Center for Economic Institutions
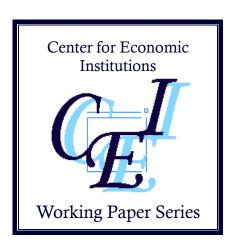# Working Paper Series

"Gender inequality and the gender job satisfaction paradox in Europe"

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Abstract

Although women are paid less than men, face worse working conditions, lower promotion opportunities, and work-place discrimination, they typically report job satisfaction higher or similar to men's. Twenty years ago Clark (Clark, 1997) suggested that the reason behind women's higher job satisfaction are their lower expectations, driven by a number of factors related to current and past positions of women on the labour market. Although this hypothesis is one of the leading explanations of the gender differences in the job satisfaction, cross-country research investigating the relationship between the gender inequality and gender job satisfaction gap are rare and only descriptive. In this paper we use the data from EU-SILC module on subjective well being from 2013 to analyse adjusted gender job satisfaction gaps in 32 European countries and relate them to the country differences in gender inequalities. Results provide extensive and robust evidence of a relationship between exposure to more gender equal settings in the early stages of life and smaller gender gaps in job satisfaction, once all other possible drivers are controlled for. This suggests that women who experienced higher gender equality have expectations increasingly aligned to those of their male counterparts. Our results also show that this alignment is further favoured by being employed in typically male occupations, whereas higher levels of education do not play a similar effect.

1. Introduction

Job satisfaction can be defined as "a pleasant or positive emotional state which is a result of the assessment of one's job or job experiences" (Locke, 1970). One of the most prominent researchers on job satisfaction, Andrew Clark (1996, 1997), argues that investigation of job satisfaction is important at least because: 1) it represents a measure of individual well-being, whose distribution is one of the most central topics in economics and 2) it is one of the best predictors of job performance (quits, absenteeism, and productivity) as well as customer satisfaction (Rogers et al., 1994). Therefore, although previously dismissed as subjective and unreliable concept, job satisfaction has been proved to be significant and complementary to objective welfare indicators (e.g. Stiglic et al., 2010). Research on the drivers of job satisfaction has developed significantly in the last decades and has shed light in particular on the role played by remunerations, hours worked, job and individual characteristics (see section 2). The empirical research from a gender perspective has highlighted what is now referred to as the *gender job satisfaction paradox* (Clark, 1997). Contrary to the extensive evidence of women having lower wages, worse job conditions, and being worse off in the terms of discrimination, job content and promotion opportunities, women are frequently found to have equal or higher levels of job satisfaction then men (e.g. Clark, 1997; Sousa-Poza and Sousa-Poza, 2003; Keiser, 2005, Blanchflower et al, 1993). The explanation of the paradox are grouped into two main lines: (i) women have lower expectations than men; (ii) women assign a higher value/preference to some specific characteristics that compensate for their lower wages and worse working conditions.

As we will show in the next section, empirical evidence on the job satisfaction paradox is still very limited, as is the research trying to explain what drives differences in expectations and work values across genders. The contributions relating the existence of the paradox to beliefs on gender roles and the observed levels of gender inequality either provide indirect or purely descriptive evidence. The aim of this paper is to contribute to this literature, along the avenue traced by Clark (1997), by showing econometric evidence that the existence and the extent of the paradox can be explained by exposure to unequal gender socio-economic settings. To this aim, the use microdata from the special module on well-being of the 2013 EU-SILC in combination with various gender inequality country level indicators. The paper adds to existing knowledge on the topic by: (i) providing extensive and recent cross-country evidence on the existence and size of the gender job satisfaction paradox in Europe (32 countries, year 2013); (ii) estimating the paradox and its relationship with gender inequality indicators by means of econometric methods able to address potential misspecification and comparability issues (nearest neighbour matching). Our results strongly support the idea that exposure to gender unequal settings in early stages of life, rather than current observed gender inequality, plays a role in shaping women's expectations about their job positions and, ultimately, originate the paradox. Our results are consistent with the body of evidence showing that culture and institutions shape social norms, preferences and beliefs (Guiso et al., 2006; Tabellini, 2010; Lippmann et al., 2016) that, especially if formed during crucial developmental age persistently affect individual behaviours (Alesina and Fuchs-Schundeln, 2007). However, we also show that employment in typically male occupations enables women exposed to higher gender equality to additionally revise their beliefs and align expectations to men's ones. Attaining higher levels of education, on the contrary, is not able to play a similar role.

The reminder of the paper is organised as follows: in the next section we review and discuss the main contributions on job satisfaction and the gender paradox, focusing in particular on the role played by observed female labour market positions and beliefs in gender roles in shaping women's expectations and preferences. In section 3 we describe the data, the empirical methods, and the estimated levels of job satisfaction gender gap across Europe. In section 4 we augment the empirical model in order to account for the role played by current observed gender inequality on the job satisfaction paradox. In section 5 we show that exposure to gender equality/inequality during early stages of life is an important

driver of current beliefs and expectations and therefore affects the size of the job satisfaction paradox. Section 6 summarizes and concludes.

2. Gender job satisfaction paradox and gender inequality

Hulin and Judge (2003), authors in the field of psychology and management, view job satisfaction as a multi-dimensional concept which includes a cognitive and affective component. While cognitive component requires evaluation of actual working conditions and their comparison to workers expectations, the affective component refers to level of happiness and positive emotions related to the job. Economists, on the other hand, use the concept of job satisfaction as one operationalization of total utility from work (Clark, 1996). In this line of research, job satisfaction is measured via one item which is, from the perspective of a multi-dimensional structure, typically congnitive[1]. Within this framework, job satisfaction is seen as a utility function, determined by wages (*y*), working hours (*h*) and set of job (*j*) and individual (*i*) characteristics (Clark and Oswald, 1996):

$$JS = U = U(y, h, i, j) \tag{1}$$

wherein preference to higher income and fewer working hours are assumed (Clark, 1996). Wages influence job satisfaction in accordance with the rule of diminishing marginal utility of income: marginal utility of wages is higher at lower than on the higher deciles of the wage distribution, and researchers therefore often use natural logarithm of earnings instead of levels in specifying the utility function (Clark and Oswald, 1996). The relation between working hours and job satisfaction is also non-linear: satisfaction grows with hours of work, but begins to decline when the number of hours of work becomes excessive and burdensome (Dolan et al, 2008). Among other job characteristics, smaller firms, permanent contracts and work in public sector are frequently associated with higher levels of job satisfaction due to combined effects of higher job security and higher intrinsic motivation for work (Buelens and Van den Broeck, 2007; Ghinetti, 2007; Vladisavljević, 2017). Evidence on the effects of occupations are not conclusive and depend on the variables included in the estimation (e.g. Clark, 1996).

Among the individual characteristics, marital status is typically associated with higher levels of job satisfaction, although evidence is inconclusive (Gazioglu, and Tansel 2006), while correlation of job satisfaction and age is typically U-shaped (Clark et al., 1996). When controlled for other working conditions (salary, occupation etc.), educational effects are frequently found to be negative, due to the higher work expectations of people with higher levels of education (Clark and Oswald, 1996).

