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Abstract

This article looks at the changing configuration of work-family arrangements in Spain through the lens of labour market segmentation. Using EU-SILC data for 2005, 2007, 2010, and 2012, it examines occupational differences in work-family arrangements comparing the period of prosperity to the periods of recession and the implementation of austerity policies. The findings show that the dynamics of labour market segmentation produce differential employment opportunities and degrees of job security for men and women across occupational groups, significantly shaping WFA. The crisis reinforced already balkanized gender contracts, with working-class households suffering most from job losses and pressing economic needs. Couples whose members were services employees and/or manual workers saw the greatest increases in dual activity over the whole period, as dual earners during the prosperity period, and as added workers during the crisis. The economic crisis and austerity policies have reinforced the social divide across work-poor and work-rich households, and dual-earning skilled couples versus those earning out of economic necessity.

Keywords: work-family arrangements, occupational group, balkanization, economic crisis, austerity

Introduction

Comparative research on employment and the family has largely focused on typologies of policy regimes and the identification of dominant types of work-family arrangements (WFA), thereby underestimating within-country diversity. A few studies have recently shown how these internal differences often reflect variation across socioeconomic groups (Dotti Sani, 2018; Hook, 2015; Sánchez-Mira & O'Reilly, 2019). However, these studies have often either remained rather descriptive (Dotti Sani, 2018) or have discussed their findings under the frame of the welfare-regime literature (Hook, 2015). They have thus ignored theoretical discussions on labour market segmentation and institutional dualism that could help advance our understanding of how WFA polarize along social divisions (Gottfried, 2013; O'Reilly & Nazio, 2014; Dingeldey, 2017). Moreover, the mentioned studies have looked at differences by educational attainment (Dotti Sani, 2018; Hook, 2015), arguing that occupational classifications are more directly affected by the idiosyncratic construction of occupational status within countries (Sánchez-Mira & O'Reilly, 2019). While this is certainly a useful strategy for cross-national comparisons, using a measure of occupational structure allows for a closer analysis of the effects that segmented labour markets and the regulation of work have on the household organization of labour and how these are rooted in specific historical and societal characteristics. This analytical strategy gains particular salience when comparing a period of economic prosperity with the effects of the economic crisis and so-called austerity policies on employment opportunities. This paper applies such an approach to the analysis of the changing configurations of work-family arrangements (WFA) in the Spanish context. The country's labour market structure and institutional characteristics and recent transformations make it a particularly interesting case of study.

Spain has been considered a paradigmatic case of the persistence of a social contract based on the male breadwinner (MBW) model, despite the major transformations that have taken place in the country over the last three decades. Female activity rates have increased continuously since the mid-1980s during periods of both economic growth and recession (Sánchez-Mira, 2016). At the household level, dual-earner couples increased from 31% of the population in 1992 to 43% in 2000 and exceeded 57% in 2007 (Franco & Winqvist, 2002; Sánchez-Mira, 2016). The majority of Spanish households fall either into the categories of both full-time (BFT) or MBW arrangements, reflecting a polarization along women's educational level (Dotti Sani, 2018; Hook, 2015; Sánchez-Mira & O'Reilly, 2019). Spain is also one of the countries that suffered the most job losses due to the economic crisis and is a paradigmatic example of the dynamics of so-called he-cession and sh(e)-austerity (Karamessini & Rubery, 2014; Périvier, 2018). Dual full-time and MBW households decreased the most with the crisis, while there was a notable increase in female breadwinner (FBW) and workless (WKL) couples, the former being more widespread among the high educated and the latter among the low educated (Dotti Sani, 2018; Sánchez-Mira & O'Reilly, 2019). This paper systematically analyses these changing configurations of WFA by using information on the occupational group of each partner. This provides new insights into the couple-level dynamics through which segmented gendered labour market structures and their institutional underpinnings shape WFA over periods of economic prosperity and implementation of austerity policies.

The first section introduces the theoretical perspective of the article, which is followed by a contextual section on the Spanish case. A third section describes the data and methodology. Bivariate and multivariate analyses are presented in a fourth section, followed by a discussion of the findings. The concluding section discusses the theoretical and empirical implications of the paper, limitations, and possible future avenues for research.

Work-family arrangements at the intersection of households, the market, and the state

A long tradition of studies has theorized the interrelations of social reproduction and the shaping of a secondary segment of the labour market—specifically, women's construction as a secondary labour force (Picchio del Mercato, 1981; Humphries & Rubery, 1984). There is also abundant literature, notably in the UK context, showing how labour market segmentation shapes different patterns of employment and work-life articulation for women of different occupational groups. Glover and Arber (1995) used the concept of polarization to describe the strong variation in levels of full-time employment by occupational group and the marked differences in job quality and eligibility for employment rights among part-time workers. Different sets of opportunities and constraints (skill levels, characteristics of available jobs, ability to outsource domestic work or purchase care services) combine with work orientations to shape labour market outcomes (Crompton & Harris, 1999; Perrons et al., 2007; Walters, 2005). Compared to managerial and professional employees, women in lower occupations are less likely to re-enter and remain in employment after motherhood, and if they do so, they are more likely to work shorter, part-time hours (Fagan & Norman, 2012). However, few studies have looked at WFA through the lens of labour market segmentation.

As a notable exception, O'Reilly and Nazio (2014) draw on Vosko's (2010) empirical work to argue that a plurality of solutions to work-life conflict have been developed across countries and between different socioeconomic groups in a context of increased female labour market participation, changing employment structures, population ageing, and limited service provision. The authors use the concept of *balkanized gender contracts* (O'Reilly & Nazio, 2014) to refer to the diverse arrangements used to manage work and care that may coexist within a given society, and which would reflect the balkanization of labour markets, as it is

referred to in early formulations of segmented labour market theory (Kerr, 1954)—that is, the unbridgeable boundaries between non-competing, balkanized groups. Despite the fact that O'Reilly and Nazio (2014) did not develop their work empirically, recent studies have provided some evidence that would support the balkanization thesis. Gottfried (2009) has shown how regulations and the institutional arrangements around social provisioning and care intersect with the sharp institutional dualism of the Japanese labour market in determining the characteristics and extension of precarious jobs. The author's concept of *reproductive bargain* captures both the notion of ongoing negotiation of gender relations and that of an agreement that is structurally constrained. The concept resonates with O'Reilly and Nazio's (2014) work in that it also reflects the idea of differentiated negotiations for groups with different access to material, symbolic, and organizational resources (Gottfried, 2013; O'Reilly & Nazio, 2014). In turn, Dingeldey (2017) has shown how institutional dualization in Germany applies not only to labour market policies and collective bargaining but also to family policy. Their combination has resulted in increased incentives for partnered families to choose a modernized male-breadwinner model. In all, these studies highlight the need to analyse WFA linking production and reproduction "in the context of institutional arrangements between the household, the state and the economy" (Gottfried, 2009). From this perspective, the paper looks at occupational differences in WFA in Spain, arguing that the patterns observed largely reflect a dualism in labour market policies and outcomes, but not in family policy. It also addresses to what extent the economic crisis and implementation of austerity policies has resulted in an increased balkanization of gender contracts.

Labour market segmentation and polarized work-family arrangements in Spain

The Spanish labour market is characterized by profound segmentation, with a secondary segment marked by less employment protection and higher flexibility in wages and forms of employment, particularly through high levels of temporary employment. Successive labour market reforms over the '80s and '90s lead to a huge expansion of non-standard forms of employment (fixed-term, part-time agency work) (Banyuls et al., 2009). These reforms added to a labour market with high structural unemployment and extensive levels of informal and seasonal work (Sánchez-Mira, 2016). The trajectory of women's involvement in the labour market must be situated within this context. Until the mid-1990s, the strong increase in women's labour market activity was mainly led by highly educated women increasingly employed in administrative, technical, and professional jobs in the expanding public sector (Moltó, 1993). After the recession of the mid-1990s, job growth for middle- and low-educated women concentrated in other services sectors in the secondary segment of the labour market (González Gago & Segales Kirzner, 2014). These developments gave rise to two distinct modes of work-life articulation for Spanish women. Middle-class women tend to follow the male pattern of professional commitment based on the outsourcing of domestic and care labour. The trajectories of working-class women are characterized by a continuum of situations of formality and informality, subemployment, unemployment, and inactivity. The family is the main facilitator of their employment, which is often triggered by the need to complement the income of the MBW (Sánchez-Mira, 2016). This picture disputes the simplistic but common equation between familism and low female employment. As evidenced by Hook (2015), Mediterranean countries are not distinctly familialist in outcomes, at least not for highly educated mothers. Smith (2005) also showed that countries with fewer dual earners, such as Spain, had higher proportions of households attaining gender equity in occupational status and working time.

