of

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[6] All of these measures are available for Austria, Belgium, Germany, and Ireland. However, none of these three are available in the US dataset.

		Occupation Group				% With Supervisory Responsibility	% With Permanent Contract	Job Tenure (mean years, top-coded at 16 years)
		% blue collar	% professional / administrative	% service	% agriculture			

TABLE 4
Selected Characteristics of the Primary Job -- Indicators of Job Quality,
employed persons aged 20-54
by gender and parenthood status, approximately 2000

Country	Group	% blue collar	% professional / administrative	% service	% agriculture	% With Supervisory Responsibility	% With Permanent Contract	Job Tenure (mean years, top-coded at 16 years)
Austria	A. mothers	17.7	8.7	67.7	5.8	21.4	91.1	6.6
	B. women with no children	15.6	14.4	66.1	3.8	29.6	95.0	9.5
	C. fathers	40.3	16.4	37.8	5.5	48.4	94.9	9.8
	D. men with no children	31.5	17.3	47.4	3.8	42.3	93.7	9.6
	ratio mothers to non-mothers	1.14	0.60	1.02	1.52	0.72	0.96	0.70
	ratio mothers to fathers	0.44	0.53	1.79	1.06	0.44	0.96	0.68
Belgium	A. mothers	15.1	26.0	58.4	0.5	19.4	87.8	8.9
	B. women with no children	13.9	22.6	62.1	1.4	21.4	86.2	8.7
	C. fathers	37.1	27.1	34.1	1.6	43.0	96.5	9.9
	D. men with no children	31.9	28.3	36.4	3.4	39.6	91.2	9.2
	ratio mothers to non-mothers	1.08	1.15	0.94	0.36	0.91	1.02	1.02
	ratio mothers to fathers	0.41	0.96	1.71	0.30	0.45	0.91	0.89
Germany	A. mothers	17.1	18.0	63.1	1.8	14.0	87.7	6.5
	B. women with no children	13.0	20.3	65.3	1.4	13.5	88.1	7.0
	C. fathers	45.2	26.4	26.7	1.7	32.4	94.4	8.6
	D. men with no children	40.0	24.9	33.9	1.2	23.7	88.4	7.4
	ratio mothers to non-mothers	1.32	0.89	0.97	1.27	1.04	1.00	0.92
	ratio mothers to fathers	0.38	0.68	2.36	1.06	0.43	0.93	0.75
Spain	A. mothers	26.2	26.2	43.6	4.0	24.7	69.9	-----
	B. women with no children	22.1	23.7	50.3	3.9	21.0	68.4	-----
	C. fathers	48.6	19.6	25.2	6.7	39.7	75.6	-----
	D. men with no children	44.0	20.5	29.5	6.0	34.1	74.1	-----
	ratio mothers to non-mothers	1.18	1.11	0.87	1.03	1.18	1.02	-----
	ratio mothers to fathers	0.54	1.34	1.73	0.60	0.62	0.93	-----
Greece	A. mothers	17.8	28.4	44.1	9.7	7.9	78.7	-----
	B. women with no children	19.3	19.2	45.3	16.3	10.1	78.7	-----
	C. fathers	41.1	27.6	23.8	7.5	21.3	86.7	-----
	D. men with no children	36.3	24.8	28.4	10.5	16.2	83.3	-----
	ratio mothers to non-mothers	0.92	1.48	0.97	0.60	0.78	1.00	-----
	ratio mothers to fathers	0.43	1.03	1.85	1.29	0.37	0.91	-----
Ireland	A. mothers	13.9	21.0	63.5	1.6	26.8	79.8	5.5
	B. women with no children	11.0	28.6	59.2	1.1	29.1	87.6	5.5
	C. fathers	47.3	24.6	18.8	9.3	41.5	93.1	9.0
	D. men with no children	37.2	28.7	25.9	8.2	41.6	91.7	7.6
	ratio mothers to non-mothers	1.26	0.73	1.07	1.39	0.92	0.91	0.99
	ratio mothers to fathers	0.29	0.86	3.37	0.17	0.65	0.86	0.61
United Kingdom	A. mothers	6.2	22.2	71.7	-----	24.3	-----	5.6
	B. women with no children	6.8	28.2	65.0	-----	33.3	-----	6.8
	C. fathers	36.9	36.8	26.3	-----	40.7	-----	7.9
	D. men with no children	33.9	34.8	31.3	-----	39.5	-----	7.2
	ratio mothers to non-mothers	0.91	0.79	1.10	-----	0.73	-----	0.83
	ratio mothers to fathers	0.17	0.60	2.73	-----	0.60	-----	0.72
United States	A. mothers	8.3	30.3	60.4	1.0	-----	-----	-----
	B. women with no children	7.6	36.8	54.8	0.8	-----	-----	-----
	C. fathers	34.9	42.3	19.9	3.0	-----	-----	-----
	D. men with no children	33.0	40.3	24.2	2.5	-----	-----	-----
	ratio mothers to non-mothers	1.09	0.82	1.10	1.21	-----	-----	-----
	ratio mothers to fathers	0.24	0.72	3.03	0.33	-----	-----	-----

workers who hold supervisory positions; the percentage with a permanent, as opposed to

temporary, contract; and mean years in the current job (top-coded at 16). As for

supervising responsibilities, the results are not surprising: mothers are, overall,

considerably less likely than are childless women to hold supervisory positions; the two

Southern European countries are exceptions. In all countries, mothers are dramatically

less likely than fathers to supervise other workers. Across all of these countries, more

than 80 percent of the workers hold permanent contracts, with the exception of Spain,

where just under 70 of women (with and without children) have permanent contracts.

Motherhood gaps are negligible, for the most part, but women are consistently less likely

than men to have permanent contracts, although the differences are fairly small. Finally,

the cross-national pattern with respect to job tenure is varied. There is a substantial

motherhood gap (mothers reporting fewer years in their current job, compared to

childless women) only in Austria (where the ratio is .70) and in the UK (where it is .83).

The gender gap among parents is consistent and substantial everywhere; mothers report

markedly fewer years of job tenure than do fathers, with the mothers-to-fathers ratio

varying from .61 in Ireland to .89 in Belgium.

To sum up, with most of these indicators, our bivariate results reveal relatively

consistent patterns across countries in both motherhood and gender gaps, although the

magnitudes clearly vary cross-nationally. In several cases, the two Southern European

countries shape up differently. Overall, mothers' employment rates, hours, and earnings

lag those of both childless women and fathers. Self-employment is more prevalent among

mothers than non-mothers, but much less common everywhere among mothers than

among fathers. Mothers are somewhat more likely than childless women to work in

service industries, and much less likely than fathers to work in manufacturing. In more countries than not, mothers are substantially less likely than non-mothers to work in professional or administrative occupations; occupational gender gaps are more consistent, with mothers far more likely than fathers to work in service occupations in all countries.

These first descriptive results also confirm the wisdom of our using some of the newly-available LIS variables, because they too reveal motherhood and gender gaps. As for multiple job holding, except in Ireland and the UK, mothers are generally the least likely group to hold more than one job – less likely than their childless counterparts and less likely than fathers. Mothers also report substantially fewer years of experience, relative to childless women nearly everywhere, and fewer years than fathers in all included countries. Although data availability is limited, we also find that mothers are generally less likely than childless women and fathers to hold supervisory positions. Mothers are also less likely than their male counterparts to hold permanent contracts and, finally, mothers report substantially fewer years of job tenure than do fathers, throughout these countries.

IV.   Results: Earnings Differentials in a Multivariate Framework.

We utilize the Heckman two-stage consistent estimator to estimate average hourly wage rates for each group (mothers, childless women, fathers, and childless men) by each country. This method estimates the hourly wage rate of each subgroup controlling for demographic and job-specific factors and correcting for the probability of employment. The model consists of two-parts: the selection equation for employment and the wage regression.

In the first step, a probit estimation calculates the probability of employment controlling for certain demographic characteristics. In our equation, the probability of employment is a function of age, education, number of children, age of youngest child, quintile of household income, and (when available) caregiving status.

The second step estimates the average wage rate of the average individual in the population, correcting for the selection into employment. That is, it calculates the average wage as if selection did not exist and employment was randomly determined. Factors determining wage include age, education, indicators for multiple jobs and part-time status, work activity (self-employed, paid employed, or other), occupational group, and (when available) experience, tenure, and indicators for supervisory roles and temporary contracts.