The existing literature also emphasises gender differences in job satisfaction on which, given the aims of the paper, we focus now. In his reference paper Clark (1997) finds that in the UK women have higher job satisfaction than men and discusses potential reasons behind the differences. He groups these reasons in five groups: 1) differences in individual and job characteristics; 2) differences in work values; 3) selection bias; 4) differences in relative income distributions; and 5) differences in expectations. According to his findings, factors 1) to 4) although relevant, cannot fully explain the gender differences in job satisfaction. On the other hand, he finds that gender differences in job satisfaction are not significant for younger and highly educated workers, workers whose mothers had professional jobs, workers in professional or managerial positions and male dominated workplaces. According to Clark, women in these groups have equal job satisfaction as men because they have higher

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[1] Usually the reason for using only one item is the fact that researchers are interested in nationally representative data sets, which due to their size opt for smaller number of questions. Similarly, in EU-SILC, satisfaction with work is measured over a single, global cognitive item. See more details in section 3.1.

expectations from work than other women, which are then more difficult to be met. Their expectations are higher because they are younger (hence, they grew up in less gender-unequal societies), had different role models in early childhood (workers whose mothers had professional jobs), were exposed to good jobs during their work-life (better education and professional or managerial positions) or are influenced by observation of others (at male dominated workplaces).

Therefore, the generally observed higher female job satisfaction is not the result of better jobs, but of lower job expectations[2] resulting *"from the poorer position in the labour market that women have held in the past"* (Clark, 1997, p.342). As a consequence, the gender job satisfaction paradox is expected to be a *transitory* phenomenon. As soon as more women are exposed to better jobs, or to contexts enabling them to overcome gender roles beliefs (e.g., higher education), they will revise their expectations upwards and the gap in job satisfaction would disappear. However, as Clark admits and points out, direct evidence on gender differences in job expectations is very limited (e.g., Sloane and Williams, 1995; Waldman, 1994), while the analysis of their effect on gender job satisfaction gap in his paper is provided via "indirect approach", as the variables employed (age, education and occupations) "*might* be realistically correlated with expectations" (Clark, 1997, p. 360).

An alternative explanation (Sloane and Williams, 2000; Bender et al., 2005) suggests that women have higher job satisfaction in female dominated occupations because they put higher value on other aspects of work such as flexibility, social connections etc., although these jobs are with lower wages and poorer working conditions. According to this line of reasoning the "bundle of characteristics associated with women's jobs" valued highly by women is sufficient to compensate for lower wages. Bender et al. (2005), for example, explain the higher observed job satisfaction for women with missing information about determinants specific to women. In particular, they find that accounting for flexibility between work and home, that appears to be of greater value to women, eliminates satisfaction differences associated with gender composition. The idea of different job values of men and women has received extensive attention (Marini et al., 1996; Neil and Snizek, 1987; Dæhlen, 2007, Gooderham et al. 2004). However, it is somehow surprising that the two groups of explanations of the paradox (gendered expectations and values) are considered separately in the literature on job satisfaction (as in Clark's reference work), while it seems plausible that they go hand in hand due to their common origin: gender differences in values are, among other things, shaped by observed and experienced gender inequalities (e.g., Hiller, 2014; Alesina et al. 2013; Giuliano, 2017).

Empirical research on job satisfaction and its relations with gender inequality, besides Clark's "indirect" approach, is limited and essentially descriptive. Sousa-Poza and Sousa-Poza (2003) find that female job satisfaction in the UK has declined substantially from 1991 to 2000, while male remained the same. As a consequence, the gender gap in job satisfaction was halved in this period and the authors suggest that this result supports Clark's expectations about the transitory nature of the gender job satisfaction paradox. However, this evidence is rather descriptive as the progress in gender equality is only assumed and not econometrically modelled and, as the authors themselves suggest, could also be the result of other factors than advancement in gender equality. Keiser (2005) compares gender job satisfaction gaps in 14 EU countries and finds that the paradox does not appear in countries which have higher levels of gender labour market equality, such as Denmark, Finland and Netherlands, nor in Portugal, where men enjoy better working positions and have higher job satisfaction. In all other 10 countries[3], where according to the author the gender equality is lower he finds that job satisfaction is

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[2] The notion of expectations according to other authors (Bender et al., 2005) can also be understood in terms of the effects of social norms on job satisfaction: as women are socialized not to anticipate high satisfaction from work, they can be surprised by their actual experiences and therefore have higher levels of job satisfaction.
[3] Austria, Belgium, France, Germany, Greece, Ireland, Italy, Luxemburg, Spain and UK.

ceteris paribus higher for women. Although Keiser's results illustrate that gender job satisfaction paradox is related to the gender equality, his evidence is, similarly to Sousa-Poza and Sousa-Poza's (2003), only descriptive, since the country differences in gender equality are not econometrically modelled. Sousa-Poza and Sousa-Poza (2000) analyse gender job satisfaction gaps in 21 countries and find that women have higher levels of job satisfaction in Great Britain, United States, Hungary and New Zealand, while in the remaining countries the gap is not statistically significant. They indicate that in the countries where gender job satisfaction gap exists women have higher "work-role outputs", such as job security, feeling that their work is useful and good relations with management and colleagues. However, as the authors stress out, these factors cannot fully account for the country differences in gender job satisfaction gaps and propose Clark's hypothesis as one of the potential explanations.

Our attempt here is to provide more direct econometric evidence, on a cross-country basis, between levels of gender inequality and the existence and extent of the paradox.

3. Gender differences in job satisfaction across Europe

3.1 Data and variables

To estimate the job satisfaction gender gap we use the 2013 EU Survey on Income and Living Conditions (EU-SILC), which includes information on 32 European countries (28 EU members plus Norway, Switzerland, Island and Serbia). We use the data for 2013 as the survey for this year included a module on well-being, with a question on job satisfaction[4]. EU-SILC is especially suitable for this research as it contains country comparable, detailed information on income, working hours and individual and job characteristic, which are necessary to perform the analysis. The sample for the analysis included 124,822 individuals. The sample included workers in dependent employment, aged 19 to 64, excluding self-employed, agriculture workers, workers in training and persons not responding to the question on job satisfaction[5].

Job satisfaction was measured via response on eleven-point Likert type scale (from 0 - "not at all satisfied" to 10 "completely satisfied") after a question "How do you evaluate your current job?" (variable PW010 in the data set). According to Eurostat (2015), when answering the question, *"respondent should make a broad, reflective appraisal of all areas of his/her job in a particular point in time (current situation)"*. Global cognitive operationalization of job satisfaction fully corresponds to total work utility approach proposed by Clark (1996).

