

Gender Gap in European Families

Catia Nicodemo
University of Tor Vergata, Rome

June 2007

Preliminary and Incomplete Please do not quote

Abstract

The increase of the female labour force participation has made a change in family forms, equals opportunities and in family responsibility. The commitment between work and family is one of the major topics on the European social agenda, with another important topic: to eliminate the gender gap between males and females.

In this paper we analyzed the gender gap in the family using data from five EU countries. Wives suffer two types of discrimination: a lower wage with respect the husband's and the primary responsibility for children.

Cross-section and panel data techniques are used to estimate wage equations for husbands and wives over time (1994-2001). Using the selectivity correction in the wage of married women we find that the wage gap decomposition is different if we ignore self-selection. Different methods to study gender gap are used to investigate the family gender gap.

JEL. classification: *J16, J31, C2, C3*

Keywords: *Gender gap, selectivity, panel data*

Introduction

The gender pay gap refers to the differences between the wages earned by women and men. It's an evident and documented fact that men earn higher wages than women, even after checking both for observable characteristics related to their productivity and the overall wage structure (see, e.g., Blau and Kahn, 2000).

Reducing the gender pay gap is an important topic in the European political agenda. In 2003 the member countries formulated the plan "to achieving by 2010 a substantial reduction in the gender pay gap in each Member State (Council Decision 2003 L197/20). The persistence of the gender pay gap, results from direct discrimination against women and structural inequalities, such as segregation in sectors, occupations, and work patterns, access to education and training, biased evaluation and pay systems and stereotypes. A large quantity of empirical research tends to explain the trend of the wage gap in Europe, but few studies are concentrated in the gap that exists in a family.

The increasing labour market participation of women, changing family forms and family responsibility have made the compromise of work and family one of the major topics of the European social agenda. Countries have different social and labor market policies sometimes focusing on more flexible working hours, occasionally encouraging the supply of public and private services and sometimes with policies to increase an equal distribution of earnings. The discrimination in a family comes from two sources: family responsibilities and the comparison of average wages between wife and husband; at times this gap in earnings creates conflicts in the family and psychological problems for women.

The aim of this paper is to investigate the gender gap in a family, explain why countries with poor policies for childcare, flexibility work etc, are more self-conscious. Normally these countries are in the Mediterranean area with a large tradition in the family.

In this paper we explain the difference in earnings in a European family considering the standard methodology to estimating the gender gap such as Blinder-Oaxaca and Machado-Mata decompositions. For the estimation wage equation we take into account the sample selection that female wages suffer, so we use Heckman's estimator to correct it.

We expand our work in a single time dimension and a framework of panel data. Several studies have shown that the results we obtain when we estimate the wage equations with OLS (Ordinary Least Square) are biased, due to the heterogeneity correlated with observed individual characteristics.

Panel data techniques are used to control for unobserved heterogeneity and also for self-selectivity. We follow the Wooldridge-Semikina paper to estimate the wage equation for husband and wife considering panel data sample selection.

In order to take into account differences in working hours and the impact of the income tax system, most estimates are based on differences in gross hourly wages.

This paper is structured in three sections. The first one is a brief introduction about the data we use for our research and shows the unadjusted gender gap in Europe over time. In section 2 we present the adjusted gender gap and the estimation methods of wage equation and discrimination. Final section is about the empirical evidence in five European countries.

Data

The data analyzed in this work come from a survey by the European Community Household Panel (ECHP), a multi-country annual longitudinal survey of collected data since 1994¹ in 15 European Union Member States under Eurostat (Statistical Office of the European Communities) coordination.

The data set covers approximately 130,000 individuals from 60,000 households in the fifteen countries which were EU members in 2000, reflecting population changes over time through a continuous evolution of the sample. The panel data cover a wide range of subjects such as demographics, labor force behavior, income, health, education and training, housing, poverty and social exclusion, etc.

The survey is structured in the form of annual interviews with a particular representative sample of household members in each country. Interviews were conducted following a standardized questionnaire, although each country can modify the questionnaire's wording to some extent, to reflect their own institutional arrangements.

The sample is constructed as an unbalanced panel of all women between the ages of 25 and 55 years, who are married with or without children, so we have too the sample of the husband for each women, who are presently employed or out of the labour force. We excluded self-employed and not economically active people (pensioner, military, etc). The size of this sample varies across the countries.

The variables refer to the personal characteristics of individuals (age, work experience, education) and characteristics of household family. We take in to consideration all married couples that have a positive wage who work for at least 8 hours per week, so as to reduce the measurement error connected with wage measure. All income variables are deflated with CPI (Consumer price index) so a comparison among years is possible, and at the same time we use the PPP (Purchasing price power) that allows a comparison among countries.

¹Belgium, Germany, Hollands, The U.K., Denmark, France, Greece, Ireland, Portugal, Italy and Spain started in 1994 (wave 1), Austria joined in 1995 (wave 2), Finland joined in 1996 (wave 3).

