

Ficapal-Cusí, Pilar; Díaz-Chao, Ángel; Torrent Sellens, Joan

**Working Paper**

## Gender inequality in job quality. What has happened in Spain during the recession?

IN3 Working Paper Series, No. WP15-002

*Suggested Citation:* Ficapal-Cusí, Pilar; Díaz-Chao, Ángel; Torrent Sellens, Joan (2016) : Gender inequality in job quality. What has happened in Spain during the recession?, IN3 Working Paper Series, No. WP15-002, Internet Interdisciplinary Institute, Open University of Catalonia, Barcelona, <http://in3-working-paper-series.uoc.edu/in3/en/index.php/in3-working-paper-series/article/view/2654.html>

This Version is available at:

<https://hdl.handle.net/10419/162050>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<http://creativecommons.org/licenses/by-nc-nd/3.0/deed.en>

# Gender inequality in job quality. What has happened in Spain during the recession?

**Pilar Ficapal-Cusí** ([pficapal@uoc.edu](mailto:pficapal@uoc.edu))

*Economics and Business Studies, and Internet Interdisciplinary Institute (IN3)  
Open University of Catalonia (UOC)*

**Ángel Díaz-Chao** ([angel.diaz@urjc.es](mailto:angel.diaz@urjc.es))

*Applied Economics Department, Rey Juan Carlos University (URJC)  
Internet Interdisciplinary Institute (IN3), Open University of Catalonia (UOC)*

**Joan Torrent-Sellens** ([jtorrent@uoc.edu](mailto:jtorrent@uoc.edu))

*Economics and Business Studies, and Internet Interdisciplinary Institute (IN3)  
Open University of Catalonia (UOC)*

Working Paper Series WP15-002

Research group: Interdisciplinary Research Group on ICTs (i2TIC)

Research group coordinator: Joan Torrent-Sellens (IN3-Open University of Catalonia)

Submitted in: May 2015

Accepted in: August 2015

Published in: August 2015



**Internet Interdisciplinary Institute (IN3)**

<http://www.in3.uoc.edu>  
Parc Mediterrani de la Tecnologia  
Av. Carl Friedrich Gauss, 5  
08860 Castelldefels  
Barcelona (Espanya)  
Tel. 93 4505200

**Universitat Oberta de Catalunya (UOC)**

<http://www.uoc.edu/>  
Av. Tibidabo, 39-43  
08035 Barcelona  
Espanya  
Tel. 93 253 23 00



The texts published in this publication are – unless indicated otherwise – covered by the Creative Commons Spain Attribution-Non commercial-No derivative works 3.0 licence. You may copy, distribute, transmit and broadcast provided that you attribute it (authorship, publication name, publisher) in the manner specified by the author(s) or licensor(s).

The full text of the licence can be consulted here:  
<http://creativecommons.org/licenses/by-nc-nd/3.0/es/deed.en>.

## Table of contents

Introduction.....	6
1. Job quality and gender inequality.....	8
2. Model, data and empirical methodology .....	10
3. Results .....	17
4. Concluding remarks, discussion and future research .....	25
Bibliographic references.....	27

# Gender inequality in job quality. What has happened in Spain during the recession?

**Pilar Ficapal-Cusí** (pficapal@uoc.edu)

*Economics and Business Studies, and Internet Interdisciplinary Institute (IN3)  
Open University of Catalonia (UOC)*

**Ángel Díaz-Chao** (angel.diaz@urjc.es)

*Applied Economics Department, Rey Juan Carlos University (URJC)  
Internet Interdisciplinary Institute (IN3), Open University of Catalonia (UOC)*

**Joan Torrent-Sellens** (jtorrent@uoc.edu)

*Economics and Business Studies, and Internet Interdisciplinary Institute (IN3)  
Open University of Catalonia (UOC)*

## Recommended citation:

FICAPAL-CUSÍ, Pilar; DÍAZ-CHAO, Ángel; TORRENT-SELLENS, Joan (yyyy). "Gender inequality in job quality. What has happened in Spain during the recession" [online working paper]. (Working Paper Series; WP00-000). IN3 Working Paper Series. IN3 (UOC). [Accessed: dd/mm/yy].< <<http://in3wps.uoc.edu/ojs/index.php/in3-working-paper-series/article/view/n15-ficapal-diaz-chao-torrent/n15-ficapal-diaz-chao-torrent-engl>>

## Abstract

Through a representative sample of 5,381 (3,079 men and 2,302 women) and 4,925 (2,719 men and 2,206 women) employees in 2008 and 2010, and a using two-stage structural equation model, this article empirically analyses the multi-dimensional determinants (direct effects) of gender-related job quality in Spain. The research revealed four main results. First, despite the economic crisis, job quality in Spain had improved over the analysis period. Second, the improvement in job quality during the crisis was more favourable to men than it was to women. Third, the gender differences in the explanation of job quality during the crisis increased considerably in favour of men. Fourth, this increase in gender difference in job quality in favour of men is explained by a worsening of 4 of the 5 explanatory dimensions thereof: intrinsic job quality; work organisation and workplace relationships; working conditions, work intensity and health and safety at work; and extrinsic rewards. Only inequality in the work-life balance dimension remained stable from 2008 to 2010. In terms of employment and gender equality public policy our research results suggest two important conclusions. In the first place, the importance of paying much greater attention to working environment and social relation dimensions in gender-related employment public policies. Second, gender equality public policy should also address new problems associated with the accelerated changes at work. In particular, the different job quality problems between highly skilled and less skilled working men and women, the link between gender gap and occupations, and the need to consider the different institutional regimes and organised labour to overcome gender-related job inequalities.

## Keywords

Gender inequality, Job quality, Quality of working life, Economic crisis; Structural equation modelling (SEM), Spain.

## Introduction

The quality of work, especially the debate on the quantity and quality of jobs, has been established as a growing field of social research (Drobnic and Guillén, 2011; Guillén and Dahl, 2009; Kallerberg, 2009). Empirical evidence plainly shows that high quality jobs improve working conditions, increase workers' development and skills, reduce unemployment, increase firm productivity, improve an economy's competitiveness and foster social wellbeing in an increasingly globalised environment (Dahl et al., 2009; Davoine, 2006; Davoine et al., 2008a, 2008b; European Commission, 2008, 2015; Eurofound, 2013; Gallie, 2007; Green, 2006; Orton, 2011).

However, the onset and deepening of the economic crisis has done nothing but increase the strain between job quantity and quality (Erhel et al., 2012; Leschke et al., 2012). Consequently, and despite the logical concern for creating jobs in contexts of economic crisis, employment public policies should not overlook the quality dimension, because it feeds back into the quantity dimension. In a global economy, where knowledge, technology and innovation are key to developing firm competitiveness and to overcoming the economic crisis, new value generation processes and co-innovative sources of productivity inevitably call for quality jobs (Díaz-Chao et al., 2015). In the global-knowledge economy, employment creation depends to a large extent on job quality, of its ability to generate jobs with trained, autonomous, committed and satisfied workers, who are able to innovate and improve the creation of added value in firms.

In this context, the most recent research on job quality has noted the emergence of new problems associated with the work structural change (Osterman, 2013). In particular, the literature has shown the existence of growing inequalities in job quality (Green et al., 2013), the negative effects of work intensity on some dimensions of occupational health (Cottini and Lucifora, 2013), and the importance of the union involvement in organisational change processes in order to reduce the contractive effects of the change on job quality (Bryson et al., 2013). From the point of view of the tensions between job quantity and quality, recent research has also made significant progress. Specifically, it has highlighted the importance of workers' future employment expectations, which are clearly linked to educational level (Gallie et al., 2012). Workers with a high perception of the future of their jobs tend to get higher job quality (Graso and Probst, 2012).

Much of the recent literature has focused on gender inequality in job quality (Blau et al., 2006; Mühlau, 2011; Petit and Hook, 2009; Stier, 2012; Stier and Yaish, 2014). In periods before the recession, most comparative studies revealed significant differences in job opportunities between men and women. They found gender inequalities in the

majority of aspects relating to working conditions (Burchell et al., 2007). There were inequalities in relation to occupation, activity sector, hours worked, wages, health risks in the workplace, unequal division of home care responsibilities, a shift towards part-time jobs for women or fewer possibilities to work the hours usually expected for promotion or managerial positions.

Since the onset of the economic crisis and despite the drastic reduction in employment (more acute among men than among women), there are relatively few analyses of gender difference and its relationship to job quality at times of recession in the literature (Eurofound, 2013; European Commission, 2015; Russell et al., 2014). Moreover, the potential effects of occupations, and particularly how they are organised in each country, make it difficult to compare results and draw operable conclusions (Stier and Yaish, 2014).

Thus, with the aim of contributing new evidence and reconciling the quantity and quality dimensions of employment policies in times of economic crisis (Green and Mostafa, 2012), this article, which takes a multidimensional (Findlay et al., 2013) and microdata empirical approach, analyses the gender-related determinants of job quality in Spain for 2008 and 2010. The main contribution of this article is that it is based on disaggregated microdata obtained from information supplied by working men and women in Spain. The multidimensional nature of job quality gives the article an objective that goes beyond analysis using psychological variables, and incorporates social and economic variables (Martel and Dupuis, 2006; Muñoz de Bustillo et al., 2011). While most of the data obtained refer to Spanish workers' opinions of various dimensions of their job quality (subjective indicators), objective indicators are also incorporated, which is consistent with the literature reviewed.

The analysis of gender-related job quality in Spain is relevant because, in recent years, its labour market has deteriorated ostensibly as a result of the economic crisis. Firstly, there has been a rapid rise in unemployment, which currently stands at 25% of the working-age population, and more than 800,000 jobs have been destroyed. And secondly, there has been a marked deterioration in working conditions, which particularly manifest themselves as wage cuts, work precariousness and poorer work organisation and promotion conditions. However, the economic crisis has also led to lower work intensity, greater opportunities to achieve a work-life balance and an increase in social relations within firms. Indeed, the objective of the article is to analyse how all of these explanatory dimensions of gender-related job quality have evolved and to relate them to the economic crisis. In this sense, the obtained results are in part extrapolated to other labour markets where gender inequalities related to job destruction and job insecurity have increased significantly with the economic crisis.

For the analysis, we used the microdata from the Quality of Working Life Survey (ECVT, as abbreviated in Spanish) conducted annually by Spain's Ministry of Employment and Social Security (2010 was the last year for which data were available). This source of information provides very comprehensive data on the



perceptions of working men and women setting the multiple dimensions of their job and family situation.

The remainder of the working paper is structured as follows: first, literature review on gender inequality and job quality are presented; second, the multiple dimensions and indicators used to measure job quality are examined; third, the determinants of job quality are analysed using a structural equation model that we designed and tested; fourth, the results are described; and fifth, the conclusions and discussion section completes the body of the paper. The references used are listed at the end.

