

**Cross-national analysis of  
gender differences in  
job-satisfaction**

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# **Cross-national analysis of gender differences in job-satisfaction**

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**ABSTRACT:** Research over the past two decades has found significant gender differences in subjective job-satisfaction, with the result that women report greater satisfaction than men in some countries. This paper examines the so-called “gender paradox” using data from the European Social Survey for a subset of fourteen countries in the European Union. We focus on the hypothesis that women place higher values on certain work characteristics than men, which explains the observed differential. Using estimates from Probit and ordered Probit models, we conduct standard Blinder-Oaxaca decompositions to estimate the impact that differential valuations of characteristics have on the gender difference in self-reported job satisfaction. The results indicate that females continue to report higher levels of job satisfaction than do men in some countries, and the difference remains even after controlling for a wide range of personal and job characteristics and working conditions. The decompositions suggest that a relatively small share of the gender differential is attributable to gender differences in the weights placed on working conditions in most countries. Rather, gender differences in job characteristics contribute relatively more to explaining the gender job-satisfaction differential.

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## 1. Introduction

At least since the publication of Hodson's "Gender Differences in Job Satisfaction: Why Aren't Women More Dissatisfied?" (1989), social scientists have sought to understand the gender difference in job satisfaction found in many studies. The topic has been especially interesting given the commonly held perception that women work in "worse" jobs than men (i.e., with lower pay, less opportunity for career advancement, lower benefits, and less desirable working conditions), yet report higher levels of job satisfaction. While this "gender paradox" was first studied in the United States and Britain, the difference has been observed in other countries in Europe (Sousa Poza & Sousa-Poza 2000) and in Australia (Kaifel & Desta 2012), as well. Sousa-Poza and Sousa-Poza (2000), however, using data from the 1997 International Social Survey Program (ISSP), conclude that the gender differential does not occur in all countries. While women are found to have higher average levels of job satisfaction in the US and Great Britain and a few other nations, they find that women are less satisfied than men in the majority of the 21 countries studied. Using data for the countries combined, and controlling for several job characteristics (and country dummies), they find no significant gender difference in job satisfaction in an ordered probit model. Using data from the ECHP for the 1994-2001 time period, however, Kaiser (2007) finds, in contrast to the results presented by Sousa-Poza and Sousa-Poza (2000), that women have higher levels of job satisfaction than men, on average in a pooled sample from 14 countries in the EU.

Indeed, assuming men and women have different job characteristics, even finding no difference in job satisfaction is a surprise. Given the role that job satisfaction can play in worker productivity, absenteeism and turnover, and hence the productivity of firms and other organizations, understanding the determinants of job satisfaction and any gender differences that exist has important economic implications. Hodson (1989) described three potential hypotheses to explain the gender differential that had been observed in the U.S. in the 1960s and 70s. First, attributed to Kanter (1977), is the idea that men and women "value different characteristics of work," or put differently, place different values on given work characteristics. A second is that women placed greater emphasis on their "homemaker" roles (relative to work). Third, and perhaps related, was the explanation that women had lower expectations or compared themselves with other women rather than with men, and so were more satisfied with what they had. This third explanation has been the focus of much work on the topic over the past 15 years, starting with the seminal analyses of Clark (1997) and Clark and Oswald (1996). One important implication of the third hypothesis is that the gender differential in job satisfaction would be expected to decrease over time, as male and female job expectations converge, especially with the introduction of new cohorts of women to the labour market (Clark 1997; Donohue and Heywood 2004; Kaiser 2007).

Using data for 14 countries participating in the European Social Survey in 2010, we first address the question of whether the raw gender difference in job-satisfaction has persisted in Europe. In fact, this data set is more recent than ECHP or ISSP data used by others to study Europe. We conduct the analysis at the regional level and are therefore able to compare results across a variety of institutional environments and cultures. We then search to identify how much of the difference in job satisfaction is due to the fact (i) that women and men have different working conditions, (ii) that women and men appreciate differently what a good job is and (iii) that women tend to be more satisfied above all even at identical job characteristics. To answer this question, we apply standard Blinder-Oaxaca decomposition techniques.

The paper is organized as follows. We first provide a more extensive review of the literature regarding the determinants of job satisfaction and the gender paradox in section 2. This is followed in section 3 by a description of the data and in section 4 the methodology used in the study. Empirical results are presented in section 5, with conclusions and topics for further research in section 6.

## 2. Review of gender job satisfaction literature

Compared with sociologists and psychologists, economists are relative newcomers to the study of the determinants of job satisfaction, which is part of a larger literature on the determinants of well-being. Several studies in the mid-1970s (Hamermesh, 1977; Borjas, 1979; Freeman, 1978) first established subjective job-satisfaction measures as legitimate for study by economists, despite several caveats. In their models job satisfaction and the concept of utility are related. The impact of this relationship can be seen in other outcomes. For example, studies have shown that job satisfaction has an impact on absenteeism or quit rates (Akerlof et al., 1988 ; Clark et al. 1998). Generally, researchers model job satisfaction as functions of socio-demographic characteristics (gender, race, education, marital status ...), job characteristics (occupation, sector, wage, opportunity for advancement, type of employment contract, hours of work, demographic composition of the company ...) and local labor market conditions. Researchers have also studied the relationships between job satisfaction and self-employment, immigrant status and job tenure (for recent examples, see Millan et al. 2013, Chowhan et al. 2012, Barmby et al. 2012, de Graaf-Zijl 2012, and Gazioglu and Tansel 2011, respectively). Nearly all of these studies find that women report higher levels of job satisfaction than do men, after controlling for other variables.

Clark (1997b) was the first after Hodson to focus on the gender differential, using data from the British Household Panel Survey (BHPS). Extending the relative well-being concept, Clark argues that women are more satisfied than men, despite their relatively less desirable jobs, because the jobs they

have exceed their expectations. The question of how expectations are formed is important. Clark finds support for the hypothesis that women's higher job satisfaction is in part explained by having lower expected wages. One implication of Clark's paper is that the gender difference (favoring females) in job satisfaction should decrease with education, under the assumption that more highly educated women will have higher expectations with regard to wages and working conditions. Clark found evidence of this in the British data. Evidence of this in many studies of university faculty members and other highly educated occupations, however, is mixed (see Kifle and Desta, 2012, for a survey of these studies), with some finding significantly higher satisfaction among females, others among males, and others finding no gender differential in satisfaction.

Another argument that could explain why women have higher job satisfaction than men is related to the reference group. Clark and Oswald (1996) and Clark (1997a) introduced the concept of relative income to the analysis, suggesting that relative and not only absolute income was an important determinant of job satisfaction. Formally, they proposed that an individual's utility from work could be expressed as

$$u = u(y, y^*, h, X),$$

where  $y$  is income,  $y^*$  a comparison income,  $h$  hours worked, and  $X$  a vector of individual and job related characteristics. Using 1991 data from the British Household Panel Survey (BHPS), they estimated ordered Probit specifications of job satisfaction equations, with income and comparison income measures, also controlling for age, gender, region, industry, occupation, health, and race. In addition to finding significant correlations with relative income, they find that job satisfaction is lower for men than for women, consistent with the findings of Hodson (1989).