Table 1 shows the sample size in Europe, calculated on last wave, for husband and wife and the percentage of husband and wife who working. In these samples the female participation rate is very different across countries. We find that the Southern European countries (Greece, Spain, Italy) have a low rate of married women who participate in the labour market, while in Scandinavian countries the rate is very high. The male participation rate is close to 100% in almost all countries. The sample size is different across countries so we decided to investigate only seven largest countries: Germany, The Netherlands, France, Italy, Spain, U.K. and Portugal.

Table 1: **Sample of the ECHP country files**

Country	wife	%working	husband	%working
Germany	2269	77	2269	92
Denmark	850	91	850	96
The Netherlands	2019	76	2019	94
Belgium	880	77	880	93
France	2100	70	2100	91
U.K.	1613	77	1613	91
Ireland	632	59	632	92
Italy	2334	51	2334	89
Greece	1259	42	1259	90
Spain	1882	54	1882	93
Portugal	1459	69	1459	93
Austria	851	71	851	89
Finland	1071	85	1071	93

(a) Data source: ECHP year 2001

Family gender gap

The unadjusted gender pay gap

First, we analyze the raw or unadjusted gender gap across Europe in years 1994 and 2001. The earning measure for the raw gap is the logarithm of the gross deflated hourly wage. Wages in the ECHP are not observed directly, but obtained by dividing the current monthly total gross earnings by the total number of hours worked per week, multiplied by 4.3.

Table 2 shows the average gender gap in European countries in 1994 and 2001. The absolute gender gap, calculated as the difference between husband minus wife average gross hourly wage, has increased in 2001 for France, U.K, Denmark, Portugal, Greece, Spain , Belgium , Finland and Austria , while it has decreased for the rest of the countries.

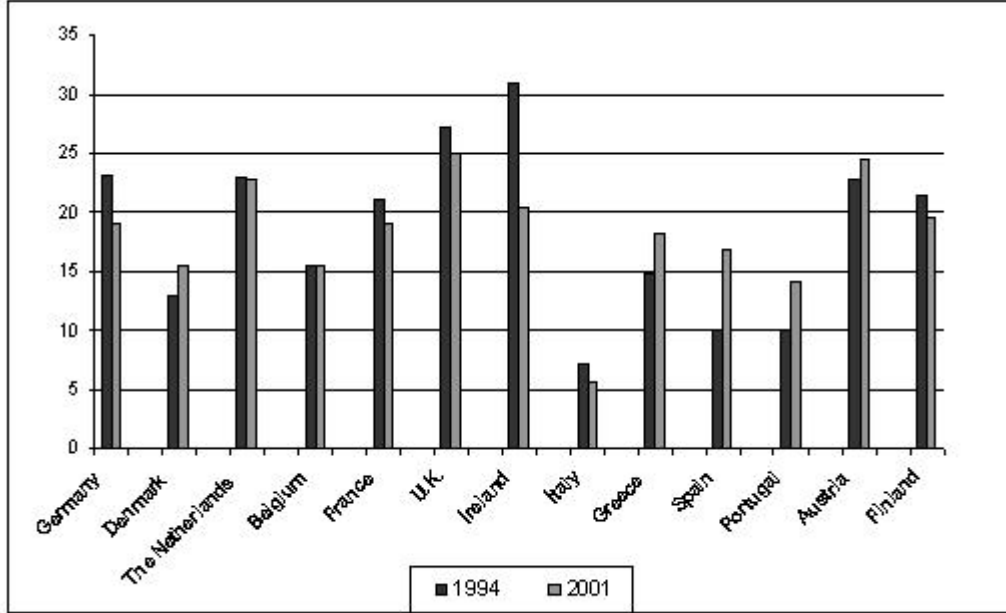
In Figure 1, is represented, the relative wage gap, calculated as the ratio between absolute wage gap and average male wage rate. The largest reduction is observed in Ireland (10%), while U.K., France and Italy presented a reduction of approximately 2% in 2001, for Spain , Portugal and Greece we observe an increase around 4% in the gender gap. This work is in accordance with Sissoko et al (2006), Beblo et al (2003) studies.

Table 2: Unadjust gender gap in European countries, 1994-2001

Country	2001			1994		
	Husband	Wife	Absolute wage gap	Husband	Wife	Absolute wage gap
Germany	11,08	8,97	2,11	10,49	8,06	2,43
Denmark	14,07	11,9	2,17	11,4	9,91	1,49
The Netherlands	11,79	9,09	2,7	12,63	9,72	2,91
Belgium	13,23	11,17	2,06	10,74	9,08	1,66
France	11,78	9,55	2,23	10,38	8,19	2,19
U.K.	13,23	9,92	3,31	10,85	7,9	2,95
Ireland	12,4	9,86	2,54	11,82	8,18	3,64
Italy	8,57	8,08	0,49	9,07	8,42	0,65
Greece	7,33	6	1,33	6,04	5,14	0,9
Spain	9,39	7,81	1,58	8,15	7,34	0,81
Portugal	5,42	4,65	0,77	4,89	4,4	0,49
Austria	10,39	7,85	2,54	9,82	7,57	2,25
Finland	10,61	8,54	2,07	9,53	7,49	2,04

Data source: ECHP male-female average hourly wage

Figure 1: Relative raw wage gap in European countries



Source: ECHP, husband-wife who are employed at least 8 hours per week

All empirical studies of wage discrimination between men and women use a formal statistical technique first devised by Oaxaca (1973), building on Beckers (1957) well-known theory of labour market discrimination (see, also, Blinder 1973).

