The labor market in the Spanish hospitality industry: An overview from a gender perspective

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Abstract

The main objective of this work is to analyze the labour market of the hospitality industry in Spain from a gender perspective. For this proposal, we analyze the effects of educational mismatch on workers' occupational mobility and on gender wage inequality. In addition to these effects, the decomposition of the gender wage gap, based on an explicit theoretical approach, is controlled by different types of gender segregation and indicators of internal and external mobility. Our indicator of workers' educational mismatch is based on the comparison between the worker's level of education and the educational level required to perform his/her job; the analysis of internal and external labour mobility is based on logit models and for analyzing the gender wage gap decomposition we used a version of the well-known Oaxaca-Ramson´s (1994) approach. The data source used in this study is generated for a survey which collected the opinion of 2476 workers in hospitality firms with 7 or more employees. The evidence shows not only that external mobility is far higher than internal mobility in this sector, but also that is the main cause of wage inequality between men and women. This fact can be explained by labor discrimination against women who have no access to labor improvements in the same conditions than men. Educational mismatch has a limited effect on internal and external mobility for both genders. Thus, entry positions do not serve as first step in the worker´s future career in this sector. Finally, gender discrimination, which explains most of the gender wage inequality, is mainly due to horizontal segregation effect and discrimination of women regarding external mobility.

1. Introduction

The importance of the tourism sector to the Spanish economy is undeniable. Spain began to increase its popularity as a tourism destination in the 1960s and since then, with few exceptions, tourism has positively contributed to the national economy by levelling the balance of payments and becoming a source of employment. The tourism sector accounted for 10.8% of the Spanish GDP in 2011 (INE, 2013) and 11.8% of total employment in Spain (IET, 2013). According to data from the Bank of Spain[1], the tourism surplus for 2012 had a coverage rate of 122.5% for the trade deficit and 280.5% for the current account deficit, while the commercial coverage rate of tourism was the highest this century.

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[1] http://www.bde.es/webbde/es/estadis/bpagos/balpag.html (downloaded 14/04/05)

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Last years, Spain ranks second in revenues from international tourism, just behind the United States, and ranks third in international arrivals, after France and the United States, and before China (WTO, 2013).

These facts contrast with the specific features of most tourism activities, which are characterized by a large number of unskilled jobs, high staff turnover, few prospects for promotion, relatively low wages, and high seasonality of the employment demand. The literature suggests that in Spain the returns on education in the tourism sector are lower than in other sectors. In particular, the returns in the hospitality sector are very low, ranging from 2% to 4.5% using the OLS approach (Marchante, Ortega & Pagán, 2005; Lillo and Ramón, 2005). Furthermore, in certain economic activities -such as the hotel industry- which is characterized by high seasonality, the temporary work rate reached 32.2% in 2012 (IET, 2013). The phenomenon of temporary contracts mainly affects women, young people and low-skilled workers (Jimeno, 2005). In the hotel industry, four out of ten women are hired on temporary contracts, this ratio dropping to three out of every ten for male workers (Malo & Muñoz-Bullón, 2008). In this context, the literature shows that women earn lower wages than men in the hotel industry. For instance, according to Campos-Soria, Ortega-Aguaza & Ropero-García (2009), male wage advantage ranges from 7.9 to 11.1% in the Andalusia hospitality industry.

Therefore, on the one hand we have a very important sector in Spain, with a great capacity to generate employment even in times of economic crisis, and usually generate employment among some of the most disadvantaged groups in the labour market, as women. On the other hand, the tourism sector, from the point of view of the use of production factors, is intensive in the use of manpower. Consequently, part of the capacity to address the competitive challenges comes from the hand of improvements in its human capital. At the same time, much of this workforce is female, having occupations where women's presence is almost one hundred percent, showing low labour mobility (Marchante, Ortega and Pagán, 2007) and high degree of occupational segregation (Campos-Soria, Marchante-Mera & Ropero-García, 2011). According to this study, women is both horizontally and vertically segregated, although horizontal segregation is more marked than vertical segregation in the hotel industry.

Despite the importance of this sector and the female presence in it, the works which have taken into account the gender perspective are scarce and partials, because of the lack of data for doing a complete analysis for this specific sector. However, it seems clear that is convenient to make an effort for analyze in depth the employment in the tourism sector in Spain and the role of women in it. Unlike other works, we have used a database containing a large and representative set of workers' data which enabled us a much more complete analysis, containing disaggregated information related to jobs rather than occupations.