Beside gender, we use large set of control variables to account for gender differences in individual and job characteristics, which includes: log monthly wages, weekly working hours (and a dummy for working more than 50 hours), age (and its square), marital status, education, occupation, activity sector, presence of an additional job, firm size and type of contract (permanent vs. temporary),

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[4] The ad-hoc well-being module was introduced for the first time in 2013. Previous research confirms good psychometric properties of the module (Vladisavljević and Mentus, 2018). The topic of ad-hoc modules in EU-SILC rotates on a five-year basis and next time the module on subjective well-being will be included is 2018.

[5] We dropped self-employed, due to inapplicability of the some of the questions such as firm size and temporary work (similarly to Clark, 1997) and differences in job utility determinants such as income and other working conditions (Blanchflower and Oswald, 1992); similarly, we excluded agriculture workers as their job satisfaction can be under the strong influence of weather and other unobservable working conditions and persons in training as their job satisfaction is confounded with the training satisfaction.

as well the country fixed effects (for more details and definitions of the variables used, see Table A1 in the Appendix).

3.2 Econometric methods and empirical model

Prior to model estimation, we applied a nearest neighbour matching technique (Abadie and Imbens, 2002) to restrict the sample to men and women whose individual and job characteristics are comparable. Since gender occupational and sectoral segregation have long been established in the literature, failing to account for comparability of empirical distribution of individual characteristics can cause severe misspecification problems, which have been largely documented in the impact evaluation literature. The recent acknowledgment of such issues has led to the development of several methods which incorporate the matching framework in analyses of gender wage differences (e.g. Nopo, 2008), but, to the best of our knowledge it has not been used in the analysis of the differences in job satisfaction.

We apply the nearest neighbour matching procedure proposed by Abadie and Imbens (2002) and implemented is *Stata* (*nnmatch* command) by Abadie et al. (2004). Applied to the investigation of gender differences in job satisfaction, the procedure can be described in the following way. Within each country k, we consider a male[6] worker i (i = 1, 2, … p), with x_{im} – vector of m observed covariates determining his job satisfaction. Allowing for the possibility of ties, we define $d_{mij} = \|x_{im} - z_{jm}\|$ as a multidimensional distance from the covariates of a male worker i to covariates of all potential matches from the pool of female workers, where z_{jm} are the values of covariates for female worker j (j = 1, 2, … q). Female worker w, with the values of covariates z_{wm} is the "nearest neighbour" of the male worker i if condition $\forall j, \{d_{iwm} = \|x_{im} - z_{wm}\| \leq d_{ijm}\}$ is satisfied, i.e. if the multidimensional distance from the covariates of male worker i to the covariates of female worker w is lower or equal than the distance from the covariates of male worker i to the covariates of all other female workers from that country.

In this paper, the nearest neighbour matching procedure is implemented within each country k, requesting that men and women are matched exactly ($d_{iwm} = 0, \forall m$) on: wage quintile groups, working hours groups, education, occupation, sector (two groups: industry vs. services), temporary/permanent contract, and age group[7]. Since we do not want to estimate the gap as an treatment effect, but rather only to restrict our sample, we request the procedure to choose only one nearest neighbour, and allow observations to be used as nearest neighbours more than once, which makes the matching order irrelevant. Female and male respondents who do not have exact opposite sex matches are then dropped from the sample. After matching, 83,555 out of 124,822 individuals (67.0%) were kept in the analysis.

Pooling data for different countries originates a multilevel data structure, in which observations at the individual level are nested within the country level. Relying on Bryan and Jenkins (2016), and as done, for example, in Perugini et al. (2016), we opt here for a fixed effect (FE) estimation approach, i.e., pooling the country surveys and including distinct country intercepts. The basic form of the job satisfaction model is given by the following equation:

$$JS_{ik} = \alpha + \beta female_{ik} + X_{ikn}'\gamma_n + u_k + \varepsilon_{ik} \qquad (2)$$

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[6] We define the matching procedure from the perspective of men, but the procedure and the results would be the same if we take women as the reference group.

[7] Working hours groups: part time, full-time and overtime; Education groups; Occupation - ISCO 1 groups; Sector: age groups: 19/24, 25/34, 35/44, 45/54, 55/64.

where i and k denote individuals and countries, respectively; u_k denotes country fixed effects, X_{ikn} is the regressor matrix, γ_n the vector of associated coefficients, and ε_{ik} represents the error term. The matrix X_{ikn} consists of the control variables described in the section 3.1. The coefficients β next to dummy variable for gender measures the adjusted gender job satisfaction gap, which according to Clark (1997), measures the gender differences in expectations, as objective working conditions are controlled for. Model (2) is applied to estimate adjusted gender job satisfaction gap in the whole sample and separately for every country.

Although job satisfaction is measured on a Likert type scale, which produces ordinal type variables, results from the measurement literature (Norman, 2010; Brown, 2011) suggest that ordinary least squares (OLS) estimates do not differ in results or conclusions when applied to interval and Likert scale type measures. We therefore opt to estimate the model by using the OLS method, as we are then able to compare adjusted gender job satisfaction gaps in different countries. As a robustness check for the analysis of the pooled data we use ordinal probit model, where in order to calculate the marginal effects of the variables we recode the job satisfaction variable to three categories: 1) low (0-5), 2) median (6-8) and high (9 and 10)[8]. The baseline for the marginal effects is median job satisfaction, while two marginal effects are interpreted as marginal impacts of covariates on increasing the probability of reporting low and high job satisfaction. For both procedures (OLS and probit) we use robust Huber/White/sandwich estimator, which produces robust standard errors and use household identifier as clusters to additionally correct the standard errors for the within-household correlation (Cameron and Trivedi, 2010, p.84). We further test the robustness of our results by applying both OLS and ordered probit estimates on the total sample, without the matching restriction.

3. 3. Results

Our baseline estimate is presented in the table A2 in the Appendix. The results are largely reproduced in ordered probit specification, as well as for the total sample (without the matching restriction). The coefficients for covariates in the model 2 have the expected signs. In line with our theoretical model, job satisfaction is higher for people who receive higher wages and lower for people working longer working hours (Bender et al. 2005; Linz and Semykina, 2013). Surprisingly, working overtime (longer than 50 hours) has no additional effect on job satisfaction. Coefficients for both age and age squared are significant indicating a well-known U curve relation between age and job satisfaction (Linz and Semykina, 2012; Ghinetti, 2007), while job satisfaction is higher for married individuals (Clark, 2006; Linz and Semykina, 2012). Sectoral dummies indicate that compared to manufacturing, workers in public administration (NACE sector O), education (P), health (Q) and arts, sports and NGOs sectors (R to U), have higher levels of job satisfaction, probably due to the combination of higher intrinsic motivation for work and higher job security of the public sector jobs (Buelens and Van den Broeck, 2007; Ghinetti, 2007). Intrinsic motivation and job security are also frequently used to explain two other results from our estimates - higher job satisfaction for working in smaller firms and working on permanent contracts (Clark, 1996). Compared to elementary occupations, all other occupations have ceteris paribus higher levels of job satisfaction, the effects being the strongest for Managers (ISCO group 1) and Professionals (group 2). Finally, in line with the argument from the section 2, after controlling for all other covariates, effects of education are negative indicating higher work expectations of more educated workers (Clark and Oswald, 1996; Bender et al. 2005).