Spain's social-care model has also been characterized as familialist in its reliance on informal care provided by the family (Bettio & Plantenga, 2004). However, the expansion of childcare services has been a notable development in this country, with virtually universal coverage for pre-school children and notable progress for early childcare. In 2005-2006, Spain was amongst the five EU countries with the largest coverage for the 0-2 age range (Plantenga & Remery, 2009). Other dimensions of family policy have little relevance, as transfers are virtually non-existent and parental leave other than maternity and paternity leave is non-remunerated.

Spain is also a paradigmatic example of he-cession/sh(e)-austerity (Karamessini & Rubery, 2014; Périvier, 2018), as it experienced severe impacts of job losses during the first recessionary period in male-dominated sectors, while the subsequent implementation of austerity policies had a greater effect on the female-dominated public sector. Between 2008 and 2010, the net employment destruction was concentrated in construction and industry, and 85% of job losses affected men (González Gago & Segales Kirzner, 2014). The effects of fiscal consolidation measures were evident from 2011, with 424,000 jobs lost in the public sector between the third quarter of 2011 and the fourth quarter of 2013 (Sánchez-Mira, 2016). In addition to the stalled expansion of care services, austerity measures in Spain included freezing public employment and reducing wage costs by undermining collective bargaining in the private sector, implementing pay cuts and freezes for public sector employees, and downgrading employment protection (López-Andreu & Rubery, 2018). Whereas cuts to public sector pay and employment are more likely to affect professional women, weaker employment protections, lower coverage of collective bargaining, and limited childcare services are more likely to impact women in lower occupations (Távora & Rodríguez-Modroño, 2018). Looking at the differences in WFA by women's education levels, recent studies have argued that all social groups suffered similarly from the economic crisis in Spain (Dotti Sani, 2018). Instead, by drawing on a measure of occupational classification for both partners, this paper offers a

more nuanced and better understanding of how the balkanization of gender contracts in Spain may have become more entrenched with the reduction of employment opportunities.

The main goals of the paper are as follows: 1) to examine the extent to which there are occupational differences in the adoption of WFA and whether these differences could be reflective of labour market balkanization; and 2) to show whether the economic crisis and austerity policies resulted in increased balkanization of WFA, and if so, through which types of arrangements and for which occupational groups.

The article sets out to show how WFA varied according to the occupational group of the partners and how the economic crisis had uneven impacts across these different households. It then focuses on the most common WFA in Spain (BFT and MBW), to show which individual and household characteristics are relevant for each type. Finally, the article reveals how changes in the patterns of activity at the household level over the entire period reflect differential trends for different occupational groups.

Data and approach

This article used the European Union Statistics on Income and Living Conditions (EU-SILC) data for Spain for 2005, 2007, 2010, and 2012[i], but part of the analysis only used data from 2007 and 2012 to highlight the contrast between the period of economic prosperity and the effects of the economic crisis and the subsequent implementation of austerity policies. The sample included all households composed of a heterosexual couple aged 16-64 years, with or without children. A process of internal validation of the dataset was conducted, whereby a number of errors in household composition matrices were detected, corrected where possible, and excluded otherwise. The resulting sample was 7,053 households in 2005, 6,484 in 2007, 6,751 in 2010, and 5,960 in 2012, with a reference population of more than 8,000 households

for the different years. Individual information on employment status was co-located within dual-partner households to categorize households into 7 types (Box 1). Employment status was obtained from the EU-SILC variable "Self-defined current economic status", which captures the person's own perception of his/her main activity. Following Sánchez-Mira and O'Reilly (2019), we distinguished between male breadwinner-female caregiver households (MBW-FC) and those in which the woman was unemployed (MBW-FU), as these represent distinct situations, especially following the crisis breakout.

Box 1. Types of work-family arrangements

1) **Both Full-Time (BFT)**: both work full-time

2) **Modified Male Breadwinner (MMBW)**: the man works full-time and the woman works part-time (no distinction between long or short hours part-time)

3) **Male Breadwinner-Female Carer (MBW-FC)**: the man works full-time and the woman reports being in 'domestic and care work' or in 'other situations of inactivity' unspecified

4) **Male Breadwinner-Female Unemployed (MBW-FU)**: the man works full-time and the woman's reported status is 'unemployed'

5) **Female Breadwinner (FBW)**: only the woman is employed (either on a full- or part-time basis); the man is either unemployed or inactive, unemployment being the most common situation

6) **Workless (WKL)**: both are unemployed or inactive, with unemployment being the most common situation

7) **Others:** either the man is employed part-time, or at least one of them is studying or out of the labour force early and permanently (retired or disabled)

Occupational group was operationalized for each of the members of the couple using two-digit data based on the International Standard Classification of Occupations (ISCO). Eight occupational groups were distinguished and then assigned to four broader class groups (table 1), although the analysis focuses on the former. Large proprietors and the armed forces were excluded from the sample due to their reduced numbers. Individuals with no employment

experience were analysed as a separate category, thereby avoiding assigning them the occupational position of their partner or dropping them from the sample[ii].

Data were weighted using household cross-sectional weights. Bivariate analyses included charts representing the distribution of different household types across different combinations of the occupational group of the members of the couple and how this changed for the periods of economic prosperity and crisis. Four binary logistic regression models are presented to predict the chances of being in the BFT arrangement (versus other) in 2007 and 2012 separately and of being in an MBW arrangement (versus other) in 2007 and 2012[iii]. The models aimed at capturing the effect of the partner's occupational group while controlling for other key individual and household characteristics, including educational level (primary, secondary compulsory, secondary non-compulsory and tertiary), age (5-year age range) and country of origin of both partners (autochthonous, UE-25, non-EU); number of children (0, 1, 2, 3 or more); presence of children under 6 (yes/no); use of different childcare arrangements (institutional, childminder, informal) for children under 6[iv]; and region of residence (17 Spanish autonomous communities). The synthesized regression tables present coefficients, standard errors, and odds ratios for most variables relevant to the article's argument (occupational group, presence of children, and care arrangements). Full regression tables with all control variables and confidence intervals are presented in the online appendix.

Findings

Figure 1 (A&B) shows the distribution of WFA depending on different combinations of the occupational categories of the members of the couple (see Box A in online appendix), comparing the periods of economic prosperity (2007) and crisis (2012). WFA were largely polarized in 2007 between two types: BFT (39.10%) and MBW (28.30%) households (combining both the MBW-FC and MBW-FU categories). As expected, this polarization reflects the heterogeneity of patterns for couples (and, in particular, for women) with different occupational profiles. BFT households were significantly above the mean in categories 1-7, in which the woman was a small-business owner, manager, professional, technician, or administrative employee or both partners were employees in the services, although this WFA was most evident among professional women (2, 3) (greater than 70%). MBW-FC households reflected the other side of the coin. This WFA was most evident when the woman had no employment experience (14,15) (greater than 50%) or was a manual worker (10,11) (approximately 30%). MBW-FU situations were most common when the woman was an agrarian worker (12) or she or she and her partner were manual workers (10,11). To be highlighted are contrasts between households with female manual workers and those with female services employees, which could reflect the greater difficulties faced by the former in finding and remaining in employment due to the processes of economic restructuring that have reduced employment opportunities in the industry. In turn, the extension of the modified male breadwinner (MMBW) arrangement in households in which the woman was a semiskilled or unskilled services employee (7, 8, 9), suggests the role of a gender-segregated occupational structure offering (precarious) part-time employment in services oriented at the female labour force. Additionally, there is a notable gap between category 7 (both services employees) and 8 (she is a services employee and he is a manual worker), in which BFT households lose ground to MBW households. Finally, FBW households were most evident when the man was a manual

worker and the woman was a services employee (8) or when both were agrarian workers (13), which points to the employment vulnerability of men in these occupations. WKL households were also most widespread among these two categories (13, 8) and when he was a manual worker and she had no employment experience (5).