Tables 5a through 5h show the results of Heckman's two-stage regression estimation. Information from a single country is included in each table (5a contains information for Austria and 5h is the United States). Column numbers run from 1a through 5c, where "a" represents mothers, "b" is for childless women, and "c" is the column with information for fathers. Columns 1 (1a-1c) and 2 (2a-2c) are included for all countries, so only those variables available in all countries were utilized.[7] Column 1 shows the average raw wage rate for each group, after accounting for employment selection. Column 2 shows the effect of including other controls in the wage equation.

Columns 3 (3a-3c) and 4 (4a-4c) are included for those countries that have information about caregiving responsibilities, experience, and job tenure. (This excludes Spain, Greece, and the US.) Like column 1, column 3 shows the average raw wage rate

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[7] Caregiving status, tenure, experience, supervisory role, and permanent contracts are not included in columns 1 or 2.

TABLE 5a
Regression of Hourly Wage Rate,
Correcting for employment selection
employed persons aged 20-54
by gender and parenthood status, approximately 2000

	Austria 2000														
	Raw Wages Caregiving excluded from employment probability			**Wages not controlling for experience, tenure, supervisory role, and temporary contract** Caregiving excluded from employment probability			**Raw Wages** All variables in employment probability			**Wages not controlling for supervisory role, and temporary contract** All variables in employment probability			**All variables in wage equation** All variables in employment probability		
	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers
	1a	*1b*	*1c*	*2a*	*2b*	*2c*	*3a*	*3b*	*3c*	*4a*	*4b*	*4c*	*5a*	*5b*	*5c*
wage															
Age 20-24				-4.17	-13.60	17.30				-2.85	-14.78	37.11	-6.49	-7.06	39.83
Age 50-54				16.41	14.12 **	5.37				7.48	10.42 *	-1.02	11.27	12.67 *	3.51
low education				-2.75	-6.92	-0.54				-3.61	-6.96	-0.63	-0.02	-7.17	-0.81
high education				-13.98	11.22	17.98				-3.72	19.25 **	21.31	-2.77	13.90 *	28.42
Multiple Jobs				-8.12	-22.42	-1.12				-6.89	-24.67 *	-3.01	-1.22	-21.93	-10.73
Part-time				15.50 ***	9.69	7.48				18.09 ***	14.46 **	-4.62	20.59 ***	13.66 **	6.51
Self-employed				-83.58 ***	-89.50 ***	-117.68 ***				-81.89 ***	-90.22 ***	-118.63 ***			
Manufacturing				-1.77	6.23	14.07				-2.20	5.62	13.79	-2.54	2.10	15.14
Agriculture				6.76	9.43	-4.67				12.80	17.05	-3.43	28.19	-2.73	-3.84
Experience (years)										0.17	-0.22	0.31	0.37	-0.15	0.40
Blue Collar				-12.78 *	-21.35 ***	-19.72 *				-13.18 *	-25.21 ***	-20.57 *	-8.43	-20.60 ***	-20.37 *
Professional/Administrative				15.36	13.45	9.85				20.05 *	13.66 *	9.57	29.07 *	19.27 **	11.26
Agriculture				5.99	-9.01	6.89				-9.05	-18.52	3.82	-17.22	-18.40	-27.84
Supervisor													9.69	7.46 *	1.35
Temporary Contract													-24.50 **	-25.93 **	-10.82
Tenure										1.62 ***	1.18 ***	0.77	1.54 **	1.18 ***	0.91
constant	97.18 ***	117.24 ***	98.47 ***	101.44 ***	108.21 ***	120.54 ***	93.88 ***	113.33 ***	97.97 ***	76.55 ***	99.01 ***	106.71 ***	71.73 ***	95.85 ***	103.80 ***
employed															
Age 20-24	-0.35	-0.15	-1.16 *	-0.33	-0.29	-1.16 *	-0.37	-0.19	-1.16 *	-0.29	-0.41	-1.23	-0.37	-0.30	-1.14
Age 50-54	-0.36	-0.33 *	-0.26	-0.32	-0.35 *	-0.26	-0.40	-0.29 *	-0.29	-0.42	-0.31 *	-0.27	-0.60 *	-0.46 **	-0.27
low education	-0.24	-0.06	-0.35	-0.25	-0.08	-0.35	-0.25	-0.07	-0.33	-0.28	-0.05	-0.33	-0.28	-0.07	-0.33
high education	1.07 ***	0.41	0.28	1.15 ***	0.40	0.28	1.07 ***	0.39	0.29	1.05 ***	0.29	0.30	1.23 ***	0.43	0.33
no partner	0.37	0.03	5.07	0.37	0.01	5.07	0.37	0.06	5.09	0.37	0.00	5.09	0.42	0.02	5.22
not married	0.11	0.61 *	-0.49	0.20	0.62 *	-0.49	0.12	0.56 *	-0.48	0.24	0.59 *	-0.47	0.33	0.70 *	-0.43
2 children	-0.57 **		0.67	-0.60 **		0.66	-0.57 **		0.67	-0.52 *		0.71	-0.53 *		0.72
3 children	-0.48		-0.01	-0.47		-0.01	-0.50		0.00	-0.38		0.00	-0.50		-0.09
4 or more children	-0.81		5.19 ***	-0.72		5.19 ***	-0.77		5.20 ***	-0.55		5.24 ***	-0.70		5.42 ***
no children < 6 years	-0.34		0.03	-0.33		0.03	-0.42 *		0.01	-0.41		0.04	-0.51 *		0.02
2 children, 6 years or older	0.85 **		-0.83	0.88 **		-0.82	0.91 ***		-0.83	0.92 **		-0.86	0.97 **		-0.86
3 children, 6 years or older	0.67		0.31	0.72		0.31	0.79 *		0.32	0.74		0.34	0.48		0.28
4 or more children, 6+ years	0.23		-5.32	0.22		-5.32	0.25		-5.30	0.13		-5.31	-5.75		-5.65
does not care for children							0.55 *	0.82 ***	0.02	0.66 **	0.80 ***	0.00	0.68 **	1.01 ***	-0.06
cares for others							-0.69 **	0.25	4.86	-0.82 **	0.14	4.88	-1.16 ***	-0.17	5.02
constant	0.74 ***	0.37 *	1.49 ***	0.66 **	0.37 *	1.49 ***	0.77 ***	-0.39	1.48 ***	0.56 *	-0.43	1.44 ***	0.59 *	-0.79 *	1.44 ***
mills															
lambda	-76.608 ***	-87.483 ***	-68.78 *	-51.13 ***	-41.043 ***	-69.838	-70.789 ***	-79.843 ***	-64.127 *	-31.351 ***	-30.759 ***	-71.575	-32.121 ***	-29.131 ***	-78.025
statistics															
N	639	459	512	599	449	511	639	459	512	554	427	490	485	385	399