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[8] In accordance with the Eurostat analysis of the job satisfaction in Europe http://ec.europa.eu/eurostat/statistics-explained/index.php/Quality_of_life_in_Europe_-_facts_and_views_-_employment

We now turn to our main interest, gender differences in job satisfaction. The coefficient for female in model (2) represents the so-called adjusted gap in job satisfaction, i.e. the gender differences in job satisfaction, when all other observable job and individual characteristics are statistically controlled for. The estimated coefficient for the gender dummy (female=1) is positive and statistically significant at 0.05 level, indicating that on average, in the sample of 32 European countries (country-fixed effects included), women have higher level of job satisfaction then men. However, we observe large differences across countries in the size and the sign of the job satisfaction adjusted gap (Figure 1 and Table A3 in the appendix, in which we also reported the estimated unadjusted gender gap).
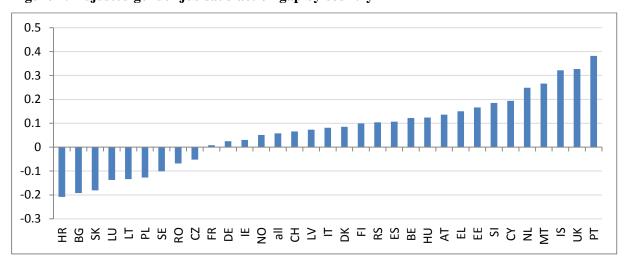
Figure 1: Adjusted gender job satisfaction gap by country

Source: Authors' elaboration on SILC data. Full tables with estimations by single countries are available from the authors upon.

Our evidence is only partially consistent with the existing evidence reviewed in section 2. Job satisfaction is, ceteris paribus, higher for men in the seven countries of East Europe: Croatia, Bulgaria, Slovakia, Poland, Lithuania, Romania and Czech Republic, although for the latter three, as well as Luxemburg and Sweden, that also have negative signs, the coefficient is insignificant. On the other hand, women have higher job satisfaction in all other countries, although the difference is statistically significant only for Portugal, UK, Island, Malta, Netherlands, Cyprus, and Hungary.

4. Current gender inequality and the job satisfaction paradox

According to the Clark's conjecture (1997), after controlling for covariates in model (2), the gap in gender job satisfaction reflects differences in work expectations between men and women; one of the drivers of such difference is that women have poorer labour market positions, tend to have lower expectations regarding their jobs, and are consequently more satisfied (than men) with the same job. As a consequence, we should expect that the paradox exists in the countries with low levels of gender equality, since women in these countries have lower job expectations then men and consequently higher levels of job satisfaction.

To test the effects of gender equality explicitly, in Table 1 we augment model (2) with an interaction of the gender dummy variable with a measure of gender equality. The use of country fixed effects obviously prevents the inclusion of additional country-level predictors in the empirical model, since the country intercepts already fully encapsulate cross-country differences (Snijders and Bosker,

1999). However, additional country-level variables can be interacted with individual-level variables so as to obtain the additional effect that a country-level factor produces on the main (individual-level) effect. The augmented model therefore reads:

$$JS_{ik} = \alpha + \beta female_{ik} + \boldsymbol{\beta_1 female * Gender\ equality} + X_{ikn}'\gamma_n + u_k + \varepsilon_{ik} \qquad (3)$$

where β_1 represents the impact of current gender equality on gender job satisfaction gap and all other coefficients and variables are the same as in model (2). If higher gender equality contributes to increase women's job expectations (hence lowering their job satisfaction), we should observe a negative sign for β_1.

Indicators of gender equality at country level are taken from the World Economic Forum's Global Gender Gap Report 2013. We consider in the first place the Gender Gap Index, which varies between 0 (maximum inequality) and 1 (equality); this overall index is calculated as the un-weighted average of four sub-indexes (again ranging from 0 to 1) which describe four main gender gap dimensions: economic participation and opportunity, educational attainment, health and survival, and political empowerment. The fours sub-indexes are calculated as weighted averages of 14 different indicators that form part of them (see WEF, 2013, for details on the methodology and the base indicators).

Contrary to what we would expect based on Clark's conjecture, Table 1 indicates that the current level of gender equality in the country, as measured by the WEF global gender index, has a positive relationship with the job satisfaction gap (at a 0.05 level). Replacing the global index with its two sub-components that show sufficient variability across countries (columns 3 and 4 of Table 1)[9], reveals that the positive relation between the global gender equality index and the job satisfaction gap is mainly due to the political empowerment score[10]. Therefore, instead of the expectations explanation, the results indicate a more direct link between current gender equality and job satisfaction: better position of women in the country, signalled by higher values of gender equality indices, increases their job satisfaction.

Table 1: Job satisfaction gender gap, current gender equality and age (OLS, matched sample)

	1	2	3	4	5
Female	0.058**	-0.716**	-0.287	-0.039	-0.086
	(0.024)	(0.327)	(0.230)	(0.042)	(0.095)
Female * Overall Gender Equality Index		1.060**			
		(0.453)			
Female * Economic Participation and Opportunity Score			0.499		
			(0.334)		
Female * Political Empowerment Score				0.376**	
				(0.155)	
Female * Age					0.003

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[9] The education and health indexes have very limited variability across the countries included in our analysis, ranging from 0.982 to 1 and from 0.964 to 0.980, respectively. Conversely, the participation index ranges from 0.565 to 0.836 and the political empowerment index from 0.057 to 0.754.

[10] While the ordered probit estimates for the matched sample suggest a stronger link between gender JS gap and both overall index and the political empowerment index (both significant ant 0.01 level), the analysis of the full sample points towards marginal significance of the overall index (p<0.1), while the political empowerment index is significant at 0.05 level.

(0.002)

Another test of Clark's hypothesis can be implemented, as Clark himself did, exploiting the heterogeneity of exposure to different gender equality setting within countries. To this aim, we interact the female coefficient with age as, according to this hypothesis, older women who formed their job expectations in their youth, when they faced higher levels of gender inequality, should have lower levels of job expectations. On the other hand, younger women, who grew up in societies with more progressive gender policies and settings, should tend to have expectations more similar to men. Hence, the gender job satisfaction paradox should apply to older but not to younger women.

To test this hypothesis, similarly to Clark (1997), we estimate the following model:

$$JS_{ik} = \alpha + \beta female_{ik} + \boldsymbol{\beta_2 female * age} + X_{ikn}{'}\gamma_n + u_k + \varepsilon_{ik} \tag{4}$$

where β_2 tests whether the gender job satisfaction gap differs with age, and all other coefficients and variables are the same as in model 2. Results of the estimation are presented in column 5 of Table 1 (complete results are reported in Table A5 in the appendix, column 2). Results indicate that gender differences in job satisfaction increase with the age of the respondents, but the effects are not statistically significant[11].