Most patterns described for the BFT, MMBW, and MBW-FC types were still observed in the 2012 data. With respect to the household types that increased the most through the crisis (MBW-FU, FBW, WKL), several relations became even more evident, and new patterns emerged. MBW-FU were even more widespread in households in which the woman was an agrarian (12) (24.4%) or manual worker (11) (27%) or an administrative (5) (19.3%) or services employee (8, 9) (approximately 15%). FBW situations were notable in households in which he was a manual worker and she was a services employee (8) (15.8% in 2012), reflecting the strong impact of the recession on male employment in industry and construction. This impact is also highlighted by the increase of WKL (17.2% in 2012) situations in this household type (8). Overall, at least 47.0% of all type 8 households had one partner experience unemployment (MBW-FU, FBW, WKL). WKL situations increased from 19.1% in 2007 to 38.7% in 2012 for households composed of agrarian workers (13) and from 4.90% to 29.6% for households in which the man was a manual worker and the woman had no experience (15). WKL situations were also notable in households in which both members of the couple were manual workers (10) (17.30%) or those in which the woman was an agrarian worker (12) (23.20%). Thus, for WKL situations, the key characteristic was that the man or both the man and woman were manual or agrarian workers or that the woman had no employment experience.

This descriptive picture already suggests the relevance of gendered occupational structures and employment opportunities in shaping patterns of work-life articulation. The multivariate

regression models that are presented next aimed to capture the effect of the partners' occupational groups by controlling for other key characteristics.

Table 2 presents the synthesized results of the binary logistic regression models predicting the chances of being in a BFT household versus other arrangements in 2007 and 2012 (see table A in the appendix for the full model). Both men's and women's occupations showed statistically significant relationships, although the latter seemed to be of greater importance. For women, taking services employees as a baseline category, being a small-business owner, a manager, or a professional more than doubled the chances of being in a BFT household. The probability also increased significantly for technicians and administrative employees, whereas it decreased for manual workers and, obviously, for women without employment experience.

Once women's occupation was controlled for, the differences in men's occupation became less important. Taking manual workers as a baseline, only professionals, administrative employees, and services employees (and small-business owners, with $p<0.10$) increased the chances of being in a BFT household. Remarkably, this effect appeared to be stronger for services employees than for professionals, and this relationship was non-significant for managers. These findings show that men's occupation not only is less important than that of women but that it also operates differently. Against expectations, the differences between middle-class and working-class men were not larger than those between working-class groups (manual workers and services employees).

More children in the household diminished the chances of couples being BFT, but there was almost no difference between households with two children and those with three or more; the presence of children under 6 seemed to reduce this probability the most. Additionally, childminder-based care, institutional care, and informal care substantially increased (by order of intensity) the chances of the household being BFT.

The impact of the crisis was clearly revealed when comparing the 2007 and 2012 models. As a general pattern, socioeconomic variables gained importance with the crisis, whereas sociodemographic variables lost importance. Women's occupations exhibited the same patterns in 2012 that they did in 2007, but the coefficients of small business owners, professionals, and managers increased significantly, indicating that these groups fared better with the crisis. A similar result was observed for men's occupations, such that small business owners and technicians increased in significance. Being in one of these groups or being a professional, administrative, or services employee increased the chances of being in a BFT household. The contrast between services employees and manual workers seemed to be even more intense in 2012 than in 2007, which again points to the strong incidence of employment losses among manual workers.

Albeit with decreased importance, reproductive burdens continued to influence the adoption of BFT arrangements. The number and age of children in the household continued to affect the chances of the couple being BFT, but to a lesser extent. In contrast, the variables for care arrangements were no longer significant.

Table 3 presents the synthesized results of the binary logistic regression models predicting the chances of being in an MBW household versus other arrangements in 2007 and 2012 (see table B in the appendix for the full model). For this analysis, we merged into the MBW category both the MBW-FC and MBW-FU arrangements. This information should be kept in mind when interpreting the 2012 model, in which the uneven incidence of unemployment across different categories affected the results extensively and renders interpretation less straightforward.

In 2007, women's occupations showed practically symmetrical effects with respect to the BFT model. The woman being a small business owner, professional, manager, or technician reduced the chances of an MBW household, and there were no significant differences between

administrative and services employees. Conversely, women having no employment experience or being manual or agrarian workers increased the chances of an MBW arrangement. For men, relative to manual workers as a baseline category, only being a small business owner increased the chances of being in an MBW household, whereas only being a services employee decreased it. These minor differences between men's occupations are consistent with the findings of the BFT models. Remarkably, larger contrasts were again observed between manual workers and services employees and not, as may have been expected, between manual workers and professionals.

The presence of children was also key to the adoption of an MBW arrangement. The chances increased with the number of children, and differences were more important between the first and second child than thereafter. However, the presence of a child under 6 had the strongest effect, multiplying this probability sevenfold, whereas the use of any type of childcare arrangement decreased it significantly.

In the 2012 model, some of these relationships were blurred or modified, and the inclusion of unemployment situations in the MBW category should be kept in mind when interpreting the results. Women's occupations continued to exhibit broadly the same relations as were observed in the 2007 model, albeit with larger coefficients for several categories, indicating that small business owners, professionals, and technicians fared better from the crisis than services employees. The results for men's occupations exhibited important differences from 2007, which may appear surprising at first glance. Whereas the 2007 model identified few significant relationships, in 2012, retaining manual workers as the baseline category, the remaining categories (except agrarian workers) increased the chances of an MBW arrangement. This finding is the result of the larger incidence that situations of unemployment other than the MBW-FU had on the reference category (manual workers). As shown in figure 1, the FBW

and WKL situations affected households in which the man was a manual or agrarian worker to a larger extent, whereas MBW-FU situations were more common when the woman was a manual or agrarian worker. This result explains why a decreased chance of being in an MBW household in 2012 was observed for manual and agrarian workers.

The number and ages of the children continued to increase the probability of the household having an MBW arrangement, albeit less intensely. This result is in line with the findings for the BFT model, with a loss of importance of sociodemographic variables with respect to socioeconomic characteristics due to the crisis. The use of care arrangements also appeared to have lost importance, with decreased coefficients and the variable "paid childminder" becoming non-significant.

To provide a closer look at the effects of labour market dynamics on household employment, the final analysis focused on couples in which both partners were active in the labour market, either employed or unemployed, excluding those couples in which at least one partner was inactive (i.e., devoted to domestic and care labour, retired, disabled, studying, or otherwise inactive). Thus, the household categories (Box 2) differed partly from those in the previous analyses (Box 1). BFT (1) and MMBW (2) types were included, but other kinds of dual-income couples, such as those in which the man was employed part-time (3, 4), were also distinguished. The remaining categories (5, 6, 7) distinguished situations in which the man, the woman, or both were unemployed. **Figure 2** shows the evolution of these different types of dually active couples across the periods of prosperity (2005-2007) and upon crisis and the implementation of austerity policies (2010-2012), revealing differences relative to the partners' occupations. Due to space reasons, it is not possible to show the data for all the combinations of occupational categories used in the previous analyses (Box A in appendix), so we further synthesized these into nine types (Box B in the appendix).

Box 2. Types of dually active couples

1) Both Full-Time (BFT)
2) Modified Male Breadwinner (MMBW)
3) Both Part-Time
4) He works part-time, she works full-time
5) He is unemployed, she is employed
6) She is unemployed, he is employed
7) Both Unemployed

Dually active households as a whole saw continuous and significant increases through the periods of prosperity and crisis. Between 2005 and 2007, at the peak of employment creation, dual-income couples increased most (from 45.7% to 50.7%)—essentially, BFT and MMBW households, whereas couples in which the man was employed part-time (3, 4) remained negligible in number. In contrast, from 2007 to 2010 and then 2012, households in which one or both members were unemployed (5, 6, 7) increased, from 9.60% in 2007 to 26.20% in 2012. This increase of 16.6 percentage points was double the 8.20 percentage point decrease suffered by dual-income couples over the same period and can be explained by the strong added worker effect that was identified in Spain during the recent crisis (López-Andreu & Rubery, 2018) and by the increased difficulties faced by the younger generations of workers in securing employment in this context.