legend: * p<0.05; ** p<0.01; *** p<0.001

Belgium 2000

	Raw Wages Caregiving excluded from employment probability			Wages not controlling for experience, tenure, supervisory role, and temporary contract Caregiving excluded from employment probability			Raw Wages All variables in employment probability			Wages not controlling for supervisory role, and temporary contract All variables in employment probability			All variables in wage equation All variables in employment probability		
	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers
	1a	1b	1c	2a	2b	2c	3a	3b	3c	4a	4b	4c	5a	5b	5c
wage															
Age 20-24				-128.00 *	-72.29 *	-125.88				-57.39	6.24	-18.17	-63.55	17.77	-4.88
Age 50-54				-41.63	132.35 ***	90.17 *				-107.85 *	39.42	31.03	-116.65 *	45.79	44.48
low education				-35.90	-1.93	-29.16				-52.90 *	-34.31 **	-49.47 *	-58.28 *	-39.29	-43.87
high education				39.00 *	20.47	89.59 ***				54.22 **	70.55 **	114.44 ***	56.63 **	76.76 **	138.43 ***
Multiple Jobs				-127.10 ***	-193.20 ***	-114.74 ***				-116.43 ***	-167.21 ***	-107.49 ***	-112.77 ***	-159.76 ***	-128.52 ***
Part-time				-2.20	4.72	53.69				-1.27	3.41	74.38	7.00	17.54	108.87
Self-employed				-413.07 ***	-428.73 ***	-492.44 ***				-426.67 ***	-421.74 ***	-491.70 ***			
Manufacturing				16.78	-40.21	64.93 **				18.86	-36.22	56.88 **	17.97	-47.59	62.63 **
Agriculture				71.92	-0.37	41.50				75.12	26.56	37.33	159.66	34.07	-42.44
Experience (years)										3.55 **	2.97 *	3.91 **	3.79 **	3.71 **	4.32 **
Blue Collar				-73.16 ***	3.68	-80.90 ***				-69.39 **	11.34	-65.37 **	-62.50 **	31.81	-61.62 *
Professional/Administrative				69.54 ***	44.35 *	62.53 **				59.57 ***	32.86	60.03 **	65.00 ***	38.54	79.14 **
Agriculture				-10.71	11.64	-63.67				47.85	-17.94	-93.81		-12.96	-172.10
Supervisor													48.25 **	45.37 *	29.10
Temporary Contract													-38.53	-42.62	-54.03
Tenure										4.04 ***	3.96 *	4.65 **	3.94 **	3.34	3.86 *
constant	439.32 ***	435.79 ***	432.72 ***	390.14 ***	445.79 ***	436.65 ***	439.17 ***	426.94 ***	434.24 ***	287.63 ***	320.35 ***	314.03 ***	277.45 ***	305.89 ***	285.30 ***
employed															
Age 20-24	-0.60	0.15	-0.29	-0.55	0.13	-0.47	-0.50	0.04	-0.33	-0.44	0.05	-0.41	-0.61	0.09	-0.20
Age 50-54	-0.69 *	-0.84 ***	-1.01 **	-0.89 **	-0.87 ***	-1.01 **	-0.72 *	-0.82 ***	-1.07 **	-0.91 **	-0.82 ***	-1.06 **	-0.88 **	-0.92 ***	-1.21 **
low education	-0.30 *	-0.23	-0.13	-0.36 **	-0.25	-0.11	-0.31 *	-0.17	-0.17	-0.39 **	-0.22	-0.16	-0.40 **	-0.17	-0.03
high education	0.55 ***	0.71 ***	0.71 *	0.56 ***	0.74 ***	0.72 *	0.54 ***	0.70 ***	0.70 *	0.55 ***	0.70 ***	0.68 *	0.54 ***	0.70 ***	0.61
no partner	-0.05	0.01	-0.04	-0.05	0.01	0.00	-0.05	0.03	0.08	-0.05	0.04	0.10	-0.01	0.02	0.28
not married	0.02	0.41 *	-0.24	0.03	0.44 *	-0.27	0.01	0.41 *	-0.28	0.01	0.41 *	-0.29	0.02	0.49 *	-0.34
2 children	-0.41		-0.11	-0.40		-0.09	-0.35		-0.05	-0.33		-0.05	-0.40		0.01
3 children	-0.34		-0.66	-0.38		-0.62	-0.25		-0.60	-0.28		-0.59	-0.36		-0.46
4 or more children	-1.15 ***		-1.77 **	-1.18 ***		-1.74 **	-1.07 **		-1.73 **	-1.10 **		-1.76 **	-1.33 ***		-1.89 **
no children < 6 years	-0.33		-0.08	-0.32		-0.05	-0.35		-0.09	-0.34		-0.09	-0.47 *		-0.02
2 children, 6 years or older	0.53 *		-0.20	0.47		-0.22	0.51		-0.24	0.47		-0.25	0.55 *		-0.34
3 children, 6 years or older	0.19		-0.20	0.16		-0.23	0.16		-0.19	0.13		-0.19	0.23		-0.38
4 or more children, 6+ years	0.20		6.78	0.24		6.77	0.18		6.62	0.24		6.64	0.49		7.04
does not care for children							0.21	0.50 **	0.32	0.20	0.53 **	0.33	0.22	0.57 ***	0.35
cares for others							-0.14	-0.31	-0.20	-0.15	-0.32	-0.20	-0.06	-0.26	-0.10
constant	1.19 ***	0.68 ***	3.17 ***	1.19 ***	0.66 ***	3.13 ***	1.14 ***	0.25	3.02 ***	1.15 ***	0.21	3.02 ***	1.19 ***	0.10	3.02 ***
mills															
lambda	-275.55 ***	-217.98 ***	-341.05 ***	-46.869	-190 ***	-91.545	-274.97 ***	-184.98 ***	-304.45 ***	-24.437	-108.64 *	-51.396	-29.81	-125.37 **	-64.125
statistics															
N	884	604	757	849	584	743	879	598	749	842	580	736	762	539	620

legend: * p<0.05; ** p<0.01; *** p<0.001

TABLE 5c
Regression of Hourly Wage Rate,
Correcting for employment selection
employed persons aged 20-54
by gender and parenthood status, approximately 2000

Germany 2000

	Raw Wages — Caregiving excluded from employment probability			Wages not controlling for experience, tenure, supervisory role, and temporary contract — Caregiving excluded from employment probability			Raw Wages — All variables in employment probability			Wages not controlling for supervisory role, and temporary contract — All variables in employment probability			All variables in wage equation — All variables in employment probability		
	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers
	1a	1b	1c	2a	2b	2c	3a	3b	3c	4a	4b	4c	5a	5b	5c
wage															
Age 20-24				-1.64	-3.31 ***	0.50				-1.13	-2.45 ***	0.26	-1.14	-2.67 ***	0.66
Age 50-54				2.72 *	1.57 **	1.33				1.99	0.71	1.46	2.78 *	0.69	0.88
low education				-0.45	0.52	1.46				-0.41	-0.10	1.42	-0.74	-0.10	1.36
high education				1.90 ***	1.72 ***	1.16				1.86 ***	1.99 ***	1.14	1.47 **	1.04 *	1.24 *
Multiple Jobs				-1.25	-2.20 **	-0.97				-1.01	-2.13 **	-1.07	-1.11	-1.73 **	-1.24
Part-time				0.49	-0.74	-0.69				0.88 *	-0.52	-0.62	1.19 *	-0.23	-0.91
Self-employed				-2.99 ***	-7.17 ***	-6.70 ***				-2.75 ***	-6.94 ***	-6.66 ***	-7.94 ***	-4.86 ***	-3.58 *
Manufacturing				1.23 *	1.65 **	2.85 ***				1.13	1.55 **	2.70 **	1.91 **	1.92 **	2.83 ***
Agriculture				-1.27	-0.27	-1.46				-2.05	-0.67	-1.36	-0.50	-0.60	-0.90
Experience (years)										0.06	0.02	-0.06	0.06	0.02	-0.03
Blue Collar				-2.19 ***	-2.19 ***	-3.79 ***				-1.98 ***	-2.19 ***	-3.60 ***	-2.20 ***	-1.59 ***	-3.22 ***
Professional/Administrative				1.83 **	0.63	0.96				1.77 **	0.60	1.09	1.86 **	1.65 ***	2.10 ***
Agriculture				-2.81	-1.78	-3.49				-2.61	-1.38	-3.43	-3.03	-0.77	-2.21
Supervisor													-0.56	0.91 *	1.73 ***
Temporary Contract													0.30	-0.42	-1.51
Tenure										0.21 ***	0.11 **	0.14 *	0.22 ***	0.09 **	0.15 **
constant	11.23 ***	11.79 ***	14.07 ***	10.22 ***	11.57 ***	14.29 ***	11.06 ***	11.71 ***	14.00 ***	7.50 ***	10.08 ***	13.83 ***	7.74 ***	10.32 ***	12.42 ***
employed															
Age 20-24	-0.38 *	0.25 *	-0.23	-0.37 *	0.28 *	-0.16	-0.38 *	0.23 *	-0.25	-0.37 *	0.27 *	-0.15	-0.36	0.32 *	-0.06
Age 50-54	-0.34 *	-0.47 ***	-0.52 ***	-0.38 **	-0.50 ***	-0.54 ***	-0.38 **	-0.44 ***	-0.58 ***	-0.42 **	-0.48 ***	-0.61 ***	-0.39 *	-0.50 ***	-0.60 ***
low education	-0.17 *	-0.34 ***	-0.14	-0.15 *	-0.29 ***	-0.18	-0.17 *	-0.36 ***	-0.13	-0.16 *	-0.32 ***	-0.18	-0.20 **	-0.35 ***	-0.18
high education	0.15 *	0.30 ***	0.32 **	0.16 *	0.34 ***	0.33 **	0.15 *	0.28 **	0.33 **	0.17 *	0.33 ***	0.34 **	0.19 *	0.34 ***	0.31 **
no partner	0.35 **	0.31 **	1.01 *	0.37 **	0.41 ***	0.97 *	0.34 **	0.31 **	1.01 *	0.37 **	0.40 ***	0.97 *	0.39 **	0.38 **	0.81
not married	0.20 *	0.37 ***	-0.46 ***	0.20 *	0.36 ***	-0.50 ***	0.22 *	0.36 ***	-0.39 ***	0.22 *	0.34 ***	-0.44 ***	0.25 *	0.36 ***	-0.47 ***
2 children	-0.12		0.05	-0.09		0.08	-0.12		0.06	-0.10		0.10	-0.18 *		0.13
3 children	-0.33 **		-0.14	-0.39 **		-0.14	-0.32 **		-0.18	-0.39 **		-0.17	-0.44 **		-0.13
4 or more children	-0.68 **		-0.14	-0.56 *		-0.14	-0.67 **		-0.20	-0.55 *		-0.18	-1.01 ***		-0.20
no children < 6 years	0.81 ***		-0.22	0.88 ***		-0.21	0.72 ***		-0.37 **	0.79 ***		-0.35 *	0.77 ***		-0.32 *
2 children, 6 years or older	0.03		0.14	-0.02		0.11	0.08		0.19	0.04		0.16	0.09		0.13
3 children, 6 years or older	0.13		0.39	0.20		0.43	0.19		0.51	0.27		0.54	0.29		0.47
4 or more children, 6+ years	0.12		0.28	-0.01		0.30	0.20		0.43	0.07		0.44	0.43		0.47
does not care for children							0.29 ***	0.55 ***	0.32 *	0.29 ***	0.64 ***	0.34 ***	0.31 ***	0.71 ***	0.28 **
cares for others							-0.12	-0.34 **	-0.17	-0.15	-0.38 **	-0.22	-0.20	-0.40 **	-0.17
constant	0.16 *	0.97 ***	1.97 ***	-0.04	0.85 ***	1.91 ***	0.16 *	0.46 **	1.94 ***	-0.04	0.27	1.88 ***	-0.09	0.13	1.83 ***
mills															
lambda	-5.125 ***	-9.134 ***	-14.613 ***	-2.547 ***	-6.7058 ***	-9.3243 ***	-4.8042 ***	-8.984 ***	-14.363 ***	-1.3721 *	-5.2459 ***	-8.1756 **	-1.5808 *	-5.4976 ***	-6.5188 ***
statistics															
N	3444	2844	2952	2956	2428	2600	3441	2843	2948	2947	2417	2584	2653	2201	2227