The decomposition approach of Oaxaca develops the concept of discrimination, considering the individual employee productive characteristics (such as level of education, years of work experience and so on) that can be used as approximations of his or her marginal productivity. Certain individual characteristics can be identified as associated with a person's productive capability and this, in turn, is associated with the wage earned.

The Oaxaca method is used to check for differences in characteristics between men and women. More formally (following Mincer 1974), it is typical to specify a wage equation that relates to the logarithm of earnings as a function of individual characteristics:

$$\ln \bar{W}_i^H - \ln \bar{W}_i^F = \beta^H (\bar{X}_i^H - \bar{X}_i^F) + (\bar{\beta}^H - \bar{\beta}^F) \bar{X}_i^H \quad (1)$$

Where $\ln \bar{W}_i$ represent the average earnings evaluated by an earnings equation, the indices H and F represent husbands and wives earnings respec-

tively, X_i are the average characteristics and β are the estimated returns on these characteristics.

The gap in average earnings (expressed as a logarithm) can be broken down in two part: the first one represents the difference in observable human capital of men and women or *endowment effect*, and a second part that represents the unexplained component (interpreted as wage discrimination) which includes a difference due to unobservable factors that influence productivity and a difference due to differential reward for equal characteristics called *remuneration effect*.

In Oaxaca's (1973) original application, separate estimates are obtained using both the male and the female weighting procedure to establish a range of possible values. All methods of decomposition of the wage gap must deal with the problem of the choice of weighting. In equation (1), differences in characteristics are weighted by the average male returns, and differences in returns are weighted by the average female characteristics. Here, we have chosen to use the method proposed by Oaxaca and Ransom (1994). This involves the construction of a nondiscriminatory norm for returns on individual characteristics; the wage gap is then expressed as the sum of an advantage for men, a disadvantage for women, and the difference between characteristics valued at the norms returns.

The wage equation

When we want to estimate the wage equation for married women we have different problems: selection bias, endogeneity and perhaps heterogeneity.

We have selection bias because the dependent variable of the wage equation can be measured only if the individual participates in the labor market. The literature offers estimators for correcting this problem (Heckman 1979, Powell 1994).

Heterogeneity is associated with the unobserved skills and motivation of an individual, and if these unobserved individual effects are correlated with the regressor of the model, the simple estimations with OLS are inconsistent, while panel data solve this problem.

We can write the wage equation as a set of Mincerian explanatory variables:

$$\ln W_i^J = X_i^J \beta + \mu_i^J, J = H, F \quad (2)$$

where $\ln W_i$ is the logarithmic wage for husband and wife (H, F), X_i is a vector of explanatory variable such as: age, experience, education, etc. and μ_i^J is an i.i.d. error term.

Almost all studies use the OLS method to estimate the wage equation and to calculate the gender gap, but if a significant part of the wife sample doesn't work, the difference between workers and non-workers determines the sample selection bias because some components of the work decision

are relevant to determining the wage process. Moreover the unobservable characteristics affect the work decision and the wage.

To correct the selection, Heckman (1979) proposed two methods: a maximum likelihood estimation and an estimation of the wage equation in two steps, firstly estimating the female participation equation and calculating a correction term, called lambda or inverse Mill's ratio, and after to estimate with simple regression, the wage equation where we added the correct as an independent variables.

We can write the participation equation as:

$$q_{it}^* = a_i + \beta X_{it} + v_{it} \quad (3)$$

$$\mathbf{q}_{it} = 1[q_{it}^* \geq 0] \quad (4)$$

where q_{it}^* is the participation equation of wife and it depends on a vector of explanatory variable as: age, education, children and no-labor income. We observe the participation equation only if the selection indicator function q_{it} is equal to 1.

After we estimate the wage equation for married women with a OLS approach, so the equation become:

$$\ln W = \beta' X_i + \lambda + \mu_i \quad (5)$$

where $\ln W$ is the logarithm of the hourly wage and is observed only for workers, X are observed variables related to productivity, λ is the error correct term and μ_i is the error term that includes all unobserved determinants of wages.

The Heckman model requires three assumptions: joint normality of the distribution of the error terms in the participation and wage equations, both error terms are independent of both sets of observable variables and the final assumption is the standard normalization for the probit selection equation.

When we apply the Oaxaca-Blinder decomposition and the wage equation is correct for selection we have three effects: endowment, remuneration and selection.

The raw gender gap is calculated as follows:

$$\Delta \ln W = \beta^H (\bar{X}^H - \bar{X}^F) + (\bar{\beta}^H - \bar{\beta}^F) \bar{X}^H + (\lambda^H \hat{\theta}^H - \lambda^F \hat{\theta}^F) \quad (6)$$

where the last term is the selection effect and $\hat{\theta}$ is an estimate of $\rho \sigma_\mu$.