Between 2005 and 2007, dual-income couples increased in every household category except type 2 (the woman as a professional, the man with other occupation), which was already the highest-percentage group in 2005. However, the patterns and intensities of these increases differed across household types. BFT arrangements decreased among professional couples (1), whereas MMBW households and those in which the male partner was employed part-time

increased. In turn, BFT and MMBW households increased only slightly (1-2 percentage points) among couples who were technicians and administrative employees (4) and among couples in which the woman was a technician or administrative employee and the man was a manual worker (5). Instead, we observed a particularly pronounced increase in BFT arrangements (between 4.10 and 8.8 percentage points) in couples in which he was a professional but she was not (3), in which she was a services employee and he was a manual worker (6), and in which both were services employees (7) or manual workers (8). Briefly, during the period of economic prosperity, the general increase in dual-income and particularly BFT households was strongest among working-class couples, in which either or both were services employees or manual workers (6, 7, 8). This trend also applied to female hypogamic households (lower occupational status of the woman), as in household type 3 (the man as a professional, the woman with other occupation).

Additionally, among couples who were services employees and manual workers (6, 7, 8) or administrative employees (4, 5), the strongest increase occurred in households in which one or both members were unemployed over the 2007-2012 period, from a 17.4 percentage point increase for type 5 (the woman as a technician or administrative employee, the man as a manual worker) to a 29 percentage point increase for type 6 (the woman as a services employee, the man as a manual worker). This result reflects the disproportionate impact of job losses on these couples and the strongest added worker effect, resulting in an increase in the overall percentages of dual activity in these households. In contrast, in households in which both or at least one member was a professional (1, 2, 3), dual activity increased only slightly or even decreased with the crisis, suggesting that these households may have had more available resources to face unemployment situations and that some of those individuals may have transitioned to inactivity. For working-class couples, the dual-activity patterns more clearly reflected increasingly pressing economic needs.

Throughout the 2005-2012 period, the increase in dually active households was strongest among couples who were services employees and manual workers (6, 7, 8) and among those in which the woman was a technician or administrative employee and the man was a manual worker (5). These increases ranged from 11.3 percentage points for households in which both were manual workers (8) to 12.4 percentage points for couples in which the man was a manual worker and the woman was a services employee (6), reflecting both the strongest increase in BFT households during the period of economic prosperity and increased dual activity linked to the added worker effect following the crisis. On the whole, these findings reveal that the important transformations observed in the patterns of labour market participation among Spanish couples during recent periods of economic prosperity and crisis reflect distinctive patterns for different class groups. Working-class couples seem to have undergone the most fundamental changes, arguably linked to the economic pressures derived from increased labour market precariousness and employment losses resulting from the economic crisis.

Discussion

The findings show that occupational differences have shaped the changing configuration of WFA in Spain in the contexts of economic prosperity, economic crisis, and the implementation of austerity policies. This analytical strategy provided a more nuanced picture than that of the polarization between BFT and MBW households across low-educated and high-educated couples identified by previous studies (Dotti Sani, 2018; Hook, 2015; Sánchez-Mira & O'Reilly, 2019). Before the crisis, professional couples were the paradigm of the BFT household, whereas MBW households were most common where both members were manual workers or the woman had no employment experience. Multivariate analyses showed that it is the woman's occupation that is of utmost importance in shaping WFA, and important occupational effects were observed. Being a small business owner, a manager, or a professional

more than doubled the chances of being in a BFT household with respect to services employees, whereas manual workers had even smaller chances. These findings support the balkanization thesis in that they reflect how segmented, gendered labour market structures produce different employment opportunities for different groups of women. However, the contrasts observed within broader middle-class and working-class groupings also suggest that the operating dynamics are more complex than a simple dualization into two unbridgeable and clearly defined segments. For instance, the differences within working-class groups are probably reflecting the decreased employment opportunities of female manual workers in a context of economic restructuring as opposed to the wider availability of low-skilled, low-paid jobs in the services sector.

The findings also showed that men's occupation shaped WFA, to a lesser degree. Against expectations, differences between middle-class and working-class men were similar to those between working-class groups (manual workers and services employees). Manual workers having the highest chance of being in an MBW arrangement suggests that more traditional conceptions of the gender division of labour may persist among the industrial working class than among services workers.

The crisis led to an increase in arrangements involving unemployment (MBW-FU, FBW, and WKL), and these affected most the industrial and services working class groups. If the uneven distribution of WFA across occupational groups was already a sign of balkanized gender contracts before the crisis, the major job losses only reinforced these patterns. Within working-class households, manual workers were most affected. In fact, socioeconomic variables, and notably occupational group, increased in importance relative to sociodemographic factors as determinants of WFA during the crisis. These findings dispute Dotti Sani's (2018) argument that in Spain, all social groups suffered similarly from the economic crisis. By examining the

differences based on women's educational attainment, the author found growth in FBW households mostly among the highly educated. Instead, the analysis presented in this paper, upon introducing men's occupations, showed that it was mainly the weakened employment position of the male partner that accounted for FBW households. Moreover, Dotti Sani (2018) included very heterogeneous situations (unemployed, fulfilling domestic and care tasks, in early retirement, unfit to work or physically challenged, in education) into the MBW label. Whereas she reported a steeper decrease in MBW households among the low educated, the separate analysis of MBW-FC and MBW-FU presented in this paper revealed more complex trends. Contrary to Dotti Sani's (2018) results, the findings of this paper show that the lower social strata are indeed bearing the worst of the recession and austerity measures in Spain.

Findings have also shown that the increase in dual activity over the 2005-2012 period was strongest among couples in the industrial and services working class. These groups had the strongest increase across all groups in BFT households during prosperity and in added workers during the crisis. The rising economic pressures deriving from the increased labour market precariousness already during the period of economic prosperity and from employment losses during the crisis would explain such fundamental changes in the dual-activity patterns of working-class couples. These findings are in line with recent studies showing the increased labour market attachment of low-educated women in Spain, which was reinforced by the growing importance of their contribution to household income in the context of falling earnings and employment insecurity for men (Sánchez-Mira, 2016; Távora & Rodríguez-Modroño, 2018). At the same time, these women have faced major difficulties for entering and remaining in employment, and they have been disproportionately affected by increasing job and income insecurity (Távora & Rodríguez-Modroño, 2018). These findings reinforce the balkanization thesis, in that the increase of dual activity is more clearly lead by pressing economic needs for some occupational groups with respect to others, in a context of growing labour market

precariousness and insecurity, particularly in the secondary segment of the labour market. The findings are also in line with research underlining the importance of the economic need to work and the availability of employment as part of the sets of opportunities and constraints for the household's organization of labour (Haas et al., 2006; Sánchez-Mira & O'Reilly, 2019).

Finally, the findings have shown that not only the presence of young children but also how their care is organized, have an important effect on WFA. Before the crisis, care provided by a professional childminder increased most the chances of a BFT, followed by services-based care. These findings suggest that couples with more resources are better able to sustain the BFT model by purchasing private, home-based childcare, but also that the expansion of public childcare services may contribute to level out the degree of availability for employment of women across occupational groups.

Conclusions

This paper has looked at work-family articulation through the lens of labour market segmentation theories, comparing periods of economic prosperity and crisis in Spain. The evidence shows that the dynamics of labour market segmentation in Spain produce differential employment opportunities and degrees of job security for different groups of men and women, thus significantly shaping WFA. The Spanish case also provides empirical support to the balkanization thesis' that crisis and austerity would increase the distances across work-poor and work-rich households, and the divide between high-earning professionals and those earning out of economic necessity (O'Reilly & Nazio, 2014). These findings support the argument that WFA are the result of a bargain that occurs within structurally constrained environments, reflecting the societal and class-specific legacies of women's integration into paid work (O'Reilly & Nazio, 2014).