5. The effect of past gender inequality and the job satisfaction paradox

The evidence from the model 4, if the effects were significant, however, would have been circumstantial since we still lack a direct link between the gender job satisfaction gap and the advancement of gender equality. We only observe that there is (a relatively weak) link between age and job satisfaction gap, but we have no way of knowing whether this link is due to differences in gender inequalities or some other factors. Furthermore, investigating the notion of effects of different gender equality settings via interacting gender variable with age assumes that the development of the gender equality had a linear trend (i.e., that improvement of gender equality was linear with the age of the respondents) and developed in the same way in all countries.

The latter assumption is particularly questionable in our case since our sample is composed of many European countries that had very different histories of gender equality, strictly related to their political and ideological systems. The emphasis on economic and social equality was a hallmark of the socialist ideology. Countries of Central and Eastern Europe were actually able to maintain, before transition to market economy started in 1989, remarkably equal distributions of income and were often identified as the most equal countries in the world (Atkinson and Micklewright, 1992). In particular, equality of men and women was proclaimed as one of the key ideological tenets of socialism (Little, 2011), deeply rooted in the thinking of the founding fathers and emphasized as a key achievement of overcoming capitalism which, by nature, favoured women's oppression (see, for example, Friedrich Engels in his 1884 book, The Origin of the Family, Private Property and the State). Despite horizontal and vertical gender segregation still penetrated many fields of social life (Jurajda, 2003 and 2005; Pollert, 2005) and family loads were largely asymmetric (La Font, 2001; Gal and Kligman, 2000), women's

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[11] When we include the whole sample (without the matching restriction) the coefficient for age becomes statistically significant at 0.05 level, however oprobit estimates (both with and without matching restrictions) suggest that the coefficient is not significant.

participation in the labour market and their access to education, healthcare and political life were incomparably higher compared to Western Europe (Blau and Ferber, 1992; Brainerd, 2000). It is largely documented that this contributed to develop remarkably different attitudes and beliefs about the position of women in the labour market and in society (Blanchflower and Freeman, 1997; Campa and Serafinelli, 2016; Lange, 2008; Fargher et al., 2008). The transition to market economy started in the 1990s entailed important changes in this regard too (Vecernìk, 2003), not only because the economic environment changed dramatically and forced many men and women into unemployment or out of the labour force. Central and eastern European governments widely endorsed more conservative gender policies, emphasizing women's roles as mothers rather than workers and making labour market participation more difficult (Pascall and Manning, 2000); at the same time, the change in regime led many citizens of post-communist economies to support market justice norms and outcomes merely in contradistinction to socialist norms (Mason and Kluegel, 2000).

As a consequence, while in western European countries younger cohorts of women were gradually exposed to more progressive and gender-neutral policies, attitudes and environments compared to their older counterparts, the opposite happened in Central and Eastern Europe. This might explain why the estimation of model 4 provides a rather week evidence of the impact of age on the job expectations and the gender job satisfaction paradox; age is simply not providing the same information for all countries considered in the sample. To overcome this issue and investigate the direct link between historical changes in the gender equality and gender job satisfaction paradox, we need to go beyond simple link between age and gender and introduce the indicator of historical gender equality directly into the model.

To this aim, we collected data on female/mare participation (activity) rates ratio, one of the few available indicators of gender equality that can be traced back as close as possible to the age of birth of the oldest respondents in our sample[12]. Figure 2 provides a snapshot for (un-weighted) average levels of the indicator for Central Eastern and Western Europe and for some selected countries since 1960 and clearly shows how gender equality evolved quite differently in the two groups of countries.
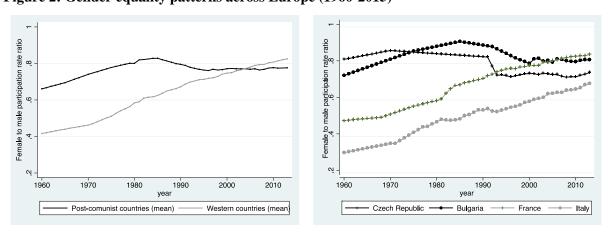
Figure 2: Gender equality patterns across Europe (1960-2015)

[12] The main data source was the World Bank World development Indicators (WDI) dataset, providing data from 1960 onwards for a large number of countries (variable SL.TLF.CACT.FM.NE.ZS - Ratio of female to male labor force participation rate (%), national estimate). Missing data for Central and Eastern EU countries prior to 1989 were integrated using a large number of national specific information, which include: Godfrey and Richards (1997); Kinsella and Taeuber (1993), Elias (1972); Fullerton (1999); Sorrentino (1983); Statistics of the USSR (various years); Federal Statistical Office of Yugoslavia (various years)). The remaining missing variables (for both Central Eastern and Western countries) were reconstructed by linear interpolation.

In order to test the idea that values and beliefs (in this case regarding gender roles and consequent expectations) are formed in early stages of life (Clark, 1997; Loscocco and Spitze, 1991; Miller, 1980) we construct an indicator of early life exposure to gender equality (ELGE) as the average of the female/male participation ratio over the first 20 years of life of each respondent in her/his country[13]. Although this measure does not fully capture the cultural and social setting in which the individual was raised (in particular with reference to her/his family characteristics), it provides a rather broad measure of socio-economic gender climate, in which work relations between the genders and gender job expectations were constructed. This variable (ELGE) is then merged by country and age with the EU-SILC data and interacted with the gender dummy so to estimate the model:

$$JS_{ik} = \alpha + \beta female_{ik} + \boldsymbol{\beta_3 female * ELGE} + X_{ikn}{'}\gamma_n + u_k + \varepsilon_{ik} \qquad (5)$$

where β_3 indicates the impact of exposure to gender equality in childhood and youth on the gender job satisfaction gap, and all other coefficients and variables are the same as in model 2.

In line with our expectations β_3 is negative (Column 2 in Table 3), indicating that the increase in participation ratio, which signals the advancement of gender equality, is indeed related to lower levels of gender job satisfaction gap. Women who lived their childhood and youth in contexts with higher female to male participation ratios have statistically lower job satisfaction than their counterparts who were exposed to more gender unequal environments. This corroborates the idea that beliefs about gender roles, shaped by the surrounding context in early stages of life, can drive expectations and be among the drivers of the gender job satisfaction paradox. The effect is robust to the inclusion of the interaction with age variable (Column 3), as well as the inclusion of the current equality indicators from the WEF global gender index (Columns 4 and 5 in Table 3). Further robustness checks (available upon request) obtained via ordered probit estimates and using the full sample (without matching restriction) confirm the sign and significance of the β_3 coefficient.

Table 3: Job satisfaction gender gap and gender equality in early stages of life (OLS, matched sample)

	1	2	3	4	5
Female	0.058**	0.335***	0.346**	-0.196	0.251
	(0.024)	(0.071)	(0.146)	(0.259)	(0.157)
Female * Age			-0.000	-0.001	0.000
			(0.002)	(0.002)	(0.002)
Female * Early Life Gender Equality (ELGE) Index		-0.465***	-0.470***	-0.550***	-0.428***
		(0.110)	(0.116)	(0.117)	(0.119)
Female * Economic Participation and Opportunity Score				0.884***	
				(0.338)	
Female * Political					0.235

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[13] Our sample includes individuals born from 1949 to 1994. For the 18,102 individuals born before 1960 (about 21 percent of the sample) the average of the gender equality indicator is calculated on a smaller number of years, as the data on gender inequality are available only up to 1960.