Hence, this paper analyzes from a gender perspective two fundamental human capital aspects in the Spanish tourism industry: Firstly, this article explores the reasons for the discrepancy between actual and required levels of schooling, and the resulting differences in returns of schooling, using a human capital mobility framework. Secondly, based in an explicit theoretical approach, we proposed a decomposition of the gender wage gap, pointing out in the effects of educational mismatch, occupational segregation, distinguishing between horizontal and vertical segregation, and internal and external labour mobility on such difference. As far as we know, this paper first evaluate jointly the relative impact of educational mismatch, labour mobility and horizontal and vertical segregation on gender wage difference in the hospitality industry.

2. Literature review

The hospitality industry is characterized by a higher percentage of female employees and an occupational structure with lower schooling attainment than other sectors (Doherty and Stead, 1998; Marchante el al., 2005). Regarding sex-based wage discrimination, to the best of our knowledge, the literature is unanimous in showing that women workers receive lower wages, although this is linked to the fact that they work in sectors and jobs with lower basic wages (Pagan, 2007). In the case of the Spanish hospitality industry, the wage gap between men and women has been demonstrated by Campos-Soria et al., (2009) and García-Pozo, Campos-Soria, Sánchez-Ollero and Marchante-Lara (2012), among others. Some of the factors that explain the wage gap include the propensity of women to work in part-time jobs (Richter, 1995), occupational segregation (Doherty and Stead, 1998) educational and experience differences and mismatches (Lillo & Ramón, 2005; Thrane, 2008), or disparities in job mobility (Loprest, 1992).

Many studies have analyzed educational mismatch determinants and many of them the relationships existing between educational mismatch, labour mobility and wages in the workforce market. When the presence of educational mismatch becomes permanent indicate that the resources invested in education are wrongly allocated, which could penalize the productivity of the workforce (Tsang, 1987; Rumberger, 1987). Therefore, it is important both to identify whether this mismatch is permanent or temporary, how is this mismatch related to labour mobility and to verify empirically the effect on wages. In this sense, literature show that overeducated workers earn lower wages than workers adequately educated, while workers that require more schooling than they have obtained (undereducated) receive higher wages than workers just with the same level of schooling required.

The Human Capital Theory (Becker, 1964; Mincer, 1958 and 1974; Schultz, 1961) assumes that any educational mismatch is not a permanent and long-term phenomenon. The root of this temporary mismatch is a lack of coordination between the mechanisms of assignment in the labour market, arguing that the educational level of workers provides an incomplete measure of the human capital these workers offer to the market and assuming the existence of substitutability relationships between the different constituents of human capital. In the job screening model (Spence, 1973; Arrow, 1973) education is used as a sign to identify the more able and productive workers, as it considers the existence of market incentives for workers to increase their level of education independently of the required educational level of the job they aspire to obtain. In the job competition model (Thurow, 1975), new workers come into the labour market with a variety of background skills and characteristics. These characteristics (education, age, gender, etc.) affect the cost of training a worker to fill any given job, but they do not, in general, constitute a set of skills that would allow workers to enter directly into the production process. Thus, in this model, employers will select workers with no job experience — given a market situation where the number of vacancies is lower than the applicants — taking into account the educational level of the worker, among other background characteristics, in order to minimize training costs.

Regarding to the labour mobility, The Career Mobility Theory (Rosen, 1972; Sicherman & Galor, 1990) and the Job Matching Theory (Jovanovic, 1979; Sicherman, 1991), among others, have tried to provide which are the relationships between the skills of the worker and their internal and external mobility. On the one hand, the Career Mobility Theory

suggests that workers might be interested in temporarily taking a job for which they are overqualified — entry job — in order to acquire enough experience so as to move to better paid jobs or with a greater chance of promotion. In this sense, overeducation would involve a temporary mismatch in the firm because it encourages employee mobility. On the other hand, the Job Matching Theory views overeducation as a disadvantageous situation for employees. Therefore, overqualified workers would try to find a better match by changing their job within the firm or by moving to another firm. Consequently, this theory predicts greater voluntary mobility in overqualified workers, and thus overeducation is considered a temporary mismatch. Conversely, undereducation, insofar as it is an advantageous mismatch for the worker, promotes permanence in the same job and within the same firm. However, from the point of view of the firm, undereducation could mean a bad fit to the job, which could lead to dismissing the employee. Nevertheless, workers might compensate their educational shortfall with other human capital resources specific to the job they perform (which could be related to their experience and tenure in the job). In this sense, investing in human capital specific to the job discourages the breaking up of the labour relationship for both the employer and the employee. Consequently, both theories predict that while overeducation encourages voluntary labour mobility, undereducation could discourage it.