Subsequent work studying the relationship between job satisfaction and relative income, and the definition of the reference group, includes Ferrer-i-Carbonell (2005), Bygren (2004), Clark et al. (2009), and Clark and Senik (2010). Using panel data for Germany (GSOEP) in the mid-1990s, Ferrer-i-Carbonell estimates random effect ordered probit equations and finds that relative income is highly positively correlated with job satisfaction. He also finds a significant negative correlation with being male. Bygren finds similar results in a Swedish sample from 1991. He further analyzes the gender difference and concludes that Swedish men and women have different reference groups (one at the national, the other at the occupational level). Clark et al. (2009), on the other hand, find a negative correlation between job satisfaction and the level of relative income, which they attribute to their definition of the reference group. Using panel data for Denmark from the European Community Household Panel (ECHP) survey merged with Danish administrative data, they use the income of co-workers in defining relative income. They argue that the income of co-workers might signal future income for the individual, and therefore that having lower income relative to co-workers can be viewed positively (and therefore be positively related to job satisfaction). A similar argument is made

by FitzRoy et al. (2012) in explaining the relationship between satisfaction and age, using recent data from the GSOEP.

All of the papers summarized above are mostly interested in the idea that the gender differential, when it exists, results from differing expectations and/or reference groups. Fewer studies have focused on the explanation that men and women place different values or importance on the characteristics of work. Hodson (1989) shows that working conditions have the same effect on job satisfaction of men and women. He finds only one difference: work complexity have less positive effect on women's job satisfaction than men's job satisfaction. Bokemeier et al. (1987), on the other hand, conclude that there are important differences between women and men in the way they construct job satisfaction. For example, men's job satisfaction is more sensitive to employment status and job autonomy than women's job satisfaction. They find also that personal characteristics, education, social class and unemployment, impact more the level of job satisfaction of men than the level of job satisfaction of women. Clark (1996) finds the opposite effect for the level of education<sup>1</sup>. He concludes that the importance given by men and women to a working condition has a different effect on their job satisfaction. For example, considering pay or promotion as the most important part of a job decreases job satisfaction of men more than it does for women. Sloane and Williams (2000) conclude that the relative income has a stronger effect on male satisfaction. Moreover, Donohue and Heywood (2004) show that the level of women's job satisfaction decreases with the hours of work unlike men. This result contrasts with those of Bender et al. (2005), who find that hours of work decrease job satisfaction of men and women, but for women the coefficient is not significant. Most recently, Carleton and Clain (2012) examine the gender difference in the United States using data from the General Social Survey (GSS) in 2006 and 2008. They estimate an ordered Probit specification with a two-stage sample selection procedure and allow gender differences in coefficients through the use of interaction terms. Their results indicate a gender difference in job satisfaction, but only for married workers. They do find differential impacts (valuations) of some job characteristics, including tenure, full-time status, income, and hours of work.

In summary, over the past thirty-five years economists have attempted to explain variations in subjective job-satisfaction using a variety of approaches and data sets. Explanatory variables have included wages (both absolute and relative), personal characteristics (age, education, health, gender, tenure, marital and family status), job characteristics (industry, occupation, security) and working conditions (autonomy, flexibility, safety). In the United States and Britain researchers consistently find a gender differential even after these controls, even as late as 2008, although that result varies according to the methods used. Gender differences in satisfaction have also been found elsewhere in

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<sup>1</sup> Clark finds that higher education level impacts more negatively job satisfaction of women than men.

Europe, but only in a minority of countries. There is some evidence that observed differences in Europe are consistent with the hypothesis that men and women have different job expectations and/or different reference groups. Little work has examined the hypothesis that men and women in Europe place different values on the characteristics of their jobs.

The current paper contributes to this literature in several ways. First, we utilize a data set that has not been studied before for this purpose, but which is very similar to the GSS data for the U.S, and which is more recent than the ECHP or ISSP data used by others to study Europe. This allows us to ascertain whether the differences found by others have persisted since 2000. Second, we conduct the analysis at the regional level and are therefore able to compare results across a variety of institutional environments and cultures. Third, and most importantly, we focus particularly on the hypothesis that men and women place different values on job characteristics, and estimate the contribution that this makes to explaining male and female job satisfaction using the Blinder-Oaxaca decomposition technique.

### 3. Data

The data used in this analysis is from the European Social Survey (ESS) for the year 2010 (wave 5)<sup>2</sup>. Since 2002 the ESS has been administered bi-annually to nationally representative samples of households in more than 30 countries in Europe<sup>3</sup>. While its primary intent is to monitor social, political and moral attitudes among the national populations, it also includes information about well-being, health, demographic characteristics, education, and work. The survey also includes rotating modules which focus on a variety of topics ranging from immigration to perceptions of the life course<sup>4</sup>.

The measure of job satisfaction used in this study is derived from the question, “How satisfied are you in your main job?” The responses are scored on a scale of 0-10, with 10 representing the highest level of satisfaction. We construct several variables from the responses, including simple dummy variables indicating high level of satisfaction, and ordinal variables indicating 3 different levels (high, medium and low). We do not use the full 11-point scale, as there are very few responses at some of the lowest values.

In addition to a gender dummy variable, we construct several control variables for inclusion in the analyses following the literature described above. These include measures of educational attainment,

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<sup>2</sup> We attempted to use other waves as well, but found that several working conditions variables or the job-satisfaction variable were not available in all waves.

<sup>3</sup> Not all countries continued to participate in the survey through 2010. Luxembourg, for example, is not included in our analysis. For a study of gender and working conditions in Luxembourg, see Hauret and Zanardelli (2012)

<sup>4</sup> For a complete description of the ESS data and its availability, see [www.europeansocialsurvey.org](http://www.europeansocialsurvey.org)



age and age squared, union membership, job tenure, whether one lives with a partner, health status and immigrant status. The survey also includes several questions regarding working conditions and job characteristics. From these we have constructed variables related to the level of job security, support from co-workers, safety, work hours and job autonomy, among others. All of these have been found to be correlated with job satisfaction in previous work.

The main weakness of the ESS in the current context is that it does not include earnings or income information, except in broad ranges. As noted above, the wage has been found to be correlated with satisfaction in other studies, although the direction of the effect sometimes depends on gender and whether there are controls for relative income. Instead we are able to use a variable measuring the extent to which the individual agrees that his or her pay is appropriate. A complete listing of all of the variables used in the analyses and their definitions is presented in Appendix Table A1. One interesting variable that has been found in other data sets is a measure of the individual's perception of the opportunities for advancement with the employer.

Another weakness of the ESS is that it is only cross-sectional. This precludes the use of panel data methods which would have allowed us to reduce the biases which might arise due to unobserved heterogeneity. The results must therefore be interpreted in this light.