## 1. Job quality and gender inequality

The flexibilisation, segmentation and individualisation of labour markets, the advent of new work organisation practices, the technological revolution and the growing strain between job quantity and quality arising from the global economic crisis have fostered new approaches to labour market research in general (Torrent-Sellens and Ficapal-Cusí, 2009) and to job quality research in particular (Brown et al., 2012; Muñoz de Bustillo et al., 2012; Osterman, 2013). Some studies have noted the influence of the labour market's growing flexibility and the advent of new contracts and labour relations frameworks (Bryson et al., 2013; Esser and Olsen, 2012; Kalleberg et al., 2007). It has also been found that job quality affects workers' physical, mental and emotional health, which, in turn, impacts on organisations' results (Cottini and Lucifora, 2013; Harter et al., 2002). Other contributions to the literature have associated job quality with the interactions between working and family-related situations. Basically, the evidence shows that work and family feed back into each other in the sense that job satisfaction and work achievement interact with personal and family-related satisfaction and happiness (Clark, 2000; Green, 2010; Grzywacz and Carlson, 2007; McMillan et al., 2011).

In short, from this new analytical angle, it is acknowledged that the main objective of job quality is the integration, support and improved personal and social wellbeing of workers (Drobnic and Guillén, 2011; Green et al., 2013), as well the improved results of firms and overall economic activity (Green and Mostafa, 2012; Royuela and Suriñach, 2013).

From the gender perspective, gender equality is achieved when men and women enjoy the same rights and opportunities in every aspect of society, and when everyone's behaviours, aspirations and needs are equally valued and promoted, regardless of gender (Eurofound, 2013). Within this context, the literature shows that gender equality is linked to higher rates of female employment and fewer gender-based salary gaps (Fortin, 2005), with a more equitable division of domestic chores

(Fuwa, 2004) and less gender segregation in terms of education (Charles and Bradley, 2002).

It has also been found that less recognition of female work actually ends up reinforcing gender inequalities through the emergence of various types of discrimination (Cloutier et al., 2009). In particular, these are women's unequal access to jobs, to better wages (Johansson et al., 2005; Mandel and Semyonov, 2005) and to promotion possibilities (Raley et al., 2006), and unequal distributions between domestic and professional work (Tremblay, 2008). Even in the most egalitarian societies, where there is less contrast in the job attributes for men and women, it was found that women did not have the same opportunities to participate and progress (Mühlau, 2011).

Job quality research from a gender perspective has also highlighted considerable inequalities in the various explanatory dimensions thereof. Mühlau (2011) found significant advantages for men with regard to training, opportunities for promotion, work complexity, autonomy and participation (method, calendar and pace of work), co-worker support and hours worked outside normal working hours. In contrast, men perceive health risks in the workplace more intensely than women. Women exert less discretion when doing their jobs and have a lower propensity to influence an organisation's decisions. The research has not found any significant differences between men and women in dimensions relating to job stability and work intensity.

The literature also shows that gender and occupational category have a significant effect on the explanation of job quality. Female dominated occupations are characterised by lower wages and fewer opportunities for promotion (Levanon et al., 2009; Padavic and Reskin, 2002). Similarly, women have less access to managerial positions and a greater presence in part-time jobs, which are associated with lower job quality (Burchell et al., 2007). Smith et al. (2008) have highlighted the fact that women have greater probabilities of occupying jobs involving monotonous, straightforward tasks, whereas problem solving and learning are characteristics found more often in jobs occupied by men. These circumstances reinforce the gap in development opportunities. Men also have a greater propensity to have more job autonomy. Regarding occupational category, higher levels of autonomy are found among men in white-collar jobs. In contrast, higher levels of autonomy are found among women in blue-collar jobs.

Stier and Yaish (2014) have confirmed gender-related occupational segregation. During the economic boom, they found that the gender gap narrowed in some job quality dimensions, such as work content, job security and time autonomy. Nevertheless, men continued to enjoy significant advantages in achievement, time autonomy and emotional conditions. By occupational category, white-collar workers (men and women) had higher job quality than blue-collar workers. Among white-collar workers, no significant differences by gender were found in job security or job content. In contrast, emotional conditions were favourable to men. Among blue-collar workers, women had lower levels of job security and lower job content quality.

Beyond the European context, Cloutier et al. (2009) have analysed the gender differences in job quality for the region of Quebec, Canada. The results obtained show a narrowing of the gender gap in job quality. The reduction of gender differences is particularly significant among childless employees and people with higher educational levels. However, the research also underscored the persistence of a significant set of differences for certain categories of employees, especially among women with lower educational levels, relating to income, skills and working hours. The results of a subsequent study comparing Quebec and the United Kingdom (Cloutier, 2012) confirmed the narrowing of the gender gap in both territories during the economic boom.

Finally, and within the context of gender inequalities in job quality during the economic crisis, Russell et al. (2014) obtained important new evidence. First, and in relation to the working day, part-time work was much more common among women than among men before the recession. Since then, however, there has been a degree of convergence between genders. This phenomenon has been interpreted as a downgrading of working conditions rather than gender equalisation. Second, and in relation to subjective insecurity, men express greater fears of job loss. Third, and in relation to wages, the results obtained show a degree of widening of the gender gap during the recession, especially for female employees in the public sector. Fourth, and in relation to job autonomy, greater gender inequality was found in job control during the economic crisis. Lastly, work pressure, which was initially much lower for women, increased considerably for women, thereby impacting on the gender gap.

## 2. Model, data and empirical methodology

From an empirical perspective, the literature points out that job quality should be considered as an object of multidimensional and multidisciplinary analysis (Brown et al., 2012; Findlay et al., 2013) because of the various agents forming part of it (jobs, workers and firms) and perspectives from which it can be analysed (micro and macroeconomic, psychological and sociological). The recent incorporation of workers' perceived satisfaction into the literature has generated intense debate about the dimensions and indicators required to faithfully capture the determinants of job quality. In general, these dimensions have been analysed by using a combination of objective and subjective data, as well as dynamic and static interpretations (Dahl et al., 2009; Davoine et al., 2008b; Eurofound, 2002; European Commission, 2008; Green et al., 2013; Handel, 2005; Olsen et al., 2010).

Thus, according to the multidimensional approaches examined, job quality is an element that provides and promotes work and economic growth in the new competitive

environment. It reflects workers' desires and fosters a rise in standards, thus balancing out and sharing progress. It could be said that it is the level of objective and subjective wellbeing that workers express, feel and have in their jobs. This level of wellbeing is not limited to jobs alone. Indeed, it has effects on firms, on issues outside work and on workers' future prospects. Thus, in order to parameterise a set of dimensions and indicators to capture the determinants of job quality, we propose the following definition: *"job quality is an overall state of satisfaction that includes objective aspects of material wellbeing, satisfactory relationships with the physical and social environment, and objectively perceived health; and subjective aspects of physical, psychological and social wellbeing"*. To measure the above-mentioned approach, the starting point for this study was our methodology (Díaz-Chao et al., 2014) that considers the following five dimensions: 1) intrinsic job quality; 2) work organisation and workplace relationships; 3) working conditions, work intensity, and health and safety at work; 4) extrinsic rewards; and 5) work-life balance.

The explanation of factors determining gender-related job quality raises two particular difficulties. First, the approach to the concept requires a multidimensional base that is not usually captured in a single variable. In fact, the most common approaches found in the literature perform partial analyses of its various dimensions. This type of analysis has the disadvantage of not taking a full snapshot of the explanatory determinants, which gives rise to the second difficulty: econometric modelling. In other words, job quality can be interpreted as a latent, non-observable concept, which therefore calls for econometric techniques that allow variables of this type, which are not directly measurable, to be used. In the empirical literature, structural equation modelling (SEM) with latent variables has been used to overcome this problem (Díaz-Chao et al., 2014).

The first step that needs to be taken is to establish a structural equation model that explains gender-related job quality in Spain is to construct its indicators. We used the microdata from the Quality of Working Life Survey (ECVT, as abbreviated in Spanish) for 2008 and 2010 (latest available data). The ECVT is a statistical operation conducted by the Government of Spain's Ministry of Employment and Social Security for Spanish territory as a whole. It is a tool that is useful for analysing the situation of employees in the labour market, and for learning about their perceptions and degrees of satisfaction. The ECVT allows objective data, obtained from research into working environment situations and related activities, and subjective data, such as the degree of job satisfaction, labour relations, and the physical and emotional conditions of the job. The ECVT provides data about an employee's work situation and family environment, occupation or job characteristics, labour mobility, job satisfaction, work organisation, collective bargaining, labour relations, working hours, rewards, training and job security, and work-life balance.

The study universe was the working population aged 16 or over living in main family homes. The geographical scope is Spanish territory, with the exception of Ceuta and Melilla (autonomous cities of Spain in North Africa). These sample sizes were 9,604

and 9,240 employees, entrepreneurs and managers in 2008 and 2010, respectively, with sampling fractions  $[(n/N)*1000]$  of 0.470 and 0.320, respectively. Data was collected in the final quarters of 2008 and 2010 by means of computer-assisted telephone interviews (CATI). When potential respondents could not be located by telephone, personal interviews were conducted. The questionnaire was divided into three main sections: sociodemographic data, work situation and quality of working life (Ministry of Employment and Social Security 2010). The sample of the study includes 5,381 (3,079 men and 2,302 women) and 4,925 (2,719 men and 2,206 women) employees in 2008 and 2010, respectively, as computed in the ECVT.

Table 1 presents the results of socio-demographic and occupational gender-related characteristics of the employees in the samples of the analysis. Between 2008 and 2010 some changes were observed in the profile of employees in Spain.

**Table 1.** Comparison of ECVT gender-related employee characteristics in Spain<sup>1</sup>. 2008-2010

	2008			2010		
	Men	Women	All	Men	Women	All
Total employees	3,079	2,302	5,381	2,719	2,206	4,925
% total employees	57.2	42.8	100.0	55.2	44.8	100.0
Age (average in years)	41.6	40.1	41.0	42.2	41.4	41.8
<b>Education (%)</b>						
Primary	21.5	12.9	17.9	15.8	10.7	15.2
Compulsory secondary	23.4	17.1	20.8	22.9	17.2	20.9
Lower vocational & technical training	10.0	9.3	9.7	11.9	11.1	11.6
Upper vocational & technical training	10.6	10.5	10.5	12.3	11.3	11.7
Upper secondary general	12.7	13.0	12.8	12.8	14.9	13.4
Higher education: medium degree	8.8	17.1	12.2	9.3	17.5	12.2
Higher education: superior degree	13.1	20.0	16.0	14.9	17.3	15.3
<b>Economic Activity (%)</b>						
Agriculture	5.5	1.4	5.1	3.4	1.0	3.0
Industry	22.5	9.5	16.7	22.9	10.0	17.1
Construction	18.2	2.1	12.7	14.5	1.7	8.7
Services	53.8	87.0	65.5	59.2	87.3	71.2
<b>Professional situation (%)</b>						
Public sector worker	20.2	32.6	25.4	21.6	31.1	24.3
Private sector worker	79.8	67.4	74.6	78.4	68.9	75.7
<b>Contract type</b>						
Permanent	82.3	77.2	79.8	80.5	79.3	79.9
Temporary	17.7	22.8	20.2	19.5	20.7	20.1
<b>Working time</b>						
Full-time	94.2	80.8	88.3	93.8	80.0	86.0
Part-time	5.8	19.2	11.7	6.2	20.0	14.0

1. All figures refer to weighted data. Valid percentages.

Source: Own elaboration.