According to García-Pozo, Marchante-Mera & Sánchez-Ollero (2011), in the hospitality sector, the most important reason for workers changing firms is to improve their working conditions (61% of total quits), rather than upward occupational mobility (23% of total quits). Marchante et al. (2007) pointed out that Spanish hospitality workers are characterized mainly by interfirm turnover (81%, voluntary plus involuntary turnover), but not by changing jobs within the current firm (31%). These figures are in line with the predictions of the skill model of the weak internal labour market presented by Riley (1997). Furthermore, García-Pozo et al. (2011) shows that there is a positive and significant relationship between schooling and earnings for workers in all occupational categories, but the effect of schooling and experience is lower in the lowest segments than in the higher ones. However, male and female workers show a different pattern, which may reinforce horizontal and vertical segregation. Indeed, literature shows that men working in the hospitality industry are more likely to have moved to a higher level occupation. Then internal mobility promotes vertical segregation, since men are more concentrated in jobs with higher responsibility levels. Nevertheless, men are more likely to use external mobility

than female implying higher wages, while women are mainly worried about their labour conditions (Marchante, et al., 2007). There is broad empirical evidence of the impact of gender segregation on the gender wage gap in the economy (Bayard, Hellerstein, Neumark & Troske, 2003 or Gupta & Rothstein, 2005, among others). Gender segregation can be addressed at industrial, establishment and occupational levels. In each case, segregation refers to the over representation of women in given sectors, establishments or occupations. Understanding the effects of gender segregation on wages is vital to determining why the wage gap between men and women persists. As pointed out by Korkeamaki and Kyyrä (2006), attempts to quantify the segregation effects on the wage gap were distorted by a lack of appropriate data for a long time. Consequently, most of the early analysis focused on segregation among occupations, firms, or industries only. This is clearly unsatisfactory, as women and men are further segregated into different jobs within firms. In the case of tourism, most studies use dummy variables to explain the effect o such types of female segregation on wage differential (Delfim & Varejao, 2007; Thrane, 2008), which prevents to identify which part of the wage inequality is due to different kinds of gender segregation. As far as we know, Campos-Soria and Ropero-García (2009) is the only study splits up the effect of different types of gender segregation on the gender wage gap, including horizontal and vertical segregation.

This paper focuses on the results obtained from research carried out in the hospitality industry exclusively, where labour conditions are quite different from the whole economy. In most tourist markets, employment is characterized by low wages (Lee and Kang, 1998; Riley and Szivas, 2003; Marchante-Mera et al, 2010), labour precariousness (Doherty and Stead, 1998), reduced educational level (Lee and Kang, 1998; García-Pozo, Marchante-Mera & Sánchez-Ollero, 2014), and high gender segregation (Jordan, 1997; Campos-Soria, et al., 2011). These problems are especially important in the hospitality subsector, especially regarding the fragmentation of the industry structure, with the existence of small, often family-owned, firms. In this context, this paper try to provide better insights into the relations among schooling mismatch, workers' mobility across firms and occupations in the hospitality sector and the pattern of wages, from a gender perspective.

3. Methodology

3.1. Model specification

The theoretical literature refers to discrimination as a wage gap between men and women which would not be found in productivity difference. An appropriate specification of the relationship between wages and different characteristics observed, required that wage regressions for male and female to be estimated separately. Equations [1] and [2] show such estimates.

$$\ln(w_{mi}) = x'_{mi}\beta_m + \varepsilon_{mi} \tag{1}$$

$$\ln(w_{fi}) = x'_{fi}\beta_f + \varepsilon_{fi} \tag{2}$$

where x_{mi} and x_{fi} are the vectors of male and female characteristics, respectively, β_m and β_f are the coefficient vectors to be estimated for each group, and ε_{mi} and ε_{fi} are the error terms. Under the assumption that observable characteristics in each gender yield different returns, Oaxaca and Ramson (1994) propose a decomposition of the gender wage as follows:

$$\ln(\overline{w_m}) - \ln(\overline{w_f}) = (\overline{x'_m} - \overline{x'_f})\beta^* + \left[\overline{x'_m}(\hat{\beta}_m - \beta^*) - \overline{x'_f}(\hat{\beta}_f - \beta^*)\right] \tag{3}$$

where $\ln(\overline{w_m})$ and $\ln(\overline{w_f})$ are the geometric means of the logarithm of the wage for men and women, respectively; $\overline{x'_m}$ and $\overline{x'_f}$ are vectors for the geometric means of the observable characteristics for each gender, whereas $\hat{\beta}_m$ and $\hat{\beta}_f$ are the coefficient vectors estimated for the male and female samples separately. β^* is the coefficient vector of the wage structure in the absence of discrimination. We use Neumark´s (1988) proposal, who assumes the estimates obtained for the whole sample as the wage structure in non-discriminatory markets. The decomposition proposed in equations [3] enables the wage gap to be broken down in two parts. The first part captures the proportion of the gender pay gap due to productivity difference. The second component shows the contribution of the gender discrimination, due to both wage advantage for male and wage disadvantage for female in relation to wage structure in absence of discrimination.