The countries used in this paper were chosen primarily to ensure sufficient sample sizes of employed workers (by gender) to conduct meaningful analyses. In addition we sought a broad representation of countries, both geographically and across welfare regime types (see Kaiser 2007). The samples are restricted to individuals aged 25-59 for whom there are no missing values. We don't study younger workers to avoid including responses relative to summer jobs or apprenticeship. We exclude the self-employed and unpaid family workers as well because for these categories of workers there is little information about working conditions in the ESS. The complete dataset then consists of 12,707 individuals across 14 countries. Descriptive statistics for all of the variables are presented in Appendix Table A3, by country group and gender. The means for the job satisfaction and working conditions variables are also presented in Tables 1 and 3, respectively, of the results section below.

#### 4. Methodology

Several alternative methods are used in this analysis. We begin with a simple comparison of the levels of job satisfaction by gender, country, and groups of countries, using alternative measures of satisfaction: the first considers that a person is very satisfied if the satisfaction level is given as 9 or 10, the second is broader because it considers that a person is very satisfied if the satisfaction level is given as 8, 9 or 10. This is followed with examinations of the relationships between job satisfaction and gender, holding constant several personal and job characteristics. We begin by estimating the

parameters of a Probit specification of the probability of having a high level of job satisfaction, using the narrower version of high satisfaction, for males and females combined, including a gender dummy variable.

Next we estimate the same model but with a control for sample selectivity. As has been noted previously in the literature, sample self-selection could influence the interpretation of the results above. According to Clark (1997b), women are freer to leave the labor force than men if they are unhappy with their jobs. Therefore, women who remain in employment are on average more satisfied than men. In his work and that of Bartel (1981) for racial differences, however, the control for self-selection does not qualitatively affect the results. Carleton and Clain (2012), on the other hand, find self-selection to be important, but only for married women. We follow the literature and specify an employment selection equation and estimate the parameters jointly using maximum likelihood. We use in our analysis the instrumental variables that are traditionally used in the literature of job satisfaction (Clark (1997), Sloane and Williams (2000), Carleton and Clain (2012)): mother at work at age 14, number of children in the household, and whether there is a child less than 6 years old. These variables in our study are not related with job satisfaction.

We follow the Probit analysis by estimating the parameters of the same models (with and without selection) with an ordered Probit specification, utilizing an ordinal measure of the dependent variable and including the gender dummy variable. These estimates allow us to compare our results with previous work.

Further analyses are then conducted using the same methods as above, but separately by gender. The coefficients from the various models are used to decompose the gender differences in job satisfaction into two components, following an extension of the Blinder-Oaxaca decomposition to nonlinear models. The first is the part of the difference that is attributable to differences in personal and job characteristics. The second is the part that is attributable to gender differences in the coefficients on those characteristics,  $\beta$ . The decomposition results from constructing the counterfactual asking, what would the probability of high satisfaction be for women if they had the same characteristics as men, and secondly, what would the probability be for women if they placed the same value on characteristics as men? For the non-linear Probit and Ordered Probit specifications used here, we follow the method of Sinning, Hahn and Bauer (2008). Let  $Y_{ij}$  be the dependent variable indicating the level of job satisfaction (high=1) for the person  $i$  of group  $j$  ( $j=M, F$ ),  $X_{ij}$  a vector of the values of personal and job characteristics for the person  $i$  of group  $j$ , and  $B_j$  the vector of coefficients for group  $j$ . Then the Blinder-Oaxaca decomposition yields:

$$\Delta_M^{NL} = \{E_{\beta_M}(Y_{iM}|X_{iM}) - E_{\beta_M}(Y_{iF}|X_{iF})\} + \{E_{\beta_M}(Y_{iF}|X_{iF}) - E_{\beta_F}(Y_{iF}|X_{iF})\}$$

The first term on the right hand side is the part attributable to differences in the outcome variable between the two groups that is due to differences in the covariates  $X_{ig}$ , the second term is the part attributable to differences in the valuation of personal and job characteristics. We present estimates of these components for each group of countries and model specification.

## 5. Results

### 5.1. Evidence of the job satisfaction gender gap

There is considerable cross-national variation in the levels of job satisfaction. The proportion indicating they are very satisfied (if the satisfaction level is given as 9 or 10) ranges from 13.9 percent of women in the Czech Republic to 49.5 percent of women in Denmark (cf. table 1). We find the highest levels of job satisfaction in Denmark and Finland, and the lowest in Portugal, the Czech Republic, and Greece<sup>5</sup>. It's a constant in the literature that Scandinavian people have the highest levels of job satisfaction (Clark, 2005 ; Kaiser, 2002)<sup>6</sup>.

The percentage reporting that they are very satisfied is higher for women than for men in eleven of the 14 countries. This can be seen clearly in Figure 1. The difference between women and men is statistically significantly different from zero, however, in only a few of the countries. We find a statistically significant difference only in Denmark, Ireland, and Poland. However, when we extend the definition of very satisfied to a level of job satisfaction range to 8 from 10, women are significantly more satisfied than men in Spain, Ireland and Hungary, using standard measures of statistical significance. We find evidence of the “gender paradox” therefore in about half of the countries studied, combining the two measures.

The gender difference is nevertheless sensitive to the cutoff used. In the Czech Republic and Germany, women are more likely to be very satisfied using the first (9, 10) measure, while men are more likely using the second (8, 9, 10) measure. This indicates gender differences in the probability of being in the tails of the job satisfaction distribution in these countries. The reverse is true in Greece. The differences generally are not statistically significantly different from zero, however.

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<sup>5</sup> This result is generally similar to Sousa-Poza and Sousa-Poza (2000a). They find that the level of job satisfaction is the highest, among the countries studied, in Denmark. However, Portugal and Czech Republic are in the middle of the distribution with a level of job satisfaction higher than France, Great Britain and Hungary; Hungary has the lowest level of job satisfaction in the Sousa-Poza study.

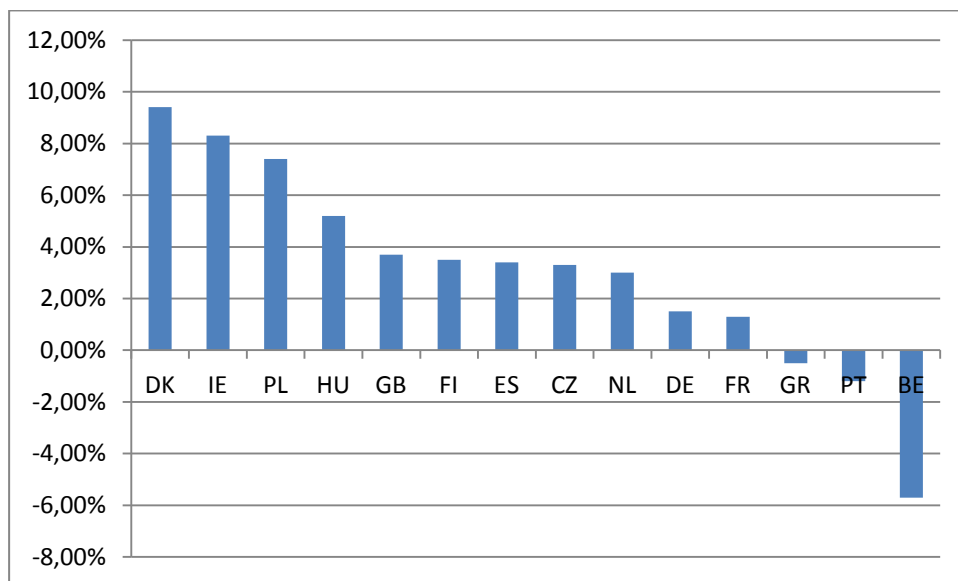
<sup>6</sup> Kristensen and Johansson (2008) show that this result is due to cultural differences in the way that people answer to subjective questions.