legend: * p<0.05; ** p<0.01; *** p<0.001

TABLE 5d
Regression of Hourly Wage Rate,
Correcting for employment selection
employed persons aged 20-54
by gender and parenthood status, approximately 2000

	Spain 2000					
	Raw Wages			**Wages not controlling for experience, tenure, supervisory role, and temporary contract**		
	Caregiving excluded from employment probability			Caregiving excluded from employment probability		
	mothers	**women with no children**	**fathers**	**mothers**	**women with no children**	**fathers**
	1a	*1b*	*1c*	*2a*	*2b*	*2c*
wage						
Age 20-24				-219.30	-308.05 ***	46.10
Age 50-54				159.76	330.49 ***	229.59 ***
low education				-34.82	107.96	-175.58 ***
high education				-16.71	22.38	290.23 ***
Multiple Jobs				-161.46	-253.33 *	-134.15
Part-time				153.89 **	7.76	-236.06
Self-employed				-1067.70 ***	-916.21 ***	-1062.39 ***
Manufacturing				-56.99	111.00 *	158.36 **
Agriculture				29.79	91.70	61.47
Experience (years)						
Blue Collar				-132.54 *	-190.63 ***	-149.88 **
Professional/Administrative				522.01 ***	354.38 ***	260.00 ***
Agriculture				34.45	-62.71	-114.21
Supervisor						
Temporary Contract						
Tenure						
constant	1517.74 ***	1164.23 ***	1087.38 ***	1241.52 ***	1038.14 ***	1177.85 ***
employed						
Age 20-24	-0.07	0.51 *	-0.89 **	-0.01	0.57 **	-0.87 *
Age 50-54	-0.37 *	-0.56 ***	-0.79 ***	-0.35 *	-0.59 ***	-0.78 ***
low education	-0.33 ***	-0.53 ***	-0.40 *	-0.34 ***	-0.56 ***	-0.40 *
high education	0.69 ***	0.47 **	0.15	0.72 ***	0.47 **	0.16
no partner	1.30 ***	0.30	6.33	1.27 ***	0.30	6.36
not married	-0.04	0.38 *	-0.22	0.04	0.42 *	-0.24
2 children	-0.25 *		0.12	-0.31 *		0.11
3 children	-0.24		-0.07	-0.23		-0.09
4 or more children	-0.71		-0.41	-0.63		-0.54
no children < 6 years	-0.12		0.04	-0.17		0.05
2 children, 6 years or older	0.28		-0.09	0.35 *		-0.09
3 children, 6 years or older	0.32		-0.10	0.38		-0.09
4 or more children, 6+ years	1.42		-0.42	1.50		-0.27
does not care for children						
cares for others						
constant	0.06	0.20	1.91 ***	0.04	0.14	1.91 ***
mills						
lambda	-945.99719 ***	-692.69268 ***	-1466.9961 ***	-485.64962 ***	-560.59367 ***	-622.34513 ***
statistics						
N	1406	1036	1271	1366	1006	1258

legend: * p<0.05; ** p<0.01; *** p<0.001

	TABLE 5e Regression of Hourly Wage Rate, Correcting for employment selection employed persons aged 20-54 *by gender and parenthood status, approximately 2000*					
	Greece 2000					
	Raw Wages			**Wages not controlling for experience, tenure, supervisory role, and temporary contract**		
	Caregiving excluded from employment probability			**Caregiving excluded from employment probability**		
	mothers	**women with no children**	*fathers*	**mothers**	**women with no children**	*fathers*
	1a	*1b*	*1c*	*2a*	*2b*	*2c*
wage						
Age 20-24				-10.44	-400.94 **	-455.17
Age 50-54				180.21	334.79 ***	513.04
low education				-28.33	-48.17	-85.63
high education				311.70 ***	358.11 **	303.00
Multiple Jobs				-251.96	-512.02 ***	-287.24
Part-time				249.18 **	45.54	981.53 *
Self-employed				-1593.06 ***	-1485.28 ***	-1754.95 ***
Manufacturing				4.13	-23.05	11.52
Agriculture				226.64	451.59 *	145.45
Experience (years)						
Blue Collar				457.35 ***	523.36 ***	223.45
Professional/Administrative				101.31	-196.80	50.90
Agriculture						
Supervisor						
Temporary Contract						
Tenure						
constant	2001.48 ***	1997.69 ***	1278.48 ***	1621.95 ***	1587.94 ***	1802.56 ***
employed						
Age 20-24	-0.14	-0.12	4.56	-0.13	-0.10	4.57
Age 50-54	-0.65 **	-0.49 ***	-1.07 ***	-0.65 **	-0.48 ***	-1.07 ***
low education	0.08	0.00	-0.08	0.07	0.00	-0.08
high education	0.54 ***	0.68 ***	0.21	0.53 ***	0.68 ***	0.20
no partner	0.87	-1.36 *	1.16	0.87	-1.36 *	1.16
not married	0.06	1.80 **	4.51	0.06	1.82 **	4.50
2 children	-0.03		0.37	-0.03		0.38
3 children	-0.10		0.15	-0.13		0.15
4 or more children	-1.04		4.97	-1.04		4.97
no children < 6 years	0.06		0.32	0.06		0.32
2 children, 6 years or older	0.12		-0.32	0.11		-0.32
3 children, 6 years or older	0.28		0.24	0.31		0.23
4 or more children, 6+ years	0.80		-0.54	0.80		-0.54
does not care for children						
cares for others						
constant	-0.36 *	-0.10	1.58 ***	-0.38 **	-0.12	1.58 ***
mills						
lambda	-1555.7253 ***	-1637.5313 ***	-3423.8811 *	-500.25993 ***	-534.77145 ***	-1927.3584
statistics						
N	1145	832	1047	1138	823	1032

legend: * p<0.05; ** p<0.01; *** p<0.001

TABLE 5f
Regression of Hourly Wage Rate,
Correcting for employment selection
employed persons aged 20-54
by gender and parenthood status, approximately 2000