First, there was a slight increase in the percentage of working women (44.8% in 2010 and 42.8% in 2008) and in the age of employees (41.8 years in 2010 and 41.0 years in 2008). Second, there was an improvement in the educational level of employees, with 28.5% of higher-educated employees in 2010 (28.2% in 2008), especially in higher-educated men (from 21.9% in 2008 to 24.2% in 2010). Third, there was a decline in industrial employment and, especially in construction, and an improvement in employment in services (71.2% of the total in 2010), especially in men (from 53.8% in 2008 to 59.2% in 2010). Fourth, there was a fall in the share of employment in the public sector (24.3% in 2010, from 25.4% in 2008) as a result of a reduction in women working in that sector. In contrast, employment in the private sector grew as a result of increased participation of female employment (from 67.4% in 2008 to 68.9% in 2010). Fifth and lastly, there was growth in part-time jobs (up to 14.0% in 2010), mostly for women (from 19.2% in 2008 to 20.0% in 2010), and a stabilisation of permanent and temporary contracts.

As already mentioned, the dependent variable – gender-related job quality – is a latent variable in the model proposed in this study. In this regard, we used a two-stage reflective explanatory model that has been contrasted with microdata from a validated instrument (Requena-Santos 2000). The two-stage empirical estimation methodology was applied as follows: in the first stage, the causal relationships among 31 indicators and the 5 latent dimensions describing gender-related job quality were tested, and in the second stage, the causal relationships among the indicators constructed for those 5 dimensions (based on the coefficients from the first stage) and the latent construct of gender-related job quality were tested. Finally, after applying the coefficients obtained from the second stage, a gender-related job quality index was constructed and its mean values shown (total and for the 5 dimensions), comparing 2008 to 2010. This methodology involved the design and econometric testing of 36 empirical models: 30 models for the first stage (5 for men, 5 for women and 5 for all data in 2008 and 2010) and 6 for the second stage (1 for men, 1 for women and 1 for all data in 2008 and 2010).

Presented below are the empirical model, the 31 explanatory variables, and the 5 dimensions (Figure 1):

- *Dimension 1: Intrinsic job quality (IJQ).* Intrinsic job quality was captured by a set of four variables: Variable 1: the worker's overall satisfaction with his/her current job (OVERSAT); Variable 2: the worker's motivation (MOTIV); Variable 3: personal development (PERDEV), in the sense of job performance; and Variable 4: education for the job (JOBEDUC). The first three discrete variables measure the worker's level of satisfaction on a scale from 0 to 10 (0=Zero satisfaction; and 10=Very high satisfaction). The fourth discrete variable measures the degree of usefulness that the worker assigns to his/her education in terms of enabling him/her to do his/her job on a scale from 0 to 10 (0=Useless; and 10=Very useful).



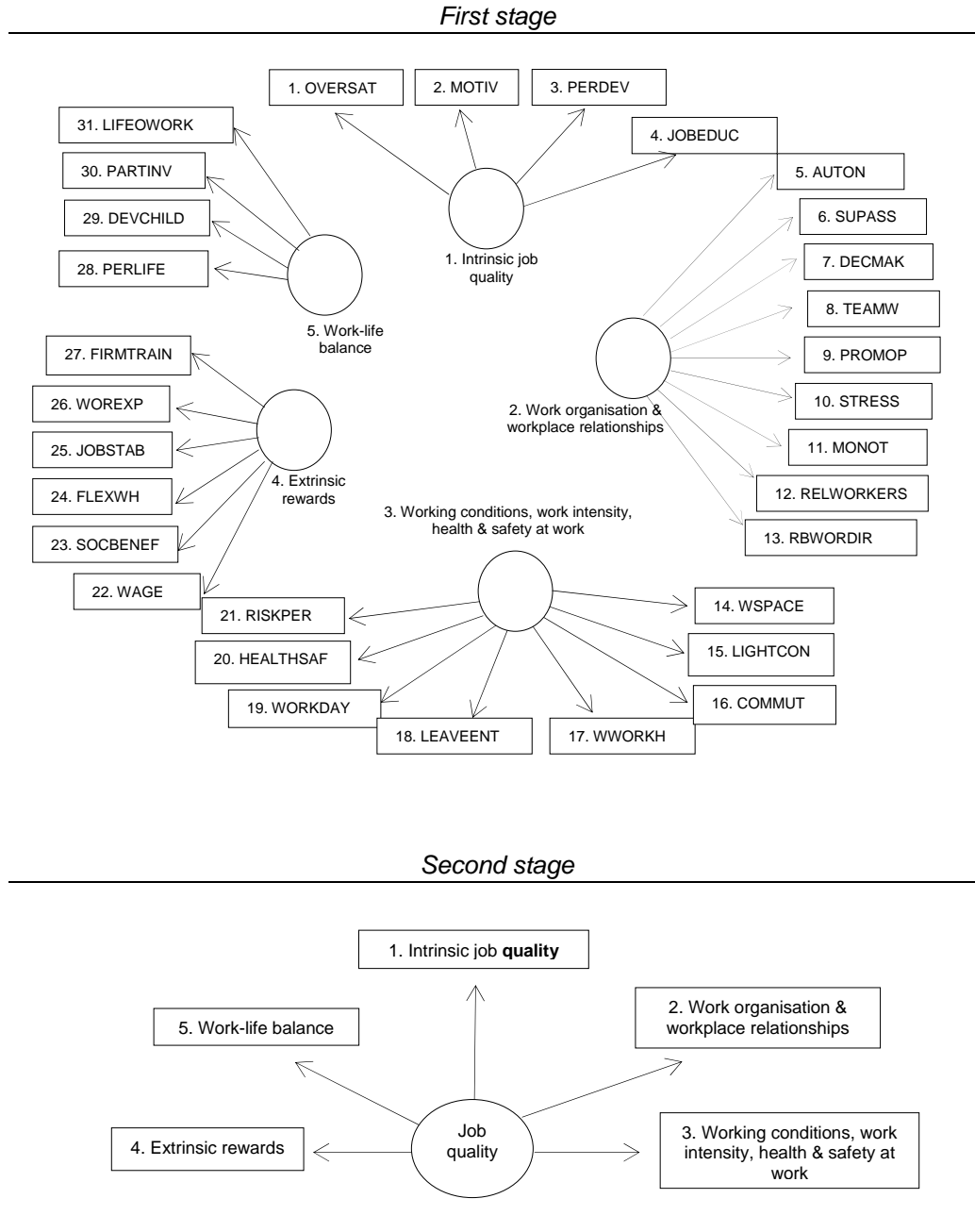
- *Dimension 2: Work organisation and workplace relationships (WOWR).* This dimension includes a set of seven variables connected with work organisation and practices, and with the worker's conduct in performing his/her job duties: Variable 5: autonomy (AUTON); Variable 6: superiors' assessment of the tasks performed by the worker (SUPASS); Variable 7: participation in decision-making (DECMAC); Variable 8: teamwork (TEAMW); Variable 9: the worker's perceived opportunities for promotion (PROMOP); Variable 10: degree of stress (STRESS); and Variable 11: monotony or routine in tasks performed (MONOT). All of these variables are discrete. They measure the worker's level/degree of satisfaction/agreement on a scale from 0 to 10 (0=Zero satisfaction/agreement; 10=Very high satisfaction/agreement). Affective relationships among workers, as well as conduct towards the job, the working environment, superiors and the organisation as a whole also generate levels of satisfaction or dissatisfaction that have an impact on job quality. In order to capture the effect of social relations in the workplace, two additional variables were incorporated into this dimension: Variable 12: relationships among workers (RELWORKERS); and Variable 13: relationships between workers and directors (RBWORDIR). Both variables are discrete. They measure the workers' perceptions of relationships in their workplaces and working environments on a scale from 0 to 10 (0=Very bad; 10=Very good).
- *Dimension 3: Working conditions, work intensity, and health and safety at work (WCWIHS).* Working conditions are also an important dimension in the explanation of job quality. Three variables about the working conditions were captured in this dimension: Variable 14: the workspace (WSPACE); Variable 15: lighting conditions (LIGHTCON); and Variable 16: commuting time (COMMUT). The first two variables were captured by means of a subjective assessment of workspace conditions by the individuals. This assessment is measured on a scale from 0 to 10 (0=Very bad conditions; 10=Very good conditions). The third is a continuous variable that measures, in hours and minutes, the commute time reported by the worker. As already mentioned, the literature has identified the work pressure and workload as restrictive factors of job quality. In order to capture the impact of work intensity on job quality, three variables were incorporated into this dimension of the model: Variable 17: weekly working hours (WWORKH); Variable 18: leave entitlements (LEAVEENT); and Variable 19: working day (WORKDAY). WWORKH is a continuous variable that measures weekly working hours, whereas the remaining two are discrete variables that measure the worker's degree of satisfaction with leave entitlements and the working day on a scale from 0 to 10 (0= Zero satisfaction; and 10=Very high satisfaction). Finally, this dimension also includes two indicators relating to health at safety at work: Variable 20: health and safety at work (HEALTHSAF) measures the worker's degree of

satisfaction with health and safety at work on a scale from 0 to 10 (0= Zero satisfaction; and 10=Very high satisfaction); and Variable 21: perception of risks in the workplace (RISKPER) measures the worker's perceived degree of risks or dangers in the workplace on a scale from 0 to 10 (0=Low risk; and 10=High risk).

- *Dimension 4: Extrinsic rewards (EXRW)*. Dimension 4 of the model refers to the extrinsic rewards for salaried work. While some studies incorporate this dimension into overall satisfaction, the approach taken in this study deliberately treats it separately in order to capture its specific effect on job quality. Two variables about payments were included: Variable 22: wage (WAGE); and Variable 23: social benefits (SOCBENEF). Both discrete variables measure the worker's degree of satisfaction with his/her salary and with the social benefits provided by the firm or the organisation on a scale from 0 to 10. Also, two important variables in the explanation of the worker's perceived rewards were incorporated into the dimension: Variable 24: flexible working hours (FLEXWH); and Variable 25: job stability (JOBSTAB). Both variables are discrete. They measure the worker's degree of satisfaction with flexibility and security conditions on a scale from 0 to 10. Finally, the dimension includes two variables about the continuity of the worker in the firm and about the training provided by the firm: Variable 26 (WOREXP) measures the worker's years of experience in the firm or organisation; and Variable 27: firm training (FIRMTRAIN) measures the worker's degree of satisfaction with training provided by the firm or organisation on a scale from 0 to 10 (0=Zero satisfaction; and 10=Very high satisfaction).
- *Dimension 5: Work-life balance (WLB)*. The literature shows the importance of work-life balance in the explanation of job quality. In this respect, workers' perceptions of their personal lives (particularly outside work), the time available to devote to their children and their partners' involvement in household chores have all been used as important indicators in this dimension. Bringing both aspects together in one dimension, our model proposes the inclusion of four variables: Variable 28: personal life (PERLIFE); Variable 29: time devoted to children (DEVCHILD); Variable 30: partner's involvement in household chores (PARTINV); and Variable 31: time available for personal life outside work (LIFEOWORK). All of these variables are discrete. They measure the worker's level of satisfaction on a scale from 0 to 10 (0=Zero satisfaction; and 10=Very high satisfaction).



**Figure 1.** Two-stage model of the direct effects on gender-related job quality in Spain



Source: Own elaboration.