**Table 1: Job satisfaction (percentage very satisfied) by gender, country, and country group, 2010**

	Very satisfied (9 10)			Very satisfied (8 9 10)		
	female	male		female	male	
BE	26.8%	32.5%		67.2%	67.1%	
CZ	13.9%	10.6%		35.3%	40.9%	
DE	35.0%	33.5%		59.5%	61.5%	
DK	49.5%	40.1%	**	77.4%	71.6%	
ES	27.3%	23.9%		63.7%	55.7%	*
FI	30.1%	26.6%		70.9%	68.2%	
FR	28.1%	26.8%		55.7%	52.1%	
GB	25.8%	22.1%		53.8%	53.1%	
GR	19%	19.5%		42.1%	38.5%	
HU	30%	24.8%		58.3%	48.3%	**
IE	29.8%	21.5%	**	54.2%	46.5%	*
NL	27.5%	24.5%		66.2%	63.1%	
PL	29%	21.6%	*	50.6%	48.7%	
PT	14.3%	15.5%		36.8%	42.8%	
Continental countries (BE FR DE NL)	30.9%	30.3%		59.1%	58.6%	
Liberal countries (GB IE)	26.1%	22%	*	53.8%	52.7%	
Central and Eastern countries (CZ PL HU)	26.3%	20.0%	***	49.1%	47.1%	
Southern countries (GR ES PT)	24.6%	22.6%		57.7%	52.6%	**
Nordic countries (DA FIN)	40.4%	34.0%	**	74.4%	70.0	

Notes: difference significant at \*.10 level, \*\*.05 level, \*\*\*.01 level

**Figure 1: Difference between female and male job satisfaction (percentage)**



We then study the relationships between job satisfaction and gender, holding constant several personal and job characteristics thanks to Probit and ordered Probit specifications. Estimates are presented here for samples with countries combined into five groupings according to welfare state regimes: Nordic (DK, FI), Continental (BE, DE, FR, NL), Liberal (UK, IE), Southern European (ES, GR, PT) and Central and Eastern European (CZ, HU, PL). The coefficient estimates for the gender dummy variables are summarized in Table 2, by country group and for the two different measures of job satisfaction. The first is the binary variable used in Table 1 corresponding to the more restrictive definition (9-10), while the second is an ordinal job satisfaction variable (1=low satisfaction, 2=medium satisfaction, 3=high satisfaction) as defined in Appendix Table A1. The complete sets of coefficients and goodness of fit statistics are available in Appendix Table A2. We note that all models are significant at the .001 level, with Pseudo R-squared values ranging from 0.12 to 0.17 for the Probit and from 0.11 to 0.15 for the ordered Probit.

Referring first to the gender coefficients without sample selection (columns (1) and (2)), we find a significant gender difference in the Nordic countries for both the probit and ordered probit specifications and in Continental countries for the ordered probit. Females are found to have higher levels of job satisfaction even after controlling for worker and job characteristics. The coefficients are of the same sign, but not significantly different from zero, in the Central and Eastern European countries and Southern European countries.

Regarding other variables included in the analysis, the results are consistent with those found in the literature for many of the variables. Lower educated workers are more satisfied than more highly educated workers (except in Liberal countries where the education level is not significant). Satisfaction with pay and the opportunity for career advancement are positively correlated with job satisfaction. Job's security increases the probability of being very satisfied except in Southern European countries. Having work that allows one to learn new things and having helpful coworkers are positively correlated with job satisfaction. Unlike findings in the literature, however, we find that living with a partner, being a member of a trade union and having experienced a period of unemployment<sup>7</sup> are not correlated with job satisfaction.

**Table 2: Coefficients (standard errors) for gender dummy variables (Female=1), by country**

	No sample selection correction		With sample selection (Heckman two-step) correction	
	Probit (1)	Ordered probit (2)	Probit (3)	Ordered probit (4)
Nordic countries	.2** (.10)	.27*** (.09)	.20* (.11)	.26*** (.09)
Continental countries	.12 (.08)	.11* (.07)	.12 (.11)	.11 (.09)
Southern countries	.069 (.12)	.07 (.09)	-.16 (.31)	-.09 (.24)
Liberal countries	-.0042 (.14)	-.06 (.11)	-.015 (.16)	.003 (.13)
Central and Eastern countries	.14 (.12)	.029 (.09)	.40** (.18)	.095 (.13)

After controlling for sample selection (columns (3 & 4)), we find statistically significant gender differences in the Nordic and Central and Eastern European countries, again with females having higher job satisfaction on average. We find the same sign (except for Southern European countries) and approximately the same size of the coefficients for the female dummy variables as in the non-selectivity adjusted estimates for the other country groups, but they are estimated much less precisely. The inverse Mills ratio are not statistically significant indicating that the selection and satisfaction equations are independent except for Eastern European countries in the probit model, suggesting that the estimates without selection are unbiased. This result is similar to that found by Clark (1997a) and Bartel (1981) for the UK and the US.

<sup>7</sup> For Continental and Central and Eastern countries, in the ordered Probit, having experienced a period of unemployment is negatively correlated with job satisfaction. For liberal and Nordic countries living with a partner, in the ordered Probit, is positively correlated with job satisfaction.

In general, we can conclude that our results are similar to those found by Sousa-Poza & Sousa-Poza (2000b) in the sense that in most of the countries studied, the gender job satisfaction paradox does not exist after controlling for job characteristics. In contrast, Kaiser (1997) found the gender paradox in the majority of European countries he studied. We do not know the extent to which the fact that different time periods were studied using different data sets affects the comparability of our results.

## 5.2. Explaining the gender differentials

As can be seen in the table 3, there are several variables where the values differ by gender and the result holds across countries. Men are more likely than women to agree that they are paid appropriately, that there are chances for advancement, that they risk their safety, and that they have a man as a boss. They also work on average more hours per week. Only for the last two variables is the gender difference significantly different from zero in all country groups, however. Women are more likely than men to work with a flexible schedule and to work with many women. These results are consistent with others studies (Sousa-Poza & Sousa-Poza 2000b ; European foundation for the improvement of living and working conditions 2007). At the same time, there are many variables where the gender difference is inconsistent across countries, with higher values found for males in some groups and for females in others, or where there is rarely a significant gender differential. The difference between men and women in job security is significantly different, favoring men, in the Southern countries and, favoring women, in the Continental countries. Women are more likely to report being in jobs with very supportive co-workers only in the Nordic and Liberal countries. A significant gender difference exists in the control over work organization only in the Central and Eastern European countries.