Ireland 2000

	Raw Wages Caregiving excluded from employment probability			Wages not controlling for experience, tenure, supervisory role, and temporary contract Caregiving excluded from employment probability			Raw Wages All variables in employment probability			Wages not controlling for supervisory role, and temporary contract All variables in employment probability			All variables in wage equation All variables in employment probability		
	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers	mothers	women with no children	fathers
	1a	1b	1c	2a	2b	2c	3a	3b	3c	4a	4b	4c	5a	5b	5c
wage															
Age 20-24				-1.34	-3.03 *	-3.51				-0.86	-2.11	-2.56	-0.80	-1.87	-4.70 *
Age 50-54				1.01	1.19	0.07				1.68 **	0.31	-0.44	2.05 **	0.06	-0.28
low education				-0.33	-0.89	0.12				0.30	-1.42	0.02	0.32	-2.08	-0.15
high education				1.55 **	0.18	1.73 **				1.60 ***	0.65	1.85 ***	1.96 ***	0.49	2.22 ***
Multiple Jobs				-2.88 ***	-4.26	-1.65 **				-2.64 ***	-4.39	-1.75 ***	-2.88 ***	-6.99	-2.30 ***
Part-time				1.11 ***	2.73 ***	1.22				1.30 ***	2.79 ***	1.48 *	1.47 ***	2.72 **	1.88 *
Self-employed				-7.09 ***	-3.92 *	-7.29 ***				-7.00 ***	-4.10 *	-7.37 ***			
Manufacturing				0.02	0.01	0.92				-0.47	-0.16	0.94 *	-0.39	0.07	0.69
Agriculture				2.36	-0.26	0.14				1.81	-0.43	-0.17	1.40		-0.74
Experience (years)										-0.03	0.03	0.02	-0.02	0.04	0.03
Blue Collar				-0.89	0.17	-1.38 **				-0.43	0.61	-1.02 *	-0.32	0.72	-0.85 *
Professional/Administrative				3.03 ***	3.58 ***	1.35 *				2.33 ***	3.60 ***	1.68 ***	2.49 ***	3.81 ***	2.01 ***
Agriculture				-1.23	-0.29	-0.68				-1.39	0.16	-0.32	-2.65		-1.70
Supervisor													-0.04	0.05	0.14
Temporary Contract													-0.85 *	2.09	-1.19 *
Tenure										0.24 ***	0.06	0.08 **	0.24 ***	0.08	0.12 **
constant	10.16 ***	9.06 ***	8.00 ***	7.41 ***	7.46 ***	8.46 ***	10.01 ***	8.81 ***	7.91 ***	6.60 ***	5.93 ***	6.88 ***	6.25 ***	5.26 ***	6.32 ***
employed															
Age 20-24	-0.01	0.61	4.49	-0.02	0.61	4.49	-0.03	0.54	4.39	-0.02	0.54	4.43	0.06	0.81	4.20
Age 50-54	-0.44 **	-0.33 *	-0.23	-0.50 ***	-0.39 *	-0.26	-0.43 **	-0.32	-0.24	-0.50 ***	-0.40 *	-0.26	-0.61 ***	-0.44 *	-0.44 *
low education	-0.37 ***	-0.31	-0.56 **	-0.42 ***	-0.32	-0.56 **	-0.37 ***	-0.27	-0.59 **	-0.43 ***	-0.28	-0.58 **	-0.43 ***	-0.18	-0.61 **
high education	0.34 *	0.83 **	0.14	0.33 *	0.84 **	0.14	0.33 **	0.79 **	0.12	0.34 **	0.84 **	0.14	0.33 *	0.86 **	0.12
no partner	0.41	-0.53	0.06	0.44	-0.42	0.05	0.42	-0.46	0.15	0.51	-0.36	0.15	0.49	-0.37	0.43
not married	0.25	0.98	-0.58	0.27	0.90	-0.58	0.25	0.88	-0.63	0.21	0.81	-0.62	0.20	0.85	-0.66
2 children	-0.31		0.16	-0.30		0.16	-0.28		0.17	-0.26		0.19	-0.30		0.29
3 children	-0.35		-0.31	-0.37		-0.30	-0.32		-0.35	-0.30		-0.29	-0.40		-0.33
4 or more children	-0.70 **		-0.20	-0.81 ***		-0.19	-0.68 **		-0.22	-0.79 ***		-0.21	-0.81 ***		-0.22
no children < 6 years	-0.17		-0.22	-0.18		-0.21	-0.20		-0.34	-0.20		-0.28	-0.27		-0.31
2 children, 6 years or older	0.32		-0.34	0.32		-0.37	0.34		-0.30	0.36		-0.35	0.43		-0.49
3 children, 6 years or older	0.26		0.37	0.25		0.36	0.28		0.53	0.26		0.39	0.38		0.44
4 or more children, 6+ years	0.60		0.34	0.72 *		0.31	0.62		0.42	0.78 *		0.38	0.75 *		0.41
does not care for children							0.11	0.80 **	0.23	0.09	0.92 **	0.19	0.10	0.88 **	0.23
cares for others							-0.31	-0.54 *	-0.13	-0.41 *	-0.57 *	-0.17	-0.43 *	-0.55	-0.55
constant	0.62 ***	0.51 *	2.20 ***	0.59 ***	0.52 *	2.20 ***	0.61 ***	-0.24	2.16 ***	0.57 **	-0.37	2.12 ***	0.57 **	-0.45	2.06 ***
mills															
lambda	-6.61 ***	-6.5816 ***	-10.645 ***	-2.9633 ***	-5.3871 **	-5.1014 ***	-6.3747 ***	-6.1245 ***	-10.121 ***	-2.9966 ***	-3.5676 *	-4.1656 ***	-2.6634 ***	-2.7317	-2.7886 ***
statistics															
N	1042	379	866	982	363	862	1041	379	866	961	355	833	903	331	614

legend: * p<0.05; ** p<0.01; *** p<0.001

TABLE 5g
Regression of Hourly Wage Rate,
Correcting for employment selection
employed persons aged 20-54
by gender and parenthood status, approximately 2000

	United Kingdom 1999											
	Raw Wages Caregiving excluded from employment probability			Wages not controlling for experience, tenure, supervisory role, and temporary contract Caregiving excluded from employment probability			Raw Wages All variables in employment probability			Wages not controlling for supervisory role, and temporary contract All variables in employment probability		
	mothers	*women with no children*	*fathers*	mothers	*women with no children*	*fathers*	mothers	*women with no children*	*fathers*	mothers	*women with no children*	*fathers*
	1a	*1b*	*1c*	*2a*	*2b*	*2c*	*3a*	*3b*	*3c*	*4a*	*4b*	*4c*
wage												
Age 20-24				-0.38	-2.18 ***	-1.43				0.20	-1.17 ***	-0.25
Age 50-54				-0.13	0.18	2.28 ***				-0.71 *	-0.48 *	1.25 *
low education				-1.19 ***	-0.55	-1.37 *				-1.24 ***	-0.84 **	-1.71 **
high education				1.80 ***	1.44 ***	2.53 ***				1.83 ***	1.70 ***	2.56 ***
Multiple Jobs				-0.50	-0.17	0.45				-0.56 *	-0.16	0.46
Part-time				-0.07	-0.82 ***	-1.04				0.32 *	-0.36	-0.39
Self-employed				-6.99 ***	-7.08 ***	-9.53 ***				-7.09 ***	-7.25 ***	-9.79 ***
Manufacturing				-6.99 ***	-7.08 ***	-9.53 ***				-7.09 ***	-7.25 ***	-9.79 ***
Agriculture												
Experience (years)										0.08 ***	0.06 ***	0.06 **
Blue Collar				-1.84 ***	-1.38 ***	-1.56 ***				-1.67 ***	-1.40 ***	-1.46 ***
Professional/Administrative				1.98 ***	1.63 ***	1.53 ***				1.82 ***	1.48 ***	1.41 ***
Agriculture												
Supervisor												
Temporary Contract												
Tenure										0.10 ***	0.08 ***	0.11 ***
constant	8.25 ***	8.96 ***	10.86 ***	8.15 ***	8.31 ***	10.81 ***	8.04 ***	8.85 ***	10.72 ***	6.28 ***	6.99 ***	9.12 ***
employed												
Age 20-24	-0.39 ***	0.30 **	-0.12	-0.39 ***	0.31 **	-0.15	-0.40 ***	0.27 *	-0.07	-0.40 ***	0.28 **	-0.09
Age 50-54	-0.24 **	-0.29 ***	-0.39 ***	-0.27 **	-0.32 ***	-0.37 ***	-0.21 *	-0.27 ***	-0.39 ***	-0.24 **	-0.30 ***	-0.37 ***
low education	0.00	-0.02	-0.06	-0.03	-0.05	-0.10	-0.01	-0.01	-0.04	-0.04	-0.05	-0.09
high education	0.15	0.18	0.01	0.18 *	0.19	0.01	0.14	0.18	0.02	0.16	0.19	0.01
no partner	-0.09	-0.06	-0.42 ***	-0.07	-0.03	-0.43 ***	-0.13 *	-0.10	-0.45 ***	-0.12	-0.07	-0.46 ***
not married	0.01	0.36 ***	-0.26 ***	0.03	0.38 ***	-0.28 ***	0.02	0.33 ***	-0.28 ***	0.04	0.35 ***	-0.31 ***
2 children	-0.19 **		-0.01	-0.19 **		-0.02	-0.18 **		0.01	-0.18 **		0.00
3 children	-0.29 ***		-0.14	-0.30 ***		-0.17	-0.29 ***		-0.13	-0.30 ***		-0.16
4 or more children	-0.57 ***		-0.50 ***	-0.62 ***		-0.59 ***	-0.54 ***		-0.46 ***	-0.62 ***		-0.53 ***
no children < 6 years	0.32 ***		-0.51 ***	0.30 ***		-0.53 ***	0.37 ***		-0.48 ***	0.36 ***		-0.49 ***
2 children, 6 years or older	0.20 *		0.22	0.19 *		0.23	0.17 *		0.20	0.16		0.21
3 children, 6 years or older	0.16		0.37 *	0.19		0.41 *	0.14		0.35 *	0.16		0.38 *
4 or more children, 6+ years	-0.04		0.29	0.02		0.35	-0.13		0.31	-0.06		0.33
does not care for children							-0.16	-0.66	0.59 ***	-0.21 *	-0.74	0.60 ***
cares for others							-1.63 ***	-1.14 ***	-1.13 ***	-1.64 ***	-1.30 ***	-1.14 ***
constant	0.63 ***	0.52 ***	2.02 ***	0.60 ***	0.47 ***	2.04 ***	0.82 ***	1.28 *	1.45 ***	0.83 ***	1.31 *	1.46 ***
mills												
lambda	-4.37481 ***	-6.77286 ***	-13.47905 ***	-2.51707 ***	-3.53909 ***	-6.256476 ***	-4.00818 ***	-6.52693 ***	-12.8936 ***	-1.80483 ***	-3.28128 ***	-5.53309 ***
statistics												
N	7319	5214	5631	6876	4961	5327	7319	5214	5631	6869	4958	5318