### 3. Results

Table 2 and table 3 show the results (standardised coefficients and measurement errors) of the first stage of estimating the determinants (direct effects) of gender-related job quality in Spain in 2008 and 2010. In this first stage, the causal relationships among 31 indicators and the 5 dimensions describing gender-related job quality were estimated using a SEM with measurement errors. Firstly, it should be noted that all the variables specified in the model were statistically significant (minimum at 90% of confidence). Secondly, the goodness-of-fit measurements for the 30 proposed models were highly satisfactory. Thus, the indices NFI, RFI, IFI, TLI and CFI had very high values, approaching the optimal value of 1. The RMSEA values were less than 0.065, thus corroborating the validity of the estimated models.

As a starting point, a comparison between men and women of the standardised coefficients obtained for 2008 show important gender-related differences. In the intrinsic job quality dimension (IJQ), the coefficients of satisfaction with personal development and with education for the job are higher for women. In contrast, in the work organisation and workplace relationships (WOWR) dimension, the coefficients obtained indicate greater effects on job quality for men, particularly in the variables relating to the level of monotony or routine, stress, teamwork, opportunities for promotion and decision-making. This behaviour, which is more favourable to men, is repeated in the working conditions, work intensity and health and safety at work (WCWIHS) dimension. In this respect, worthy of note are the considerable differences obtained in the coefficients of the perception of risks in the workplace, health and safety at work, commuting time and workspace conditions. In contrast, satisfaction with the working day and leave entitlements is favourable to women.

In the extrinsic rewards dimension (EXRW), a pattern of results that is more favourable to men is repeated, particularly in the coefficients obtained for satisfaction with flexible working hours, wage and job stability. Only satisfaction with firm-paid training presents a behaviour that is slightly more favourable to women. Lastly, in the work-life balance (WLB) dimension, the results are mixed. The direct effects on job quality are more positive for women in satisfaction with time devoted to children and with time for personal life outside work, whereas satisfaction with personal life and with partner's involvement in domestic chores are more favourable to men.

**Table 2.** Determinants (direct effects) of gender-related job quality in Spain (first stage)\*. 2008

Dimension/variable	Men		Women		All	
	Standardised coefficients	Errors	Standardised coefficients	Errors	Standardised coefficients	Errors
<b>1. Intrinsic job quality (IJQ)</b>	-	1.842***	-	1.960***	-	1.893***
1. Worker's overall satisfaction (OVERSAT)	0.850***	0.708***	0.848***	0.767***	0.849***	0.734***
2. Satisfaction with motivation level (MOTIV)	0.807***	1.862***	0.816***	1.900***	0.812***	1.876***
3. Satisfaction with personal development (PERDEV)	0.763***	1.540***	0.803***	1.510***	0.781***	1.532***
4. Satisfaction with education for the job (JOBEDUC)	0.308***	9.932***	0.357***	10.873***	0.329***	10.368***
<b>2. Work organisation &amp; workplace relationships (WOWR)</b>	-	1.160***	-	1.227***	-	1.195***
5. Satisfaction with autonomy (AUTON)	0.483***	3.820***	0.505***	3.576***	0.495***	3.574***
6. Satisfaction with superiors' assessment (SUPASS)	0.768***	1.999***	0.787***	1.917***	0.777***	2.566***
7. Satisfaction with decision-making (DECMAC)	0.586***	4.813***	0.563***	4.801***	0.573***	4.549***
8. Level of teamwork (TEAMW)	0.107***	0.139***	0.058**	0.145***	0.084***	0.144***
9. Sat. with opportunities for promotion (PROMOP)	0.448***	7.688***	0.409***	8.851***	0.423***	7.797***
10. Degree of stress (STRESS)	-0.120***	8.966***	-0.186***	8.835***	-0.137***	9.105***
11. Level of monotony or routine in tasks (MONOT)	-0.281***	8.886***	-0.349***	9.086***	-0.313***	8.811***
12. Relationships among workers (RELWORKERS)	0.680***	2.774***	0.669***	2.882***	0.672***	2.874***
13. Relationships workers with directors (RBWORDIR)	0.407***	2.314***	0.416***	2.390***	0.410**	2.363***
<b>3. Working conditions, work intensity, health and safety at work (WCWIHS)</b>	-	3.609***	-	1.623***	-	2.934***
14. Level of workspace conditions (WSPACE)	-0.031*	109.531***	-0.059*	246.932***	-0.042***	753.964***
15. Level of lighting conditions (LIGTHCON)	-0.087**	0.087***	-0.074**	0.081***	-0.081***	0.083***
16. Commuting time (COMMUT)	-0.031*	110.772***	-0.072**	249.829***	-0.063***	761.558***
17. Weekly working hours (WWORKH)	0.329***	3.968***	0.309***	4.846***	0.319***	4.531***
18. Satisfaction with leave entitlements (LEAVEENT)	-0.122***	10.313***	-0.091***	8.934***	-0.112***	9.312***
19. Satisfaction with working day (WORKDAY)	-0.178***	47.213***	-0.131***	66.021***	-0.154***	54.244***
20. Health and safety at work (HEALTHSAF)	0.768***	2.155**	0.711***	2.914***	0.736***	2.782***
21. Perception of risks in the workplace (RISKPER)	0.840***	1.500*	0.556***	3.619***	0.625***	3.284***
<b>4. Extrinsic rewards (EXRW)</b>	-	2.336***	-	2.322***	-	2.561***
22. Satisfaction with wage (WAGE)	0.666***	2.932***	0.631***	3.503***	0.651***	2.963***
23. Satisfaction with social benefits (SOCBENE)	0.467***	7.763***	0.454***	7.551***	0.461***	7.547***
24. Satisfaction with flexible working hours (FLEXWH)	0.350***	9.175***	0.289***	10.624***	0.319***	9.839***
25. Satisfaction with job stability (JOBSTAB)	0.440***	5.276***	0.407***	6.035***	0.415***	5.659***
26. Worker's years of experience (WOREXP)	0.138***	116.583***	0.153***	89.507***	0.149***	105.941***
27. Satisfaction with firm training (FIRMTRAIN)	0.658***	5.480***	0.690***	5.782***	0.667***	5.714***
<b>5. Work-life balance (WLB)</b>	-	7.582***	-	7.755***	-	7.654***
28. Sat. personal life (PERLIFE)	-0.096***	2.749***	-0.147***	3.521***	-0.121***	3.091***
29. Sat. time devoted to children (DEVCHILD)	0.777***	4.323***	0.798***	3.991***	0.786***	4.188***
30. Sat. partner's involvement in chores (PARTINV)	0.932***	1.581***	0.901***	2.290***	0.919***	1.888***
31. Sat. time personal life outside work (LIFEOWORK)	0.788***	4.638***	0.806***	4.174***	0.795***	4.447***

**Statistics**

Goodness-of-fit indices IJQ Men: NFI: 0.996; RFI: 0.981; IFI: 0.997; TLI: 0.983; CFI: 0.997; RMSEA: 0.048  
 Goodness-of-fit indices WOWR Men: NFI: 0.968; RFI: 0.924; IFI: 0.971; TLI: 0.931; CFI: 0.971; RMSEA: 0.051  
 Goodness-of-fit indices WCWIHS Men: NFI: 0.980; RFI: 0.967; IFI: 0.982; TLI: 0.970; CFI: 0.982; RMSEA: 0.053  
 Goodness-of-fit indices EXRW Men: NFI: 0.979; RFI: 0.927; IFI: 0.982; TLI: 0.937; CFI: 0.982; RMSEA: 0.043  
 Goodness-of-fit indices WLB Men: NFI: 0.996; RFI: 0.987; IFI: 0.996; TLI: 0.989; CFI: 0.996; RMSEA: 0.054

Goodness-of-fit indices IJQ Women: NFI: 0.998; RFI: 0.991; IFI: 0.999; TLI: 0.993; CFI: 0.999; RMSEA: 0.032  
 Goodness-of-fit indices WOWR Women: NFI: 0.961; RFI: 0.907; IFI: 0.965; TLI: 0.917; CFI: 0.965; RMSEA: 0.057  
 Goodness-of-fit indices WCWIHS Women: NFI: 0.993; RFI: 0.990; IFI: 0.997; TLI: 0.996; CFI: 0.997; RMSEA: 0.017  
 Goodness-of-fit indices EXRW Women: NFI: 0.965; RFI: 0.852; IFI: 0.968; TLI: 0.866; CFI: 0.968; RMSEA: 0.062  
 Goodness-of-fit indices WLB Women: NFI: 0.999; RFI: 0.998; IFI: 0.999; TLI: 0.997; CFI: 0.998; RMSEA: 0.005

Goodness-of-fit indices IJQ Total: NFI: 0.998; RFI: 0.988; IFI: 0.998; TLI: 0.990; CFI: 0.998; RMSEA: 0.039  
 Goodness-of-fit indices WOWR Total: NFI: 0.957; RFI: 0.898; IFI: 0.960; TLI: 0.905; CFI: 0.960; RMSEA: 0.049  
 Goodness-of-fit indices WCWIHS Total: NFI: 0.976; RFI: 0.962; IFI: 0.977; TLI: 0.964; CFI: 0.977; RMSEA: 0.057  
 Goodness-of-fit indices EXRW Total: NFI: 0.975; RFI: 0.911; IFI: 0.976; TLI: 0.917; CFI: 0.976; RMSEA: 0.049  
 Goodness-of-fit indices WLB Total: NFI: 0.999; RFI: 0.996; IFI: 0.999; TLI: 0.997; CFI: 0.999; RMSEA: 0.029

\* Regression analysis: Structural equation modelling (SEM). Estimated coefficients: direct effects.

P-value: \*\*\* Significant at 99% confidence level; \*\* Significant at 95% confidence level; \* Significant at 90% confidence level.

Source: Own elaboration.