The purpose of the decomposition analysis below is to determine to what extent the differences in the average levels of male and female job satisfaction can be explained by such differences in working conditions (which may arise from different preferences between women and men for certain occupations), and alternatively the extent to which they are explained by gender differences in the weights placed on working conditions.

**Table 3 : Mean values of independent variables, by gender and country group**

	Nordic countries		Continental countries		Southern countries		Liberal countries		Central and Eastern countries	
Variable	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Very support coworker	53.5	42.4***	44.3	43.1	33.5	36.8	53.6	44.4***	31.1	29.2
Very secure	36.8	32.6	38.6	35.2*	30.4	39.8***	23.9	22.1	23.7	22.4
Job learning	68.3	58.5***	54.0	61.2***	45.7	52.4***	71.1	67.4	61.2	61.1
No risk safety	89.1	86.8	84.9	75.0***	89.6	79.1***	84.3	77.6***	82.2	66.0***
Hrs per week	36.7	41.7***	33.9	42.7***	38.0	43.4***	33.1	44.4***	40.6	46.1***
Flexible schedule	52.6	62.8***	44.3	55.8***	27.8	37.5***	43.5	53.0***	34.0	39.2**
Agree paid appropriately	43.7	58.6***	42.6	51.1***	42.3	44.9	57.1	59.4	28.0	30.4
Agree advancement	25.1	27.8	25.2	32.8***	30.2	37.5***	43.1	45.9	20.2	21.4
Work organized	72.3	72.5	55.1	58.1	44.9	43.7	56.8	57.6	36.0	31.7*
No never enough time	52.7	57.5	50.2	57.3	57.9	45.9	53.8***		78.6	77.5
Note: *gender difference significant at .10 level, **significant at .05 level, ***significant at .01 level										



The results of the Blinder-Oaxaca decompositions are presented in Table 4, by country group, only for the binary (Probit) specification<sup>8</sup>. The table presents the mean differential in the dependent variable and the percentages associated with differences in mean values of characteristics and differences in the coefficients, which we take to be measures of the valuation of characteristics. Because the results are not indicate an interdependence between the selection and satisfaction equations, we do not proceed further with the sample selection models.

Referring to the results for the Probit specifications, we find that the role of differences in coefficients is substantial in some regions of Europe. In the Southern European countries and in the Nordic countries, for example, gender differences in the weights placed on personal and job characteristics explain 66.3 percent and 60% of the overall gender difference in job satisfaction. By contrast, in the UK and Ireland gender differences in coefficients explain only 1.4 percent of the overall gender differential in satisfaction. The CEE countries are in the middle, with 34.1 percent of the total satisfaction differential due to differences in coefficients, respectively, and the balance due to differences in personal and job characteristics. In all of the country groups, it should be noted, the results indicate that part of the higher job satisfaction for women is explained by their personal or job characteristics. In the Continental group, however, where the overall gender differential is approximately zero, the results indicate that if women and men had the same values of workplace characteristics, then women would indeed have higher levels of job satisfaction than would men. This is a heterogeneous grouping, with Belgian men more satisfied than women, so the results might be affected by this difference among the countries.

We have examined the sensitivity of the results to changes in empirical specification and definition of the dependent variable. We estimated the binary dependent variable case with a linear probability model, and estimated the Probit model using the broader (8, 9, 10) definition of the highest “very satisfied” category. In both cases, the conclusions are similar to those above, except for the Southern countries, where greater weight is placed on differences in coefficients rather than differences in characteristics. In addition, we estimated the models with additional explanatory variables to control for different psychological types. We also estimated the models with a measure of household income (decile in the income distribution) included among the socio-economic variables. Again, the results of both of these variations were not qualitatively different from those presented here. Because data limitations preclude the inclusion of this variable for all of the countries studied, we present the original results in the paper. All estimates are available from the authors upon request.

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<sup>8</sup> The decomposition results for the Ordered Probit model are difficult to interpret and highly sensitive to the definition of the dependent variable. For the (9,10) definition, however they are consistent with the Probit results except in the case of the Great Britain/Ireland grouping, which has results similar to those found in the Continental group. These estimates are available from the authors on request.

**Table 4 : Blinder-Oaxaca decomposition results, by country group, Probit model**

	Nordic countries		Continental countries		Southern countries		Liberal countries		Central and Eastern countries	
	Contribution	Percentage	Contribution	Percentage	Contribution	Percentage	Contribution	Percentage	Contribution	Percentage
Total	-.065	100.0	-.0058	100.0	-.019	100.0	-.039	100.0	-.063	100.0
Part dif Means	-.026	40	.013	-223.8	-.006	33.7	-.040	101.4	-.042	65.9
Part dif Coeff's	-.039	60	-.019	323.8	-.013	66.3	.0056	-1.4	-.021	34.1

**Table 5 : Decomposition results by variable type, Probit model**

	Nordic countries		Continental countries		Southern countries		Liberal countries		Central and Eastern countries	
Variable type	Part dif means	Part dif Coefficients	Part dif means	Part dif Coefficients	Part dif means	Part dif Coefficients	Part dif means	Part dif Coefficients	Part dif means	Part dif Coefficients
Total	-.026	-.039	.013	-.0189	-.0065	-.0129	-.0403	.00056	-.04166	-.0215
Sociodemographic	.002	1.194	.00696	.2250	.0117	-.07405	-.0091	.03957	.01086	-.5800
Occupational	-.016	-.090	.0055	-.01228	-.0336	-.4323	-.0203	-.001882	-.03413	-.15477
Work Conditions	-.012	.599	.0006	-.0669	.0152	-.0529	-.01097	-.04522	-.01838	-.016554
Constant		-1.742		-.16466		.5463		.00810		.7298

The final step in the analysis is to examine the extent to which working conditions variables, in particular, contribute to the gender differential in job satisfaction. This is done by summing over the working conditions variables the estimates of the contributions that each variable makes to the explained (differences in means) and unexplained (differences in coefficients) components of the overall gender job satisfaction differential. Similarly, we sum the contributions for the socio-demographic characteristics, occupational characteristics, and the constant term. The results are presented in Table 5 for the Probit specification.

The results are mixed, depending on whether we focus on the “explained” differences due to differences in characteristics or the “unexplained” differences arising from differences in coefficients, with one yielding a consistent pattern and the other not. Referring to the estimated contributions in Great Britain and Ireland, for example, we see that the largest part ( $-.02/-.04=50\%$ ) of the contribution of differences in means comes from differences in occupational characteristics. These include variables such as sector, occupation, firm size and demographic composition of the firm. Looking across the other country groups we see this is a consistent result. The one exception is in the Continental countries, where gender differences in socio-demographics variables appear to have the largest impact. Referring to the part arising from differences in coefficients, however, we do not observe a consistent pattern, except perhaps that the largest contributor to the unexplained component is often the constant term. This is an unsatisfactory result, since there is no interpretation of the difference attributable to the constant term in this context<sup>9</sup>. In any case, the estimates for working conditions vary considerably across the country groups. In most groups (Continental, Southern, Liberal and CEE), the gender gap in job satisfaction would be smaller if women and men placed the same valuation on working conditions. Unfortunately the overall differential in those countries is on average small and not significantly different from zero, so this is not such an interesting result. Only in the Nordic countries does the gender difference in working conditions coefficients appear to reduce significantly the gender difference in job satisfaction.