legend: * p<0.05; ** p<0.01; *** p<0.001

	TABLE 5h Regression of Hourly Wage Rate, Correcting for employment selection employed persons aged 20-54 *by gender and parenthood status, approximately 2000*					
	United States 2000					
	Raw Wages **Caregiving excluded from employment probability**			**Wages not controlling for experience, tenure, supervisory role, and temporary contract** **Caregiving excluded from employment probability**		
	mothers	*women with no children*	*fathers*	**mothers**	*women with no children*	*fathers*
	1a	*1b*	*1c*	*2a*	*2b*	*2c*
wage						
Age 20-24				-1.99 **	-3.78 ***	-2.93
Age 50-54				1.74 *	2.35 ***	8.87 ***
low education				-0.20	1.80	1.09
high education				6.56 ***	3.43 ***	5.12 ***
Multiple Jobs				-11.75 ***	-16.26 ***	-26.68 ***
Part-time				3.83 ***	4.62 ***	14.69 ***
Self-employed				-7.71 ***	-8.43 ***	-7.05 ***
Manufacturing				2.81 ***	1.35 *	-1.03
Agriculture				3.98	6.91 **	-4.00
Experience (years)						
Blue Collar				3.66 ***	2.94 ***	7.37 ***
Professional/Administrative				-4.75	-6.95 *	1.23
Agriculture				1.09 **	-0.01	-0.90
Supervisor						
Temporary Contract						
Tenure						
constant	15.84 ***	15.40 ***	18.37 ***	13.53 ***	17.77 ***	25.11 ***
employed						
Age 20-24	-0.09	0.09	0.18	-0.09	0.10 *	0.19 *
Age 50-54	-0.15 *	-0.28 ***	-0.37 ***	-0.15 *	-0.29 ***	-0.39 ***
low education	-0.34 ***	-0.36 ***	-0.05	-0.34 ***	-0.35 ***	-0.05
high education	0.10 ***	0.15 ***	0.21 ***	0.10 ***	0.15 ***	0.21 ***
no partner	0.30 ***	0.32 ***	0.07	0.31 ***	0.33 ***	0.06
not married	0.31 ***	0.19 ***	-0.32 ***	0.31 ***	0.19 ***	-0.32 ***
2 children	-0.04		0.13 *	-0.03		0.12
3 children	-0.10 *		0.16 *	-0.08		0.16 *
4 or more children	-0.22 ***		0.04	-0.23 ***		0.03
no children < 6 years	0.35 ***		-0.10	0.36 ***		-0.12
2 children, 6 years or older	0.00		-0.01	-0.01		0.01
3 children, 6 years or older	0.04		0.13	0.02		0.14
4 or more children, 6+ years	-0.07		0.06	-0.07		0.06
does not care for children						
cares for others						
constant	0.52 ***	0.79 ***	1.58 ***	0.48 ***	0.75 ***	1.56 ***
mills						
lambda	-10.827 ***	-15.5795 ***	-44.64382 ***	-7.486772 ***	-17.04345 ***	-54.41993 ***
statistics						
N	15286	11403	12570	14715	10887	11742

legend: * p<0.05; ** p<0.01; *** p<0.001

for each group after accounting for employment selection, but caregiving responsibilities are included as a factor in determining employment probability. Column 4 shows the effect of including tenure and experience with the main controlling variables. Column 5 uses the same information as column 4, but also adds information about supervisory responsibilities and temporary contracts. This excludes the UK from the analysis. All five of the models were estimated only for Austria, Belgium, Germany, and Ireland.

In the employment selection equation, the constant represents the average employment probability of a "standard" individual who is 25 to 49 years old, has medium education, and is married with a child under six years old. In columns 3 through 5, when caregiving responsibilities are added, he/she cares for children at home, but is not responsible for caring for other individuals. Negative coefficients on the independent variables indicate that those groups have lower employment probabilities, while a positive coefficient means higher employment.

As an example, the first column of Table 5a shows that the average hourly wage of mothers in Austria, accounting for the probability of being employed, is 97.18 Austrian schillings. As can be seen in the lower panel (marked "employed"), there are various factors that significantly affect the employment of mothers, including high education, multiple children, and the age of the youngest child in the household. As can be seen in column 1b, non-mothers in Austria have a raw average wage of 117.24 schillings, are less likely to be employed at an older age and are more likely to work if single.

Column 2 shows the effects of controlling for other factors in the wage equation. Average wages are shown to be higher for parents and lower for childless women,

showing that correcting for these factors narrows the wage gap between mothers and

non-mothers in Austria, but widens the gap between fathers and mothers. Part-time work

has a positive effect on mothers' wages, which narrows the gap.[8] While self-employment

negatively affects wages, mothers are less affected than either non-mothers or fathers.

This serves to narrow the wage gaps. The same is true for blue collar employment.

Column 3 shows that if caregiving status is used to correct for the selection of

employment probability, average wages are seen to go down slightly for all groups. Once

tenure and experience are added to the wage regression, more of the variation in wages is

accounted for, and the average wage of the "standard" individual is shown to be lower,

but the wage gaps are larger. The effects are similar to those found in columns 1 and 2,

except that mothers gain significantly more from tenure than either non-mothers or

fathers in Austria. High tenure then, can serve to narrow the wage gaps. In column 5,

supervisory roles and temporary contracts are included in the mix. While all groups suffer

the effects of temporary contract, mothers are less affected than non-mothers, but much

more than fathers.

A similar comparative exercise can be performed for all countries in Tables 5a

through 5h. The extent of these different effects in determining wage gaps depends on the

composition of each group. While part-time mothers do well against non-mothers and

fathers, this effect will only narrow the wage gap if the proportion of mothers with

part-time jobs is high. The same is true for the length of job tenure.

---

[8] While one would not normally associate part-time work with wage increases, there are a number of
reasons for this result. One possibility is suggested by the nature of the selection model. In a standard
regression model, the coefficient on part-time work is the difference in wages that you would expect based
on the observations of other part-time workers. The selection model, however, reports the expected wage
change of a random individual placed in part-time work. If individuals who are not in part-time positions
would have a higher expected wage in part-time employment than the average part-time job holder, then
the coefficient on part-time jobs may well be positive.

