How Gender-Based Disparities affect Women’s Job Satisfaction? Evidence from Euro-Area

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Abstract
This paper analyses how gender-based disparities in the Euro-Area affect women’s job satisfaction using the EWCS (2015), and the Global Gender Gap Index introduced by the World Economic Forum. Heckman’s two-stage estimates show that women have a higher probability of job satisfaction than their male colleagues, which endorses the paradox of the female contented worker. There does not seem to be an equalization of job satisfaction as higher educational levels and lower age groups are considered. In those settings where the situation of women is more unfavourable than that of men, the probability for women to be more satisfied at work is lower. Therefore, the adaptive expectations hypothesis, by which individuals would internalize the difficulties they face and, ceteris paribus, would experience greater satisfaction than their counterparts, in this case males, is not corroborated.

Keywords Job satisfaction · Paradox · Global gender gap · Heckman’s two stage model

1 Introduction

The paradox of the contented female worker is one of the topics that have given rise to the most interest in recent decades. Although studies have shown mixed results, most conclude that women’s level of job satisfaction is higher than that of men. This higher satisfaction is, however, paradoxical, since studies of working conditions in terms of wage differences and employment segregation show a clearly unfavourable situation for women which does not appear to penalize their job satisfaction.

The explanations for this higher relative job satisfaction are of a different nature. First, there is a possibility of a self-selection bias, prior to entering the labour market. This bias means only more contented and satisfied women would participate in the labour market. Studies focussed on younger and higher educated population groups demonstrate, in fact, a reduction of this bias as differences between male and female participation in the labour
market have narrowed. Other studies consider, however, that it is necessary to correct this bias econometrically to see whether, in fact, differences between men and women persist.

Secondly, activities not directly job-related may influence job satisfaction. In some of these activities a differential pattern by gender is observed (greater intensity of performance by women or men) that will justify the greater job satisfaction of one or the other group. In this sense, differences in job satisfaction would be partially due to an incorrect selection of the variables included in the analysis (Clark and Oswald 1996; Sloane and Ward 2001; and Kifle et al. 2014). If those activities are not considered adequately, a bias may be incurred and the variables "male" and "female" would reflect other information not strictly related to gender. To address this problem, some studies opt to include variables associated with the family (partner, children and household income, among others) and the possibility of balancing work and personal life.

Finally, a third explanation in literature focuses on the presence of adaptive expectations. Expectations are conditioned by the social, economic and cultural environment in which individuals are born, interact and carry out their activity. Thus, an individual with lower probabilities of adequate insertion in the labour market would feasibly have lower expectations regarding his or her position and, ceteris paribus, enjoy relatively higher job satisfaction than individuals with higher probabilities of success in the labour market. In our case, women will have less access to higher-level position and higher remuneration than their male counterparts, therefore they will be, ceteris paribus, more satisfied at work. It is possible, however, that an unequal and discriminatory environment will cause the opposite effect, that is, women experiencing lower job satisfaction, given the existence of a reference group, men, who enjoy superior conditions.

This last consideration is the main focus of our article, analysing the extent to which a more or less egalitarian environment for women affects their job satisfaction.

The analysis is focused on the European Working Conditions Survey (EWCS) for European Monetary Union countries in 2015. Within this group of countries there are marked differences in the integration of women in the labour market, which could condition their job expectations and consequently their job satisfaction. Our objectives are the following: (i) to identify if, indeed, there are differences in job satisfaction by gender within the Euro-Area framework; (ii) to analyse how each of the variables associated with work, family and the possibility to balance both aspects of life affect male and female job satisfaction; (iii) to establish a grouping of countries based on the Global Gender Gap Index (GGGI) introduced by the World Economic Forum\(^1\); and (iv) to identify whether women’s job satisfaction decreases in those frameworks in which the GGGI is lower (or vice versa). In this sense, a distinction is made between the GGGI, and its political, economic and opportunity components.\(^2\)

The article is structured as follows. The theoretical framework that justifies the existence of differences in job satisfaction by gender is developed in the second section. The third section describes the data, the methodology and the theoretical model used in the

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\(^1\) See Global Gender Gap Report, 2015, https://www.weforum.org/reports/global-gender-gap-report-2015.

\(^2\) The index is separated according to 4 different criteria: economic participation and opportunity, educational attainment, health and survival and political empowerment (political). The differences in the GGGI among European (19) countries is exclusively justified by the economic, opportunity and political criteria as the differences according to educational and health criteria are too small, as pointed out by Perugini and Vladisavljević (2019).
estimates, while the fourth shows the econometric results. Finally, some brief conclusions and policy recommendations are included.

2 Theoretical Framework

Clark’s seminal work (1997) approached the issue of a difference between male and female job satisfaction for the first time and opened up a field of research that aims not only to measure its existence, but also to define its causes. Despite mixed results, most studies demonstrate higher job satisfaction for women compared to men (Clark 1997; Hauret and Williams 2017; Hodson 1989; Long 2005; Sánchez-Sánchez and Fernández 2019; Sloane and Williams 2000; Souza-Poza and Sousa-Poza 2000 and 2007). This result is in spite of the fact that working conditions, in terms of job segregation and wage, are, on average, inferior for women (Duncan and Corcoran 1984; England and McCreary 1987; Madden 1985, among others). This outcome is known in economic literature as the paradox of the contented female worker (Crosby 1982).

The main reasons given to justify this differential: (i) the existence of a selection bias when participating in the labour market; (ii) the existence of differences related to gender and activities traditionally performed by men and women, which are different to strictly labour issues; and (iii) the presence of adaptive job satisfaction leading to lower expectations.

The first possible explanation is selection bias causing only happier and more motivated women to participate in the labour market. This emotional disposition will remain intact while working, and consequently these workers will be relatively more satisfied. What is not so clear, however, is whether the women who actually do participate in the labour market are the most satisfied. Clark (1997) and Carleton and Clain (2012) justify this idea through women’s marital status. In principle, married women could have access to additional resources from their husbands and, for social and cultural reasons, be freer to choose whether to accept or keep a job. If this hypothesis were true, married women who work would do so to a large extent because out of choice, and would be more satisfied in their jobs (otherwise they would give them up).

This argument is based, in part, on the difference between the participation of women and men in the labour market. In fact, in most of the countries analysed, the participation of women in the labour market, measured through the activity rate, is lower than that of men.

What happens, however, when the gap between male and female activity rates narrow? Does job satisfaction converge? If the activity rates of women and men are studied over time a clear convergence is observed. In fact, if the younger population groups are considered, the differences between the activity rates by gender are significantly reduced. In this line, Clark (1997) and Donohue and Heywood (2004) concluded that gender differences disappear for younger people and those with a higher level of education. However, Bender and Heywood (2006) and Sánchez-Sánchez and Fernández (2019) point out that even when

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3 See Kim (2005) for a review of studies related to gender and job satisfaction, as well as Green et al. (2017) for a recent review of the paradox of the contented female worker.

4 The authors add that mobility is more reduced in the case of married men, as would be the aggregated satisfaction levels. Sousa-Poza and Sousa-Poza (2007) note, however, that job dissatisfaction does not lead to the expulsion of women from the labour market but causes a change in the job (i.e. greater job rotation) at least in the Swiss labour market, where their sample is collected.
the younger population groups and superior educational levels are considered, women are more likely to be satisfied at work than their male colleagues.

Economic literature, in any case, suggests considering age, educational level and, if possible, the econometric correction of the bias.\(^5\)

The second explanation is based on the existence of differences in satisfaction levels or preferences related to gender. This line of reasoning would be justified by biological reasons which are beyond the scope of our analysis, or because women will include within their work utility function other activities and other aspects of their personal and family life to a greater extent than men (Kanter, 1977). Since women are more likely to take care of children, dependents and even household chores, satisfaction with these activities could have an impact on job satisfaction (Borra et al. 2007). In this line, Bender et al. (2005) and Sloane and Williams (2000) attributed a higher job satisfaction of women to a more flexible working environment their work, chosen by the worker herself to reconcile personal or family life.

To consider this hypothesis, those variables associated with family and personal circumstances should be included in the analysis, together with those related to the possibility to balance work and personal life.

The third and final hypothesis is based on women having lower expectations of work. The argument being that women have traditionally experienced the worst position in the labour market associated with reduced job prospects (Clark 1997). Thus, poor working conditions would affect women to a lesser extent than men and their degree of satisfaction, ceteris paribus, would be higher, since they would internalize the difficulties they have experienced in getting the job.

Once again, this situation should be transitional given that equal working conditions between men and women might develop over time. It is possible to accept that equality of working conditions is higher among younger and more qualified workers (Sousa-Pouza and Sousa-Pouza 2003) and one would not expect gender to influence job satisfaction levels in the group of younger and more qualified workers (Green et al. 2017; Sloane and Ward 2001). As already indicated, other studies consider that the differences continue to persist among younger and more qualified workers.

Participation in the labour market depends on women’s personal circumstances (age, education, household income and household burdens), but the chance to enter the labour market adequately will also depend on discrimination at the moment of recruitment, and equality conditions between men and women prior to that moment. The measurement of gender equality in economic literature is, in many cases, partial, since it either considers the activity rates, the wage gap, or directly assumes that specific groups enjoy equality (more qualified and younger people or certain professional categories). In this sense, the consideration of an indicator such as the GGGI would allow for a more correct measurement of the real economic, political and social equality between men and women.

On the other hand, the hypothesis that women internalize difficulties and consequently have greater relative satisfaction needs testing. The presence of a reference group, men, who are less affected by discrimination, could mean that women do not internalize difficulties and are, in fact, more dissatisfied, since they are aware of an unfair situation that

\(^5\) The evidence in economic literature regarding the existence of a sample-selection bias is mixed. Clark (1997), Sloane and Williams (2000) and Long (2005) point out that there is no evidence of sample-selection bias of females into the labour market while Hauret and Williams (2017) conclude the contrary.
clearly penalizes them (Luo 2016). It is precisely this question that is studied in this article, attending, of course, to the considerations previously expressed.

### 3 Sources and Methodology

The results presented in this article are based on the 6th European Working Conditions Survey, (EWCS) prepared in 2015. This cross-sectional survey has been organized every 5 years since 1990 by the European Foundation for the Improvement of Living and Working Conditions. This sixth survey interviewed nearly 44,000 workers in 35 countries. Its findings provide detailed information on a broad range of issues, including exposure to physical and psychosocial risks, work organisation, work–life balance, and health and well-being.