## 6. Summary and Conclusions

This paper had addressed the questions of the determinants of job-satisfaction, and gender differences in satisfaction in particular, for 14 diverse countries in Europe. Using data from the European Social Survey, we find that the “gender paradox” of higher satisfaction for women continues to be a factor in some countries. We focus on measuring the extent to which gender differences in job satisfaction can

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<sup>9</sup> The interpretation of the constant term in Blinder-Oaxaca decompositions has been a long-standing criticism of the method (see, for example, Jones 1983).

be attributed to differences in personal characteristics, occupational (job) characteristics, and working conditions versus differential valuation or weighting of those characteristics by men and women. The results from Blinder-Oaxaca decompositions of the probability of reporting a high level of job satisfaction indicate that both mean differences in and valuations of characteristics play a role. The extent to which this is true varies across groups of countries, however, so that no general conclusion can be drawn for Europe as a whole. The role of gender differences in characteristics is found to be most important in the Liberal and Central and Eastern European countries, and less so in the Nordic, Southern and Continental countries, although the estimates are sensitive to the specification used and definition of the dependent variable. In our preferred model, differences in occupational characteristics in particular appear to play an important part in explaining gender differences in job satisfaction in many countries. The role of gender differences in the valuation of characteristics is found to be less important, especially the valuation of working conditions. These results suggest that only with the further convergence of socio-demographic, occupational and workplace characteristics will the gender differential in job satisfaction be eliminated. This study, however, doesn't control for unobserved heterogeneity. In the current context, if women have a greater innate tendency to be satisfied than men, then failure to control for this unobserved characteristic would lead to a misinterpretation of the results. Some studies (e.g., D'Addio et al. 2007) have used fixed effects estimators with panel data to control for the heterogeneity. They find that fixed effects specifications do yield different values for some coefficients, although the key determinants of satisfaction remain the same. Unfortunately the data used in this paper does not allow the fixed-effects approach.

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## 8 Appendix A: Tables

Table A1: Variable Definitions

Binary job satisfaction	= 1 if answers 9 or 10 on a scale of 0-10 “How satisfied are you in your main job?”; = 0 if otherwise
Ordinal job satisfaction	= 1 if answers 0 to 5 on a scale of 0-10 “How satisfied are you in your main job?” ; = 2 if answers 6 to 8; = 3 if answers 9-10
<i>Socio-demographic</i>	
Age	Age in years
Age squared	Age in years squared
Female	= 1 if female ; = 0 if male
Live with partner	= 1 if lives with a partner ; = 0 if doesn't live with a partner
Immigrant	= 1 if was not born in the country; = 0 if born in the country
Level_educ_1	= 1 if less than lower secondary or less secondary; = 0 if otherwise
Level_educ_2	= 1 if lower tier upper secondary or upper tier upper secondary, = 0 if otherwise
Level_educ_3	= 1 if advanced vocational or lower tertiary education or higher tertiary education; = 0 if otherwise
Good health or very good health	= 1 if health in general is very good or good; = 0 if otherwise
<i>Occupational variables</i>	
Seniority	Number of years working for the current employer
Union member	=1 if is currently member of trade union or similar organization; = 0 if otherwise
Unemployment 3m	=1 if has ever been unemployed and seeking work for a period more than three months; = 0 if otherwise
Trade	= 1 if trade industry; = 0 if otherwise
Service	= 1 if service industry; = 0 if otherwise
Manufacturing or construction	= 1 if manufacturing or construction industry; = 0 if otherwise
Government	= 1 if public administration industry; = 0 if otherwise
Other industry	= 1 if not in trade, service, manufacturing, construction or public administration industry; = 0 if otherwise
Size 1-24	= 1 if the size of the company is less than 24 persons; = 0 if otherwise
Size 25-99	= 1 if the size of the company is between 25 and 99 persons; = 0 if otherwise
Size 100 more	= 1 if the size of the company is more than 99 persons; = 0 if otherwise
Manager or professional	= 1 if legislator, senior official and manager or professional; = 0 if otherwise
Blue collar	= 0 if blue collar occupation; = 0 if otherwise
Technician, clerk or sales	= 1 if technician or associate professional or clerk or service worker or shop and market sales worker; = 0 if otherwise
Man boss	= 1 if immediate supervisor is a man; = 0 if otherwise
Few women	= 1 if proportion of women at workplace is none or very small; = 0 if otherwise
Half or more women	= 1 if proportion of women at workplace is Under a half, about half or over a half; = 0 if otherwise
<i>Working conditions</i>	
Very support coworker	= 1 if believes “can get support and help from his co-workers when needed” be very true; = 0 if otherwise
Very secure	= 1 if believes “how true my job is secure” to be very true; = 0 if otherwise
Job learning	=1 if believes “My job requires that I keep learning new things” be very or quite true; = 0 if otherwise
No risk safety	= 1 if believes “My health or safety is not at risk because of my work” to be very or quite true; = 0 if otherwise
Log hours	Logarithm of Total hours normally worked per week in main job overtime included; = 0 if otherwise
Flexible schedule	= 1 if believes “I can decide the time I start and finish work” to be true (a little, quite or very); = 0 if otherwise
Agree paid appropriately	= 1 if agrees or strongly agrees that “Considering efforts and achievements in job I feel I get paid appropriately”; = 0 if otherwise
Agree advancement	= 1 if agrees or strongly agrees that “My opportunities for advancement are good”; = 0 if otherwise
Work organized	= 1 if answers 8, 9 or 10 on a scale of 0-10 “how much the management at your work allows you to decide how your own daily work is organised?” ; = 0 if otherwise
Enough time to get everything done in job	= 1 if neither agree nor disagree, disagree, or disagree strongly that “I never seem to have enough time to get everything done in my job”; = 0 if otherwise