In order to determine the extent of the effects, we calculated the predicted wage based on all covariates for each individual and averaged these affects by group in each country. The results can be found in Tables 6a and 6b.

As can be seen in column (1) of Tables 6a and 6b, the average wages of mothers ranges from 75 percent of the wages of non-mothers in Ireland to 115 percent in Greece. Mothers do not fare as well against fathers, where the range is 69 percent in Germany to 96 percent in Ireland.

Controlling for the selection of employment before calculating average wages reduces, or even reverses, the wage differences observed between groups. Columns (2) (without considering caregiving responsibilities) and (3) (with caregiving considered) show that wage gaps of mean predicted wages narrows between mothers and non-mothers in Austria. In Belgium, Spain, Ireland, and the UK, mothers are shown to earn more than non-mothers using this method. In Greece, the advantage to mothers shown in column (1) disappears. In Germany and the US, the gap remains basically unchanged.

Compared to fathers, mothers tend to do much better after controlling for the selection of employment. In all countries except for the US, the wage gap narrows significantly after considering employment probabilities. In the US, mothers do much worse against fathers once caregiving responsibilities are considered.

Columns (4) through (6) show what happens when wages are controlled for other factors. Column (4) includes standard covariates such as age, education, part-time employment, self-employment, and industry. Compared to the average wages reported in column (2), the wage gap between mothers and non-mothers narrows in Austria and the

<table>
<thead>
<tr>
<th colspan="2" rowspan="4">TABLE 6a
Average Predicted Wages
Based on wage regressions, correcting for employment selection
employed persons aged 20-54
by gender and parenthood status, approximately 2000</th>
<th colspan="3">Raw Wages</th>
<th rowspan="3">some controls in both equations</th>
<th rowspan="3">some controls wage equation;
all controls in selection equation</th>
<th rowspan="3">all controls in both equations</th>
</tr>
<tr>
<th>no controls</th>
<th>some controls</th>
<th>all controls</th>
</tr>
<tr>
</tr>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td rowspan="16">Austria</td>
<td colspan="2">A. mothers</td>
<td>68.34</td>
<td>97.18</td>
<td>93.88</td>
<td>88.24</td>
<td>82.63</td>
<td>96.42</td>
</tr>
<tr>
<td colspan="2"></td>
<td></td>
<td>(7.08)</td>
<td>(6.21)</td>
<td>(11.18)</td>
<td>(11.02)</td>
<td>(13.36)</td>
</tr>
<tr>
<td colspan="2">B. women with no children</td>
<td>87.60</td>
<td>117.24</td>
<td>113.33</td>
<td>96.52</td>
<td>93.88</td>
<td>103.38</td>
</tr>
<tr>
<td colspan="2"></td>
<td></td>
<td>(8.74)</td>
<td>(7.39)</td>
<td>(8.99)</td>
<td>(7.68)</td>
<td>(8.23)</td>
</tr>
<tr>
<td colspan="2">C. fathers</td>
<td>94.81</td>
<td>98.47</td>
<td>97.97</td>
<td>111.81</td>
<td>108.83</td>
<td>127.27</td>
</tr>
<tr>
<td colspan="2"></td>
<td></td>
<td>(4.52)</td>
<td>(4.18)</td>
<td>(16.11)</td>
<td>(18.72)</td>
<td>(23.29)</td>
</tr>
<tr>
<td colspan="2">ratio mothers to non-mothers</td>
<td>0.78</td>
<td>0.83</td>
<td>0.83</td>
<td>0.91</td>
<td>0.88</td>
<td>0.93</td>
</tr>
<tr>
<td colspan="2">ratio mothers to fathers</td>
<td>0.72</td>
<td>0.99</td>
<td>0.96</td>
<td>0.79</td>
<td>0.76</td>
<td>0.76</td>
</tr>
<tr>
<td rowspan="8" colspan="2"></td>
</tr>
</tbody>
</table>

		no controls	some controls	all controls	some controls in both equations	some controls wage equation; all controls in selection equation	all controls in both equations
Belgium	A. mothers	330.09	439.32	439.17	330.82	317.22	381.36
			(17.82)	(17.69)	(37.29)	(37.94)	(38.70)
	B. women with no children	349.50	435.79	426.94	398.90	361.31	435.17
			(18.54)	(17.43)	(41.91)	(40.53)	(41.97)
	C. fathers	391.29	432.72	434.24	412.72	401.75	467.37
			(14.06)	(12.57)	(43.47)	(46.43)	(51.99)
	ratio mothers to non-mothers	0.94	1.01	1.03	0.83	0.88	0.88
	ratio mothers to fathers	0.84	1.02	1.01	0.80	0.79	0.82
Germany	A. mothers	8.77	11.23	11.06	10.66	10.55	11.26
			(0.36)	(0.36)	(0.97)	(1.03)	(1.09)
	B. women with no children	9.36	11.79	11.71	11.14	10.87	12.37
			(0.32)	(0.31)	(0.85)	(0.88)	(0.71)
	C. fathers	12.76	14.07	14.00	13.96	13.65	14.23
			(0.42)	(0.42)	(1.65)	(1.76)	(1.08)
	ratio mothers to non-mothers	0.94	0.95	0.94	0.96	0.97	0.91
	ratio mothers to fathers	0.69	0.80	0.79	0.76	0.77	0.79
Spain	A. mothers	860.57	1517.74	-----	1205.67	-----	-----
			(70.84)	-----	(112.45)	-----	-----
	B. women with no children	825.26	1164.23	-----	1067.10	-----	-----
			(49.62)	-----	(89.56)	-----	-----
	C. fathers	920.92	1087.38	-----	1143.13	-----	-----
			(58.48)	-----	(92.42)	-----	-----
	ratio mothers to non-mothers	1.04	1.30	-----	1.13	-----	-----
	ratio mothers to fathers	0.93	1.40	-----	1.05	-----	-----

		TABLE 6b Average Predicted Wages Based on wage regressions, correcting for employment selection employed persons aged 20-54 *by gender and parenthood status, approximately 2000*					
		Unadjusted Wages			some controls in both equations	some controls in wage equation; all controls in selection equation	all controls in both equations
		no controls	some controls	all controls			
		(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Greece	A. mothers	1097.01	2001.48	-----	1592.04	-----	-----
			(124.06)	-----	(110.65)	-----	-----
	B. women with no children	953.43	1997.69	-----	1581.54	-----	-----
			(175.85)	-----	(139.02)	-----	-----
	C. fathers	1163.81	1278.48	-----	1816.79	-----	-----
			(141.61)	-----	(279.55)	-----	-----
	ratio mothers to non-mothers	1.15	1.00	-----	1.01	-----	-----
	ratio mothers to fathers	0.94	1.57	-----	0.88	-----	-----
Ireland	A. mothers	5.89	10.16	1961.55	7.47	7.94	8.69
		(0.61)	(118.15)	(0.81)	(0.83)	(0.83)	
	B. women with no children	7.85	9.06	1903.67	8.18	7.58	7.99
		(0.59)	(158.04)	(1.53)	(1.57)	(1.58)	
	C. fathers	6.16	8.00	1258.30	8.33	8.02	8.73
		(0.50)	(128.33)	(0.74)	(0.68)	(0.68)	
	ratio mothers to non-mothers	0.75	1.12	1.03	0.91	1.05	1.09
	ratio mothers to fathers	0.96	1.27	1.56	0.90	0.99	0.99
United Kingdom	A. mothers	6.20	8.25	10.01	7.86	7.97	-----
		(0.15)	(0.60)	(0.40)	(0.41)	-----	
	B. women with no children	6.99	8.96	8.81	7.77	8.05	-----
		(0.15)	(0.55)	(0.36)	(0.37)	-----	
	C. fathers	8.73	10.86	7.91	10.62	10.54	-----
		(0.23)	(0.47)	(0.58)	(0.60)	-----	
	ratio mothers to non-mothers	0.89	0.92	1.14	1.01	0.99	-----
	ratio mothers to fathers	0.71	0.76	1.26	0.74	0.76	-----
United States	A. mothers	11.26	15.84	-----	15.75	-----	-----
		(0.55)	-----	(0.87)	-----	-----	
	B. women with no children	10.91	15.40	-----	18.62	-----	-----
		(0.52)	-----	(0.96)	-----	-----	
	C. fathers	13.00	18.37	-----	28.99	-----	-----
		(0.82)	-----	(2.45)	-----	-----	
	ratio mothers to non-mothers	1.03	1.03	-----	0.85	-----	-----
	ratio mothers to fathers	0.87	0.86	-----	0.54	-----	-----

UK, but increases in Belgium, Ireland, and the US. In Spain, mothers' wages are still higher than non-mothers' wages, but to a lesser extent. In Germany and Greece, the effects are negligible.