**Table 3.** Determinants (direct effects) of gender-related job quality in Spain (first stage)\*. 2010

Dimension/variable	Men		Women		All	
	Standardised coefficients	Errors	Standardised coefficients	Errors	Standardised coefficients	Errors
<b>1. Intrinsic job quality (IJQ)</b>	-	1.764***	-	1.743***	-	1.753***
1. Worker's overall satisfaction (OVERSAT)	0.778***	1.149***	0.773***	1.177***	0.775***	1.164***
2. Satisfaction with motivation level (MOTIV)	0.821***	1.654***	0.860***	1.379***	0.838***	1.537***
3. Satisfaction with personal development (PERDEV)	0.792***	1.368***	0.770***	1.583***	0.782***	1.463***
4. Satisfaction with education for the job (JOBEDUC)	0.300***	8.301***	0.289***	9.231***	0.296***	8.720***
<b>2. Work organisation &amp; workplace relationships (WOWR)</b>	-	1.371***	-	1.246***	-	1.311***
5. Satisfaction with autonomy (AUTON)	0.548***	3.193***	0.504***	3.653***	0.527***	3.406***
6. Satisfaction with superiors' assessment (SUPASS)	0.802***	1.658***	0.804***	1.605***	0.803***	1.629***
7. Satisfaction with decision-making (DECMAC)	0.567***	4.425***	0.531***	4.726***	0.550***	4.568***
8. Level of teamwork (TEAMW)	0.045***	0.149***	0.061*	0.156***	0.053***	0.152***
9. Sat. with opportunities for promotion (PROMOP)	0.541***	6.542***	0.475***	7.866***	0.509***	7.204***
10. Degree of stress (STRESS)	-0.135***	8.504***	-0.161***	8.391***	-0.149***	8.472***
11. Level of monotony or routine in tasks (MONOT)	-0.211***	8.804***	-0.223***	8.809***	-0.217***	8.807***
12. Relationships among workers (RELWORKERS)	0.692***	2.495***	0.674***	2.568***	0.683***	2.533***
13. Relationships workers with directors (RBWORDIR)	0.414***	2.373***	0.438***	2.375***	0.425***	2.375***
<b>3. Working conditions, work intensity, health and safety at work (WCWIHS)</b>	-	1.288***	-	0.743***	-	1.019***
14. Level of workspace conditions (WSPACE)	0.539***	3.422***	0.506***	3.420***	0.525***	3.411***
15. Level of lighting conditions (LIGTHCON)	0.528***	3.006***	0.483***	2.703***	0.515***	2.985***
16. Commuting time (COMMUT)	-0.064***	0.092***	-0.070	0.073***	-0.068***	0.084***
17. Weekly working hours (VWORKH)	-0.111***	3.487***	-0.100***	4.374***	-0.116***	3.893***
18. Satisfaction with leave entitlements (LEAVEENT)	0.563***	3.449***	0.408***	4.254***	0.493***	3.869***
19. Satisfaction with working day (WORKDAY)	0.521***	48.306***	0.381***	86.193***	0.455***	70.564***
20. Health and safety at work (HEALTHSAF)	0.575***	2.640***	0.643***	3.026***	0.593***	2.753***
21. Perception of risks in the workplace (RISKPER)	-0.177***	10.014***	-0.294***	7.770***	-0.231***	9.482***
<b>4. Extrinsic rewards (EXRW)</b>	-	2.281***	-	1.896***	-	1.962***
22. Satisfaction with wage (WAGE)	0.665***	2.880***	0.715***	2.775***	0.681***	2.841***
23. Satisfaction with social benefits (SOCBENE)	0.511***	7.294***	0.454***	7.667***	0.499***	7.357***
24. Satisfaction with flexible working hours (FLEXWH)	0.392***	7.592***	0.290***	9.224***	0.379***	8.107***
25. Satisfaction with job stability (JOBSTAB)	0.473***	4.519***	0.372***	5.205***	0.467***	4.721***
26. Worker's years of experience (WOREXP)	0.159***	110.586***	0.110***	97.473***	0.129***	102.569***
27. Satisfaction with firm training (FIRMTRAIN)	0.624***	4.910***	0.637***	5.134***	0.663***	4.806***
<b>5. Work-life balance (WLB)</b>	-	10.017***	-	10.615***	-	10.299***
28. Sat. personal life (PERLIFE)	-0.102***	2.844***	-0.108***	3.244***	-0.104***	3.026***
29. Sat. time devoted to children (DEVCHILD)	0.827***	4.183***	0.844***	3.724***	0.834***	3.978***
30. Sat. partner's involvement in chores (PARTINV)	0.945***	1.444***	0.965***	0.959***	0.954***	1.227***
31. Sat. time personal life outside work (LIFEOWORK)	0.854***	4.231***	0.875***	3.241***	0.863***	3.523***

**Statistics**

Goodness-of-fit indices IJQ Men: NFI: 0.999; RFI: 0.998; IFI: 0.999; TLI: 0.999; CFI: 0.999; RMSEA: 0.005  
 Goodness-of-fit indices WOWR Men: NFI: 0.975; RFI: 0.940; IFI: 0.978; TLI: 0.949; CFI: 0.978; RMSEA: 0.046  
 Goodness-of-fit indices WCWIHS Men: NFI: 0.959; RFI: 0.917; IFI: 0.966; TLI: 0.931; CFI: 0.966; RMSEA: 0.041  
 Goodness-of-fit indices EXRW Men: NFI: 0.989; RFI: 0.960; IFI: 0.992; TLI: 0.971; CFI: 0.992; RMSEA: 0.030  
 Goodness-of-fit indices WLB Men: NFI: 0.999; RFI: 0.998; IFI: 0.999; TLI: 0.999; CFI: 0.999; RMSEA: 0.016  
 Goodness-of-fit indices IJQ Women: NFI: 0.995; RFI: 0.997; IFI: 0.996; TLI: 0.980; CFI: 0.996; RMSEA: 0.051  
 Goodness-of-fit indices WOWR Women: NFI: 0.979; RFI: 0.951; IFI: 0.981; TLI: 0.956; CFI: 0.981; RMSEA: 0.041  
 Goodness-of-fit indices WCWIHS Women: NFI: 0.969; RFI: 0.939; IFI: 0.977; TLI: 0.955; CFI: 0.977; RMSEA: 0.035  
 Goodness-of-fit indices EXRW Women: NFI: 0.984; RFI: 0.945; IFI: 0.989; TLI: 0.962; CFI: 0.989; RMSEA: 0.031  
 Goodness-of-fit indices WLB Women: NFI: 0.999; RFI: 0.996; IFI: 0.999; TLI: 0.997; CFI: 0.999; RMSEA: 0.032

Goodness-of-fit indices IJQ Total: NFI: 0.999; RFI: 0.993; IFI: 0.999; TLI: 0.995; CFI: 0.999; RMSEA: 0.025  
 Goodness-of-fit indices WOWR Total: NFI: 0.979; RFI: 0.951; IFI: 0.981; TLI: 0.956; CFI: 0.981; RMSEA: 0.041  
 Goodness-of-fit indices WCWIHS Total: NFI: 0.955; RFI: 0.910; IFI: 0.959; TLI: 0.917; CFI: 0.958; RMSEA: 0.046  
 Goodness-of-fit indices EXRW Total: NFI: 0.983; RFI: 0.910; IFI: 0.984; TLI: 0.917; CFI: 0.984; RMSEA: 0.048  
 Goodness-of-fit indices WLB Total: NFI: 0.999; RFI: 0.997; IFI: 0.999; TLI: 0.998; CFI: 0.999; RMSEA: 0.027

\* Regression analysis: Structural equation modelling (SEM). Estimated coefficients: direct effects.

P-value: \*\*\* Significant at 99% confidence level; \*\* Significant at 95% confidence level; \* Significant at 90% confidence level.

Source: Own elaboration.

The unequal intra-gender starting point in 2008 and the differentiated explanatory dynamic between genders from 2008 to 2010 determine an explanatory itinerary of job quality in Spain that is clearly differentiated between men and women. A comparison of the results between men and women for 2010 suggests very important differences that, to a large extent, once again determine a greater effect on job quality in the coefficients for men. In the intrinsic job quality dimension (IJQ), the coefficient of satisfaction with motivation is partially compensated by a dynamic that is more favourable to men in the coefficients of satisfaction with personal development, education for the job and overall satisfaction with the job. In the work organisation and workplace relationships (WOWR) dimension, the coefficients obtained clearly indicate greater effects on job quality for men in 2010, particularly in the variables relating to satisfaction with opportunities for promotion, autonomy, decision-making and degree of stress. In this dimension, only the coefficient of relationship with directors presents a behaviour that is slightly more favourable to women.

This pattern of results, which overall is more favourable to men, is repeated in the working conditions, work intensity and health and safety at work (WCWIHS) dimension. In this respect, worthy of note are the considerable differences obtained in the coefficients of the perception of risks in the workplace, satisfaction with leave entitlements, working day, and lighting and workspace conditions. In this dimension, only the coefficient of health and safety at work presents a behaviour that is slightly more favourable to women. In the extrinsic rewards dimension, a pattern of results that is more favourable to men is repeated, particularly in the coefficients obtained for satisfaction with flexible working hours, job stability, social benefits and experience in the job. In this dimension, only satisfaction with wage presents a behaviour that is slightly more favourable to women. Lastly, and in contrast to the other dimensions, the results of the coefficients in the work-life balance (WLB) dimension present a set of direct effects on job quality that are favourable to women, due to the better behaviour of satisfaction with personal life outside work, partner's involvement in domestic chores and time devoted to children.

Table 4 shows the results (standardised coefficients and measurement errors) of the second stage of estimating the determinants (direct effects) of gender-related job quality in Spain in 2008 and 2010. In this second stage, the causal relationships among the indicators constructed for the 5 dimensions describing job quality (based on the coefficients from the first stage) and the latent construct of gender-related job quality were tested using a SEM with a latent dependent variable and measurement errors. Firstly, it should be noted that all the variables specified in the model were statistically significant (all at 99% of confidence). Secondly, the goodness-of-fit measurements for the 6 proposed models were highly satisfactory. Thus, the indices NFI, RFI, IFI, TLI and CFI had very high values, approaching the optimal value of 1. The RMSEA values were less than 0.08, thus corroborating the validity of the estimated models.

**Table 4.** Determinants (direct effects) of gender-related job quality in Spain (second stage)\*. 2008-2010

Dimension/variable	Men		Women		All	
	Standardised coefficients	Errors	Standardised coefficients	Errors	Standardised coefficients	Errors
<b>Job Quality (JQ) 2008</b>	-	17.730***	-	21.630***	-	19.001***
1. Intrinsic job quality (IJQ)	0.936***	2.502***	0.931***	3.317***	0.932***	3.109***
2. Work organisation & workplace relationships (WOWR)	0.817***	11.297***	0.831***	10.652***	0.829***	7.862***
3. Working conditions, work intensity, health and safety at work (WCWIHS)	0.511***	10.903***	0.432***	11.676***	0.481***	11.098***
4. Extrinsic rewards (EXRW)	0.577***	16.829***	0.571***	18.229***	0.576***	17.655***
5. Work-life balance (WLB)	-0.160***	57.148***	-0.200***	57.097***	-0.170***	57.280***
<b>Job Quality (JQ) 2010</b>	-	15.397***	-	14.721***	-	15.238***
1. Intrinsic job quality (IJQ)	0.886***	4.234***	0.843***	5.981***	0.871***	4.862***
2. Work organisation & workplace relationships (WOWR)	0.850***	10.302***	0.872***	7.966***	0.857***	9.382***
3. Working conditions, work intensity, health and safety at work (WCWIHS)	0.622***	10.149***	0.550***	9.788***	0.578***	10.366***
4. Extrinsic rewards (EXRW)	0.615***	17.520***	0.617***	13.668***	0.615***	16.699***
5. Work-life balance (WLB)	-0.161***	76.939***	-0.191***	82.031***	-0.172***	79.675***
<b>Statistics</b>						
Goodness-of-fit indices JQ 2008 Men: NFI: 0.989; RFI: 0.945; IFI: 0.990; TLI: 0.948; CFI: 0.990; RMSEA: 0.074						
Goodness-of-fit indices JQ 2008 Women: NFI: 0.989; RFI: 0.947; IFI: 0.990; TLI: 0.951; CFI: 0.990; RMSEA: 0.068						
Goodness-of-fit indices JQ 2008 Total: NFI: 0.998; RFI: 0.987; IFI: 0.999; TLI: 0.989; CFI: 0.999; RMSEA: 0.030						
Goodness-of-fit indices JQ 2010 Men: NFI: 0.987; RFI: 0.935; IFI: 0.988; TLI: 0.938; CFI: 0.988; RMSEA: 0.075						
Goodness-of-fit indices JQ 2010 Women: NFI: 0.987; RFI: 0.933; IFI: 0.988; TLI: 0.938; CFI: 0.988; RMSEA: 0.073						
Goodness-of-fit indices JQ 2010 Total: NFI: 0.996; RFI: 0.973; IFI: 0.997; TLI: 0.975; CFI: 0.997; RMSEA: 0.046						

\* Regression analysis: Structural equation modelling (SEM). Estimated coefficients: direct effects.