## A2. Model Ordered Probit (without control of sample selection)

	Continental countries	Nordic countries	Southern countries	Liberal countries	Central and Eastern countries
Female	.115437 (.069)	.2762656 (.089)	.0712207 (.099)	-.061075 (.115)	.0290623 (.096)
Age	.0203293 (.029)	.103904 (.036)	-.0524171 (.039)	-.0476394 (.046)	-.0424301 (.035)
Age squared	-.0002346 (.000)	-.0010405 (.000)	.0005402 (.000)	.0006955 (.000)	.0005292 (.000)
Live with partner	.0103625 (.063)	.1569051 (.089)	.0466558 (.088)	.1759884 (.098)	-.0791006 (.087)
Immigrant	-.1116419 (.0977)	-.3659437 (.183)	.2275506 (.137)	-.3294722 (.134)	.2865183 (.215)
Level_educ_1	.3525268 (.114)	.3684878 (.132)	.2250641 (.128)	.0385094 (.141)	.3818361 (.138)
Level_educ_2	.2125674 (.075)	.2958786 (.097)	.0795905 (.124)	-.1549225 (.121)	.2271942 (.100)
Good health or very good health	.2076176 (.064)	.2478169 (.089)	.2223018 (.109)	.1414371 (.121)	.217144 (.089)
Union_member	-.050886 (.072)	-.081063 (.100)	.1561414 (.116)	-.0236606 (.117)	.0927037 (.098)
Unemployment 3m	-.1267357 (.664)	.0532155 (.082)	-.0514324 (.092)	.0627009 (.119)	-.1570563 (.090)
seniority	.001117 (.003)	.0010386 (.004)	.0048323 (.006)	-.0040401 (.006)	.0075308 (.005)
Size_1_24	.1140667 (.069)	.0894372 (.094)	-.0783636 (.104)	.2024159 (.126)	.1711092 (.098)
Size_25_99	-.0382753 (.069)	.030788 (.088)	.035416 (.119)	.1086992 (.107)	.1421734 (.095)
Manager or professional	.0703156 (.076)	.1614035 (.097)	.2486425 (.116)	.1457174 (.117)	.0673698 (.108)
Blue-collar	.0514194 (.088)	.082084 (.119)	.0028383 (.125)	.3300257 (.151)	-.0484809 (.108)
Trade	-.0585106 (.103)	-.0967667 (.130)	.148691 (.127)	-.0956415 (.147)	.0437452 (.127)
Government	.2301837 (.082)	-.0089247 (.104)	.3606731 (.118)	.1188461 (.129)	.3670984 (.121)
Other industry	.1861909 (.129)	.0836822 (.161)	.2586362 (.175)	.0126274 (.193)	.0242884 (.147)
Manufacturing or construction	.2116036 (.086)	-.1646051 (.113)	.1049811 (.128)	.0462511 (.154)	-.0923972 (.106)
Man_boss	.0358854 (.069)	-.0274467 (.089)	-.2474882 (.105)	-.1701431 (.114)	.1231313 (.099)
Few_women	.0105676 (.075)	.1696254 (.100)	.1087806 (.113)	-.2429613 (.144)	.0771255 (.095)
Agree paid appropriately	.528686 (.059)	.3105212 (.076)	.5010407 (.0828)	.4163649 (.096)	.5248466 (.082)
Work organized	.470303 (.060)	.5174455 (.091)	.313465 (.0962)	.4263718 (.100)	.2333133 (.083)
Job_learning	.3356587 (.060)	.3636826 (.083)	.1837924 (.091)	.2805101 (.107)	.4450891 (.083)
Very_secure	.1896759 (.062)	.2301082 (.078)	.1156313 (.103)	.4139229 (.116)	.4149992 (.104)
Flexible schedule	.0680613 (.063)	-.046488 (.085)	.1510275 (.089)	.0860476 (.100)	.0941725 (.082)
Log_hours	-.2112336 (.081)	.0474674 (.122)	-.0105292 (.130)	-.030025 (.121)	-.1772918 (.153)
No never enough time	.161705 (.058)	.194282 (.0763)	.0389669 (.090)	.391376 (.099)	.3542413 (.093)
Very_support coworker	.3360949 (.058)	.5084262 (.075)	.2406189 (.088)	.2451635 (.095)	.2918842 (.084)
Agree advancement	.3735115 (.068)	.2594848 (.090)	.3294809 (.088)	.3426179 (.099)	.4726453 (.099)
No risk safety	.2034985 (.079)	.0389103 (.119)	.2416032 (.127)	.2141749 (.124)	.2576043 (.090)
Belgium	-.1424223 (.071)				
France	-.0468685 (.068)				
Netherland	-.3025605 (.072)				



Danemark		.3008898 (.079)			
Spain			.0462622 (.106)		
Portugal			-.0930597 (.122)		
Great Britain				-.0486806 (.091)	
Poland					.1731298 (.088)
Hungary					.4844741 (.084)
/cut1	.1827081 (.699)	2.969997 (.847)	-1.035685 (.971)	-.3158826 (1.083672)	-.4473785 (.920)
/cut2	2.036294 (.699)	5.097775 (.857)	1.032285 (.975)	1.618004 (1.090289)	1.530519 (.922)
Number of obs	2778	1159	1159	1264	1614
Wald chi2	466.69	259.82	259.82	148.05	346.66
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000
Log pseudolikelihood	-2377	-883	-1320	-1270	-1301
Pseudo R2	0.1240	0.1385	0.1162	0.1275	0.1521

#### Model Probit (without control of sample selection)

	Continental countries	Nordic countries	Southern countries	Liberal countries	Central and Eastern countries
Female	.1214302 (.084)	.2020146 (.104)	.069349 (.125)	-.0042464 (.147)	.1464455 (.121)
Age	.0197458 (.035)	.1247652 (.044)	-.0567176 (.052)	-.058612 (.057)	.0090613 (.046)
Age squared	-.0001 (.000)	-.0012062 (.000)	.0006311 (.00)	.0008765 (.000)	-.0000424 (.000)
Live with partner	-.0006844 (.077)	.0719471 (.101)	-.0167409 (.115)	.1223638 (.120)	-.1788014 (.109)
Immigrant	-.1102227 (.117)	-.205797 (.193)	.257426 (.168)	-.5151476 (.197)	.0702938 (.280)
Level_educ_1	.4187325 (.134)	.2926873 (.149)	.2691049 (.162)	.026872 (.163)	.445353 (.180)
Level_educ_2	.1963386 (.090)	.2675309 (.109)	.1785608 (.160)	-.2651744 (.151)	.1641168 (.164)
Good health or very good health	.2518558 (.0799)	.3429812 (.107)	.2125726 (.135)	-.0248354 (.145)	.1343273 (.116)
Union_member	-.0334 (.0873)	-.0083681 (.122)	.2045248 (.134)	-.0347362 (.136)	-.0243579 (.136)
Unemployment 3m	-.1236052 (.081)	.1039563 (.092)	-.068564 (.113)	.1290552 (.150)	-.092324 (.116)
Seniority	-.010056 (.004)	-.0011622 (.005)	.0018438 (.007)	-.0101126 (.007)	.0036539 (.007)
Size_1_24	.1615781 (.082)	.2001803 (.109)	.013093 (.135)	.1030366 (.149)	.2004561 (.128)
Size_25_99	-.018831 (.087)	.0479385 (.104)	.1114498 (.156)	.138243 (.134)	.2338117 (.124)
Manager or professional	.0652801 (.094)	.1109755 (.109)	.3780816 (.150)	.1364984 (.142)	-.0283949 (.143)
Blue collar	.1245681 (.102)	-.0408626 (.132)	.148393 (.154)	.3664848 (.189)	-.1028 (.140)
Trade	-.0712546 (.129)	-.1174621 (.151)	.204935 (.171)	-.1738649 (.193)	.1243012 (.179)
Government	.2159024 (0.103)	.0456577 (.118)	.4540701 (.153)	.0006544 (.166)	.4693418 (.155)
Other industry	.2150574 (.148)	.1243359 (.183)	.4809374 (.185)	-.0774338 (.249)	.2264127 (.190)
Manufacturing or construction	.1830057 (.108)	-.0869121 (.129)	.1987562 (.166)	.0138059 (.190)	.0624226 (.153)
Agree paid appropriately	.5393894 (.071)	.3242219 (.085)	.4063251 (.106)	.4153199 (.123)	.5655461 (.101)
Work organized	.5664836	.4634176	.4155135	.4342951	.2772613