Note: Full model is presented in table A5 in the appendix. *** p<0.01, ** p<0.05, * p<0.1

In addition to confirming our main hypothesis, results from Table 3 indicate another interesting result. When female to male participation ratio is included in the model, the Political Empowerment Index impact on gender satisfaction gap loses its significance (Column 5 in Table 3), while economic participation and opportunity score becomes significant (Column 4 in Table 3), therefore indicating a positive effect of higher current level of gender equality on job satisfaction[14]. Furthermore, the coefficient ELGE index increases (from 0.47 to 0.55), indicating that a positive relationship between job satisfaction gap and current equality was previously attenuating its impact.

To further corroborate our results we have assembled a new database in which the observations represent five different ages (20, 30, 40, 50 and 60) in 32 countries (i.e. 5*32=160 observations). The variables in this database are: (i) the adjusted gap in gender job satisfaction, calculated as marginal effects of gender at different age using the EU-SILC database and model 4; and (ii) female to male participation ratios from database on historical development of gender equality, matched again by age and country. We then perform a regression analysis in which the dependent variable is the gender job satisfaction gap and the main regressor is the female to male participation ratio. Results are presented in the table A6 in the Appendix and the main regression result is displayed in Figure 3. Results confirm the evidence of lower gender job satisfaction gap being associated to higher ELGE index.
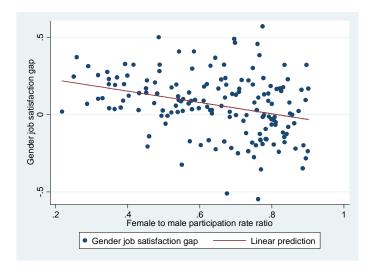
Figure 3: Job satisfaction gender gap and gender equality in early stages of life, by age group

Note: Estimation of the model is presented in table A6 in the appendix

Our results corroborate the idea that beliefs and stereotypes on gender roles acquired during childhood and youth are persistent; they are, contrary to contemporaneous observed inequality, able to affect women's expectations and distort the assessment of their job position and conditions. Conversely, women who lived in more gender equal societies during their developmental age have expectations and preferences more aligned to their male counterparts.

Are there factors able to push this alignment further? Following Clark's conjecture, we test whether attaining higher levels of education or working in male dominated occupations is able to play

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[14]These effects are also obtained for ordered probit estimators and when the full sample is included in the analysis.

such a role. To this aim, we augment model (5) by another, triple interaction term obtained by multiplying the gender dummy, the ELGE index and indicators describing the attainment of a high education level (model 6) and of employment in typically male occupations (model 7), respectively. The former (*ED*) is a dichotomic variable that equals one if the individual completed tertiary education and zero otherwise; the latter (*Mocc*) equals 1 for the following occupations: managers, crafts and trade workers and plant machine operators, in which men account for about 61%, 86% and 75% of employment, and zero otherwise.

$$JS_{ik} = \alpha + \beta female_{ik} + \beta_4 female * ELGE + \boldsymbol{\beta_5 female * ELGE * ED} + X_{ikn}'\gamma_n + u_k + \varepsilon_{ik} \qquad (6)$$

$$JS_{ik} = \alpha + \beta female_{ik} + \beta_4 female * ELGE + \boldsymbol{\beta_6 female * ELGE * Mocc} + X_{ikn}'\gamma_n + u_k + \varepsilon_{ik} \qquad (7)$$

In model (6) β_5 indicates whether tertiary educated women being exposed to the same gender equality setting in their early life report a different job satisfaction compared to their female counterparts with identical characteristics but lower levels of education. Similarly, in model (7), β_6 decribes the differential effect produced by holding a job in male dominated occupation.

Table 4: Effects of tertiary education and employment in male occupations in reducing the gender job satisfaction gap (OLS, matched sample)

	1	2	3	4
Female	0.058**	0.335***	0.336***	0.329***
	(0.024)	(0.071)	(0.071)	(0.071)
Female * ELGE Index		-0.465***	-0.511***	-0.398***
		(0.110)	(0.115)	(0.112)
Female * ELGE Index* Tertiary Education			0.093	
			(0.066)	
Female * ELGE Index * Male dominated occupations				-0.320***
				(0.087)

Note: Full model is presented in table A7 in the appendix. *** p<0.01, ** p<0.05, * p<0.1

Results from the estimation of model (6) reveal that a higher level of education does not produce any statistically significant effect (Table 4, column 3). On the contrary, being employed in male dominated occupations (the early life exposure to gender inequality/equality being the same) is associated to lower job satisfaction and, according to our conjecture, higher expectations (Table 4, column 4). In other words, directly experiencing their capacity to cope with typically men tasks/occupations enables women who have been exposed to higher levels of gender equality to additionally revise their belief and to align expectations to those of their male counterparts.

6. Discussion and conclusions

In 1997, Andrew Clark proposed an explanation of the gender job satisfaction paradox – women's higher job satisfaction, despite lower wages and poorer working conditions – based on lower women's expectations from work. In the conclusion of his article, Clark (1997) suggested that such lower

expectations are at least partially formulated early in life, under the influence of the observed position of women in the labour market. He further argued that the paradox is transitory and that advances in gender equality will diminish such gender differences in expectations. Therefore, Clark proposed a somewhat counterintuitive, but quite intriguing, idea that *the higher is gender equality in the country, the lower will be women's "advantage" in job satisfaction compared to men*. This hypothesis, he has not been tested explicitly by Clark in his 1997 work. Research that followed Clark's line of argumentation by comparing gender job satisfaction gaps between countries or across time, provided only descriptive evidence, as gender equality was never econometrically modelled and the conclusions reached, as the authors themselves admitted, offered room for different interpretations (Keiser 2005, Sousa-Poza and Sousa-Poza 2000, Sousa-Poza and Sousa-Poza 2003).

In this paper, we aimed at filling this gap by providing explicit econometric evidence on the origins of the paradox. We firstly analysed the EU-SILC data for 32 countries from 2013 and applied nearest neighbour matching procedure to address potential misspecification and comparability issues, which, to the best of our knowledge, has not been used previously in the gender job satisfaction research. Our analysis indicated that, on average, women in Europe, once all other possible drivers are controlled for, have higher levels of job satisfaction then men. Beside confirming frequently found result that the job satisfaction is higher for women, the effects of other covariates are also in line with the previous research on job satisfaction. This confirms the external validity of the job satisfaction measure used in the EU-SILC, as well as the reliability of our results. We also show that there is a considerable variation in the gender job satisfaction gap across Europe.