P-value: \*\*\* Significant at 99% confidence level.

Source: Own elaboration.

The standardised coefficients obtained for the indicators of the 5 dimensions in 2008 and in 2010 highlight important gender differences in the explanation of job quality. First, it is important to draw attention to a starting point that was clearly unfavourable to women. For 2008, the coefficients obtained for 4 of the 5 job quality dimensions are favourable to men: working conditions, work intensity and health and safety at work (WCWIHS), work-life balance (WLB), extrinsic rewards (EXRW) and intrinsic job quality (IJQ). Only work organisation and workplace relationships (WOWR) presents a direct effect on job quality that is favourable to women.

Second, it is worth noting that the evolution of the explanatory coefficients in the job quality dimensions during the recession (from 2008 to 2010) was generally favourable to both women and men. The coefficients of 4 of the 5 explanatory dimensions evolved positively for women: working conditions, work intensity and health and safety at work (WCWIHS), extrinsic rewards (EXRW), work organisation and workplace relationships (WOWR) and work-life balance (WLB). For 2010, only the intrinsic job quality (IJQ) job dimension presents explanatory coefficients that are lower than those for 2008. Moreover, the dynamic for men is similar to that for women. The coefficients of 3 of the 5 explanatory dimensions evolved positively for men: working conditions, work intensity and health and safety at work (WIWCHS), extrinsic rewards (EXRW), and work



organisation and workplace relationships (WOWR). The work-life balance (WLB) dimension maintained practically the same coefficients as those in 2008 and the intrinsic job quality (IJQ) evolved unfavourably, as it also did for women.

Third and lastly, it should be noted that, as a result of the clearly unequal starting point in 2008 and a similar evolution during the recession (from 2008 to 2010), the explanatory effect on job quality of the 5 dimensions thereof continued to be clearly biased in favour of men in 2010. The coefficients of 3 of the 5 explanatory dimensions of job quality continued to be favourable to men: working conditions, work intensity and health and safety at work (WCWIHS), intrinsic job quality (IJQ), and work-life balance (WLB). The extrinsic rewards (EXRW) dimension maintained practically the same differences as those found in 2008. Only the work organisation and workplace relationships (WOWR) dimension evolved favourably for women during the recession.

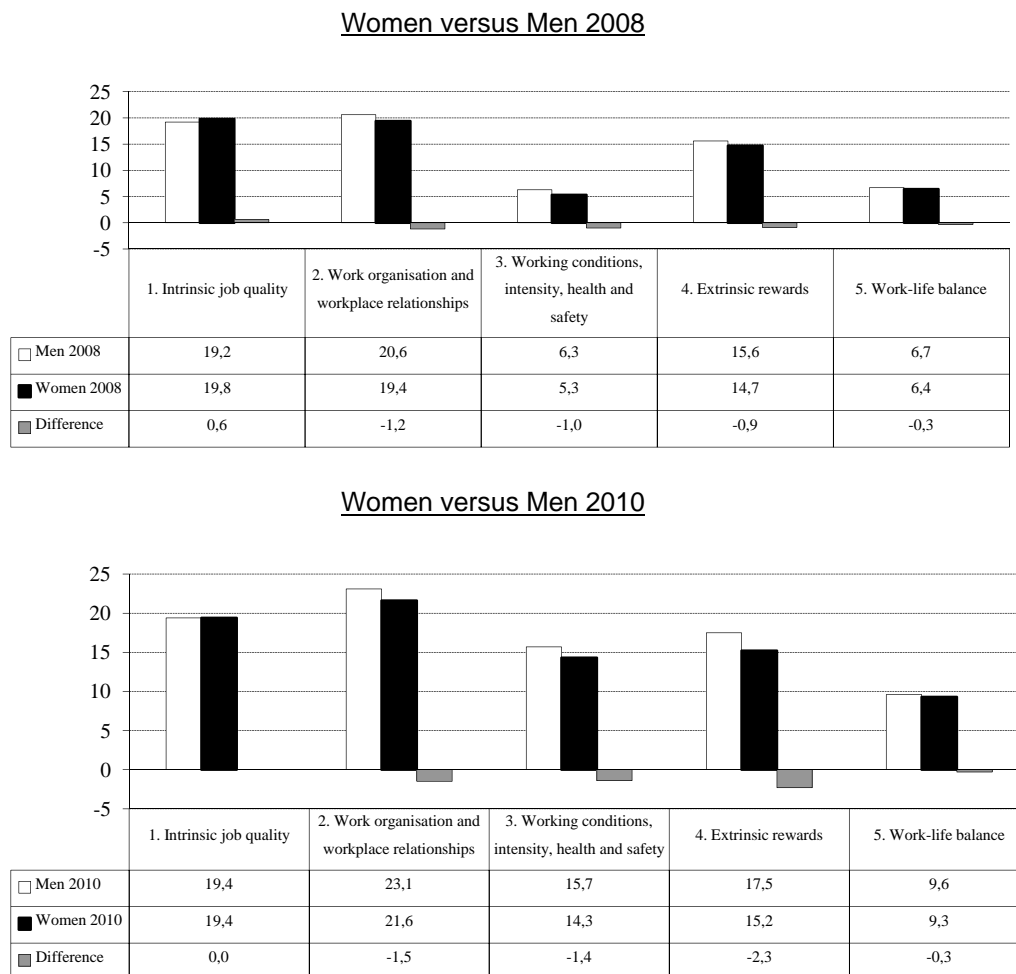
Finally, after applying the coefficients obtained from the second stage, a gender-related job quality composite index was constructed and its mean values shown, comparing 2008 to 2010. Thus, as a result of two-stage SEM estimation, the mean value of this composite indicator was  $M = 44.8$  points ( $M = 43.9$  for women and  $M = 45.9$  for men) in 2008 and  $M = 54.5$  points ( $M = 51.3$  for women and  $M = 56.1$  for men) in 2010.

The means obtained for the general indicator highlight the fact that the improvement in job quality in Spain during the recession (from 2008 to 2010) can be explained, in the main, by the working conditions, work intensity and health and safety at work (WCWIHS) dimension (from  $M = 5.8$  in 2008 to  $M = 15.1$  in 2010). Several other dimension also evolved favourably, including work-life balance (WLB) (from  $M = 6.5$  in 2008 to  $M = 9.4$  in 2010), work organisation and workplace relationships (WOWR) (from  $M = 19.7$  in 2008 to  $M = 22.2$  in 2010) and extrinsic rewards (EXRW) (from  $M = 15.3$  in 2008 to  $M = 16.7$  in 2010), albeit much more moderately. Lastly, the intrinsic job quality (IJQ) dimension (from  $M = 19.5$  in 2008 to  $M = 19.4$  in 2010) maintained practically the same results as those obtained in 2008. These aggregate results are the outcome of a dynamic that was clearly more favourable to men than to women. None of the 5 explanatory dimensions of job quality during the recession evolved more positively for women than they did for men.

Figure 2 shows the mean values of the indicators for the 5 explanatory dimensions of job quality for men and women in the two years under study. The results obtained suggest that, at the start of the crisis (2008), 4 of the 5 explanatory dimensions of job quality were favourable to men: work organisation and workplace relationships (WOWR) ( $M = 19.4$  for women and  $M = 20.6$  for men), working conditions, work intensity and health and safety at work (WCWIHS) ( $M = 5.3$  for women and  $M = 6.3$  for men), extrinsic rewards (EXRW) ( $M = 14.7$  for women and  $M = 15.6$  for men) and work-life balance (WLB) ( $M = 6.4$  for women and  $M = 6.7$  for men). Only intrinsic job quality (IJQ) presented mean values favourable to women ( $M = 19.8$  for women and  $M = 19.2$  for men). The results obtained for 2010 suggest that, during the recession (from 2008 to 2010), the gender differences got worse; all the explanatory dimensions of job

quality were either favourable to men or remained equal for both genders: intrinsic job quality (IJQ) (M = 19.4 for women and M = 19.4 for men), work organisation and workplace relationships (WOWR) (M = 21.6 for women and M = 23.1 for men), working conditions, work intensity and health and safety at work (WCWIHS) (M = 14.3 for women and M = 15.7 for men), extrinsic rewards (EXRW) (M = 15.2 for women and M = 17.5 for men) and work-life balance (WLB) (M = 9.3 for women and M = 9.6 for men).

**Figure 2.** Explanatory dimensions of gender-related job quality in Spain (means). 2008 and 2010



Source: Own elaboration.



In short, and as can be seen in Figure 3 (which shows the differences between men and women of the mean values of the 5 explanatory dimensions and the aggregate composite indicator in 2008 and 2010), gender inequality in job quality increased during the recession in Spain. Although inequality already existed at the start of the crisis (2 points difference in the composite indicator of job quality in favour of men:  $M = 43.9$  for women and  $M = 45.9$  for men), this inequality increased during the recession and had more than doubled by 2010 (4.8 points difference in the composite indicator of job quality in favour of men:  $M = 51.3$  for women and  $M = 56.1$  for men). Of the explanatory dimensions of job quality, 4 of the 5 were responsible for this increase in gender inequality: intrinsic job quality (IJQ) (from 0.6 points difference in 2008 to 0.0 points difference in 2010), work organisation and workplace relationships (WOWR) (from -1.2 points difference in 2008 to -1.5 points difference in 2010), working conditions, work intensity and health and safety at work (WCWIHS) (from -1.0 points difference in 2008 to -1.4 points difference in 2010), extrinsic rewards (EXRW) (from -0.9 points difference in 2008 to -2.3 points difference in 2010). However, inequality in the work-life balance (WLB) dimension remained stable (-0.3 points difference in 2008 and -0.3 points difference in 2010).

**Figure 3.** Gender inequality in job quality in Spain (means differences). 2008 and 2010



Source: Own elaboration.

## 4. Concluding remarks, discussion and future research

Job quality research from a gender perspective has highlighted considerable inequalities in favour of men in the various explanatory dimensions thereof. While some of these inequalities narrowed during the economic boom, the little available evidence relating to the period of economic crisis shows that there were increased gender differences in many explanatory dimensions of job quality (European Commission, 2015; Erhel et al., 2012; Leschke et al., 2012; Russell et al., 2014).

With the aim of contributing new evidence on gender inequality in job quality, this paper, which took a multidimensional and microdata empirical approach, analysed the determinants of gender-related job quality in Spain for 2008 and 2010. For the analysis, microdata were used from the Quality of Working Life Survey (ECVT, as abbreviated in Spanish) conducted annually by Spain's Ministry of Employment and Social Security (2010 was the last year for which data were available). The two-stage SEM estimation methodology using latent variables and measurement errors was applied as follows: in the first stage, the causal relationships among 31 explanatory indicators and the 5 latent dimensions describing gender-related job quality were tested, and in the second stage, the causal relationships among the indicators constructed for those 5 dimensions (based on the coefficients from the first stage) and the latent construct of gender-related job quality were tested. Finally, after applying the coefficients obtained from the second stage, a gender-related job quality composite index was constructed and its mean values shown (total and for the 5 dimensions), comparing 2008 to 2010.