In our estimates, and for reasons of homogeneity, we have considered the 19 countries of the European Monetary Union. The total number of observations is 31,570, although unemployed and inactive individuals and all observations without response in our dependent variable have been removed, leaving a total of 25,385 observations.6

One of the main advantages of the survey is that it includes workers’ self-reported perceptions, along with information on relevant worker and job characteristics. Unfortunately, the survey is not a panel, and is therefore unable to examine the factors affecting transitions in satisfaction level or to control for fixed individual effects.

At the outset, it is important to understand the satisfaction questions we analyse. The EWCS survey asks several questions that refer to workers’ job satisfaction. In our case, the chosen question is the following: “How often do you feel this way—I am enthusiastic about my job?.” Job satisfaction is measured using a five-point Likert-type scale ranging from “never” to “always”. The responses are based entirely on individuals’ own perception.

The theoretical model is based on an individual work utility function for each worker, which adopts the term used by Clark and Oswald (1996):

\[ u = u(x, j) \]  

(1)

where \( x \) includes those variables related to the worker’s individual characteristics and \( j \) those related to the job characteristics. In this work, in addition to gender, we have included age range and educational attainment, and other variables related to the family (having a partner and children, and whether the household has financial difficulties). We have also included variables that reflect the difficulty of balancing work and personal life, and the individual’s state of health. Regarding the variables associated with work, in this article, we have included mainly intrinsic factors: working in the public or private sector, wages and work hours, occupation, the nature of the contract (temporary or permanent) and the size of the company. We have also included the lack or excess of capacity to perform the job, and the desire to work longer hours. A dummy variable has been created to reflect whether the company is generating employment (genemployment).

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6 To contrast the existence of sample-selection bias, the entire sample has been considered.

7 There are other questions in the survey that reflect the degree of worker job satisfaction with respect to specific aspects of their job, but we have preferred to maintain the generality of the question and collect the overall perception of the worker.

8 See Herzberg’s (1967) two factors theory.
In Appendix, Table 4 the set of variables used, their definition, how they are measured, their average and standard deviation are shown.

To estimate the model, it is assumed that job satisfaction can be used as a proxy of individual work utility so the following model is proposed:

\[ JS_i^* = \beta X_i + \alpha J_i + \epsilon_i \]  

(2)

Job satisfaction (hereafter JS\(^*\)) is a latent variable that denotes the probability of an individual being satisfied at work. This variable is unobservable, and, for its measurement, an ordinal assessment made by the individual himself is used. The relationship between the latent variable and our job satisfaction variable is expressed in the following manner:

\[ JS_i = \begin{cases} 
1 & \text{if } JS_i^* \leq \mu_0 \\
2 & \text{if } \mu_0 < JS_i^* \leq \mu_1 \\
3 & \text{if } \mu_1 < JS_i^* \leq \mu_2 \\
4 & \text{if } \mu_2 < JS_i^* \leq \mu_3 \\
5 & \text{if } \mu_3 < JS_i^* \\
\end{cases} \]  

(3)

where \( \mu \) are the values of latent job satisfaction, which define the observed job satisfaction intervals. It is assumed \( \mu_0 = 0 \).

To maximise the efficiency of the analysis, we recoded these answers into binary variables. Those with “sometimes”, “rarely” or “never” satisfied (value 0) were distinguished from those reporting “always” or “most of the time” (value 1). The purpose of this grouping is twofold. On the one hand, the results will be easier interpret and estimate. On the other hand, part of the subjective component when assigning a specific category to job satisfaction is eliminated.\(^9\) Once completed, we have proceeded to estimate using a Probit model. The tables show the marginal effects. Data are weighted using simple weights.\(^10\)

The possible presence of sample-selection bias has been also considered in the estimates. To estimate the biased model, we applied Heckman’s (1979) two-stage method. In the first stage, the probability of belonging to the sample is estimated using a Probit model. The employment-selection equation would be expressed in the following way:

\[ F_i = \alpha Y_i + \mu_i, \]

where \( Y \) collects those variables that influence the presence of individual \( i \) in the labour market.\(^11\) The inverse of the Mill Ratio (Mo) is obtained from this estimate. In the second stage this ratio is included in the estimation of job satisfaction correcting the selection bias. The contrast of the existence of bias is made through rho (\( \rho \)) = 0. If it did not exist, a binomial Probit Model (without bias) could be used.

Regarding gender differences, we have used the GGGI, introduced by the World Economic Forum in 2006. The GGGI captures the magnitude and scope of gender-based disparities and tracks their progress. The Index benchmarks national gender gaps on economic

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\(^9\) Job satisfaction can be sensitive to specific cut-off points, but our results were robust after rerunning our analysis contrasting “rarely” and “never” satisfied to more satisfied (not shown).

\(^10\) The cross-national weights make an adjustment to post-stratification weights to ensure that each country is represented in proportion to the size of its in-work population. Population size adjustments are based on the most recent population figures published by Eurostat or the local statistical office (6th European Working Conditions Survey Weighting report, Eurofond, 2015).

\(^11\) Some of these variables should not be related to job satisfaction. In our case we have included the possibility of having 2 and 3 children or more. These variables are not significant when explaining job satisfaction and have been used in other works to identify the existence of self-selection bias (Clark 2007).
Table 1  Job satisfaction by gender and Gender gap

| Observations | Job satisfaction | Gender Gap Index |
|--------------|------------------|------------------|
|              | Total | Female | Male | Global | Economic and Opportunity | Political |
| Austria      | 795   | 0.76   | 0.76 | 0.76  | 0.73   | 0.71 | 0.25 |
| Belgium      | 2387  | 0.85   | 0.86 | 0.85  | 0.75   | 0.76 | 0.28 |
| Cyprus       | 573   | 0.67   | 0.68 | 0.67  | 0.67   | 0.64 | 0.07 |
| Estonia      | 799   | 0.80   | 0.83 | 0.74  | 0.75   | 0.71 | 0.31 |
| Finland      | 934   | 0.82   | 0.85 | 0.80  | 0.85   | 0.82 | 0.61 |
| France       | 1336  | 0.76   | 0.77 | 0.76  | 0.76   | 0.70 | 0.37 |
| Germany      | 1583  | 0.60   | 0.58 | 0.62  | 0.78   | 0.74 | 0.41 |
| Greece       | 694   | 0.63   | 0.61 | 0.65  | 0.69   | 0.64 | 0.12 |
| Ireland      | 772   | 0.85   | 0.88 | 0.83  | 0.81   | 0.78 | 0.47 |
| Italy        | 910   | 0.66   | 0.66 | 0.65  | 0.73   | 0.60 | 0.33 |
| Latvia       | 663   | 0.66   | 0.65 | 0.67  | 0.75   | 0.78 | 0.25 |
| Lithuania    | 790   | 0.76   | 0.77 | 0.75  | 0.74   | 0.76 | 0.23 |
| Luxembourg   | 808   | 0.73   | 0.71 | 0.75  | 0.74   | 0.77 | 0.21 |
| Malta        | 679   | 0.82   | 0.85 | 0.80  | 0.67   | 0.57 | 0.13 |
| Netherlands  | 838   | 0.86   | 0.88 | 0.84  | 0.78   | 0.73 | 0.40 |
| Portugal     | 610   | 0.66   | 0.65 | 0.67  | 0.73   | 0.71 | 0.24 |
| Slovakia     | 701   | 0.55   | 0.56 | 0.52  | 0.68   | 0.64 | 0.09 |
| Slovenia     | 1296  | 0.66   | 0.68 | 0.65  | 0.78   | 0.78 | 0.39 |
| Spain        | 2540  | 0.67   | 0.67 | 0.68  | 0.74   | 0.67 | 0.33 |
| Total        | 19,305| 0.72   | 0.72 | 0.71  | 0.72   | 0.72 | 0.71 |

The educational and health criteria have not been included as the differences between countries are practically inexistent.

4 Results

Table 1 shows the average satisfaction of men and women, the GGGI, and those related to the economic and opportunity and the political criteria, as well as the number of observations in each group. On average women experience higher job satisfaction than men, though the difference is small (women’s job satisfaction is 0.72 and that of men 0.71). This result, however, is not observed in all the countries (in 7 of the 19 countries women’s job satisfaction is lower than that of men). It can also be verified that there is a positive

12 The GGGI is highly correlated (0.778) to the Gender Equality Index, elaborated by the European Institute for Gender Equality, although the disaggregation of the former was more accurate for the purpose of the article, since it includes a specific section on economic participation and opportunity.
13 See www.weforum.org for the construction of the index.
Table 2  Estimation Results on Job Satisfaction (Probit. Marginal effects)