The comparison with other countries characterized by profound labour market segmentation yields further elements for the theoretical discussion. In Japan, the interaction of institutional dualism in the labour market and a powerful breadwinner reproductive bargain pose a strong trade-off for women with family obligations, moderating the returns to education and supporting higher rates of non-employment and part-time employment among married women (Gottfried, 2009). In Germany, the still-low availability of full-time public childcare intersects with labour market dualism offering marginal part-time jobs for women, favouring the adoption of a one-and-a-half earner model which 'benefits' from the tax splitting system (Dindelgey, 2007). In contrast, in Spain, family policy has not been characterized by institutional dualism. If anything, the expansion of childcare services can be seen as an inclusive development, which favours the BFT model regardless of occupational differences. One could in fact argue that the reproductive bargain in Spain is potentially more gender egalitarian with respect to these other countries[v]. If we add this consideration to the increased economic insecurity amongst low-skilled couples, the strong expansion of the BFT and dual activity patterns can be seen as an obvious development. One could argue, with reason, that Spain is a case of study that particularly fits the predictions of the balkanization thesis due to its institutional and structural features and that other countries may yield different findings, as suggested by the cases of Germany or Japan. Indeed, more comparative work is needed to test the generalizability of these results. A future research agenda should look at the intersections of the effects of labour market segmentation and the availability of childcare services in shaping WFA across countries.

An additional challenge for these future studies will be to overcome the idiosyncratic construction of occupations across countries to provide comparable but insightful evidence. Another practical implication for future research is the need to analyse MBW-FC and MBW-

FU households as distinctive situations if we are to consider the opportunities and constraints shaping WFA, as has been argued by Sánchez-Mira and O'Reilly's (2019).

This study has provided strong evidence that WFA are not merely the result of differential preferences or work orientations and that women's positions in the labour market and their employment opportunities play a fundamental role. The results are consistent with the findings of recent qualitative studies showing that low-educated women's employment is more constrained by unfavourable labour market circumstances than by traditional gender attitudes in Spain (Sánchez-Mira, 2016; Távora & Rodríguez-Modroño, 2018). Nonetheless, the findings also suggest that different gender-role cultures associated with different employment contexts may significantly shape WFA. We know by the literature that occupation affects orientation to work, with job differences leading to an actualization of values and attitudes towards employment in a manner consistent with experience (James, 2008; Walker, 1990). Although it was not possible to explore this issue on the basis of the available data, this appears to be a necessary and promising future avenue for research, which would benefit from mixed methods research approaches.

Future research should also tackle the balkanization thesis along ethnic divides. A challenge for this purpose will be securing quality data that allows us to distinguish between national groups with distinct patterns of WFA. The limitations of the data prevented a more detailed analysis of this dimension in this study.

The increased household dependence on two earners in Spain must be understood in a context of stalled services provision and declining availability of family support, especially as older generations of women are returning to or remaining longer in employment (López-Andreu & Rubery, 2018). In this context, working-class women, who are less able to rely on paid domestic and care work, will be forced to increase their overall workloads, unless they manage

to advance towards a more egalitarian sharing of unpaid labour. A promising research avenue would be to explore the implications of the changes in earning patterns for the renegotiation of unpaid labour in the household, as well as the class differences in the time poverty of working couples, following up on studies such as Warren's (2003) in the UK context.

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Table 1. Occupational and class groups

Occupational group	Class group
1) Small business owner	A) Property-owning middle-class
2) Directors and managers 3) Professionals[vi] 4) Technicians and associate professionals	B) Salaried middle-class
5) Administrative and customer services employees 6) Semi-skilled and unskilled services employees 7) Semi-skilled and unskilled manual workers	C) Industrial and services working class
8) Agrarian workers	D) Agrarian working class

Table 2. Binary logistic regression model. BFT versus other, 2007 and 2012

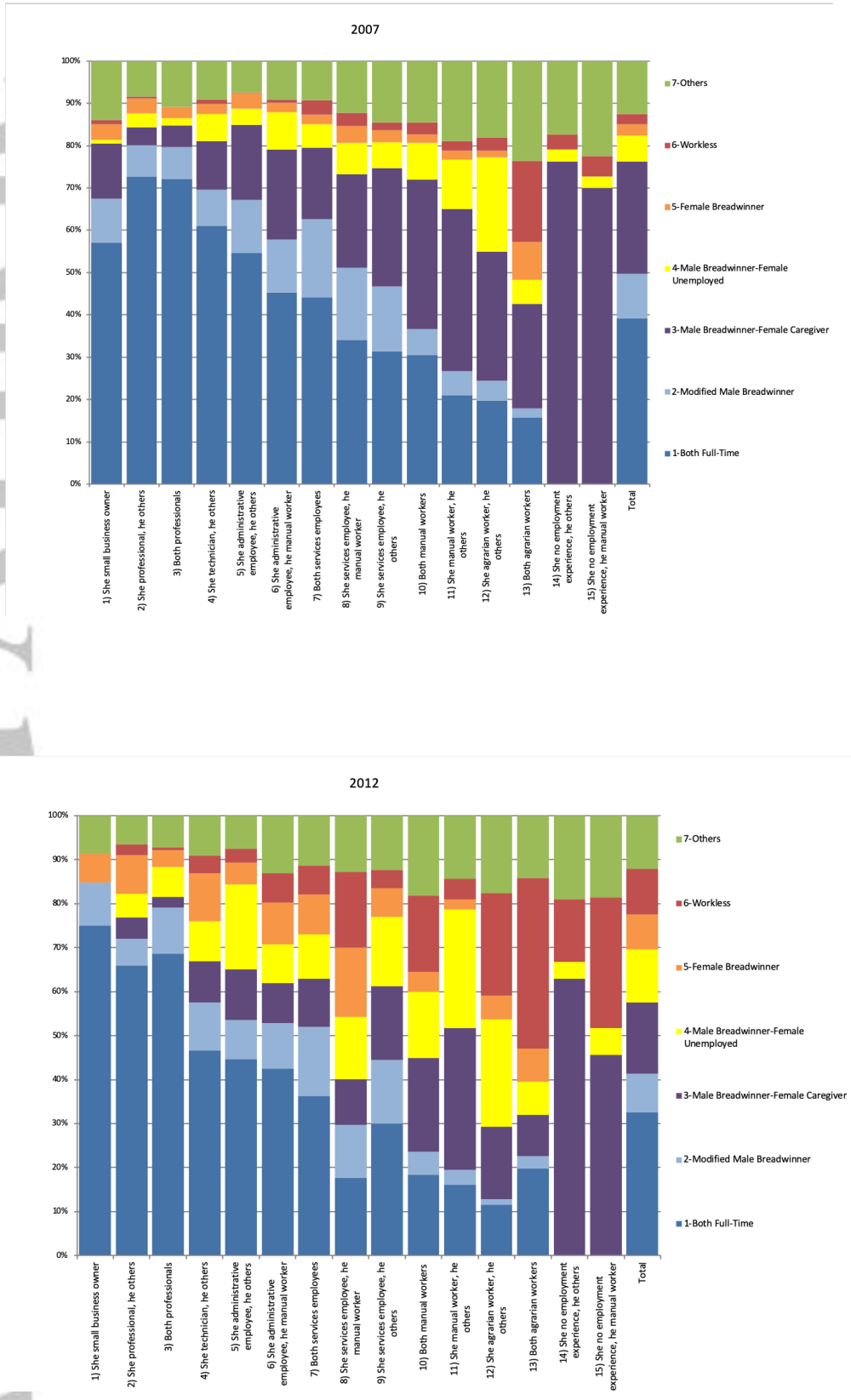
	2007			2012		
	β	SE	OR	β	SE	OR
Woman's occupational group						
Semi-skilled and unskilled services employees	-	-	-	-	-	-
Small business owners	0.963***	0.227	2.620	2.164***	0.274	8.706
Professionals, directors and managers	0.941***	0.136	2.562	1.127***	0.126	3.087
Technicians and associate professionals	0.577***	0.124	1.781	0.551***	0.119	1.734
Administrative and customer services employees	0.282***	0.095	1.325	0.369***	0.101	1.446
Semi-skilled and unskilled manual workers	-0.22**	0.109	0.802	-0.232*	0.134	0.793
Agrarian workers	-0.283	0.185	0.754	-0.012	0.201	0.988
No employment experience	-6.44***	1.415	0.002	-5.821***	1.424	0.003
Man's occupational group						
Semi-skilled and unskilled manual workers	-	-	-	-	-	-
Small business owners	0.297*	0.157	1.345	0.665***	0.159	1.945
Directors and managers	-0.008	0.186	0.992	-0.088	0.204	0.915
Professionals	0.315***	0.118	1.370	0.32***	0.119	1.377
Technicians and associate professionals	0.132	0.109	1.141	0.305***	0.109	1.357
Administrative and customer services employees	0.316**	0.124	1.371	0.279**	0.13	1.322
Semi-skilled and unskilled services employees	0.434***	0.096	1.544	0.593***	0.101	1.810
Agrarian workers	-0.195	0.179	0.823	0.186	0.171	1.204
Number of children (<18)						
0	-	-	-	-	-	-
1	-0.201**	0.089	0.818	-0.211**	0.096	0.809
2	-0.365***	0.106	0.694	-0.099	0.113	0.906
3 or +	-0.453**	0.229	0.636	-0.503**	0.21	0.605
Children < 6						
No	-	-	-			-
Yes	-1.946***	0.17	0.143	-0.257**	0.105	0.773
Institutional care						
No	-	-	-			
Yes	1.202***	0.159	3.327			
Childminder						
No	-	-	-			
Yes	1.608***	0.331	4.993			
Informal care						
No	-	-	-			
Yes	0.943***	0.157	2.567			
Constant	-2.695	0.256		-3.158	0.28	
	*** $p<0.01$; ** $p<0.05$; *$p<0.10$					
	Nagelkerke's R2=0.384			Nagelkerke's R2=0.339		
	Model X2=2011.155 (p<0.001)			Model X2=1560.988 (p<0.001)		
	N=6,024			N=5,583		