Normally the $\hat{\theta}^H$ is equal to zero, because there isn't male selection, while the selection for female is $\hat{\theta}^F > 0$. When we consider the sample selection, the impact on the remuneration and endowment effects is ambiguous. In several empirical studies the results, when applying Heckman in comparison to OLS, are different. In Miller and Rummery (1991) the endowment effect declines and the remuneration effect increases. In a study by Miller (1987) both the effects decline.

Results

Wage equation

We obtain the estimation of the wage equation with OLS methods for both husband and wife, and Heckman techniques only for wife. We use the Oaxaca decomposition to investigate the gender gap in the family.

The explanatory variables we use to estimate the wage equation in OLS are: experience, experience square,² three level of education, job characteristics such as firm size, sector and occupational groups.

The participation equation to obtain the correct term for wife wage equation is composed from age, age square, children with three different level of age, education and household income without the wife earnings. In appendix we report the estimation of wage equation with the OLS and the Heckman two step procedure.

Oaxaca-Blinder decomposition over time

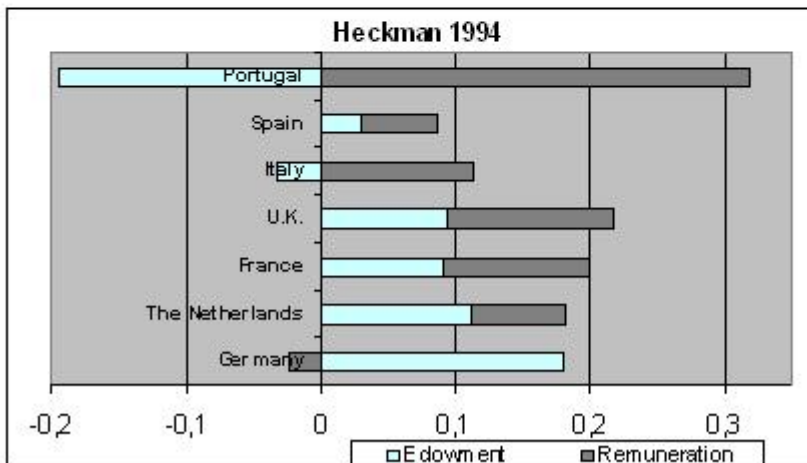
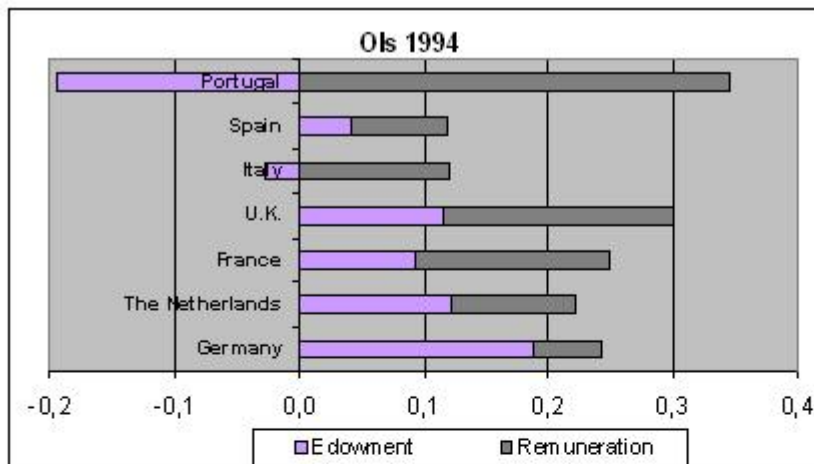
In figure 2 and 3 we analyzed the Oaxaca decomposition over the period 1994 and 2001, where the wage equation is estimated with an OLS and a Heckman method. The decomposition identifies the explained and discrimination part of the gender gap. We observed that the wage gap between husband and wife estimated with OLS in 1994 is very high in Germany, U.K. Netherland and France, but if we look at the raw gap estimate with Heckman two step, the gap goes down and the two effects of decomposition decline. We find that Italy and Portugal have a negative endowment effect, which seems to imply that the skills of women in these countries is positive for the wife that represents the low groups. The gender gap in Italy is not very high because the level of public supports for female employment is very high. Germany has in 1994 a negative remuneration when we correct for sample selection, can be interpreted as a negative discrimination, so it means that the female would be even worse if they'd be treated like men.

In 2001 the discrimination increased in Germany about 10% and in the U.K. around 15%. Italy and Portugal continued to have a negative endowment, so means that Italian and Portugal wives have the same characteristics effect. France and Spain have a negative remuneration if we observe Heckman procedure, but with OLS technique only Portugal presents a negative effect in endowment. The discrimination decrease for The Netherlands almost 20%.

²we use potential experience calculate as age minus age when starting first job, we can use actual experience because in ECHP we don't have information on previous work life before to enter in the survey.