The research revealed four main results. First, despite the economic crisis, job quality in Spain had improved over the analysis period. Thus, the mean value of this composite indicator was  $M = 44.8$  points in 2008 and  $M = 54.5$  points in 2010. Second, the improvement in job quality during the crisis was more favourable to men (from  $M = 45.9$  points in 2008 to  $M = 56.1$  points in 2010) than it was to women (from  $M = 43.9$  points in 2008 to  $M = 51.3$  points in 2010). Third, the gender differences in the explanation of job quality during the crisis increased considerably in favour of men (from 2.0 points difference in 2008 to 4.8 points difference in 2010). Fourth and lastly, this increase in gender difference in job quality in favour of men is explained by a worsening of 4 of the 5 explanatory dimensions thereof: intrinsic job quality; work organisation and workplace relationships; working conditions, work intensity and health and safety at work; and extrinsic rewards. Only inequality in the work-life balance dimension remained stable from 2008 to 2010.

In connection with the improvement in job quality during the economic crisis, these results are quite consistent with those obtained by other European studies (Morley, 2010; Pot, 2011). Particularly noteworthy are the results of recent research for a set of

European countries between 1995 and 2010 (Green and Mostafa, 2012, Green et al., 2013). In the case of Spain, this research suggests a slight increase in job quality between 2005 and 2010, linked to a decrease in work intensity, and clear improvements in physical and social environments and working time quality. In another study for a wide range of European countries (Esser and Olsen, 2012), the results for job quality put Spain in an intermediate position in terms of worker autonomy and job security. However, the research also indicates the importance of the economic cycle and the unemployment rate in the perceptions of job security. Along similar lines, Leschke and Watt (2013) put job quality in Spain close to the mean average of the 27 European Union countries, with a stabilisation of results between 2005 and 2010. Indeed, and in line with the our microdata results, recent empirical literature confirms the need for a multidimensional approach as a result of a broad set of explanatory dimensions that go beyond workplace quality analysis (Leschke et al., 2012).

Regarding the research into gender differences in the explanation of job quality, the results obtained are consistent with available evidence. The involuntary increase in part-time work, subjective insecurity, work pressure and wage cuts have also been identified in the literature as explanatory elements of the increase in gender inequality during the economic crisis (European Commission, 2015; Russell et al., 2014).

In terms of employment and gender equality public policy our research results suggest two important conclusions. In the first place, the importance of paying much greater attention to working environment and social relation dimensions in gender-related employment public policies. It is not simply a debate between job quantity and quality. To overcome the economic crisis, the results obtained reveal that social relations, health and safety at work, working conditions, work organisation, extrinsic rewards and work-life balance are increasingly becoming the cornerstones on which to build jobs where working men and women are trained, innovative, autonomous, committed and satisfied. Indeed, the Spanish economy should strengthen these job quality foundations to transform its extensive economic growth model and to improve social wellbeing. Second, and in line with the latest research, gender equality public policy should also address new problems associated with the accelerated changes at work. In particular: 1) the different job quality problems between highly skilled and less skilled working men and women (Gallie, 2013); 2) the link between gender gap and occupations (Stier and Yaish, 2014); and 3) the need to consider the different institutional regimes and organised labour to overcome gender-related job inequalities (Cloutier, 2012; Holman, 2013).

The paper presented here had a number of limitations, particularly in relation to the indicators and dimensions used in the analysis. Nevertheless, the availability of survey microdata on a representative sample of working men and women in Spain in 2008 and 2010 revealed the highly suggestive idea of establishing multidimensional and gender-related determinants of job quality and, in particular, of studying the effects of the economic crisis (Findlay et al., 2013). In this respect, and bearing in mind the importance of this type of analysis to the material and non-material outcomes of work,

the availability of: 1) more detailed data for other countries and working men and women specifications, especially knowledge-based occupations; 2) other sources of data on gender-related job quality, especially to capture job tasks; and 3) new statistical methods for analysing causal relationships, especially SEM-PLS, would allow new approaches to be taken and major improvements to be made. The preliminary nature of this study therefore suggests the need for future research on the issue of gender inequalities in job quality.

## Bibliographic references

- Blau, F.D., Brinton, M.C., and Grusky, D.B. (2006). *The Declining Significance of Gender?* Russell Sage, New York.
- Brown, A., Charlwood, A., and Spencer, D.A. (2012). Not all that it might seem: Why job satisfaction is worth studying despite it being a poor summary measure of job quality. *Work, Employment and Society* 26(6): 1007-1018.
- Bryson, A., Barth, E., and Dale-Olsen, H. (2013). The effects of organizational change on worker well-being and the moderating role of trade unions. *Industrial and Labor Relations Review* 66(4): 989-1011.
- Burchell, B., Fagan, C., O'Brien, C., and Smith, M. (2007). *Gender and Working Conditions in the European Union*. European Foundation for the Improvement of Living and Working Conditions, Dublin.
- Charles, M., and Bradley, K. (2002). Equal but separate? A cross-national study of sex segregation in higher education. *American Sociological Review* 67(4): 573-599.
- Clark, S.C. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations* 53(6): 747-770.
- Cloutier L., Bernard, P., and Tremblay, D.G. (2009). Job quality and gender inequality: Key changes in Quebec over the last decade. *Studies in Social Justice* 3(2): 189-201.
- Cloutier, L. (2012). Job quality in Quebec and the United Kingdom: Trends by sex and family status. *International Labour Review* 151(1/2): 61-84.
- Cottini, E., and Lucifora, C. (2013). Mental health and working conditions in Europe. *Industrial and Labor Relations Review* 66(4): 958-988.
- Dahl, S.A., Nesheim, T., and Olsen, K.M. (2009). Quality of work: Concept and measurement. In Guillén, A.M. and Dahl, S.A., editors, *Quality of Work in the European Union: Concept, Data and Debates from a Transnational Perspective*. Peter Lang, Brussels, 19-40.

- Davoine, L. (2006). *Are Quantity and Quality of Jobs Correlated? Using, Interpreting and Discussing the Laeken Indicators*. Centre d'Études de l'Emploi, Document de Travail, 59.
- Davoine, L., Erhel, C., and Guergoat-Lariviere, M. (2008a). *A Taxonomy of European Labour Markets Using Quality Indicators*. European Commission, Luxembourg.
- Davoine, L., Erhel, C., and Guergoat-Lariviere, M. (2008b). Monitoring quality in work: European employment strategy indicators and beyond. *International Labour Review* 147: 163-198.
- Díaz-Chao, A., Ficapal-Cusí, P., and Torrent-Sellens, J. (2014). Economic crisis and job quality in Spain: A multi-dimensional and micro-data empirical approach. *Social Indicators Research*. DOI: [10.1007/s11205-014-0850-0](https://doi.org/10.1007/s11205-014-0850-0)
- Díaz-Chao, A., Sainz-González, J., and Torrent-Sellens, J. (2015). ICT, innovation, and firm productivity: New evidence from small local firms. *Journal of Business Research* 68(7): 1439-1444.
- Drobnic, S., and Guillén, A. (2011). *Work-life Balance in Europe: The role of Job Quality*. Palgrave Macmillan, Houndmills.
- Erhel, C., Guergoat-Lariviere, M., Leschke, J., and Watt, A. (2012). *Trends in Job Quality during the Great Recession: A comparative approach for the EU*. Centre d'Études de l'Emploi, Document de Travail, 161-1.
- Esser, I., and Olsen, K.M. (2012). Perceived job quality: Autonomy and job security within a multi-level framework. *European Sociological Review* 28(4): 443-454.
- European Commission. (2008). Measuring the Quality of Employment in the EU. In European Commission (ed) *Employment in Europe Report 2008*. European Commission, Luxembourg.
- European Commission. (2015). *Report on the Equality between Women and Men*. European Commission, Luxembourg.
- European Foundation for the Improvement of Living and Working Conditions, Eurofound. (2002). *Quality of Work and Employment in Europe: Issues and Challenges*. Publications Office of the European Union, Luxembourg.
- European Foundation for the Improvement of Living and Working Conditions, Eurofound. (2013). *Women, Men and Working Conditions in Europe. A Report based on the fifth European Working Conditions Survey*. Publications Office of the European Union, Luxembourg.
- Findlay, P., Kallerberg, A.L., and Warhurst, C. (2013). The challenge of job quality. *Human Relations* 66(4): 441-451.
- Fortin, N.M. (2005). Gender role attitudes and the labour-market outcomes of women across OECD countries. *Oxford Review of Economic Policy* 21(3): 416-438.

- Fuwa, M. (2004). Macro-level gender inequality and the division of household labor in 22 countries. *American Sociological Review* 69(6): 751-767.
- Gallie, D. (2007). *Employment Regimes and the Quality of Work*. Oxford University Press, Oxford.
- Gallie, D., Felstead, A., and Green, F. (2012). Job preferences and the intrinsic quality of work: The changing attitudes of British employees 1992-2006. *Work, Employment and Society* 26(5): 806-821.
- Gallie, D. (2013). Direct participation and the quality of work. *Human Relations* 66(4): 453-473.
- Graso, M., and Probst, T.M. (2012). The effect of consideration of future consequences on quality and quantity aspects of job performance. *Journal of Applied Social Psychology* 42(6): 1335-1352.
- Green, F. (2006). *Demanding Work. The Paradox of Job Quality in the Affluent Economy*. Princeton University Press, Princeton.
- Green F (2010) Well-being, job satisfaction and labour mobility. *Labour Economics* 17(6): 897-903.
- Green, F., and Mostafa, T. (2012). *Trends in Job Quality in Europe. A Report based on the Fifth European Working Conditions Survey*. Publications Office of the European Union, Luxembourg.
- Green, F., Mostafa, T., Parent, A., Vermeylen, G., van Houten, G., Biletta, I., and Lyly-Yrjanainen, M. (2013). Is job quality becoming more unequal? *Industrial and Labor Relations Review* 66(4): 753-784.
- Grzywacz, J., and Carlson, D. (2007). Conceptualizing work-family balance: Implications for practice and research. *Advances in Developing Human Resources* 9: 455-471.
- Guillén, A., and Dahl, S.A. (2009). *Quality of Work in the European Union: Concept, Data and Debates from a Transnational Perspective*. P.I.E. Peter Lang, Brussels.
- Handel, M.J. (2005). Trends in perceived job quality, 1989 to 1998. *Work and Occupations* 32(1): 66-94.
- Harter, J., Schmidt, F., and Hayes, T. (2002). Business-unit level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology* 87(2): 268-279.
- Holman, D. (2013). Job types and job quality in Europe. *Human Relations* 66(4): 475-502.
- Johansson, M., Katz, K., and Nyman, H. (2005). Wage differentials and gender discrimination. *Acta Sociologica* 48(4): 341-364.