| Variable          | Total                  | Female             | Male              |
|-------------------|------------------------|--------------------|-------------------|
|                   | Marginal effects | $P > Z$ | Marginal effects | $P > Z$ | Marginal effects | $P > Z$ |
| Female < 30       | 0.03                  | 0.00               |                   |        |
| 30–40             | 0.00                  | 0.96               | -0.01             | 0.66    | 0.01             | 0.76    |
| 40–50             | 0.02                  | 0.07               | 0.01              | 0.28    | 0.03             | 0.11    |
| 50–60             | 0.02                  | 0.20               | 0.01              | 0.54    | 0.03             | 0.16    |
| 60–75             | 0.07                  | 0.00               | 0.07              | 0.01    | 0.07             | 0.02    |
| Healthok          |                       |                    |                   |        |
| Healthbad         | -0.01                 | 0.80               | -0.02             | 0.50    | 0.01             | 0.75    |
| Healthgood        | 0.12                  | 0.00               | 0.11              | 0.00    | 0.13             | 0.00    |
| Educ1             |                       |                    |                   |        |
| Educ2             | 0.03                  | 0.14               | 0.03              | 0.11    | 0.03             | 0.27    |
| Educ3             | 0.05                  | 0.01               | 0.06              | 0.00    | 0.04             | 0.11    |
| Educ4             | 0.04                  | 0.12               | 0.01              | 0.75    | 0.07             | 0.03    |
| Educ5             | 0.04                  | 0.26               | 0.01              | 0.73    | 0.07             | 0.10    |
| Partner           | -0.01                 | 0.50               | 0.00              | 0.71    | -0.01            | 0.57    |
| Children          | 0.03                  | 0.00               | 0.03              | 0.00    | 0.02             | 0.09    |
| Childminor2       | -0.09                 | 0.00               | -0.10             | 0.00    | -0.08            | 0.00    |
| Childminor3       |                       |                    |                   |        |
| Conciliate        | -0.01                 | 0.60               | -0.03             | 0.04    | 0.02             | 0.26    |
| House income      |                       |                    |                   |        |
| Immigrant         |                       |                    |                   |        |
| Occupation 1      |                       |                    |                   |        |
| Occupation 2      | 0.06                  | 0.01               | 0.08              | 0.01    | 0.04             | 0.18    |
| Occupation 3      | 0.01                  | 0.46               | 0.00              | 0.86    | 0.03             | 0.25    |
| Occupation 4      | -0.06                 | 0.00               | -0.06             | 0.02    | -0.07            | 0.02    |
| Occupation 5      | 0.00                  | 0.82               | -0.02             | 0.24    | 0.00             | 0.86    |
| Occupation 6      | 0.01                  | 0.83               | -0.10             | 0.01    | 0.06             | 0.06    |
| Occupation 7      | 0.00                  | 0.90               | -0.04             | 0.10    | 0.01             | 0.48    |
| Occupation 8      | -0.06                 | 0.00               | -0.12             | 0.00    | -0.04            | 0.03    |
| Occupation 9      | -0.09                 | 0.00               | -0.12             | 0.00    | -0.07            | 0.01    |
| Emp = 0           |                       |                    |                   |        |
| 2 > Emp > 9       | 0.02                  | 0.08               | 0.03              | 0.03    | 0.01             | 0.49    |
| 10 > Emp < 249    | 0.00                  | 0.86               | 0.00              | 0.73    | 0.00             | 0.87    |
| Emp > 250         | -0.02                 | 0.11               | -0.04             | 0.01    | 0.00             | 0.84    |
| Ln wage           | 0.00                  | 0.24               | 0.00              | 0.01    | 0.00             | 0.93    |
| Seniority         | 0.00                  | 0.96               | 0.00              | 0.59    | 0.00             | 0.87    |
| Hours             | 0.00                  | 0.29               | 0.00              | 0.89    | 0.00             | 0.15    |
| Underunemployed   | 0.00                  | 0.66               | 0.01              | 0.36    | -0.01            | 0.50    |
| Okskill           |                       |                    |                   |        |
| Overskill         | 0.00                  | 0.84               | 0.00              | 0.88    | 0.00             | 0.81    |
| Underskill        | 0.03                  | 0.02               | 0.03              | 0.16    | 0.03             | 0.01    |
| Self-employed     | -0.09                 | 0.00               | -0.07             | 0.00    | 0.11             | 0.00    |
How Gender-Based Disparities affect Women’s Job Satisfaction?

The relationship between the GGGI and women’s job satisfaction. In those countries where the gap between men and women is smaller, women’s job satisfaction is higher.

In Table 2 estimates have been made, including total job satisfaction as a dependent variable and considering the whole sample. The results are obtained both before and after correction for the sample-selection bias. The results allow us to examine whether the hypothesis of the existence of bias (only the most satisfied women will participate in the labour market) could be affecting the coefficient of the variable female. The results of the estimate that considers the existence of bias does not alter the statistical significance of the variable female (see Table 5 to see the results with sample selection correction).\(^{14}\)

As can be observed, the coefficient female is positive and significant, which means that women are more likely to be satisfied at work than men, as pointed by (1997), Sloane and Williams (2000), Long (2005), Souza-Poza and Sousa-Poza (2000 and 2007), Hauret and

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\(^{14}\) The coefficient of the variable female and those of the rest of the variables show little change.
Williams (2017) and Sánchez-Sánchez and Fernández (2019). In the whole sample, women have a 3 percent higher probability of being satisfied at work than their male colleagues.

Regarding the variables corresponding to countries, it should be noted that all are statistically significant except Netherlands. The coefficients are negative, as the reference country is Belgium, where job satisfaction is very high.

The results of the estimates are shown below, considering the disaggregation of countries under the GGGI criterion. The countries have been divided into three different groups: those with low discrimination (Group 1), medium discrimination (Group 2) and higher discrimination (Group 3) in the Euro-Area framework. Initially, the grouping was carried out according to the GGGI, and later according to the economic, opportunity and political criteria. This disaggregation helps us test our third explanation, the existence of adaptive expectations. Table 3 shows the set of countries included in each group and the coefficients of the variable female in the estimates both with, and without, sample selection correction. The complete results can be seen in appendix Tables 7 and 8.

In the GGGI grouping, the coefficient of the variable female is higher in those countries with lower levels of discrimination, followed by those with medium discrimination and those with greater discrimination. In Group 1 the probability of women being more satisfied at work is 5 per cent higher than that of men, and in Group 2 this probability is 3 per cent. In the latter group, in which the situation of women is more unfavourable to that of men, the coefficient of the variable female is 0 and not significant. Therefore, the hypothesis of adaptive expectations, by which individuals would internalize the difficulties they face and, ceteris paribus, experience greater satisfaction than their counterparts, in this case men, is not corroborated. It is possible that an unequal and discriminatory environment will cause the opposite effect: women experiencing lower job satisfaction, given the existence of a reference group, men, who enjoy superior conditions, as pointed out by Luo (2016).

Regarding the results of the economic and opportunity GGI, the results are similar. In countries where greater economic equality between men and women is observed, the probability of increased female job satisfaction is higher. Both in Group 1 and 2 the coefficients are similar to that of the GGGI. Again, in Group 3, the coefficient of the variable female, although superior to 0, is not significant. It is also interesting to note that the impact of the variable female is statistically higher in this grouping than in the global one, especially in Group 1, which could give greater validity to the latter criteria. It could be logical since the variables included in this index (female participation in the labour force, wage equality, estimated earned income, female legislators, senior officials and managers and female professional and technical workers) are more closely related to the labour market and, thus, to job satisfaction.

The grouping of countries corresponding to the politics GGI coincides with those of the GGGI and consequently the results are the same, since the grouping of countries is the same.

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15 The decision to separate the countries into three groups was initially made through the study of the dispersion of the GGGI data. Subsequently, a contrast of means was carried out, considering the different sample sizes of the countries, to observe if the differences were significant. The analysis showed that the consideration of three groups was the most efficient.
Table 3  Estimation Results on Job Satisfaction

| Global Gender Gap index / Political Empowerment | Marginal effects (P > Z) | Economic Participation and Opportunity | Marginal effects (P > Z) |
|-----------------------------------------------|-------------------------|--------------------------------------|-------------------------|
|                                                | Sample selection correction | Groups 1 (0.78 < GGGI < 0.85) (0.61 < PGGI < 0.47) Finland, Ireland, Slovenia, Netherlands, Germany | SSC 0.05 (0.03) | Group 1 (0.78 < EGGI < 0.82) Finland, Ireland, Slovenia, Latvia | SSC 0.05 (0.00) |
|                                                |                          | Group 1 (0.64 < EGGI < 0.78) Austria, Belgium, Estonia, France, Germany, Lithuania, Netherlands, Luxembourg, Portugal | SSC 0.04 (0.00) | Group 2 (0.64 < EGGI < 0.78) Austria, Belgium, Estonia, France, Germany, Lithuania, Netherlands, Luxembourg, Portugal | SSC 0.03 (0.00) |
|                                                |                          | Group 3 (0.57 < EGGI < 0.64) Cyprus, Greece, Malta, Slovakia, Italy, Spain | NSSC 0.00 (0.82) | Group 3 (0.57 < EGGI < 0.64) Cyprus, Greece, Malta, Slovakia, Italy, Spain | NSSC 0.02 (0.16) |
|                                                |                          | Group 3 (0.57 < EGGI < 0.64) Cyprus, Greece, Malta, Slovakia, Italy, Spain | NSSC 0.00 (0.82) | Group 3 (0.57 < EGGI < 0.64) Cyprus, Greece, Malta, Slovakia, Italy, Spain | NSSC 0.02 (0.16) |

Note: GGGI = Global Gender Gap Index, PGGI = Political Empowerment Gap Index, EGGI = Economic Participation Gap Index.
It is noteworthy that coefficients corresponding to the countries in most of the cases are smaller when we separate them according to the GGGI criteria, which validates our classification. In any case, the impact of these variables continues to be very high, which implies that information regarding countries not included in our analysis remains that explain some of the differences in job satisfaction. Comparisons of other geographical contexts, or using different criteria, would be of interest.

We will now refer to the rest of the variables, which will allow us, in turn, to infer some results relative to the rest of the explanations raised in the theoretical section.

The second possibility to explain women’s higher job satisfaction focuses on the idea that women will include within their work utility function other aspects of personal and family life to a greater extent than men (Kanter 1977). To consider this hypothesis, those variables associated with personal life and the possibility of work-life balance should be included in the analysis. Failure to include these variables in the analysis may bias the coefficient for female.

Regarding the variables related to family, having a partner does not have a significant impact on job satisfaction. The variable partner is not significant for either men and women. Thus, the thesis of Clark (1997) and Carleton and Clain (2012) that argued that marital status increased women’s job satisfaction is not supported.

However, workers with children are 3 percent more likely to be satisfied than those without children. By gender, having children does affect women’s job satisfaction more positively than that of men (the coefficient is higher and its statistical significance higher). This result would support the thesis of Borra et al. (2007) and Sloane and Williams (2000), who point out that this variable will have a greater impact on women than on men.

Likewise, the variable linked to the difficulty to balance personal life and work has a negative and significant impact on the probability of job satisfaction. In fact, people with difficulties reconciling personal life and work are 9 percent less likely to be satisfied at work than those who do not. The reduction in the probability of being satisfied is greater for women than for men (10 percent versus 8 percent).

Finally, not having financial difficulties at home increases the possibility of job satisfaction by 8 percent. The impact is the same for both men and women.

In any case, it must be pointed out that consideration of this group of variables does not cause the coefficient of the variable female to be non-significant, as suggested in the theoretical section.