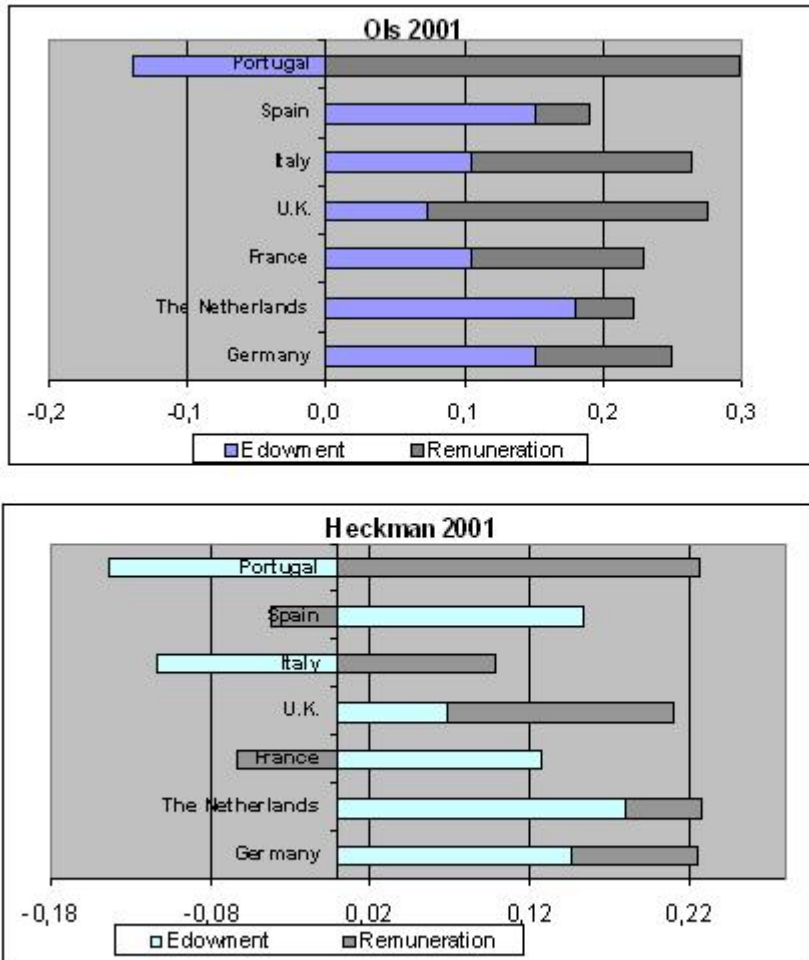
Conclusion

Figure 2: Oaxaca-Blinder decomposition of the gender gap in European countries



Source: ECHP, husband-wife who are employed at least 8 hours per week in 1994

Figure 3: Oaxaca-Blinder decomposition of the gender gap in European countries



Source: ECHP, husband-wife who are employed at least 8 hours per week in 2001

References

- [1] Beblo, M., D. Beninger, A. Heinze and F. Laisney, 2003. Measuring Selectivity- Corrected Gender Wage Gap in EU. ZEW Mannheim, discussion paper No. 03 74.
- [8] Blinder, A. S. (1973), Wage Discrimination: Reduced Form and Structural Estimates, *The Journal of Human Resources*, 8(4), 436-455.
- [12] hamberlain, G., 1980, Analysis with qualitative data, *Review of Economic Studies* 47, 225-238.
- [8] Blau F. D. and L. M. Khan, 1996. Wage structure and Gender Earnings Differentials: An international comparison. *Economica* 63: S29-S62.
- [5] Employment in Europe 2005. Brussels: European Commission.
- [6] Joshi, H. and P. Paci (1998). Unequal Pay for Women and Men. London: The MIT Press Cambridge..
- [7] Kyriazidou,E., 2001, Estimation of dynamic panel data sample selection models, *Review of Economic Studies* 68, 543-572.
- [8] Borrego-Jimenez, 1997, Married women labor supply : a comparison analysis, Cesp
- [11] Machado, J., and J. Mata (2003), Counterfactual Decomposition of Changes in Wage Distribution Using Quantile Regression, mimeo, Universidade de Lisboa.
- [11] Miller, P. W. (1987), Gender Differences in Observed and Offered Wages in Canada, 1980, *The Canadian Journal of Economics*, 20 (2), 225-24
- [11] Mincer, J. (1958), Investment in Human Capital and Personal Income Distribution, *Journal of Political Economy*, 66(4), 281-302.
- [12] C. Nicoletti and F. Peracchi 2002: A cross-country comparison of survey participation in the ECHP, Working papers of the. Institute for Social and Economic Research.
- [13] lasman R. and S. Sissoko, 2002. National Reports on the Unadjusted and Adjusted Gender Pay Gap in Belgium. European Expert Group on Gender and Employment Report to the Equal Opportunities Unit, DG Employment
- [15] Oaxaca R. L. and M. Ransom, 1998. Calculation of approximate variance for wage decomposition differentials. *Journal of Economic and Social Measurement* 24, 55-61.