Table 3. Binary logistic regression model. MBW versus other, 2007 and 2012

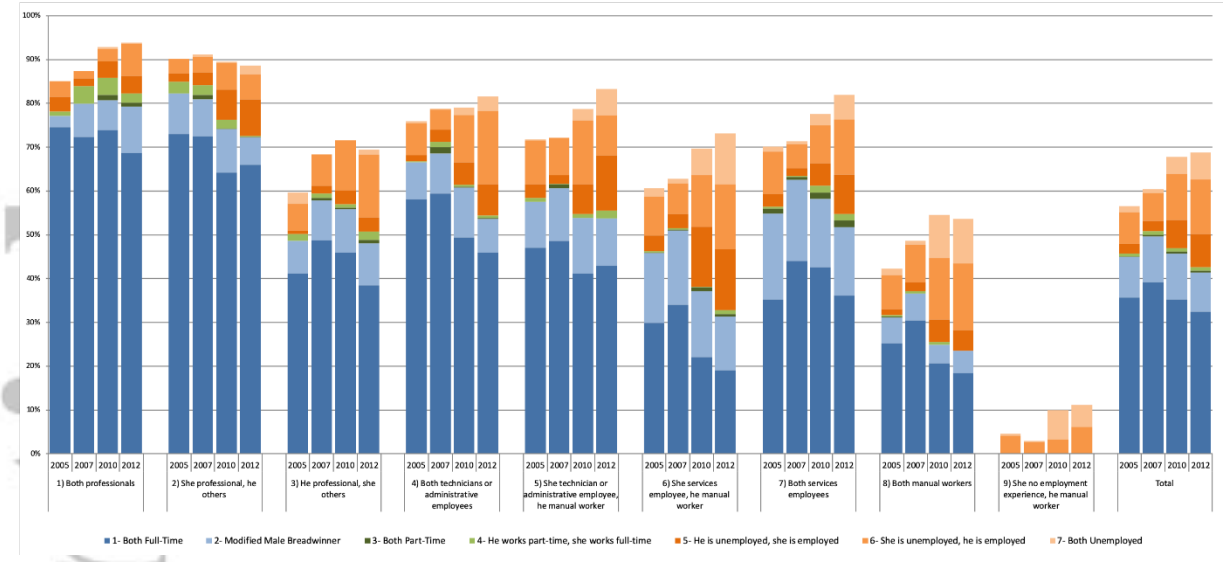
	2007			2012		
	β	SE	OR	β	SE	OR
Woman's occupational group						
Semi-skilled and unskilled services employees	-	-	-	-	-	-
Small business owners	-0.923***	0.304	0.397	-5.356***	1.697	0.005
Professionals, directors and managers	-1.194***	0.189	0.303	-1.507***	0.141	0.222
Technicians and associate professionals	-0.356**	0.146	0.701	-0.628***	0.135	0.534
Administrative and customer services employees	-0.045	0.105	0.956	-0.166*	0.099	0.847
Semi-skilled and unskilled manual workers	0.835***	0.101	2.305	0.914***	0.107	2.493
Agrarian workers	0.558***	0.155	1.747	0.341**	0.153	1.406
No employment experience	2.384***	0.117	10.847	1.573***	0.104	4.822
Man's occupational group						
Semi-skilled and unskilled manual workers	-	-	-	-	-	-
Small business owners	0.353**	0.158	1.423	1.276***	0.154	3.581
Directors and managers	-0.019	0.22	0.981	1.05***	0.204	2.857
Professionals	0.083	0.133	1.086	0.458***	0.133	1.582
Technicians and associate professionals	-0.084	0.118	0.919	0.411***	0.111	1.509
Administrative and customer services employees	-0.022	0.13	0.979	0.561***	0.131	1.753
Semi-skilled and unskilled services employees	-0.261***	0.099	0.771	0.224**	0.095	1.251
Agrarian workers	-0.19	0.151	0.827	0.094	0.144	1.099
Number of children (<18)						
0	-	-	-	-	-	-
1	0.17*	0.09	1.186	0.301***	0.094	1.351
2	0.431***	0.106	1.539	0.444***	0.11	1.560
3 or +	0.515**	0.231	1.673	0.403**	0.181	1.496
Children < 6						
No	-	-	-	-	-	-
Yes	2.05***	0.161	7.767	0.309**	0.149	1.362
Institutional care						
No	-	-	-	-	-	-
Yes	-1.302***	0.157	0.272	-0.312**	0.146	0.732
Childminder						
No	-	-	-	-	-	-
Yes	-2.449***	0.602	0.086			
Informal care						
No	-	-	-	-	-	-
Yes	-1.938***	0.211	0.144	-0.752***	0.244	0.471
Constant	-2.356	0.16		-2.465	0.256	

*** $p<0.01$; ** $p<0.05$; * $p<0.10$

Nagelkerke's R2=0.334	Nagelkerke's R2=0.193
Model X2=1649.616 (p<0.001)	Model X2=821.190 (p<0.001)
N=6,025	N=5,698



[Figure 1 (A&B). Work-family arrangements by the partners' occupational group, 2007 and 2012]



[Figure 2. Evolution (2005-2007-2010-2012) of dually active couple types by the partners' occupational groups]

Appendix

Box A. Combined occupational groups*

1) She small business owner
2) She professional, he others
3) Both professionals
4) She technician, he others
5) She administrative employee, he others
6) She administrative employee, he manual worker
7) Both services employees
8) She services employee, he manual worker
9) She services employee, he others
10) Both manual workers
11) She manual worker, he others
12) She agrarian worker, he others
13) Both agrarian workers
14) She no employment experience, he others
15) She no employment experience, he manual worker

* Only the combinations of occupational groups that represented approximately 5% or more of the sample were retained as separate categories for the analysis, while the remaining groups were merged according to the similarities in their observed patterns. This led to a total of 15 combinations.

Box B. Synthesized combined occupational groups*

1) Both professionals
2) She professionals, he others
3) He professional, she others
4) Both technicians or administrative employees
5) She technician or administrative employee, he manual worker
6) She services employee, he manual worker
7) Both services employees
8) Both manual workers
9) She no employment experience, he manual worker

*The different categories amounting each to at least 5% of the sample and overall to 70% of the population.