	(.073)	(.105)	(.114)	(.127)	(.104)
Job learning	.2762537 (.073)	.2609568 (.093)	.0629263 (.116)	.1746599 (.141)	.2490241 (.107)
Very_secure	.242388 (.072)	.2851245 (.085)	.0661683 (.124)	.4580325 (.133)	.4847021 (.123)
Flexible schedule	-.0344802 (.074)	-.0412316 (.096)	.0069641 (.115)	-.0542746 (.123)	.0531948 (.107)
Log_hours	-.2603684 (.092)	.0219868 (.160)	.020778 (.164)	-.1067737 (.145)	-.2193536 (.178)
No never enough time	.1512535 (.069)	.2177103 (.087)	-.0172142 (.111)	.368886 (.115)	.165878 (.115)
Very support coworker	.4280115 (.068)	.557512 (.082)	.30091 (.109)	.2581789 (.117)	.2732419 (.104)
Agree advancement	.3933539 (.079)	.355557 (.102)	.2533573 (.112)	.3123755 (.122)	.4464286 (.122)
No risk safety	.0662485 (.096)	-.0247407 (.132)	.0745976 (.145)	.1556062 (.155)	.2124182 (.120)
Man_boss	.0976842 (.086)	.0312438 (.102)	-.2606021 (.128)	-.2731622 (.137)	.1665168 (.124)
Few_women	.0634541 (.091)	.122988 (.115)	.0639384 (.148)	-.1728765 (.194)	.0271163 (.122)
Belgium	-.0338 (.089)				
France	-.14705 (0,083)				
Netherland	-.608155 (.094)				
Danemark		.4048042 (.090)			
Spain			-.1694762 (.13)		
Portugal			-.3216918 (.156)		
Great Britain				-.1840841 (.111)	
Poland					.3537848 (.120)
Hungary					.744018 (.112)
Constant	1.838251 (0.831)	-5.658326 (1.084)	-5.658 (1.259)	-.5217892 (1.368)	-2.309665 (1.195)
N	2778	1159	1520	1264	1614
Log Likelihood	-1462	-643	-784	-720	-705
Prob>chi2	0	0	0	0	0
Pseudo R2	0.1541	0.1611	0.1195	0.1448	0.176

Table A3: Means and Standard Deviations, Employed Sample, by gender and country group

	Nordic countries		Continental countries		Southern countries		Liberal countries		Central and Eastern countries	
Variable	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Age	43.8	43.5	43.1	43.3	40.2	40.8	42.2	42.1	41.3	40.1**
Live with partner	77	78	73	76**	66.0	69	73.0	80.0***	71.0	77***
Immigrant	4	6	10	9	10	9	9	17***	1.8	0.9
Level educ 1	13.2	12.0	11.5	12.2	32.9	39.2**	23.6	23.7	14.5	25.9***
Level educ 2	25.4	35.3***	42.3	46.7**	17.0	20.3	25.3	26.8	37.4	44.6***
Level educ 3	61.4	52.7***	45.4	41.8**	50.0	40.6***	51.1	49.5	48.1	29.4***
Good health or very good	81.6	80.1	71.0	71.5	72.6	80.3***	82.1	79.6	71.5	75.7*
Seniority	10.8	10.2	11.9	12.7**	9.7	11.4***	8.8	9.2	10.1	9.7
Union member	89.6	81.2***	16.6	20.2**	18.4	20.6	32.5	25.9**	16.4	14.4
Unemployment 3 months	33.3	32.5	34.2	31.9	41.6	35.5**	17.7	21.9*	37.2	35.5
Trade	12.2	12.0	14.7	12.2*	18.7	17.2	18.2	15.8*	17.4	12.9
Service	17.5	27.7***	19.9	25.1***	27.6	27.4	18.6	32.6***	14.4	21.8***
Manufacturing or construction	8.4	34.5***	10.0	36.1***	10.2	25.9***	7.0	24.0***	19.8	42.6***
Public and para-public	56.9	18.5***	48.5	20.2***	36.2	21.7***	51.6	18.9***	42.0	12.6***
Other industry	5.0	7.3*	6.8	6.4	7.2	7.8	4.7	8.6***	6.3	10.0***
Size under 24	37.3	35.4	38.99	29.2***	59.0	56.2	30.2	25.5*	36.6	33.2
Size 25-99	32.0	29.2	24.2	23.6	21.4	21.7	25.0	30.9**	31.7	27.9*
Size 100-more	30.7	35.4*	36.8	47.2***	19.6	22.0	44.8	43.6	31.6	38.8***
Manager or professional	29.1	39.1***	23.3	25.8	24.4	18.9***	33.0	45.3***	38.4	27.2***
Blue collar	9.1	36.8***	11.7	37.3***	18.4	43.4***	8.6	33.2***	19.4	52.4***
Technician, clerk or sales	61.8	24.1***	65.0	36.9***	57.2	37.7***	58.4	21.5***	42.2	20.4***
Man boss	40.6	83.2***	56.4	87.9***	59.3	89.2***	35.7	83.9***	43.5	88.5***
Few women	7.2	47.8***	7.8	41.9***	8.5	42.7***	5.1	39.9***	7.5	57.1***
Half or many women	92.8	52.2***	92.2	58.1***	91.5	57.3***	94.9	60.1***	92.5	42.9***
Very support coworker	53.5	42.4***	44.3	43.1	33.5	36.8	53.6	44.4***	31.1	29.2

Very secure	36.8	32.6	38.6	35.2*	30.3	39.8***	23.9	22.1	23.7	22.4
Job learning	68.3	58.5***	54.0	61.2***	45.7	52.4***	71.1	67.4	61.2	61.1
No isk safety	89.1	86.8	84.9	75.0***	89.6	79.1***	84.3	77.6***	82.2	66.0***
Hrs per week	36.7	41.7***	33.9	42.7***	38.0	43.4***	33.1	44.4***	40.6	46.0***
Flexible schedule	52.6	62.8***	44.3	55.8***	27.8	37.5***	43.5	53.3***	34.0	39.2***
Agree paid appropriately	43.7	58.6***	42.6	51.1***	42.3	44.9	57.1	59.4	28.0	30.4
Agree advancement	25.1	27.8	25.2	32.8***	30.2	37.5***	43.1	45.9	20.2	21.4
Work organized	72.3	72.5	55.1	58.1	44.9	43.7	56.8	57.6	35.9	31.7*
Note: *gender difference significant at .10 level, **significant at .05 level, ***significant at .01 level										









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