- Kalleberg, A.L., Reskin, B.F., and Hudson, K. (2007). Bad jobs in America: Standard and non-standard employment relations in job Quality in the United States. *American Sociological Review* 65(2): 256-268.
- Kalleberg, A.L. (2009). Precarious work, insecure workers: Employment relations in transition. *American Sociological Review* 74(1): 1–22.
- Leschke, J., Watt, A., and Finn, M. (2012). *Job Quality in the Crisis. An Update of the Job Quality Index (JQI)*. ETUI Working Paper, 2012-07.
- Leschke, J., and Watt, A. (2013). Challenges in constructing a multi-dimensional European job quality index. *Social Indicators Research*. DOI: 10.1007/s11205-013-0405-9.
- Levanon, A., England, P., and Allison, P. (2009). Occupational feminization and pay: assessing causal dynamics using 1950–2000 US Census data. *Social Forces* 88(2): 865-892.
- McMillan, H.S., Morris, M., and Atchley, K. (2011). Constructs of the work/life interface: A synthesis of the literature and introduction of the concept of work/life harmony. *Human Resource Development Review* 10: 6-25.
- Mandel, H., and Semyonov, M. (2005). Family policies, wage structures, and gender gaps: Sources of earnings inequality in 20 countries. *American Sociological Review* 70(6): 949-967.
- Martel, J.P. and Dupuis, G. (2006). Quality of work life: Theoretical and methodological problems, and presentation of a new model and measuring instrument. *Social Indicators Research* 77(2): 333-368.
- Ministry of Employment and Social Security. (2010). *Encuesta de Calidad de Vida en el Trabajo, 2010*. Madrid: Government of Spain. Accessed 5 April 2015. <http://www.empleo.gob.es/estadisticas/ecvt/Ecvt2010/index.htm>.
- Morley, J. (2010). *Fourth European Working Conditions Survey: Contribution to Policy Development*. Eurofound, Dublin.
- Mühlau, P. (2011). Gender inequality and job quality in Europe. *Management Revue* 22(2): 114-131.
- Muñoz de Bustillo, R., Fernández, E., Esteve, F., and Antón, J. (2011). E pluribus unum? A critical survey of job quality indicators. *Socio-Economic Review* 9: 447-475.
- Muñoz de Bustillo, R., Fernández, E., Esteve, F., and Antón, J. (2012). *Measuring more than Money: The Social Economics of Job Quality*. Edward Elgar, Cheltenham and Northampton.
- Olsen, K.M., Kalleberg, A.L., and Nesheim, T. (2010). Perceived job quality in the United States, Great Britain, Norway and West Germany 1989-2005. *European Journal of Industrial Relations* 16(3): 221-240.

- Orton, M. (2011). Flourishing lives: The Capabilities approach as a framework for new thinking about employment, work and welfare in the 21<sup>st</sup> century. *Work, Employment and Society* 25(2): 352-360.
- Osterman, P. (2013). Introduction to the special issue on job quality: What does it mean and how much we think about it? *Industrial and Labor Relations Review* 66(4): 739-752.
- Osterman, P., and Chimienti, E. (2012). The politics of job quality: A case study of weatherization. *Work and Occupations* 39(4): 409-426.
- Padavic, I., and Reskin, B. (2002). *Women and Men at Work*. Pine Forge Press, Thousand Oaks.
- Petit, B., and Hook, J.L. (2009). *Gendered Tradeoffs: Family, Social Policy, and Economic Inequality in Twenty-One Countries*. Russell Sage, New York.
- Pot, F. (2011). Workplace innovation for better jobs and performance. *International Journal of Productivity and Performance Management* 60(4): 404-415.
- Requena-Santos, J. (2000). Satisfacción, bienestar y calidad de vida en el trabajo [Satisfaction, welfare and quality of working life]. *Revista Española de Investigaciones Sociológicas* 92: 11-44.
- Royuela, V., and Suriñach, J. (2013). Quality in work and aggregate productivity. *Social Indicators Research* 113(1): 37-66.
- Raley, S.B., Mattingly, M.J., and Bianchi, S.M. (2006). How dual are dual-income couples? Documenting change from 1970 to 2001. *Journal of Marriage and Family* 68(2): 11-28.
- Russell, H., McGinnity, F., and Kingston, G. (2014). *Gender and the Quality of Work: From Boom to Recession*. Equality Authority, Dublin.
- Smith, M., Burchell, B., Fagan, C., and O'Brien, C. (2008). Job quality in Europe. *Industrial Relations Journal* 39(6): 586-603.
- Stier, H. (2012). Skill-Based Inequality in Job Quality: A Multilevel Framework. *Amsterdam Instituut voor Arbeids Studies Working Paper*, 122.
- Stier, H., and Yaish, M. (2014). Occupational segregation and gender inequality in job quality: A multi-level approach. *Work, Employment and Society* 28(2): 225-246.
- Tremblay, D.G. (2008). *Conciliation emploi-famille et temps sociaux*. Presses de l'Université du Québec, Québec.
- Torrent-Sellens, J., and Ficapal-Cusí, P. (2009). *TIC, conocimiento, redes y trabajo* [ICT, knowledge, networks and work]. Barcelona: Editions of Open University of Catalonia.



### **Resumen**

*A través de una muestra representativa para 5.381 (3.079 hombres y 2.302 mujeres) y para 4.925 (2.719 hombres y 2.206 mujeres) trabajadores en 2008 y 2010, y utilizando un modelo de ecuaciones estructurales en dos etapas, el documento de trabajo analiza los determinantes multidimensionales (efectos directos) de la dimensión de género en la calidad del trabajo en España. La investigación revela cuatro resultados principales. En primer lugar, y a pesar de la crisis económica, la calidad del trabajo en España ha mejorado en el período analizado. En segundo lugar, la mejora de la calidad del trabajo en España durante la crisis ha sido mucho más favorable para los hombres que para las mujeres. En tercer lugar, las diferencias de género en la explicación de la calidad del trabajo durante la crisis han incrementado considerablemente a favor de los hombres. En cuarto lugar, este aumento de las diferencias de género en la calidad del empleo a favor de los hombres se explica por un crecimiento de 4 de sus 5 dimensiones explicativas: la calidad intrínseca del empleo; la organización del trabajo y las relaciones sociales en el puesto de trabajo; las condiciones, la intensidad, y la salud y seguridad en el empleo, y las retribuciones extrínsecas. Entre 2008 y 2010, la desigualdad de género únicamente se mantuvo estable en la dimensión de equilibrio vida-trabajo. En términos de las políticas públicas de empleo y de igualdad de género nuestros resultados sugieren dos conclusiones importantes. En primer lugar, la importancia de prestar mucha más atención a las dimensiones vinculadas con el entorno de trabajo y las relaciones sociales. Y, en segundo lugar, la necesidad de atender los cambios acelerados en el empleo. En particular, los distintos problemas de calidad entre los trabajadores y las trabajadoras formados y menos formados, la vinculación entre las diferencias de género y las ocupaciones, y la necesidad de considerar los distintos regímenes institucionales y laborales para superar las desigualdades de género en la calidad del empleo.*

### **Palabras clave**

*Calidad del trabajo, Calidad de vida en el trabajo, Crisis económica, Modelos de ecuaciones estructurales (SEM), España*

### **Resum**

*A partir d'una mostra representativa per a 5.381 (3.079 homes i 2.302 dones) i per a 4.925 (2.719 homes i 2.206 dones) treballadors el 2008 i el 2010, i utilitzant un model d'equacions estructurals en dues etapes, el document de treball analitza els determinants multidimensionals (efectes directes) de la dimensió de gènere de la qualitat del treball a Espanya. La investigació revela quatre resultats principals. En primer lloc, tot i la crisi econòmica, la qualitat del treball a Espanya ha millorat durant el període analitzat. En segon lloc, la millora de la qualitat del treball a Espanya durant la crisi ha estat molt més favorable per als homes que per a les dones. En tercer lloc, les diferències de gènere en l'explicació de la qualitat del treball durant la crisi han augmentat considerablement a favor dels homes. En quart lloc, aquest increment de les diferències de gènere en la qualitat del treball a favor dels homes s'explica per un creixement de 4 de les seves 5 dimensions explicatives: la qualitat intrínseca del treball; l'organització del treball i les relacions socials al lloc de treball; les condicions, la intensitat, i la salut i la seguretat en el treball, i les retribucions extrínseques. Entre 2008 i 2010, la desigualtat de gènere únicament es va mantenir estable a la dimensió d'equilibri vida-treball. Pel que fa a les polítiques públiques d'ocupació i de qualitat de gènere els nostres resultats suggereixen dues conclusions importants. En primer lloc, la importància de donar molta més atenció a les dimensions vinculades amb l'entorn de treball i les relacions socials. I, en segon lloc, la necessitat d'atendre els canvis accelerats del treball. En particular, els diferents problemes de qualitat entre els treballadors i les treballadores formats i no formats, la vinculació entre les diferències de gènere i les ocupacions, i la necessitat de considerar els diferents règims institucionals i laborals per a superar les desigualtats de gènere en la qualitat del treball.*

### **Paraules clau:**

*Qualitat del treball, Qualitat de vida en el treball, Crisi econòmica, Models d'equacions estructurals (SEM), Microdades, España*

**Pilar Ficapal-Cusí**

*ficapal@uoc.edu*

*Economics and Business Studies, and Internet Interdisciplinary Institute (IN3)  
Open University of Catalonia (Spain)*

*Dra. Pilar Ficapal-Cusí (<http://i2tic.net/en/people/pilar-ficapal/>) is BsC in Psychology by the Universitat Autònoma de Barcelona, MsC in Human Resources and Organizations by the Universitat de Barcelona, and PhD in Information and Knowledge Society by the Universitat Oberta de Catalunya (UOC). Actually, she is the director of UOC Master in Human Resources Management and researcher of interdisciplinary research group on ICT. I2TIC is a research group attached to the Internet Interdisciplinary Institute (<http://in3.uoc.edu>). Dra. Ficapal-Cusí specializes in the analysis of ICT and work, specially human resource management, new forms of work organization, high performance work practices, e-learning, network firm and job quality, subject on which he has published 10 books and 15 articles in indexed journals.*

**Àngel Díaz-Chao**

*angel.diaz@urjc.es*

*Applied Economics Department, Rey Juan Carlos University (Spain)  
Internet Interdisciplinary Institute (IN3), Open University of Catalonia (Spain)*

*Dr. Àngel Díaz-Chao (<http://i2tic.net/en/people/angel-diaz>) is BsC in Economics and Business Administration by Carlos III University, MsC in Applied Economics by the Universitat Autònoma de Barcelona, and PhD in Economics by the Madrid Complutense University. Actually, he is the director of Fundación SEPI (<http://www.fundacionsepi.es>), lecturer of Statistics and Econometrics in Rey Juan Carlos University, and researcher of interdisciplinary research group on ICT, i2TIC. Díaz-Chao specializes in the analysis of ICT, productivity and competitiveness; knowledge work and the network firm, and structural equation modelling, subject on which he has published 5 books and 10 articles in indexed journals.*

**Joan Torrent-Sellens**

*jtorrent@uoc.edu*

*Economics and Business Studies, and Internet Interdisciplinary Institute (IN3)  
Open University of Catalonia (Spain)*

*Dr. Joan Torrent-Sellens (<http://i2tic.net/en/people/joan-torrent-sellens/>) is BsC in Economics and MsC in Applied Economics by the Universitat Autònoma de Barcelona, and PhD in Information and Knowledge Society by the Universitat Oberta de Catalunya. Actually, he is the director of Open University of Catalonia (UOC) Business School and the director of interdisciplinary research group on ICT, i2TIC (<http://i2TIC.net>). I2TIC is a research group attached to the Internet Interdisciplinary Institute (<http://in3.uoc.edu>). Dr. Torrent-Sellens specializes in the analysis of ICT, productivity and growth; the knowledge economy, knowledge work and the network firm, subject on which he has published 20 books and 35 articles in indexed journals.*