Table A. Full Regression models BFT 2007 and 2012*

	2007					2012				
	β	SE	OR	95% CI for OR		β	SE	OR	95% CI for OR	
				Lower	Upper				Lower	Upper
Woman's educational level										
Primary	-	-	-	-	-	-	-	-	-	-
Secondary compulsory	0.182*	0.103	1.199	0.98	1.469	0.349**	0.142	1.418	1.074	1.873
Secondary non-compulsory	0.65***	0.108	1.916	1.551	2.367	0.809***	0.146	2.246	1.689	2.988
Tertiary	1.045***	0.126	2.844	2.221	3.642	1.13***	0.156	3.097	2.282	4.203
Woman's occupational group										
Semi-skilled and unskilled services employees	-	-	-	-	-	-	-	-	-	-
Small business owner	0.963***	0.227	2.620	1.678	4.089	2.164***	0.274	8.706	5.091	14.888
Professionals, directors and managers	0.941***	0.136	2.562	1.962	3.345	1.127***	0.126	3.087	2.410	3.956
Technicians and associate professionals	0.577***	0.124	1.781	1.396	2.272	0.551***	0.119	1.734	1.373	2.191
Administrative and customer services employees	0.282***	0.095	1.325	1.099	1.598	0.369***	0.101	1.446	1.187	1.762
Semi-skilled and unskilled manual workers	-0.22**	0.109	0.802	0.648	0.993	-0.232*	0.134	0.793	0.61	1.031
Agrarian workers	-0.283	0.185	0.754	0.525	1.082	-0.012	0.201	0.988	0.667	1.464
No employment experience	-6.44***	1.415	0.002	0.000	0.026	-5.821***	1.424	0.003	0.000	0.048
Man's occupational group										
Semi-skilled and unskilled manual workers	-	-	-	-	-	-	-	-	-	-
Small business owner	0.297*	0.157	1.345	0.989	1.831	0.665***	0.159	1.945	1.426	2.654
Directors and managers	-0.008	0.186	0.992	0.688	1.430	-0.088	0.204	0.915	0.613	1.366
Professionals	0.315***	0.118	1.370	1.087	1.728	0.32***	0.119	1.377	1.090	1.739
Technicians and associate professionals	0.132	0.109	1.141	0.921	1.414	0.305***	0.109	1.357	1.096	1.681
Administrative and customer services employees	0.316**	0.124	1.371	1.076	1.747	0.279**	0.13	1.322	1.024	1.706
Semi-skilled and unskilled services employees	0.434***	0.096	1.544	1.279	1.863	0.593***	0.101	1.810	1.486	2.205
Agrarian workers	-0.195	0.179	0.823	0.579	1.170	0.186	0.171	1.204	0.861	1.684
Man's country of origin										
Autóctono	-	-	-	-	-	-	-	-	-	-
UE-25	0.799***	0.275	2.224	1.297	3.812	-0.62***	0.201	0.538	0.363	0.798
Extracomunitario	0.784***	0.203	2.191	1.472	3.260	-0.464***	0.174	0.628	0.446	0.885
Woman's country of origin										
Autochthonous	-	-	-	-	-	-	-	-	-	-
EU-25	-0.368	0.256	0.692	0.419	1.143	0.242	0.196	1.274	0.868	1.871
Non-EU	-0.537***	0.187	0.585	0.406	0.843	-0.422**	0.168	0.656	0.471	0.912
Man's age										
60-64	-	-	-	-	-	-	-	-	-	-
16-29	2.096***	0.314	8.130	4.394	15.044	1.002***	0.324	2.725	1.445	5.139
30-34	1.734***	0.273	5.664	3.317	9.673	0.955***	0.275	2.597	1.515	4.452
35-39	1.597***	0.259	4.940	2.972	8.209	0.928***	0.259	2.530	1.524	4.200
40-44	1.411***	0.245	4.100	2.535	6.631	0.808***	0.245	2.244	1.390	3.624
45-49	1.371***	0.23	3.939	2.507	6.189	0.778***	0.23	2.176	1.386	3.419
50-54	1.158***	0.216	3.182	2.083	4.861	0.842***	0.212	2.322	1.532	3.519
55-59	0.816***	0.195	2.261	1.543	3.313	0.625***	0.191	1.869	1.286	2.715
Woman's age										
60-64	-	-	-	-	-	-	-	-	-	-
16-29	1.092***	0.356	2.979	1.484	5.980	1.059***	0.365	2.885	1.412	5.894
30-34	1.094***	0.333	2.987	1.554	5.740	1.205***	0.338	3.338	1.720	6.477

	2007					2012				
	β	SE	OR	95% CI for OR		β	SE	OR	95% CI for OR	
				Lower	Upper				Lower	Upper
35-39	0.817**	0.323	2.263	1.201	4.265	0.919***	0.329	2.507	1.316	4.775
40-44	1.000***	0.313	2.717	1.472	5.016	1.172***	0.317	3.228	1.734	6.009
45-49	1.003***	0.299	2.726	1.516	4.902	1.19***	0.305	3.286	1.807	5.975
50-54	0.846***	0.287	2.331	1.329	4.090	1.198***	0.289	3.314	1.880	5.843
55-59	0.818***	0.274	2.266	1.326	3.875	0.978***	0.274	2.659	1.553	4.554
Number of children (<18)										
0	-	-	-	-	-	-	-	-	-	-
1	-0.201**	0.089	0.818	0.687	0.974	-0.211**	0.096	0.809	0.671	0.976
2	-0.365***	0.106	0.694	0.564	0.855	-0.099	0.113	0.906	0.726	1.130
3 or +	-0.453**	0.229	0.636	0.406	0.996	-0.503**	0.21	0.605	0.401	0.912
Children < 6										
No	-	-	-	-	-			-	-	-
Yes	-1.946***	0.17	0.143	0.102	0.199	-0.257**	0.105	0.773	0.629	0.951
Institutional care										
No	-	-	-	-	-					
Yes	1.202***	0.159	3.327	2.434	4.547					
Childminder										
No	-	-	-	-	-					
Yes	1.608***	0.331	4.993	2.612	9.546					
Informal care										
No	-	-	-	-	-					
Yes	0.943***	0.157	2.567	1.888	3.489					
Region										
Catalunya	-	-	-	-	-	-	-	-	-	-
Galicia	-0.297*	0.154	0.743	0.55	1.004	-0.392**	0.164	0.676	0.49	0.931
Asturias	-0.704***	0.232	0.495	0.314	0.78	-0.168	0.239	0.845	0.529	1.349
Cantabria	-0.559*	0.303	0.572	0.316	1.035	-0.863***	0.333	0.422	0.22	0.81
País Vasco y Navarra	-0.508***	0.149	0.602	0.45	0.805	-0.301**	0.152	0.74	0.549	0.998
La Rioja y Aragón	-0.263	0.177	0.769	0.544	1.088	-0.125	0.187	0.882	0.611	1.273
Comunidad de Madrid	-0.324***	0.115	0.723	0.577	0.906	-0.025	0.115	0.975	0.778	1.222
Castilla y L. Y Castilla L.M.	-0.325**	0.128	0.722	0.562	0.928	-0.207	0.131	0.813	0.629	1.051
Extremadura	-0.623***	0.226	0.536	0.344	0.835	-1.029***	0.263	0.357	0.214	0.598
Comunidad Valenciana	-0.419***	0.117	0.658	0.523	0.828	-0.445***	0.128	0.641	0.499	0.823
Islas Baleares	0.251	0.208	1.285	0.855	1.931	0.092	0.215	1.096	0.72	1.670
Andalucía	-0.745***	0.113	0.475	0.381	0.592	-0.807***	0.116	0.446	0.355	0.561
Región de Murcia	-0.043	0.193	0.958	0.656	1.398	-0.504**	0.222	0.604	0.391	0.934
Ceuta y Melilla	-0.484	0.734	0.617	0.146	2.597	0.478	0.698	1.612	0.41	6.331
Canarias	-0.638***	0.171	0.529	0.378	0.738	-0.042	0.176	0.959	0.679	1.355
Constant	-2.695	0.256				-3.158	0.28			

*** $p<0.01$; ** $p<0.05$; * $p<0.10$

Nagelkerke's R2=0.384 | Nagelkerke's R2=0.339

Model X2=2011.155 (p<0.001) | Model X2=1560.988 (p<0.001)

N=6,024 | N=5,583

*Men's educational level became non-significant once women's educational level was introduced, both in the 2007 and the 2012 models.

Women without information for occupation due to a lack of employment experience (12% of the sample) were also included in the analysis as a separate category, which generated a zero cells problem (no woman without experience could be in a BFT household). This issue was solved by manually adding one value so that the cell cross-tabulating the categories BFT and no employment experience had a value of 1, following Cea d'Ancona (1996). This explains the high coefficients and standard errors in this category but does not alter the coefficients of the remaining variables in the model.