Adding tenure and experience to the wage equation further eliminates Spain, Greece, and the US for the analysis. Comparing columns (3) and (5) considers the effect of experience and job tenure in addition to all previous factors. This comparison reveals that the wage gap is narrower between mothers and non-mothers in Austria. In Belgium and the UK, there is a marked widening. The difference in wages in Germany and Ireland are virtually unchanged.

These factors behave much differently when comparing mothers and fathers. In all cases, the wage gap widens, although the effect in Germany is negligible. In Belgium, Ireland, and the UK, the appearance of high hourly wages for mothers disappears and mothers are shown to consistently fall below those of fathers.

Adding indicators for supervisory roles and temporary contracts shows some slight further changes. These factors narrow the motherhood gap in Austria and the gender gap in Belgium and Germany. It shows further improvements in Ireland. The motherhood gap in Germany widens.

V.   Directions for Future Research.

Our analyses, still preliminary, reveal the importance of broadening the set of variables used to estimate earnings gaps between mothers and childless women, and between mothers and fathers. A growing literature, much of it using the LIS data, finds that, across the high-income countries, mothers generally earn less than other workers;

that is true with respect to raw earnings gaps as well as regression-adjusted earnings gaps. In many studies, and in most country cases, substantial unexplained gaps persist, even with selection corrections in place and the use of several covariates in the earnings equations.

In this paper, we contribute to this literature, primarily by including new explanatory variables that, in the LIS literature, have not been included before. These include some characteristics of the primary job, such as contract permanency, supervisory responsibility, and tenure in the current job, as well as worker characteristics, including duration of work experience and caregiving status. As we have shown, incorporating these variables, where available, into the selection equations (which predict employment probabilities) and/or the wage equations clearly influences the estimated motherhood gaps, among women, and the gender gaps among parents.

Understanding the complex factors – both micro and macro – that contribute to these motherhood and gender earnings gaps demands much further attention. In our next steps, we will extend our work in at least three directions.

Our first step is to identify another US dataset, one that will allow us to include the US in the analyses that require a fuller set of covariates than what is available in the US CPS "March Supplement" included in LIS. That will require harmonizing the dataset so that the income variables and all key covariates are constructed as they are throughout the LIS archive.

Our second step is to revisit our modeling strategy to take better account of the interactions among some of our key variables, including some important concerns that we have about high correlation among the covariates. Undoubtedly, job characteristics and

personal factors influence both employment probabilities and earnings, but the reverse

can be true as well. Earnings (or earnings capacity) are likely to shape some of the factors

that we have included among the explanatory variables, such as the duration of work

experience, caregiving status, and the decision to work part-time. We will extend our

modeling approach to take fuller account of some of these complexities.

Third, we will incorporate a cross-national institutional analysis. A large body of

research assesses the impact of social and labor market policies on the employment

outcomes of working-age women and men. Much of this research, including our own

prior work, focuses on the effects of work-family reconciliation policies such as paid

family leave, child care, and the regulation of various aspects of working time. These

policies, and others, demonstrably affect labor supply as well as patterns of labor

demand. Some research concludes these policies can affect earnings as well. Some

specific findings clearly highlight the importance of considering institutional factors. For

example, the importance of tenure, especially for mothers, suggests that paid family leave

policies matter, given that paid maternity leave has been shown to reduce job turnover

during children's earliest years. Likewise, the motherhood gap (among women) in the

likelihood of holding a supervisory position suggests that policies aimed at reducing

vertical occupational segregation may matter, especially if they are targeted not just on

women but on women with caregiving responsibilities. Finally, the clear variation across

countries that we find in our preliminary results (including some evident "Southern

Europe exceptionalism") reminds us that national characteristics matter, hence the value

of cross-national studies. In our subsequent analyses, we will integrate an assessment of

national labor market characteristics and policies, with the aim of identifying

consequential institutional factors.

Citations.

Bardasi, Elena and Janet Gornick, 2000. Luxembourg Income Study Working Paper No. 223. *Women and Part-Time Employment: Workers' "Choices" and Wage Penalties in Five Industrialized Countries.* Luxembourg: Luxembourg Income Study.

Bardasi, Elena and Janet Gornick, 2007. Luxembourg Income Study Working Paper No. 467. Women's Part-Time Wage Penalties Across Countries. Luxembourg: Luxembourg Income Study.

Bianchi, Suzanne, Lynn Casper and Pia Peltola, 1996. Luxembourg Income Study Working Paper No. 143. *A Cross-National Look at Married Women's Economic Dependency.* Luxembourg: Luxembourg Income Study.

Callan, Tim and S. Adams 1995. Luxembourg Income Study Working Paper No. 134. *Gender Wage Differentials: New Cross-Country Evidence.* Luxembourg: Luxembourg Income Study.

Cancian, Marcia and Robert Schoeni, 1992. Luxembourg Income Study Working Paper No. 84. *Female Earnings and the Level and Distribution of Household Income in Developed Countries.* Luxembourg: Luxembourg Income Study.

Gornick, Janet and Jerry Jacobs, 1994. Luxembourg Income Study Working Paper No. 113. *A Cross-National Analysis of the Wages of Part-Time Workers: Evidence from the US, UK, Canada, and Australia.* Luxembourg: Luxembourg Income Study.

Gornick, Janet, Marcia Meyers, and Katherin Ross, 1996. Luxembourg Income Study Working Paper No. 140. *Public Policies and the Employment of Mothers: A Cross-National Study.* Luxembourg: Luxembourg Income Study.

Gornick, Janet. 1999. Luxembourg Income Study Working Paper No. 206*. Gender Equality in the Labour Market: Women's Employment and Earnings.* Luxembourg: Luxembourg Income Study.

Harkness, Susan and Jane Waldfogel, 1999. Luxembourg Income Study Working Paper No. 219. *The Family Gap in Pay: Evidence from Seven Industrialised Countries*. Luxembourg: Luxembourg Income Study.

Jacobs, Jerry and Janet Gornick, 2001. Luxembourg Income Study Working Paper No. 253. *Hours of Paid Work in Dual Earner Couples: The U.S. in Cross-National Perspective.* Luxembourg: Luxembourg Income Study.

Knudsen, Christen and Elizabeth Peters, 1994. Luxembourg Income Study Working Paper No. 106. *An International Comparison of Married Women's Labor Supply*. Luxembourg: Luxembourg Income Study.

Pettit, Becky and Jennifer Hook, 2002. Luxembourg Income Study Working Paper No. 330. *The Structure of Women's Employment in Comparative Perspective.* Luxembourg: Luxembourg Income Study.

Phipps, Shelley. 1988. Luxembourg Income Study Working Paper No. 25. Measuring Gender Differences in Wage Distributions for Five Countries. Luxembourg: Luxembourg Income Study.

Phipps, Shelley. 1989. Luxembourg Income Study Working Paper No. 28. *Can Economic Structure Explain Gender Differences In Economic Reward? A Comparison of Australia, Sweden and the United States.* Luxembourg: Luxembourg Income Study.

Phipps, Shelley. 1993. Luxembourg Income Study Working Paper No. 99. *Determinants of Women's Labour-Force Participation: An Econometric Analysis for Five Countries.* Luxembourg: Luxembourg Income Study.

Sigle-Rushton, Wendy, and Jane Waldfogel. 2006. . Luxembourg Income Study Working Paper No. 454. *Motherhood and Women's Earnings in Anglo-American, Continental European, and Nordic Countries.*
Luxembourg: Luxembourg Income Study.

Todd, Erin. 2001. Luxembourg Income Study Working Paper No. 246. *Educational Attainment and Family Gaps in Women's Wages: Evidence from Five Industrialized Countries.* Luxembourg: Luxembourg Income Study.

Wolff, Klaus. 1990. Luxembourg Income Study Working Paper No. 48. *An International Comparison of Married Women's Labour Force Participation: A Cross-Country Analysis for Employees in Seven Countries.* Luxembourg: Luxembourg Income Study.