Regarding age, individuals aged between 60 and 75 years are significantly more satisfied than other age groups. In fact, the possibility of being satisfied at work is 7 percent higher than for individuals under 30 years of age (reference group). Intuitively, it seems logical that greater willingness to participate in the labour market exists among this group, as supported by the economic literature (Clark and Oswald 1996).

The variables associated with age groups are still not significant for either men and women, except in the case of those over 60 years of age, where the coefficient is positive and significant. Therefore, it is not verified that differences in job satisfaction in the case of younger women were reduced, as pointed out by Clark (1997) and Donohue and Heywood

16 We have considered retirement age differences in the different countries and we have performed a robustness check excluding all individuals above 55. Our results are robust by gender and by countries.
How Gender-Based Disparities affect Women's Job Satisfaction? (2004). If this were so, and considering that the variable omitted is the group under 30 years of age, the remaining variables should have a positive and significant impact on female job satisfaction.

Workers with higher educational attainment display higher probability of job satisfaction than those who have only completed primary education (reference category), though the statistical significance is very low, with the exception of those workers with post-secondary and not-tertiary education and short-cycle tertiary education. By gender, in the case of men, holding a Bachelor’s degree, or equivalent, increases the probability of job satisfaction. In the case of women, however, the coefficients are not significant, other than for women with post-secondary, non-tertiary education, and short-cycle tertiary education.

Again, higher educational levels are not shown to balance the job satisfaction levels of men and women. This result had already been highlighted by Bender and Heywood (2006) and Sánchez-Sánchez and Fernández (2019) who pointed out that, even considering the younger population groups and higher educational levels, women are more likely to be satisfied at work than their male colleagues.

As self-reported health status ameliorates, so does the probability of job satisfaction, as reported by Ahn and Garcia (2004). Thus, individuals who consider their health to be bad or very bad, are less likely to be satisfied than those who have fair, good and very good health, respectively.

Regarding occupations, professionals are more likely to be satisfied with their job (6 percent above managers). Plant and machine operators and assemblers and the elementary occupations are least likely to be satisfied (6 percent below managers).

Working in the public sector has a positive and significant influence on job satisfaction (3 percent above those working in the private sector), as pointed out by Demoussis and Giannakopoulos (2007), De Santis and Durst (1996), Maidani (1991), Sánchez-Sánchez and Fernández (2020), and Steel and Warner (1990). It is noteworthy that this coefficient is only significant for women, as pointed out by Sánchez-Sánchez and Fernández (2020). This result could be intuitively justified by the greater possibilities for reconciling work with personal life in the public sector. Given that women in many countries are still the ones who predominantly take care of children and dependents, the impact of this variable should intuitively be greater on female job satisfaction. Additionally, wage gap and segregation bias in the public sector are usually lower than in the private sector.

Having a temporary contract has a negative impact on job satisfaction, though the coefficient is not significant. These results contrast with those obtained in the literature (Booth et al. 2002; Letourneux 1998). In the case of workers with part-time contracts, a negative impact on job satisfaction is observed, as noted by Kifle et al. (2019). The explanation could be that individuals who have a part-time job do not do so voluntarily, but forced by the impossibility of getting a full-time job. In any case, the variable that we had created to capture the desire of individuals to work longer hours is not significant.

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17 In previous studies, the interactions between higher educational levels, younger age groups and the variable female have been studied, and the positive impact of the variable female on job satisfaction continues to be observed.

18 It is quite possible that the results are partly biased due to the presence of other variables that reflect more accurately the effect of job insecurity.

19 The effect of this variable is probably captured by part-time contracts.
What happens with all these coefficients when we analyse the differences by groups of countries? The results differ considerably, especially when we consider Group 3 according to the GGGI (this grouping excludes Spain and Italy). Thus, none of the age cohorts are significant. In fact, the cohort of those over 60 does not appear to be significantly more satisfied. With regards education, all educational levels seem to increase job satisfaction compared to workers with only primary education. Lately, the variable associated with having a partner also differs with respect to the rest of the groups. Thus, workers with a partner have a lower probability of being satisfied than the rest of workers. The interpretation of these results can only be conjecture, though it validates in a way our criterion of disaggregation and encourages us to delve into other characteristics of this group that could justify the differences in job satisfaction, other than those related to gender issues.

5 Conclusions

This study analyses the paradox of female contented worker in the Euro-Area through the EWCS (2015). The article attempts to verify whether, in fact, women’s job satisfaction is higher than that of men and whether women’s perception of their work is altered by geographical context. The article, thus, proposes a grouping of countries based on the World Economic Forum GGGI.

We begin with a descriptive analysis, followed by econometric estimations using a Probit model (marginal effects) including worker and job characteristics. The descriptive analysis shows aggregated job satisfaction reported by female workers to be higher than that of men. However, this characteristic is not observed in all countries. In fact, in only 12 of the 19 European countries was women’s job satisfaction higher.

At an aggregated level, econometric estimates show that women have a higher probability of job satisfaction than their male colleagues, which endorses the paradox of the female contented worker. The economic literature offers three different explanations for this difference: (i) the existence of a selection bias when participating in the labour market; (ii) differences related to gender and activities that have traditionally been performed by men and women, different to strictly labour issues; and (iii) adaptive job satisfaction which results in lower expectations.

The existence of a selection bias has been tested through Heckman’s two-stage estimation model. The coefficient of the variable female, once the sample selection bias has been corrected, remains positive and significant, so the results do not support the self-selection explanation of the gender job satisfaction differential. Additionally, variables associated with age cohorts and educational levels are included in our estimates and the variable female remains positive and statistically significant. Therefore, there does not seem to be an equalization of women’s job satisfaction as higher educational levels and lower age groups are considered.
Regarding the second explanation, variables related to personal life (having a partner, children, difficulties to balance personal and work life) have been introduced into our estimates. Having a partner does not alter the probability of being satisfied at work for men or women, but having children does have a positive effect on job satisfaction. The difficulties in reconciling personal life and work reduce the probability of job satisfaction for both men and women. The reduction is greater for women. In any case, consideration of this type of variable does not cause the coefficient of the variable female to cease to be significant.

Finally, to test the third explanation a grouping of countries based on the GGGI is proposed. Our results demonstrate that in the group of countries where the situation of women is more unfavourable to that of men, the probability of female workers reporting higher satisfaction is lower. Therefore, the hypothesis of adaptive expectations is not corroborated. Living in an environment with greater discrimination does not seem to cause women to have lower expectations and higher relative job satisfaction. It is possible, that an unequal and discriminatory environment will cause the opposite effect, that is, women experiencing lower job satisfaction, given the existence of a reference group, men, who enjoy superior conditions.

From the policy implications perspective, our analysis reveals the importance of studying macro variables related to the labour market when identifying the determinants of job satisfaction, and not exclusively those linked to the worker position. In fact, labour market discrimination is observed to lower workers’ perception of their own job.

Finally, regarding the limitations of the analysis, the survey does not allow for studying individual fixed effects as it is not a panel. Likewise, and considering the impact of the coefficients corresponding to the countries, it is clear that other groupings could be made in Europe that would enrich the analysis and explain differences in female employees’ job satisfaction.

Appendix

See Tables 4, 5, 6, 7, and 8
### Table 4  Descriptive statistics

| Variable                        | Definition                                                                 | Measure                  | Total        | Female       | Male         |
|---------------------------------|-----------------------------------------------------------------------------|--------------------------|--------------|--------------|--------------|
|                                 |                                                                             |                          | Mean | Std. Dev | Mean | Std. Dev | Mean | Std. Dev |
| Job satisfaction                | Subjective job satisfaction                                                | Dummy 0/1               | 0.73 | 0.44     | 0.73 | 0.45     | 0.72 | 0.45     |
| Male                            | If individual is male                                                       | Dummy 0/1               | 0.49 | 0.49     | 0.00 | 0.00     | 1.00 | 0.00     |
| Female                          | If individual is female                                                     | Dummy 0/1               | 0.51 | 0.50     | 1.00 | 0.00     | 0.00 | 0.00     |
| < 30                            | Age ≤ 30                                                                    | Dummy 0/1               | 0.17 | 0.38     | 0.17 | 0.37     | 0.17 | 0.38     |
| 30–40                           | 30 < Age ≤ 40                                                               | Dummy 0/1               | 0.25 | 0.44     | 0.25 | 0.43     | 0.25 | 0.43     |
| 40–50                           | 40 < Age ≤ 50                                                               | Dummy 0/1               | 0.28 | 0.45     | 0.28 | 0.45     | 0.27 | 0.44     |
| 50–60                           | 50 < age ≤ 60                                                               | Dummy 0/1               | 0.24 | 0.43     | 0.25 | 0.43     | 0.24 | 0.43     |
| 60–75                           | 60 < age ≤ 75                                                               | Dummy 0/1               | 0.05 | 0.23     | 0.06 | 0.23     | 0.07 | 0.26     |
| Healthbad                       | If individual perceived health is bad or very bad                           | Dummy 0/1               | 0.02 | 0.16     | 0.03 | 0.17     | 0.02 | 0.15     |
| Healthok                        | If individual perceived health is fair                                      | Dummy 0/1               | 0.20 | 0.40     | 0.97 | 0.17     | 0.98 | 0.15     |
| Healthgood                      | If individual perceived health is good or very good                         | Dummy 0/1               | 0.61 | 0.48     | 0.00 | 0.00     | 0.00 | 0.00     |
| Educ1                           | Early childhood education and primary education                             | Dummy 0/1               | 0.04 | 0.20     | 0.04 | 0.20     | 0.05 | 0.22     |
| Educ2                           | Lower and upper secondary education                                         | Dummy 0/1               | 0.50 | 0.50     | 0.48 | 0.50     | 0.55 | 0.50     |
| Educ3                           | Post-secundary non-tertiary education and short-cycle tertiary education    | Dummy 0/1               | 0.21 | 0.41     | 0.23 | 0.42     | 0.19 | 0.39     |
| Educ4                           | Bachelor or equivalent                                                      | Dummy 0/1               | 0.13 | 0.33     | 0.14 | 0.35     | 0.11 | 0.31     |
| Educ5                           | Master, doctorate or equivalent                                             | Dummy 0/1               | 0.11 | 0.32     | 0.11 | 0.31     | 0.10 | 0.30     |
| Partner                         | If the individual is married or cohabiting                                  | Dummy 0/1               | 0.66 | 0.47     | 0.63 | 0.48     | 0.66 | 0.47     |
| Children                        | If the individual has children                                              | Dummy 0/1               | 0.49 | 0.50     | 0.52 | 0.50     | 0.44 | 0.50     |
| childminor2                     | If the individual has 1 or 2 children                                       | Dummy 0/1               | 0.23 | 0.42     | 0.32 | 0.47     | 0.28 | 0.45     |
| childminor3                     | If the individual has 3 or more children                                    | Dummy 0/1               | 0.03 | 0.16     | 0.04 | 0.19     | 0.04 | 0.19     |
| Conciliate                      | Difficulty reconciling personal and work life                               | Dummy 0/1               | 0.12 | 0.33     | 0.12 | 0.32     | 0.12 | 0.33     |
| House income                    | The household has not financial difficulties                                | Dummy 0/1               | 0.61 | 0.49     | 0.58 | 0.49     | 0.62 | 0.49     |
| Immigrant                       | If individual is an immigrant                                              | Dummy 0/1               | 0.10 | 0.30     | 0.10 | 0.30     | 0.10 | 0.30     |
How Gender-Based Disparities affect Women’s Job Satisfaction?