Table B. Full Regression models MBW 2007 and 2012**

	2007					2012				
	β	SE	OR	95% CI for OR		β	SE	OR	95% CI for OR	
				Lower	Upper				Lower	Upper
Woman's educational level										
Primary	-	-	-	-	-	-	-	-	-	-
Secondary compulsory	0.098	0.091	1.102	0.922	1.318					
Secondary non-compulsory	-0.232**	0.104	0.793	0.646	0.972					
Tertiary	-0.693***	0.131	0.5	0.387	0.647					
Woman's occupational group										
Semi-skilled and unskilled services employees	-	-	-	-	-	-	-	-	-	-
Small business owner	-0.923***	0.304	0.397	0.219	0.72	-5.356***	1.697	0.005	0.000	0.131
Professionals, directors and managers	-1.194***	0.189	0.303	0.209	0.439	-1.507***	0.141	0.222	0.168	0.292
Technicians and associate professionals	-0.356**	0.146	0.701	0.526	0.934	-0.628***	0.135	0.534	0.409	0.696
Administrative and customer services employees	-0.045	0.105	0.956	0.778	1.174	-0.166*	0.099	0.847	0.697	1.029
Semi-skilled and unskilled manual workers	0.835***	0.101	2.305	1.890	2.811	0.914***	0.107	2.493	2.021	3.075
Agrarian workers	0.558***	0.155	1.747	1.289	2.369	0.341**	0.153	1.406	1.041	1.899
No employment experience	2.384***	0.117	10.847	8.625	13.642	1.573***	0.104	4.822	3.935	5.909
Man's occupational group										
Semi-skilled and unskilled manual workers	-	-	-	-	-	-	-	-	-	-
Small business owner	0.353**	0.158	1.423	1.045	1.939	1.276***	0.154	3.581	2.651	4.839
Directors and managers	-0.019	0.22	0.981	0.638	1.510	1.05***	0.204	2.857	1.914	4.264
Professionals	0.083	0.133	1.086	0.836	1.410	0.458***	0.133	1.582	1.218	2.054
Technicians and associate professionals	-0.084	0.118	0.919	0.73	1.158	0.411***	0.111	1.509	1.213	1.877
Administrative and customer services employees	-0.022	0.13	0.979	0.758	1.264	0.561***	0.131	1.753	1.355	2.267
Semi-skilled and unskilled services employees	-0.261***	0.099	0.771	0.635	0.936	0.224**	0.095	1.251	1.038	1.508
Agrarian workers	-0.19	0.151	0.827	0.615	1.112	0.094	0.144	1.099	0.828	1.459
Man's country of origin										
Autóctono	-	-	-	-	-	-	-	-	-	-
UE-25	-1.033***	0.359	0.356	0.176	0.719	-0.337**	0.16	0.714	0.521	0.978
Extracomunitario	-1.131***	0.233	0.323	0.204	0.51	-0.228**	0.109	0.796	0.643	0.985
Woman's country of origin										
Autochthonous	-	-	-	-	-					
EU-25	-0.969***	0.331	0.379	0.198	0.726					
Non-EU	0.712***	0.194	2.038	1.393	2.983					
Man's age										
60-64	-	-	-	-	-	-	-	-	-	-
16-29	0.334	0.215	1.397	0.918	2.128	1.094***	0.301	2.986	1.654	5.390
30-34	0.465***	0.175	1.592	1.129	2.245	0.862***	0.254	2.367	1.437	3.898
35-39	0.818***	0.165	2.266	1.639	3.132	0.883***	0.235	2.417	1.524	3.834
40-44	0.923***	0.159	2.517	1.844	3.437	0.900***	0.221	2.459	1.596	3.789
45-49	1.189***	0.151	3.283	2.440	4.417	0.929***	0.206	2.533	1.690	3.795
50-54	1.244***	0.148	3.471	2.597	4.638	0.951***	0.188	2.588	1.790	3.741
55-59	1.111***	0.147	3.036	2.278	4.046	0.716***	0.164	2.046	1.483	2.824

Woman's age										
60-64						-	-	-	-	-
16-29						0.346**	0.161	1.413	1.030	1.939
30-34						0.259**	0.129	1.296	1.007	1.667
35-39						0.121	0.155	1.129	0.833	1.529
40-44						0.176	0.175	1.192	0.846	1.680
45-49						0.478**	0.197	1.614	1.097	2.373
50-54						0.389*	0.227	1.476	0.945	2.304
55-59						0.132	0.278	1.141	0.661	1.970
Number of children (<18)										
0	-	-	-	-	-	-	-	-	-	-
1	0.17*	0.09	1.186	0.993	1.416	0.301***	0.094	1.351	1.123	1.625
2	0.431***	0.106	1.539	1.249	1.896	0.444***	0.11	1.560	1.258	1.934
3 or +	0.515**	0.231	1.673	1.064	2.632	0.403**	0.181	1.496	1.050	2.134
Children < 6										
No	-	-	-	-	-	-	-	-	-	-
Yes	2.05***	0.161	7.767	5.670	10.640	0.309**	0.149	1.362	1.017	1.823
Institutional care										
No	-	-	-	-	-	-	-	-	-	-
Yes	-1.302***	0.157	0.272	0.2	0.37	-0.312**	0.146	0.732	0.549	0.975
Childminder										
No	-	-	-	-	-	-	-	-	-	-
Yes	-2.449***	0.602	0.086	0.027	0.281					
Informal care										
No	-	-	-	-	-	-	-	-	-	-
Yes	-1.938***	0.211	0.144	0.095	0.218	-0.752***	0.244	0.471	0.292	0.76
Region										
Catalunya	-	-	-	-	-					
Galicia	0.136	0.162	1.146	0.834	1.576					
Asturias	0.145	0.238	1.156	0.725	1.844					
Cantabria	0.227	0.3	1.255	0.697	2.260					
País Vasco y Navarra	0.518***	0.158	1.679	1.233	2.288					
La Rioja y Aragón	0.343*	0.187	1.408	0.976	2.033					
Comunidad de Madrid	0.55***	0.125	1.734	1.357	2.216					
Castilla y L. Y Castilla L.M.	0.511***	0.132	1.667	1.286	2.160					
Extremadura	0.811***	0.218	2.250	1.468	3.449					
Comunidad Valenciana	0.056	0.13	1.058	0.82	1.364					
Islas Baleares	0.049	0.239	1.050	0.658	1.676					
Andalucía	0.671***	0.116	1.957	1.560	2.455					
Región de Murcia	0.504**	0.196	1.656	1.128	2.430					
Ceuta y Melilla	0.196	0.74	1.216	0.285	5.190					
Canarias	0.748***	0.171	2.112	1.511	2.954					
Constant	-2.356	0.16				-2.465	0.256			

*** $p<0.01$; ** $p<0.05$; *$p<0.10$

Nagelkerke's R2=0.334 | Nagelkerke's R2=0.193

Model X2=1649.616 (p<0.001) | Model X2=821.190 (p<0.001)

N=6,025 | N=5,698

**Men's educational level became non-significant once women's educational level was introduced in the 2007 model. In the 2012 model, both women's and men's educational level were introduced but neither was significant.

Endnotes

[i] The specific releases of the cross-sectional users' database are version 2005-5 from 01-08-09; version 2007-6 from 01-08-11; version 2010-5 from 01-03-14; and version 2012-3 from 01-03-15). Eurostat has no responsibility for the results and conclusions of the article.

[ii] Information on last occupation is provided for individuals with previous employment experience who are currently not employed.

[iii] The dependent variable was dichotomized into two binary outcomes because in the tests of a polytomous model, the very unequal number of cases across the different categories of the dependent variable led to an underprediction of the categories with the lowest frequencies. This has been pointed out as a frequent problem in these types of data distributions (Menard, 2010).

[iv] Institutional care includes pre-school, centre-based services, and day-care centres (public or private); childminder refers to care provided by a professional childminder at the child's home or the childminder's home; informal care includes care provided by family members other than the parents, friends, or neighbours. Unfortunately, EU-SILC does not provide any information on care for dependents, such as disabled adults or elderly family members.

[v] However, this paper's assessment of the reproductive bargain in Spain is restricted by the scope of its analyses. The lack of available data on the unpaid labour performed by the partners

or the eventual outsourcing of domestic work limits the understanding of the dynamics of gender relations in their full dimension.

[vi] *Managers* and *professionals* are analysed as separate categories for men. The reduced number of female managers in the sample made it necessary to merge these categories for women.