In line with Clark's conjecture, we attempted to explain this cross-country heterogeneity by merging EU-SILC data with the data on current and historical levels of gender inequality, in order to explicitly test the hypothesis that the variability in gender inequality is behind countries' differences in gender job satisfaction gaps. Our results indicate that *the higher the current gender equality is* (measured via WEF's Gender equality indices)*, the higher is women's advantage in job satisfaction*. The positive link between current equality and gender job satisfaction gap means that better working conditions for women lead to the increase in their job satisfaction.

This result is somewhat contrary to Clark's explanation, even though he also explicitly mentioned that gender equality in early stages of life might have a crucial role in shaping expectations and therefore the size of the paradox.. To test this possibility it is not sufficient to discuss current differences in gender equality across countries, but they need to be placed in their historical context. This is what we do in the central part of the paper. We first show that Clark's idea that the paradox does not exist for younger cohorts of women (exposed to higher gender equality and therefore with expectations aligned to men) finds only weak empirical confirmation; we also argue that age is a rather imperfect proxy for the evolution of gender inequality, due to the remarkable cross-country heterogeneity and non-linearity of gender equality developments over time. Then, we explicitly model the idea that higher job satisfaction of women depends on exposure, in early life, to the poor position of women in the labour market. To this purpose, we construct an indicator of early life exposure to gender equality (ELGE) as the average female to male labour market participation ratio in the first 20 years of life of each respondent in her/his country and link these data to EU-SILC. We show that exposure to gender equality in early stages of life is strongly and robustly connected to the higher levels of job satisfaction among women (compared to men). This result indicates that women who lived in more gender-equal contexts during childhood and youth have expectations and job satisfaction more aligned to men's. The also means that gender inequality experienced in early stages of life has a persistent effect on beliefs and expectations.

Finally, we demonstrate that the effect of exposure to equality in early stages of life is enhanced for women employed in male dominated occupations. They are able to further erode settled beliefs and

stereotypes via observing and participating in typically male tasks or occupations, thus leading to alignment of their expectations and reported job satisfaction between genders. On the other hand, we find no evidence of a similar role played by higher education, although previous papers (Clark, 1997 among others) argued that this could have been the case.

To summarize, our results show a complex relationship between the gender job satisfaction gap and gender equality. While higher current gender equality in the country indicates objectively better women's position and therefore increases female job satisfaction, higher gender equality in the early stages of life lowers the female job satisfaction via increasing work expectations. Therefore, further advances in gender equality can result in two positive trends for women. In the short-term, they have an immediate effect on women's job satisfaction, via better the position of women in the labour market today. In the long-term, today's advances in gender equality will increase the expectations of the next generation of women entering the labour market. This increase in their expectations will lower their job satisfaction, but will motivate them to demand higher wages, better working conditions, promotion opportunities and further decrease work discrimination.

References

Abadie, A. and G. Imbens. (2002). Simple and bias-corrected matching estimators. Technical report, Department of Economics, University of California, Berkeley. http://emlab.berkeley.edu/users/imbens/.

Abadie, A., Drukker, D., Herr, J. L., &Imbens, G. W. (2004). Implementing matching estimators for average treatment effects in Stata. *Stata journal*, *4*, 290-311.

Alesina, A. and Fuchs-Schundeln, N. (2007). `Good-bye lenin (or not?): The effect of communism on peoples preferences', The American Economic Review, vol. vol. 97(4), pp. 1507{1528.

Alesina, A., Giuliano, P., and Nunn, N. (2013), On the Origins of Gender Roles: Women and the Plough, Quarterly Journal of Economics 128, 469–530.

Atkinson, A. B., and Micklewright, J. (1992). Economic Transformation in Eastern Europe and the Distribution of Income, Cambridge, UK: Cambridge University Press.

Bender, K. A., Donohue, S. M., and Heywood, J. S. (2005). Job satisfaction and gender segregation. *Oxford economic papers*, *57*(3), 479-496.

Blanchflower, D.G. and Freeman, R.B. (1997) `The Attitudinal Legacy of Communist Labor Relations' , Industrial and Labor Relations Review 50(3): 438-59

Blanchflower, D.G., & Oswald, A. J. (1992). Entrepreneurship, happiness and supernormal returns: Evidence from Britain and the US (No. w4228). National Bureau of Economic Research.

Blanchflower, D.G., Oswald, A.J. Warr, P.B., (1993). Well-Being Over Time in Britain and the USA, Mimeo, Dartmouth College.

Blau, F.D. and Ferber, M.A. (1992) `Women's Work, Women's Lives: A Comparative Economic Perspective', in H. Kahne and J.Z. Giele (eds) Women's Work and Women's Lives: The Continuing Struggle Worldwide, pp. 324-46. Boulder, CO: Westview Press

Blau, F.D., Kahn, L.M., (1992). The gender earnings gap: Learning from international comparisons. *American Economic Review* 82, 533-538.

Boyles, Corinne, and Aiko Shibata. (2009). "Job Satisfaction, Work Time, and Well-Being Among Married Women in Japan." Feminist Economics 15(1): 57–84.

Brown, J. D. (2011). Likert items and scales of measurement. Shiken: JALT Testing & Evaluation *SIG Newsletter*, 15(1), 10-14.

Bryan, M.L, and Jenkins, S.P. (2016). Multilevel Modelling of Country Effects: A Cautionary Tale, European Sociological Review European Sociological Review, 32(1), Pages 3 –22

Buelens, M., & Van den Broeck, H. (2007). An analysis of differences in work motivation between public and private sector organizations. *Public administration review*, *67*(1), 65-74.

Campa, P. and M. Serafinelli (2016). "Politico-Economic Regimes and Attitudes: Female Workers Under State-Socialism", Dondena Working Paper WP 89

Clark, A. E. (1996). Job satisfaction in Britain. *British journal of industrial relations*, 34(2), 189-217.

Clark, A. E. (1997). Job satisfaction and gender: why are women so happy at work?. *Labour economics*, 4(4), 341-372.

Clark, A. E., and Oswald, A. J. (1996). Satisfaction and comparison income. *Journal of public economics*, 61(3), 359-381.

Clark, A., Oswald, A., and Warr, P. (1996). Is job satisfaction U⎕shaped in age?. *Journal of occupational and organizational psychology*, 69(1), 57-81.

Dæhlen, M. (2007) Job values, gender and profession: a comparative study of the transition from school to work, Journal of Education and Work 20(2)

Dolan, P., Peasgood, T., & White, M. (2008). Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being. *Journal of economic psychology*, *29*(1), 94-122.