| Variable | Definition | Measure | Total | Female | Male |
|----------|------------|---------|-------|--------|------|
|          |            | Mean    | Std. Dev | Mean    | Std. Dev | Mean    | Std. Dev |
| Occupation 1 | Managers | Dummy 0/1 | 0.06 | 0.25 | 0.05 | 0.21 | 0.08 | 0.27 |
| Occupation 2 | Professionals | Dummy 0/1 | 0.20 | 0.40 | 0.22 | 0.42 | 0.15 | 0.35 |
| Occupation 3 | Technicians and associate professionals | Dummy 0/1 | 0.13 | 0.34 | 0.12 | 0.33 | 0.12 | 0.33 |
| Occupation 4 | Clerical support workers | Dummy 0/1 | 0.11 | 0.31 | 0.13 | 0.34 | 0.07 | 0.25 |
| Occupation 5 | Service and sales workers | Dummy 0/1 | 0.20 | 0.40 | 0.28 | 0.45 | 0.14 | 0.35 |
| Occupation 6 | Skilled agricultural, forestry and fishery workers | Dummy 0/1 | 0.02 | 0.14 | 0.02 | 0.12 | 0.04 | 0.19 |
| Occupation 7 | Craft and related trades workers | Dummy 0/1 | 0.11 | 0.32 | 0.03 | 0.17 | 0.20 | 0.40 |
| Occupation 8 | Plant and machine operators and assemblers | Dummy 0/1 | 0.07 | 0.25 | 0.02 | 0.15 | 0.11 | 0.31 |
| Occupation 9 | Elementary occupations | Dummy 0/1 | 0.10 | 0.29 | 0.13 | 0.34 | 0.08 | 0.27 |
| Emp=0 | No employees | Dummy 0/1 | 0.10 | 0.30 | 0.11 | 0.31 | 0.11 | 0.31 |
| 2>Emp>9 | 2 < Firm size (employees) < 9 | Dummy 0/1 | 0.21 | 0.40 | 0.21 | 0.41 | 0.23 | 0.42 |
| 10>Emp<249 | 10 < Firm size (employees) < 249 | Dummy 0/1 | 0.37 | 0.48 | 0.36 | 0.48 | 0.34 | 0.47 |
| Emp>250 | Firm size (employees) > 250 | Dummy 0/1 | 0.31 | 0.46 | 0.28 | 0.45 | 0.29 | 0.45 |
| Ln wage | Ln (monthly wage) | Ln (Wage) | 9.57 | 4.79 | 9.25 | 4.73 | 9.92 | 4.84 |
| Seniority | Years worked | Years | 10.96 | 10.94 | 10.31 | 9.86 | 11.64 | 10.79 |
| Hours | Hours worked (per week) | Hours | 37.66 | 34.41 | 40.46 | 11.44 |
| Underemployed | If individual would like to work longer hours | Dummy 0/1 | 0.15 | 0.35 | 0.19 | 0.40 | 0.17 | 0.37 |
| Okskill | If individual has the skills to perform his job | Dummy 0/1 | 0.46 | 0.50 | 0.59 | 0.49 | 0.57 | 0.50 |
| Overskill | If individual needs more skills to perform his job | Dummy 0/1 | 0.27 | 0.44 | 0.26 | 0.44 | 0.29 | 0.45 |
| Underskill | If individual needs less skills to perform his job | Dummy 0/1 | 0.15 | 0.36 | 0.15 | 0.35 | 0.14 | 0.35 |
| Self-employed | Self-employed | Dummy 0/1 | 0.86 | 0.35 | 0.32 | 0.47 | 0.22 | 0.41 |
| Public | If individual works in public sector | Dummy 0/1 | 0.28 | 0.45 | 0.30 | 0.46 | 0.12 | 0.32 |
| Part-time | If individual holds part-time job | Dummy 0/1 | 0.19 | 0.40 | 0.13 | 0.33 | 0.11 | 0.32 |
| Temporary | If individual holds temporal contract | Dummy 0/1 | 0.12 | 0.32 | 0.88 | 0.32 | 0.80 | 0.40 |
| Variable        | Definition                                           | Measure     | Total Mean | Total Std. Dev | Female Mean | Female Std. Dev | Male Mean | Male Std. Dev |
|-----------------|------------------------------------------------------|-------------|------------|----------------|--------------|-----------------|-----------|---------------|
| Genemployment   | If the enterprise in generating employment           | Dummy 0/1  | 0.76       | 0.43           | 0.77         | 0.42            | 0.76      | 0.43          |
| Austria         | If individual is from Austria                       | Dummy 0/1  | 0.04       | 0.20           | 0.10         | 0.30            | 0.10      | 0.30          |
| Belgium         | If individual is from Belgium                       | Dummy 0/1  | 0.10       | 0.30           | 0.04         | 0.19            | 0.04      | 0.19          |
| Cyprus          | If individual is from Cyprus                        | Dummy 0/1  | 0.03       | 0.17           | 0.04         | 0.20            | 0.03      | 0.18          |
| Estonia         | If individual is from Estonia                       | Dummy 0/1  | 0.04       | 0.20           | 0.06         | 0.24            | 0.06      | 0.23          |
| Finland         | If individual is from Finland                       | Dummy 0/1  | 0.05       | 0.21           | 0.08         | 0.26            | 0.08      | 0.27          |
| France          | If individual is from France                        | Dummy 0/1  | 0.07       | 0.25           | 0.05         | 0.21            | 0.03      | 0.18          |
| Germany         | If individual is from Germany                       | Dummy 0/1  | 0.08       | 0.27           | 0.03         | 0.18            | 0.05      | 0.21          |
| Greece          | If individual is from Greece                        | Dummy 0/1  | 0.04       | 0.19           | 0.13         | 0.34            | 0.14      | 0.35          |
| Ireland         | If individual is from Ireland                       | Dummy 0/1  | 0.04       | 0.20           | 0.06         | 0.24            | 0.06      | 0.24          |
| Italy           | If individual is from Italy                         | Dummy 0/1  | 0.05       | 0.21           | 0.04         | 0.19            | 0.05      | 0.21          |
| Latvia          | If individual is from Latvia                        | Dummy 0/1  | 0.03       | 0.18           | 0.05         | 0.22            | 0.06      | 0.23          |
| Lithuania       | If individual is from Lithuania                     | Dummy 0/1  | 0.04       | 0.20           | 0.04         | 0.19            | 0.04      | 0.20          |
| Luxembourg      | If individual is from Luxembourg                    | Dummy 0/1  | 0.04       | 0.20           | 0.04         | 0.20            | 0.03      | 0.18          |
| Malta           | If individual is from Malta                         | Dummy 0/1  | 0.04       | 0.18           | 0.05         | 0.21            | 0.03      | 0.18          |
| Netherlands     | If individual is from Netherlands                   | Dummy 0/1  | 0.04       | 0.20           | 0.04         | 0.19            | 0.04      | 0.20          |
| Portugal        | If individual is from Portugal                      | Dummy 0/1  | 0.03       | 0.17           | 0.04         | 0.20            | 0.03      | 0.18          |
| Slovakia        | If individual is from Slovakia                      | Dummy 0/1  | 0.04       | 0.19           | 0.03         | 0.18            | 0.05      | 0.22          |
| Slovenia        | If individual is from Slovenia                      | Dummy 0/1  | 0.07       | 0.25           | 0.04         | 0.19            | 0.04      | 0.20          |
| Spain           | If individual is from Spain                         | Dummy 0/1  | 0.13       | 0.34           | 0.04         | 0.20            | 0.04      | 0.19          |
Table 5 The Global Gender Gap Index

**Economic Participation and Opportunity**

- Ratio: female labour force participation over male value
- Wage equality between women and men for similar work (converted to female-over-male ratio)
- Ratio: estimated female earned income over male value
- Ratio: female legislators, senior officials and managers over male value
- Ratio: female professional and technical workers over male value

**Educational Attainment**

- Ratio: female literacy rate over male value
- Ratio: female net primary level enrolment over male value
- Ratio: female net secondary level enrolment over male value
- Ratio: female gross tertiary level enrolment over male value

**Health and Survival**

- Sex ratio at birth (converted to female-over-male ratio)
- Health and Survival Sex ratio at birth (converted to female-over-male ratio)
- Ratio: female healthy life expectancy over male value

**Political Empowerment**

- Ratio: females with seats in parliament over male value
- Ratio: females at ministerial level over male value
- Ratio: number of years of a female head of state or government (last 50 years) over male value