- [15] Oaxaca R., 1973. Male-Female Wage Differentials in Urban Labor Markets. *International Economic Review* 14, 693-709.
- [16] Rice, P. (1999), Gender Earnings Differentials: The European Experience, The World Bank Development Research Group, WP No.8.
- [17] Semykina-Wooldridge, 2005: Estimating panel data models in the presence of endogeneity an selection: theory and application, working paper.
- [19] Vella, F. and M. Verbeek, 1999, Two-step estimation of panel data models with censored endogenous variables and selection bias, *Journal of Econometrics* 90, 239-263.
- [19] Verbeek, M. and T. Nijman, 1992, Testing for selectivity bias in panel data models, *International Economic Review* 33, 681-703.
- [21] Wooldridge, J.M., 1995, Selection corrections for panel data models under conditional mean independence assumptions, *Journal of Econometrics* 68, 115-132.
- [21] Wooldridge, J.M., 2002, *Econometric analysis of cross section and panel data*. MIT Press: Cambridge, MA. 33

APPENDIX I

Table 3: Heckman wage estimation for European wives in 2001

Country	Germany			The Netherlands			France			U.K.		
	Coef.	Std. Err.		Coef.	Std. Err.		Coef.	Std. Err.		Coef.	Std. Err.	
logwage	.0093313	.0532609		.0969112	.0889599		.1200681	.0464623		.1547361	.0394288	
eduf1	-.0154195	.0416305		-.2584584	.3038519		.001892	.0456331		.0961541	.0441916	
eduf2	-.0027091	.0065111		.0097299	.0046095		.0036983	.0040189		.0085758	.0050757	
experience	-.0011928	.015087		-.0248057	.0118201		-.0075528	.0109044		-.0206934	.0121685	
exp2	.2161199	.0803533		.2342124	.0642226		.4861418	.1141608		-.1530482	.139486	
occ1	.2503847	.0563817		.2002634	.0453288		.3052235	.1069686		-.1620686	.1389488	
occ2	.0789597	.0439753		.0055982	.0416615		.1910933	.0974684		-.2812347	.1374651	
occ3	.0039232	.0472871		-.0496439	.0461545		.0794125	.0954451		-.4754467	.1368269	
occ4	-.1909064	.0466953		-.2587237	.0524202		-.1629124	.0972125		-.7471546	.1381549	
occ5	-.1853329	.0649862		-.0658762	.1186884		-.1656972	.1279582		-.6499317	.1689748	
occ7	-.2211966	.0655035		-.4009865	.1030045		.0423928	.1083042		-.7521524	.1578315	
occ8	-.3174281	.0631519		-.4044506	.0856087		-.2052275	.1010716		-.7738257	.1499708	
occ9	.1300056	.0298616		-.0549997	.0430936		-.1636896	.0901786		.0907055	.0375031	
sized	.2570722	.0374496		.0179582	.0366355		.0458704	.0774457		.1677108	.0330226	
size	.0369136	.006723		.0316851	.0071898		.0336496	.0068346		.0280414	.008579	
ten	-.0010165	.0002941		-.0007947	.0003511		-.0005902	.0002977		-.001253	.0005424	
ten2	-.0650139	.0590423		.0137464	.0522325		-.3126885	.08206		-.201315	.0841791	
lambda												

Table 4: Heckman wage estimation for European wives in 2001

Country	Italy		Spain		Portugal	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
logwage						
eduf1	.1934706	.0489019	.05431	.0579162	.5762301	.0566699
eduf2	.0595853	.0351412	.0611713	.0474013	.0984311	.0378095
experience	.0088928	.0048601	.0135942	.0056007	.0212351	.0047757
exp2	-.0147448	.011947	-.0197824	.0138745	-.0421839	.0113366
occ1	.5656675	.1077486	105.412	.2170382	.6321887	.1521928
occ2	.4477511	.0632562	.8686102	.1943385	.678607	.1312385
occ3	.2084465	.0669841	.5284263	.1935903	.6476682	.1248301
occ4	.1556575	.0600167	.3871656	.1930039	.4226259	.1204599
occ5	.060205	.0676606	.2446552	.1913743	.1341061	.118483
occ7	-.0327698	.0719387	.1948043	.1967775	-.0756218	.1203667
occ8	-.0357182	.0868935	.180187	.202276	-.0564845	.1267942
occ9	.0156485	.0668734	.2153087	.1910861	.0331635	.1178517
sizemed	.0891678	.0265318	.1320577	.0326316	.0665317	.027058
sizelarge	.0893934	.0294871	.181181	.0336621	.1196679	.0306114
ten	.0056147	.0063377	.0412281	.0067575	.009914	.00586
ten2	.0001567	.0002614	-.0010084	.0003141	.0001474	.0002512
lambda	-.1347149	.0397958	-.1243101	.0577478	-.0890221	.0498691