Elias, A. (1972). Manpower trends in Czechoslovakia: 1950 to 1990. International Population Reports, P90/24, US Department of Commerce, US

Eurostat (2012). EU-SILC 2013 module on well-being. Description of SILC secondary target variables. Version 5 – March 2012

Fargher, S., Kesting, S. Lange, T. and Pacheco, G. (2008). "Cultural Heritage and Job Satisfaction in Eastern and Western Europe." International Journal of Manpower 29(7): 630–50

Federal Statistical Office of Yugoslavia (various years). Census report. (in Serbian). Accessible at: http://pod2.stat.gov.rs/ElektronskaBiblioteka/

Fullerton, H.N. (1999). Labor Force Participation: 75 Years of Change, 1950-98 and 1998-2005. Monthly Labor Review, v122 n12 p3-12 Dec 1999

Gal, S. and Kligman, G. (2000) The Politics of Gender after Socialism. Princeton, NJ: Princeton University Press

Gazioglu, S., and Tansel, A. (2006). Job satisfaction in Britain: individual and job related factors. *Applied economics*, *38*(10), 1163-1171.

Ghinetti, P. (2007). The public–private job satisfaction differential in Italy. Labour, 21(2), 361-388.

Giuliano, P. (2017). Gender: An Historical Perspective, IZA DP No. 10931, IZA Institute for Labour Economics.

Godfrey,M. and Richards, P.J. (1997). Employment policies and programmes in Central and Eastern Europe, ILO, Geneva

Gooderham, P., Nordhaug, O., Ringdal, K., Birkelund, G. E. (2004) Job values among future business leaders: the impact of gender and social background; Scandinavian Journal of Management, 20(3), 277-295

Guiso, L., Sapienza, P. and Zingales, L. (2006). `Does culture a_ect economic outcomes?', The Journal of Economic Perspectives, vol. 20(2), pp. 23{48.

Hiller, V. (2014). Gender Inequality, Endogenous Cultural Norms, and Economic Development, Scandinavian Journal of Economics, 116(2), 455-481

Hulin, C. L., & Judge, T. A. (2003). Job attitudes. *Handbook of psychology*.

Jurajda, Š. (2003). 'Gender wage gap and segregation in enterprises and the public sector in late transition countries', Journal of comparative Economics, 31(2), pp. 199-222.

Jurajda, Ŝ. (2005). 'Gender segregation and wage gap: An East-West comparison', Journal of the European Economic Association, 3(2ꟷ3), pp. 598-607.

Kaiser, L. C. (2007). Gender-job satisfaction differences across Europe: An indicator for labour market modernization. *International Journal of Manpower*, *28*(1), 75-94.

Kinsella, K. and Tauber, C.M. (1993). An aging world II. International Population Reports, P95/92-2, US Department of Commerce, US

La Font, S. (2001). 'One step forward, two steps back: women in the post-communist states', Communist and Post-Communist Studies, 34(2), pp. 203-220.

Lange, T. (2008). Communist Legacies, Gender and the Impact on Job Satisfaction in Central and Eastern Europe European Journal of Industrial Relations, 14(3), 327-346

Linz, S., & Semykina, A. (2012). What Makes Workers Happy? Anticipated Rewards and Job Satisfaction, Industrial Relations, Vol. 51, No. 4, 811-844

Linz, S., &Semykina, A. (2013). Job satisfaction, expectations, and gender: Beyond the European Union. *International Journal of Manpower*, *34*(6), 584-615.

Lippmann, Q., Georgie, A. and Senik, C. (2016). `Undoning gender with institutions. Lessons from the german division and reuni_cation', Working Paper, Paris School of Economics

Little, D. (2011). `Marxism, Communism, and Women', http://www-personal.umd.umich.edu/sim delittle.

Locke, E. A. (1970). Job satisfaction and job performance: A theoretical analysis. *Organizational behavior and human performance*, *5*(5), 484-500.

Loscocco, K.A. and Spitze, G. (1991). The organizational context of women's and men's pay satisfaction. Social Science Quarterly 72, 3-19.

Marini, M.M., Pi-Ling, F., Finley, E. and A.M. Beutel (1996). Gender and Job Values, Sociology of Education, 69(1), 49-65

Mason, D.S. and Kluegel, J.R. (2000). Marketing Democracy: Changing Opinion about Inequality and Politics in East Central Europe. Boston, MA: Rowman and Littlefield.

Miller, J. 1980. Individual and occupational determinants of job satisfaction. Sociology of Work and Occupations 7, 337-366.

Neil, C. and Snizek, W.E. (1987). Work Values, Job Characteristics, and Gender, Sociological Perspectives, 30(3), 245-265

Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances in health sciences education*, 15(5), 625-632.

Pascall, G. and Manning, N. (2000). `Gender and Social Policy: Comparing Welfare States in Central and Eastern Europe and the Former Soviet Union', Journal of European Social Policy 10: 240-66

Perugini, C, Žarković Rakić, J. and Vladisavljević, M. (2016). Austerity and gender wage inequality in EU countries, MPRA Paper 76306, Munich.

Phelan, Jo (1994). "The Paradox of the Contented Female Worker: An Assessment of Alternative Explanations." Social Psychology Quarterly 57: 95–107.

Pollert, A. (2005) `Gender, Transformation and Employment in Central Eastern Europe', European Journal of Industrial Relations 11(2): 213-30

Rogers, J. D., Clow, K. E., &Kash, T. J. (1994). Increasing job satisfaction of service personnel. *Journal of services Marketing*, *8*(1), 14-26.

Sloane, P. J., & Williams, H. (2000).Job satisfaction, comparison earnings, and gender. Labour, 14(3), 473-502.

Snijders, T.A.B. and Bosker, R. (1999) *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modelling*, Thousand Oaks CA: Sage Publications Ltd

Sorrentino, C. (1983) "International Comparisons of Labor Force Participation, 1960–1981', Monthly Labor Review, 106, no. 2, pp. 23–36

Sousa-Poza, A., & Sousa-Poza, A. A. (2003). Gender differences in job satisfaction in Great Britain, 1991–2000: permanent or transitory?. *Applied Economics Letters*, *10*(11), 691-694.

Sousa‐Poza, A., & Sousa‐Poza, A. A. (2000). Taking another look at the gender/job satisfaction paradox. *Kyklos*, 53(2), 135-152.

Statistics of the USSR (various years). National economy in the USSR in 1960.Yearly Statistical Edition (in Russian). Accessible at: http://istmat.info

Tabellini, G. (2010). `Culture and institutions: Economic development in the regions of Europe', Journal of the European Economic Association, vol. 8(4), pp. 677{716.

Usui, E. 2008.Job satisfaction and the gender composition of jobs. Economics Letters, 99, 23-26

Vecerník, J. (2003) `Skating on Thin Ice: A Comparison of Work Values and Job Satisfaction in CEE and EU Countries', International Journal of Comparative Sociology 44(5): 444-71

Vladisavljević, M. (2017) Public private job satisfaction differential in Serbia: evidence from SILC data. In: Cukanović-Karavidić, et al. (eds), *Education for entrepreneurial business and employment*. Newton Abbot: Compass Publishing, 186-206.

Vladisavljević M. and Metnus. V. (2018) The Structure of Subjective Well-Being and Its Relation to Objective Well-Being Indicators: Evidence from EU-SILC for Serbia, *Psychological Reports*, online first. doi: 10.1177/0033294118756335

WEF (2013). The Global Gender Gap Report 2013, World Economic Forum, Geneva