Source: World Economic Forum
Table 6  Estimation Results on Job Satisfaction (Probit, Marginal effects)

| Variable          | Total                                      | Female                  | Male         |
|-------------------|--------------------------------------------|-------------------------|--------------|
|                   | Marginal effects | $P > Z$ | Marginal effects | $P > Z$ | Marginal effects | $P > Z$ |
| Female            | 0.03           | 0.00    | 0.00                   | 0.00 | 0.00 | 0.00 |
| < 30 (reference categorie) |                    |                      |             |            |               |        |
| 30–40             | 0.97           | 0.065    | 0.00                   | 0.065 | 0.00 | 0.065 |
| 40–50             | 0.09           | 0.28     | 0.03                   | 0.28 | 0.03 | 0.28 |
| 50–60             | 0.28           | 0.55     | 0.03                   | 0.55 | 0.03 | 0.55 |
| 60–75             | 0.07           | 0.01     | 0.08                   | 0.01 | 0.08 | 0.01 |
| Healthbad         | 0.79           | 0.50     | 0.01                   | 0.50 | 0.01 | 0.50 |
| Healthgood        | 0.00           | 0.15     | 0.00                   | 0.15 | 0.00 | 0.15 |
| Educ1 (reference categorie) |                    |                      |             |            |               |        |
| Educ2             | 0.09           | 0.58     | 0.08                   | 0.58 | 0.08 | 0.58 |
| Educ3             | 0.01           | 0.40     | 0.12                   | 0.40 | 0.12 | 0.40 |
| Educ4             | 0.01           | 0.94     | 0.15                   | 0.94 | 0.15 | 0.94 |
| Educ5             | 0.12           | 0.90     | 0.15                   | 0.90 | 0.15 | 0.90 |
| Partner           | 0.25           | 0.72     | 0.02                   | 0.72 | 0.02 | 0.72 |
| Children          | 0.03           | 0.00     | 0.03                   | 0.03 | 0.03 | 0.03 |
| childminor2       | 0.24           | 0.97     | 0.02                   | 0.97 | 0.02 | 0.97 |
| childminor3       | 0.24           | 0.97     | 0.02                   | 0.97 | 0.02 | 0.97 |
| Conciliate        | 0.00           | 0.00     | 0.10                   | 0.00 | 0.10 | 0.00 |
| House income      | 0.09           | 0.09     | 0.09                   | 0.09 | 0.09 | 0.09 |
| Immigrant         | 0.64           | 0.05     | 0.02                   | 0.05 | 0.02 | 0.05 |
| Occupation 1 (reference categorie) |                    |                      |             |            |               |        |
| Occupation 2      | 0.01           | 0.01     | 0.05                   | 0.01 | 0.05 | 0.01 |
| Occupation 3      | 0.45           | 0.86     | 0.04                   | 0.86 | 0.04 | 0.86 |
| Occupation 4      | 0.00           | 0.02     | 0.08                   | 0.02 | 0.08 | 0.02 |
| Occupation 5      | 0.86           | 0.23     | 0.00                   | 0.23 | 0.00 | 0.23 |
| Occupation 6      | 0.84           | 0.01     | 0.07                   | 0.01 | 0.07 | 0.01 |
| Occupation 7      | 0.93           | 0.10     | 0.01                   | 0.10 | 0.01 | 0.10 |
| Occupation 8      | 0.00           | 0.00     | 0.05                   | 0.00 | 0.05 | 0.00 |
| Occupation 9      | 0.11           | 0.00     | 0.08                   | 0.00 | 0.08 | 0.00 |
| Emp = 0 (reference categorie) |                    |                      |             |            |               |        |
| 2 > Emp > 9       | 0.07           | 0.03     | 0.02                   | 0.03 | 0.02 | 0.03 |
| 10 > Emp < 249    | 0.01           | 0.72     | 0.00                   | 0.72 | 0.00 | 0.72 |
| Emp > 250         | 0.12           | 0.01     | 0.01                   | 0.01 | 0.01 | 0.01 |
| Ln wage           | 0.00           | 0.01     | 0.00                   | 0.01 | 0.00 | 0.01 |
| Seniority         | 0.95           | 0.58     | 0.00                   | 0.58 | 0.00 | 0.58 |
| Hours             | 0.30           | 0.89     | 0.00                   | 0.89 | 0.00 | 0.89 |
| Underunemployed   | 0.66           | 0.37     | 0.01                   | 0.37 | 0.01 | 0.37 |
| Okskill (reference categorie) |                    |                      |             |            |               |        |
| Overskill         | 0.84           | 0.88     | 0.00                   | 0.88 | 0.00 | 0.88 |
| Underskill        | 0.03           | 0.16     | 0.04                   | 0.16 | 0.04 | 0.16 |
### Table 6 (continued)

| Variable          | Total Marginal effects | $P > Z$ | Female Marginal effects | $P > Z$ | Male Marginal effects | $P > Z$ |
|-------------------|------------------------|---------|-------------------------|---------|-----------------------|---------|
| Self-employed     |                        |         |                         |         |                       |         |
| Public            | 0.04                   | 0.01    | 0.03                    | 0.01    | 0.03                  | 0.09    |
| Part-time         | −0.05                  | 0.00    | −0.04                   | 0.08    | −0.05                 | 0.05    |
| Temporary         | −0.02                  | 0.09    | −0.03                   | 0.06    | −0.02                 | 0.30    |
| Genemployment     | 0.04                   | 0.00    | 0.04                    | 0.01    | 0.04                  | 0.01    |
| Austria           | −0.11                  | 0.00    | −0.11                   | 0.00    | −0.10                 | 0.00    |
| Belgium (reference category) |          |         |                         |         |                       |         |
| Cyprus            | −0.25                  | 0.00    | −0.27                   | 0.00    | −0.23                 | 0.00    |
| Estonia           | −0.07                  | 0.00    | −0.06                   | 0.00    | −0.08                 | 0.00    |
| Finland           | −0.09                  | 0.00    | −0.05                   | 0.00    | −0.11                 | 0.00    |
| France            | −0.08                  | 0.00    | −0.07                   | 0.00    | −0.09                 | 0.00    |
| Germany           | −0.29                  | 0.00    | −0.33                   | 0.00    | −0.25                 | 0.00    |
| Greece            | −0.25                  | 0.00    | −0.28                   | 0.00    | −0.23                 | 0.00    |
| Ireland           | −0.05                  | 0.00    | 0.01                    | 0.09    | −0.10                 | 0.00    |
| Italy             | −0.20                  | 0.00    | −0.21                   | 0.00    | −0.15                 | 0.00    |
| Latvia            | −0.19                  | 0.00    | −0.20                   | 0.00    | −0.18                 | 0.00    |
| Lithuania         | −0.11                  | 0.00    | −0.12                   | 0.00    | −0.11                 | 0.00    |
| Luxembourg        | −0.19                  | 0.00    | −0.21                   | 0.00    | −0.18                 | 0.00    |
| Malta             | −0.07                  | 0.00    | −0.04                   | 0.00    | −0.09                 | 0.00    |
| Netherlands       | 0.00                   | 0.46    | 0.02                    | 0.00    | −0.03                 | 0.00    |
| Portugal          | −0.19                  | 0.00    | −0.17                   | 0.00    | −0.21                 | 0.00    |
| Slovakia          | −0.34                  | 0.00    | −0.32                   | 0.00    | −0.35                 | 0.00    |
| Slovenia          | −0.22                  | 0.00    | −0.24                   | 0.00    | −0.16                 | 0.00    |
| Spain             | −0.19                  | 0.00    | −0.19                   | 0.00    | −0.19                 | 0.00    |

Variances-covariance matrix estimated by cluster countries (the standard errors allow for intragroup correlation).
Table 7  Estimation Results on Job Satisfaction (grouping according to global gender gap index)

| Variable      | No Sample Selection correction | With Sample Selection (Heckman Two-Stage) correction |
|---------------|---------------------------------|---------------------------------------------------|
|               | Group 1  | Group 2  | Group 3  | Group 1  | Group 2  | Group 3  | Group 1  | Group 2  | Group 3  | Group 1  | Group 2  | Group 3  |
| Female < 30   | 0.04     | 0.03     | 0.03     | 0.00     | 0.01     | 0.82     | 0.05     | 0.03     | 0.03     | 0.00     | 0.00     | 0.82     |
| 30–40         | 0.00     | 0.88     | 0.01     | 0.55     | -0.02    | 0.54     | 0.00     | 0.79     | 0.01     | 0.55     | -0.03    | 0.53     |
| 40–50         | 0.03     | 0.16     | 0.03     | 0.11     | 0.01     | 0.39     | 0.04     | 0.19     | 0.03     | 0.11     | 0.01     | 0.39     |
| 50–60         | 0.05     | 0.11     | 0.02     | 0.35     | -0.01    | 0.85     | 0.06     | 0.08     | 0.02     | 0.39     | -0.01    | 0.82     |
| 60–75         | 0.07     | 0.03     | 0.08     | 0.01     | 0.01     | 0.87     | 0.08     | 0.00     | 0.08     | 0.00     | 0.01     | 0.85     |
| Healthok      |          |          |          |          |          |          |          |          |          |          |          |          |
| Healthbad     | -0.01    | 0.85     | -0.01    | 0.57     | 0.06     | 0.50     | -0.02    | 0.788    | -0.16    | 0.566    | 0.08     | 0.489    |
| Healthgood    | 0.14     | 0.00     | 0.11     | 0.00     | 0.11     | 0.00     | 0.18     | 0.00     | 0.13     | 0.00     | 0.14     | 0.00     |
| Educ1         |          |          |          |          |          |          |          |          |          |          |          |          |
| Educ2         | -0.04    | 0.25     | 0.03     | 0.21     | 0.07     | 0.04     | 0.15     | 0.23     | 0.05     | 0.11     | 0.09     | 0.05     |
| Educ3         | -0.02    | 0.72     | 0.04     | 0.08     | 0.15     | 0.00     | 0.25     | 0.01     | 0.07     | 0.03     | 0.19     | 0.00     |
| Educ4         | -0.04    | 0.18     | 0.03     | 0.38     | 0.14     | 0.00     | 0.23     | 0.02     | 0.06     | 0.20     | 0.19     | 0.01     |
| Educ5         | 0.01     | 0.83     | 0.00     | 1.00     | 0.16     | 0.00     | 0.27     | 0.00     | 0.03     | 0.58     | 0.20     | 0.00     |
| Partner       | 0.00     | 0.97     | 0.01     | 0.64     | -0.04    | 0.00     | -0.01    | 0.53     | 0.00     | 0.81     | -0.07    | 0.02     |
| Children      | 0.03     | 0.02     | 0.02     | 0.07     | 0.07     | 0.00     | 0.05     | 0.00     | 0.02     | 0.04     | 0.09     | 0.00     |
| childminor2   | -0.05    | 0.00     | -0.01    | 0.00     | -0.08    | 0.00     | -0.13    | 0.00     | -0.12    | 0.00     | -0.11    | 0.00     |
| childminor3   | -0.05    | 0.00     | 0.00     | 0.00     | 0.34     | 0.00     | 0.00     | 0.00     | 0.76     | 0.00     | 0.00     | 0.06     |
| Conciliate    | -0.09    | 0.00     | -0.10    | 0.00     | -0.08    | 0.00     | -0.13    | 0.00     | -0.12    | 0.00     | -0.11    | 0.00     |
| House income  |          |          |          |          |          |          |          |          |          |          |          |          |
| Immigrant     | -0.02    | 0.14     | -0.01    | 0.48     | 0.04     | 0.54     | -0.02    | 0.37     | -0.11    | 0.51     | 0.05     | 0.54     |
| Occupation 1  |          |          |          |          |          |          |          |          |          |          |          |          |
| Occupation 2  | 0.06     | 0.11     | 0.06     | 0.07     | 0.08     | 0.11     | 0.08     | 0.10     | 0.07     | 0.08     | 0.09     | 0.12     |
| Occupation 3  | 0.03     | 0.37     | 0.01     | 0.67     | -0.01    | 0.49     | 0.04     | 0.33     | 0.01     | 0.66     | -0.02    | 0.50     |
| Occupation 4  | -0.03    | 0.35     | -0.07    | 0.02     | -0.05    | 0.01     | -0.05    | 0.31     | -0.08    | 0.01     | -0.07    | 0.00     |
Table 7 (continued)