Table 5: Heckman wage estimation for European husbands in 2001

Country	Germany		The Netherlands		France		U.K.	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
logwage								
eduf1	.035819	.035855	-.0628173	.0897149	.2258016	.0311068	.1627197	.0306301
eduf2	-.0532471	.0300066	.1934027	.3947515	.0967127	.0377824	.0683101	.0367571
experience	.0146042	.004609	.0201231	.0033476	.0135288	.0031292	.0205296	.0038845
exp2	-.0364415	.0095875	-.0382531	.007135	-.0240367	.0072219	-.0448498	.0085181
occ1	.111806	.0549354	.1674021	.0333158	.3956532	.0629922	.4631802	.0988416
occ2	.1789365	.0460092	.181269	.0314905	.3556933	.0606542	.4678171	.1005842
occ3	.0463788	.0440976	-.0084019	.0310397	.1157606	.0549691	.4226	.1017424
occ4	-.0142183	.0516592	-.0312842	.0471225	-.0823523	.0624238	-.001404	.103808
occ5	-.2623379	.0582422	-.0506568	.052381	-.1114871	.0626869	.0250785	.1055707
occ7	-.1632579	.0393728	-.2087724	.0369375	-.0824198	.0539535	.1524825	.0997729
occ8	-.2085968	.0441744	-.2296011	.043189	-.0561872	.0554596	.0077197	.1009735
occ9	-.2760854	.0528787	-.2923375	.0592276	-.1805522	.0675294	-.0041152	.109461
sizedmed	.1515372	.0246209	.030047	.0321549	.0813046	.0620027	.0469687	.0313402
sizelarge	.2884037	.0288188	.1117469	.0285065	.0775271	.0614859	.2052947	.0279386
ten	.0248601	.0051591	.0061776	.0049827	.0269892	.0050978	.0227326	.0061992
ten2	-.0612855	.0219264	.0034508	.0221598	-.0360359	.0218138	-.0754775	.0321952

Table 6: Heckman wage estimation for European husbands in 2001

Country	Italy		Spain		Portugal	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
logwage						
eduf1	.3553272	.0369208	.2084121	.0311847	.6321037	.0633078
eduf2	.1348095	.0215676	.1428136	.0267368	.2631727	.0406569
experience	.0270985	.0038134	.0145376	.0042888	.0139818	.0048173
exp2	-.0497701	.0083034	-.021321	.0083595	-.0256086	.0090637
occ1	.5266091	.0592545	.7931368	.0716038	.7153169	.0907411
occ2	.3196419	.0481976	.6010829	.0638826	.3489088	.0878153
occ3	.1773868	.0394469	.3818835	.0589839	.3758959	.0694736
occ4	.0813245	.0361479	.2297683	.0662793	.2466336	.069138
occ5	-.0169483	.0402988	.2026909	.0605595	.1998805	.0672184
occ7	-.0144876	.0343717	.1969116	.0559601	.0877793	.0604033
occ8	.0245425	.038064	.1427009	.058201	.0741558	.0643335
occ9	-.0656283	.042411	.0496575	.062206	-.1110319	.0683929
sizedmed	.1009417	.020925	.1207715	.0236414	.1219562	.0302003
sizelarge	.1239914	.0209063	.261136	.0239467	.2470708	.0322662
ten	.0055416	.0047375	.0114707	.0048077	.0087877	.0065415
ten2	.0064115	.0194808	.0082432	.0214921	.0181961	.0277775

Table 7: OLS wage estimation for European wives in 2001

Country	Italy		Spain		Portugal	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
logwage						
eduf1	.2551595	.0457489	.1271024	.0471625	.6090845	.0536768
eduf2	.1055967	.0326698	.1079245	.0422612	.1166634	.0364574
experience	.0105836	.0048738	.0144206	.0056046	.0229749	.0046821
exp2	-.0214861	.0118757	-.0239246	.0137823	-.0480323	.0108688
occ1	.5825365	.1085093	1.055.664	.2176988	.6307602	.1524144
occ2	.4502513	.0637666	.8630066	.1949136	.6764789	.131426
occ3	.2212413	.0674216	.5201465	.1941423	.6435424	.1249922
occ4	.170429	.060345	.380269	.1935657	.4197905	.1206265
occ5	.0699557	.0681494	.234561	.1919002	.1243825	.1185318
occ7	-.0265245	.0725003	.1915753	.1973717	-.0763281	.120543
occ8	-.0224978	.0875121	.1702613	.20284	-.0564388	.1269806
occ9	.0052328	.0673462	.199076	.1915195	.0299387	.1180111
sizedmed	.0905071	.0267448	.1322078	.032731	.0660205	.0270963
sizelarge	.0925782	.029712	.1833976	.0337489	.121327	.0306422
ten	.0074539	.0063658	.0433816	.0067034	.0114127	.0058081
ten2	.0000703	.0002623	-.0010924	.0003126	.0000825	.0002489

Table 8: OLS wage estimation for European wives in 2001

Country	Germany			The Netherlands			France			U.K.		
	Coef.	Std. Err.		Coef.	Std. Err.		Coef.	Std. Err.		Coef.	Std. Err.	
logwage	.0336163	.0484853		.0944	.0886183		.2121268	.0400245		.1932401	.0360977	
eduf1	-.002649	.0399867		-.2600844	.303874		.042763	.0447317		.1119252	.0438253	
eduf2	-.0018633	.0064663		.0094896	.0046082		.0077938	.0039054		.0095095	.0050756	
experience	-.0038473	.0148947		-.0240867	.0117881		-.0211358	.0103929		-.024662	.0120903	
exp2	.2188977	.0803222		.233201	.0640802		.5268166	.1146267		-.1421826	.1398221	
occ1	.2511905	.056383		.199844	.0453034		.3410143	.1074611		-.1604122	.1393558	
occ2	.0798307	.0439728		.0049907	.0416483		.2197338	.098004		-.2760055	.137852	
occ3	.0054765	.0472711		-.054212	.046048		.1011676	.0960839		-.4760237	.1372292	
occ4	-.1902983	.046697		-.258926	.0524307		-.1522935	.0979984		-.7514072	.1385498	
occ5	-.1905755	.0648185		-.0670116	.1186494		-.1597971	.1290362		-.6504597	.1694717	
occ7	-.2228099	.0654941		-.4012254	.1030302		.0714428	.1089538		-.74932	.1582913	
occ8	-.3152946	.0631289		-.4047524	.0856269		-.1934722	.1018831		-.7745504	.1504117	
occ9	.1317436	.029823		-.0577883	.0430669		-.172946	.090912		.0890952	.0376074	
sized	.259332	.0373973		.0180508	.0366372		.0589256	.0780275		.1682798	.0331189	
size	.0380098	.0066496		.0315376	.0071665		.0333745	.0068923		.0291745	.0085911	
large	-.0010539	.0002922		-.0007824	.0003498		-.0005482	.0003		-.0012843	.0005438	
ten												
ten2												

Table 9: OLS wage estimation for European husbands in 2001

Country	Italy		Spain		Portugal	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
logwage						
eduf1	.3553272	.0369208	.2084121	.0311847	.6321037	.0633078
eduf2	.1348095	.0215676	.1428136	.0267368	.2631727	.0406569
experience	.0270985	.0038134	.0145376	.0042888	.0139818	.0048173
exp2	-.0497701	.0083034	-.021321	.0083595	-.0256086	.0090637
occ1	.5266091	.0592545	.7931368	.0716038	.7153169	.0907411
occ2	.3196419	.0481976	.6010829	.0638826	.3489088	.0878153
occ3	.1773868	.0394469	.3818835	.0589839	.3758959	.0694736
occ4	.0813245	.0361479	.2297683	.0662793	.2466336	.069138
occ5	-.0169483	.0402988	.2026909	.0605595	.1998805	.0672184
occ7	-.0144876	.0343717	.1969116	.0559601	.0877793	.0604033
occ8	.0245425	.038064	.1427009	.058201	.0741558	.0643335
occ9	-.0656283	.042411	.0496575	.062206	-.1110319	.0683929
sizemed	.1009417	.020925	.1207715	.0236414	.1219562	.0302003
sizelarge	.1239914	.0209063	.261136	.0239467	.2470708	.0322662
ten	.0055416	.0047375	.0114707	.0048077	.0087877	.0065415
ten2	.0064115	.0194808	.0082432	.0214921	.0181961	.0277775

Table 10: OLS wage estimation for European husbands in 2001

Country	Germany		The Netherlands		France		U.K.	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
logwage								
eduf1	.035819	.035855	-.0628173	.0897149	.2258016	.0311068	.1627197	.0306301
eduf2	-.0532471	.0300066	.1934027	.3947515	.0967127	.0377824	.0683101	.0367571
experience	.0146042	.004609	.0201231	.0033476	.0135288	.0031292	.0205296	.0038845
exp2	-.0364415	.0095875	-.0382531	.007135	-.0240367	.0072219	-.0448498	.0085181
occ1	.111806	.0549354	.1674021	.0333158	.3956532	.0629922	.4631802	.0988416
occ2	.1789365	.0460092	.181269	.0314905	.3556933	.0606542	.4678171	.1005842
occ3	.0463788	.0440976	-.0084019	.0310397	.1157606	.0549691	.4226	.1017424
occ4	-.0142183	.0516592	-.0312842	.0471225	-.0823523	.0624238	-.001404	.103808
occ5	-.2623379	.0582422	-.0506568	.052381	-.1114871	.0626869	.0250785	.1055707
occ7	-.1632579	.0393728	-.2087724	.0369375	-.0824198	.0539535	.1524825	.0997729
occ8	-.2085968	.0441744	-.2296011	.043189	-.0561872	.0554596	.0077197	.1009735
occ9	-.2760854	.0528787	-.2923375	.0592276	-.1805522	.0675294	-.0041152	.109461
sized	.1515372	.0246209	.030047	.0321549	.0813046	.0620027	.0469687	.0313402
sizedlarge	.2884037	.0288188	.1117469	.0285065	.0775271	.0614859	.2052947	.0279386
ten	.0248601	.0051591	.0061776	.0049827	.0269892	.0050978	.0227326	.0061992
ten2	-.0612855	.0219264	.0034508	.0221598	-.0360359	.0218138	-.0754775	.0321952