| Variable                  | No Sample Selection correction |                      | With Sample Selection (Heckman Two-Stage) correction |                      |
|---------------------------|--------------------------------|----------------------|------------------------------------------------------|----------------------|
|                           | Group 1                         | Group 2              | Group 3                                              | Group 1              | Group 2              | Group 3                                              |
| Occupation 5              | 0.03                           | 0.23                 | -0.01                                               | 0.65                 | -0.06                | 0.01                                                 | 0.04                 | 0.24                 | 0.00                  | 0.68                 | -0.08                | 0.01                          |
| Occupation 6              | 0.02                           | 0.61                 | 0.01                                                | 0.71                 | -0.06                | 0.19                                                 | 0.01                 | 0.79                 | 0.01                  | 0.73                 | -0.07                | 0.20                          |
| Occupation 7              | 0.00                           | 0.94                 | 0.00                                                | 0.86                 | -0.06                | 0.02                                                 | -0.01                | 0.81                 | 0.00                  | 0.85                 | -0.07                | 0.02                          |
| Occupation 8              | -0.05                          | 0.04                 | -0.06                                               | 0.01                 | -0.11                | 0.03                                                 | -0.07                | 0.03                 | -0.07                | 0.01                 | -0.13                | 0.02                          |
| Occupation 9              | -0.11                          | 0.00                 | -0.08                                               | 0.00                 | -0.17                | 0.01                                                 | -0.14                | 0.00                 | -0.09                | 0.00                 | -0.21                | 0.01                          |
|                          |                                |                      |                                                     |                      |                      |                                                     |                      |                      |                      |                      |                      |                                |
| Emp = 0                  | (Reference)                    |                      |                                                     |                      |                      |                                                     |                      |                      |                      |                      |                      |                                |
| 2 > Emp > 9              | 0.00                           | 0.92                 | 0.03                                                | 0.04                 | 0.01                 | 0.88                                                 | 0.00                 | 0.94                 | 0.04                 | 0.03                 | -0.01                | 0.88                          |
| 10 > Emp < 249           | -0.05                          | 0.10                 | 0.02                                                | 0.22                 | 0.02                 | 0.47                                                 | -0.08                | 0.05                 | 0.02                 | 0.21                 | 0.03                 | 0.48                          |
| Emp > 250                | -0.07                          | 0.07                 | 0.00                                                | 0.94                 | -0.02                | 0.53                                                 | -0.11                | 0.04                 | 0.00                 | 0.95                 | -0.03                | 0.53                          |
| Ln wage                  | 0.00                           | 0.19                 | 0.00                                                | 0.30                 | 0.00                 | 0.89                                                 | 0.00                 | 0.14                 | 0.00                 | 0.31                 | 0.00                 | 0.90                          |
| Seniority                | 0.00                           | 0.40                 | 0.00                                                | 0.55                 | 0.00                 | 0.73                                                 | 0.00                 | 0.48                 | 0.00                 | 0.54                 | 0.00                 | 0.73                          |
| Hours                    | 0.00                           | 0.75                 | 0.00                                                | 0.29                 | 0.00                 | 0.27                                                 | 0.00                 | 0.72                 | 0.00                 | 0.30                 | 0.00                 | 0.27                          |
| Underunemployed          | 0.01                           | 0.72                 | 0.01                                                | 0.49                 | -0.02                | 0.36                                                 | 0.01                 | 0.73                 | 0.01                 | 0.49                 | -0.03                | 0.39                          |
| Okskill                  | (Reference)                    |                      |                                                     |                      |                      |                                                     |                      |                      |                      |                      |                      |                                |
| Overskill                | 0.03                           | 0.43                 | -0.02                                               | 0.35                 | 0.03                 | 0.33                                                 | 0.03                 | 0.54                 | -0.02                | 0.34                 | 0.03                 | 0.34                          |
| Underskill               | 0.03                           | 0.41                 | 0.03                                                | 0.01                 | -0.01                | 0.89                                                 | 0.04                 | 0.49                 | -0.04                | 0.01                 | -0.01                | 0.90                          |
| Self-employed            | 0.07                           | 0.08                 | -0.09                                               | 0.00                 | -0.11                | 0.01                                                 | -0.09                | 0.09                 | -0.10                | 0.00                 | -0.14                | 0.01                          |
| Public                   | 0.03                           | 0.06                 | 0.03                                                | 0.02                 | 0.01                 | 0.69                                                 | 0.05                 | 0.09                 | 0.04                 | 0.02                 | 0.02                 | 0.70                          |
| Part-time                | -0.05                          | 0.07                 | -0.04                                               | 0.00                 | 0.01                 | 0.86                                                 | -0.06                | 0.07                 | -0.04                | 0.00                 | 0.01                 | 0.87                          |
| Temporary                | -0.03                          | 0.23                 | -0.02                                               | 0.24                 | -0.01                | 0.81                                                 | -0.04                | 0.21                 | -0.02                | 0.24                 | -0.01                | 0.82                          |
| Genemployment            | 0.03                           | 0.10                 | 0.03                                                | 0.02                 | 0.09                 | 0.00                                                 | 0.04                 | 0.11                 | 0.04                 | 0.01                 | 0.11                 | 0.00                          |
| Belgium                  | (Reference)                    |                      |                                                     |                      |                      |                                                     |                      |                      |                      |                      |                      |                                |
| Finland                  | -0.07                          | 0.00                 |                                                     |                      |                      |                                                     |                      | -0.10                 | 0.00                 |                      |                      |                          |
| Slovakia                 | -0.19                          | 0.00                 |                                                     |                      |                      |                                                     |                      |                      |                      | -0.24                | 0.00                 |                                |
Table 7 (continued)

| Variable | No Sample Selection correction | With Sample Selection (Heckman Two-Stage) correction |
|----------|--------------------------------|---------------------------------------------------|
|          | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 |
| Slovenia | −0.17   | 0.00    |         | −0.23   | 0.00    |         |
| Germany  | −0.21   | 0.00    |         | −0.28   | 0.00    |         |
| Estonia  | −0.06   | 0.00    |         | −0.07   | 0.00    | −0.14   | 0.00    |
| Greece   |         | −0.11   | 0.00    |         |         |         |
| Spain    | −0.15   | 0.00    |         | −0.18   | 0.00    |         |
| France   | −0.06   | 0.00    |         | −0.08   | 0.00    |         |
| Ireland  | −0.04   | 0.00    | −0.06   | 0.00    |         |         |
| Italy    | −0.16   | 0.00    | −0.14   | 0.00    |         | −0.18   | 0.00    |
| Cyprus   |         |         |         |         |         |         |
| Latvia   | −0.15   | 0.00    |         | −0.19   | 0.00    |         |
| Lithuania| −0.10   | 0.00    |         | −0.12   | 0.00    |         |
| Luxembourg| −0.15   | 0.00    |         | −0.18   | 0.00    |         |
| Portugal | −0.15   | 0.00    |         | −0.20   | 0.00    |         |
| Malta    |         |         |         |         |         |         |
| Netherlands | (Reference) |          | (Reference) |          |         |         |
| Austria  | −0.09   | 0.00    |         | −0.11   | 0.00    |         |
| N       | 6833    | 16,070  | 4968    |         |         |         |
| RHo     | 0.84    | (0.06)  | 0.16    | (0.22)  | 0.06    | (0.73)  |

Variance-covariance matrix estimated by cluster countries
### Table 8  Estimation Results on Job Satisfaction (grouping according to economic and opportunity gender gap index)

|                                | No Sample Selection correction |           |           |           | With Sample Selection (Heckman Two-Step) correction |           |           |           |
|--------------------------------|--------------------------------|-----------|-----------|-----------|-----------------------------------------------------|-----------|-----------|-----------|
|                                | Group 1                        | Group 2   | Group 3   | Group 1   | Group 2                                           | Group 3   | Group 1   | Group 2   | Group 3   |
| Female                         | 0.04                           | 0.01      | 0.03      | 0.00      | 0.02                                              | 0.16      | 0.04      | 0.00      | 0.00      | 0.02      | 0.16      |
| < 30 (Reference)               |                                |           |           |           |                                                    |           |           |           |
| 30–40                          | 0.01                           | 0.48      | 0.00      | 0.92      | 0.00                                              | 0.84      | 0.00      | 0.99      | 0.00      | 0.92      | 0.00      | 0.83      |
| 40–50                          | 0.04                           | 0.09      | 0.03      | 0.21      | 0.01                                              | 0.05      | 0.03      | 0.34      | 0.03      | 0.20      | 0.01      | 0.05      |
| 50–60                          | 0.08                           | 0.00      | 0.02      | 0.42      | 0.00                                              | 0.97      | 0.07      | 0.01      | 0.02      | 0.42      | 0.00      | 0.95      |
| 60–75                          | 0.13                           | 0.00      | 0.08      | 0.02      | 0.04                                              | 0.18      | 0.14      | 0.00      | 0.08      | 0.01      | 0.05      | 0.22      |
| Healthok (Reference)           |                                |           |           |           |                                                    |           |           |           |
| Healthbad                      | −0.01                          | 0.91      | −0.03     | 0.42      | 0.03                                              | 0.33      | −0.01     | 0.90      | −0.03     | 0.43      | 0.04      | 0.34      |
| Healthgood                     | 0.14                           | 0.00      | 0.12      | 0.00      | 0.11                                              | 0.00      | 0.17      | 0.00      | 0.12      | 0.00      | 1.13      | 0.00      |
| Educ1 (Reference)              |                                |           |           |           |                                                    |           |           |           |
| Educ2                          | −0.07                          | 0.49      | 0.04      | 0.35      | 0.02                                              | 0.23      | −0.01     | 0.93      | 0.05      | 0.45      | 0.04      | 0.08      |
| Educ3                          | −0.07                          | 0.44      | 0.06      | 0.17      | 0.06                                              | 0.01      | 0.01      | 0.94      | 0.07      | 0.29      | 0.10      | 0.00      |
| Educ4                          | −0.06                          | 0.51      | 0.03      | 0.52      | 0.04                                              | 0.23      | 0.03      | 0.88      | 0.04      | 0.59      | 0.08      | 0.14      |
| Educ5                          | −0.04                          | 0.60      | 0.02      | 0.73      | 0.11                                              | 0.00      | 0.07      | 0.71      | 0.03      | 0.70      | 1.15      | 0.00      |
| Partner                        | 0.00                           | 0.85      | 0.00      | 0.89      | −0.01                                             | 0.40      | −0.01     | 0.81      | 0.00      | 0.85      | −0.02     | 0.26      |
| Children                       | 0.03                           | 0.00      | 0.03      | 0.01      | 0.03                                              | 0.20      | 0.05      | 0.02      | 0.03      | 0.00      | 0.03      | 0.17      |
| Childminor2                    |                                |           |           |           |                                                    |           |           |           |
| Childminor3                    |                                |           |           |           |                                                    |           | −0.03     | 0.37      | 0.00      | 0.82      | 0.00      | 0.39      |
| Conciliate                      | −0.09                          | 0.00      | −0.11     | 0.00      | −0.07                                             | 0.00      | −0.14     | 0.00      | −0.14     | 0.00      | −0.08     | 0.00      |
| House income                   | 0.06                           | 0.00      | 0.06      | 0.00      | 0.12                                              | 0.00      | 0.05      | 0.07      | 0.06      | 0.00      | 1.14      | 0.00      |
| Immigrant                      | 0.02                           | 0.67      | −0.03     | 0.00      | 0.04                                              | 0.07      | 0.03      | 0.64      | −0.04     | 0.00      | 0.05      | 0.06      |
| Occupation 1                   |                                |           |           |           |                                                    |           |           |           |
| Occupation 2                   | 0.02                           | 0.57      | 0.04      | 0.07      | 0.13                                              | 0.00      | 0.03      | 0.59      | 0.04      | 0.08      | 1.16      | 0.00      |
| Occupation 3                   | 0.03                           | 0.40      | −0.02     | 0.27      | 0.05                                              | 0.15      | 0.04      | 0.40      | −0.02     | 0.27      | 0.06      | 0.15      |
| Occupation 4                   | −0.03                          | 0.61      | −0.09     | 0.00      | −0.03                                             | 0.11      | −0.04     | 0.58      | −0.10     | 0.00      | −0.03     | 0.13      |
Table 8 (continued)

|                          | No Sample Selection correction |                                      | With Sample Selection (Heckman Two-Step) correction |
|--------------------------|--------------------------------|-------------------------------------|---------------------------------------------------|
|                          | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 |
| Occupation 5             | -0.01   | 0.78    | 0.01    | 0.61    | -0.02   | 0.48    | -0.01   | 0.79    | 0.01 | 0.61 | -0.02 | 0.52 |
| Occupation 6             | -0.03   | 0.47    | 0.08    | 0.00    | -0.04   | 0.12    | -0.05   | 0.42    | 0.09 | 0.00 | -0.05 | 0.12 |
| Occupation 7             | -0.05   | 0.08    | 0.00    | 0.93    | 0.01    | 0.84    | -0.06   | 0.04    | 0.00 | 0.92 | 0.01 | 0.83 |
| Occupation 8             | -0.06   | 0.03    | -0.08   | 0.00    | -0.06   | 0.09    | -0.08   | 0.03    | -0.09 | 0.00 | -0.07 | 0.11 |
| Occupation 9             | -0.11   | 0.00    | -0.08   | 0.00    | -0.11   | 0.00    | -0.14   | 0.00    | -0.09 | 0.00 | -1.13 | 0.00 |
| Emp = 0 (Reference)     |         |         |         |         |         |         | 0.03    | 0.71    | 0.02 | 0.02 | 0.02 | 0.41 |
| 2 > Emp > 9             | 0.02    | 0.69    | 0.02    | 0.02    | 0.02    | 0.42    | 0.03    | 0.71    | 0.02 | 0.02 | 0.02 | 0.41 |
| 10 > Emp < 249          | -0.04   | 0.33    | -0.01   | 0.43    | 0.03    | 0.30    | -0.05   | 0.34    | -0.01 | 0.43 | 0.03 | 0.31 |
| Emp > 250               | -0.09   | 0.03    | -0.03   | 0.06    | 0.01    | 0.81    | -0.11   | 0.05    | -0.03 | 0.07 | 0.01 | 0.82 |
| Ln wage                 | 0.00    | 0.54    | 0.00    | 0.64    | 0.00    | 0.39    | 0.00    | 0.53    | 0.00 | 0.64 | 0.00 | 0.41 |
| Seniority               | 0.00    | 0.69    | 0.00    | 0.72    | 0.00    | 0.46    | 0.00    | 0.67    | 0.00 | 0.72 | 0.00 | 0.46 |
| Hours                   | 0.00    | 0.13    | 0.00    | 0.31    | 0.00    | 0.05    | 0.00    | 0.18    | 0.00 | 0.31 | 0.00 | 0.05 |
| Underunemployed         | -0.01   | 0.78    | 0.05    | 0.00    | 0.05    | 0.02    | -0.01   | 0.79    | 0.00 | 0.83 | 0.01 | 0.81 |
| Okskill (Reference)     |         |         |         |         |         |         | 0.04    | 0.31    | -0.03 | 0.34 | 0.03 | 0.07 |
| Overskill               | 0.03    | 0.29    | 0.00    | 0.32    | 0.00    | 0.82    | 0.04    | 0.31    | -0.03 | 0.34 | 0.03 | 0.07 |
| Underskill              | 0.01    | 0.84    | -0.03   | 0.34    | 0.02    | 0.06    | 0.01    | 0.84    | 0.39 | 0.08 | 0.02 | 0.39 |
| Self-employed           | -0.12   | 0.00    | 0.03    | 0.07    | 0.02    | 0.39    | -0.15   | 0.00    | -0.04 | 0.22 | -1.15 | 0.00 |
| Public                  | 0.03    | 0.10    | -0.04   | 0.23    | -0.12   | 0.00    | 0.04    | 0.12    | 0.02 | 0.22 | 0.05 | 0.07 |
| Part-time               | 0.02    | 0.02    | 0.02    | 0.21    | 0.04    | 0.07    | 0.03    | 0.03    | -0.06 | 0.00 | -0.02 | 0.41 |
| Temporary               | -0.01   | 0.66    | -0.05   | 0.00    | -0.02   | 0.41    | -0.02   | 0.67    | -0.03 | 0.34 | -0.01 | 0.29 |
| Genemployment           | 0.00    | 0.85    | -0.02   | 0.32    | -0.01   | 0.31    | 0.00    | 0.82    | 0.05 | 0.00 | 0.05 | 0.02 |
| Belgium (Reference)     |         |         |         |         |         |         | 0.09    | 0.00    |         |         |         |         |
| Finland                 | 0.07    | 0.00    |         |         |         |         | -2.25   | 0.00    |         |         |         |         |
### Table 8 (continued)

|                | No Sample Selection correction | With Sample Selection (Heckman Two-Step) correction |
|----------------|-------------------------------|-----------------------------------------------|
|                | Group 1 | Group 2 | Group 3 | Group 1 | Group 2 | Group 3 |
| Slovenia       | −0.03   | 0.00    |         | −0.03   | 0.01    |         |
| Germany        | −0.21   | 0.00    |         | −0.27   | 0.00    |         |
| Estonia        | −0.07   | 0.00    |         | −0.09   | 0.00    |         |
| Greece         |         | −0.12   | 0.00    |         | −1.15   | 0.00    |
| Spain          |         | −0.10   | 0.00    |         | −1.12   | 0.00    |
| France         | −0.07   | 0.00    |         | −0.08   | 0.00    |         |
| Ireland        | 0.08    | 0.00    |         | 0.10    | 0.00    |         |
| Italy          |         | −0.09   | 0.00    |         | −1.11   | 0.00    |
| Cyprus         | −0.14   | 0.00    |         | −1.17   | 0.00    |         |
| Latvia         | (Reference) |         | (Reference) |         |         |         |
| Lithuania      | −0.11   | 0.00    |         | −0.13   | 0.00    |         |
| Luxembourg     | −0.13   | 0.00    |         | −0.16   | 0.00    |         |
| Portugal       | −0.16   | 0.00    |         | −0.21   | 0.00    |         |
| Malta          | (Reference) |         | (Reference) |         |         |         |
| Netherlands    | 0.01    | 0.02    |         | 0.01    | 0.02    |         |
| Austria        | −0.09   | 0.00    | 0.00    | −0.11   | 0.00    |         |
| N              | 5906    | 13,111  | 9014    |         |         |         |
| RHo            | 0.31    | (0.36)  | 0.06    | 0.13    | (0.44)  |         |

(contrast of bias, \(P > \chi^2\))
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