3.2. Description of the variables

In this section we describe the variables used in the mobility and wage regressions. The endogenous variables in the mobility equations are dummy variables. In the internal mobility equation, the dependent variable is a binary response dummy that takes value 1 if

the worker has changed job within the current firm, and 0 otherwise. The dummy variable of the external mobility equation, takes value 1 if the worker has moved to other firm, and 0 otherwise. The dependent variable in the wage regressions is the logarithm of the net wage per effective working hour. The exogenous variables consider in both specifications can be grouped in personal and human characteristics and firm and job characteristics.

Among the personal characteristics, we consider age, gender and marital status. These last two variables are dummies, which take value 1 if the employee is male and is married, respectively, and 0 otherwise. Regarding human capital variables, we include educational level attainment, expressed as the number of schooling years; a dummy variable indicating tourism-related occupational training; tenure in the firm; and tenure in the job. These variables measure the experience properly than potential experience since the probability that women leave the labour market is higher.

The set of firm and job control variables consider in the equations are size of the establishment, type of contract, horizontal and vertical segregation, the levels of responsibility in the job, the formal education of the worker in relation to the job requirements, and the internal and external mobility of the workers. Size of the establishments are dummies variables which classified them as small (less than 25), medium (25 to 100 employees), or large (more than 100 employees). The variable full-time and permanent contract takes value 1 when the worker has a full-time permanent contract and 0 otherwise. In this way, we attempted to assess whether this type of contract involves higher wages than to workers with temporary or part-time contracts. In Spain, both types of contract tend to be used together in the hospitality industry, when establishment decide to adjust labour demand to fluctuations in tourism demand. The construction of the horizontal and vertical segregation variables requires grouping jobs into different functional areas and responsibility levels. We consider six functional areas (reception, administration, kitchen, catering, cleaning and maintenance) and five levels of responsibility[2] (from level 4, which include the less responsibility jobs, to level 0, which is added to denote managerial positions). The horizontal segregation variable assigns to each individual the percentage of women working in each functional area within each level of responsibility, in the hotels or

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[2] Jobs are classified into functional areas and levels of responsibility following the Nationwide Labor Agreement for the Hospitality Sector and the Provincial Collective Agreement for the Hospitality Sector in Spain.

restaurants with the same category[3]. Furthermore, the vertical segregation variable assigns to each individual the percentage of women working in each level of responsibility within each functional area in the same category. Educational mismatch has been calculated using indirect subjective method. This method gather information on the educational level needed to perform the job from the employees' and employers' perspectives. Thus, the comparison between needed and attained education leads to three possible worker categories[4]: Adequately educated refers to those workers whose level of education needed to perform the job coincides with their attained schooling level. Undereducated refers to those workers whose attained level of education is less than that needed to perform the job. Overeducated refers to those workers whose attained level of education is greater than that needed to perform the job.

4. Case study

Our data comes from a research project that was developed in 2010 by an interdisciplinary team from the Universities of Malaga, Granada and Seville, in collaboration with some establishments[5] located in Andalusia, in southern Spain. The database was obtained through interviews with managers and employees from establishments with more than seven workers. It includes representative parameters from 302 Andalusian establishments (rated as 3, 4, and 5 stars) and 2,476 employees. These parameters were obtained from semi-structured personal questionnaires administered to the managers and hospitality workers. This survey aimed at generating a representative sample of the hospitality sector in Andalusia. A directory of the establishments to be surveyed was created using Camerdata[6] and the Turespaña Hotel Guide, which lists certified hotels and is published by the local government of Andalusia (i.e. the Junta de Andalucía).

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[3] Note that if these percentages are calculated for the whole sample, the resulting horizontal segregation variable includes part of the vertical segregation, as levels of responsibility are not homogeneous in all the areas.

[4] In this context, attained education is only a component of workers' human capital, as human capital can be obtained via experience, tenure, and on-the-job training. So, overqualification is a broader concept than overeducation.

[5] Swiss Hotel Management School Les Roches in Marbella, the Torrequebrada, Puente Romano and Marbella Club hotels, among others.

[6] Camerdata SA, created in 1985 by the Spanish Chamber of Commerce, is a pioneering company in creating business databases that include the censuses of all Spanish Chambers of Commerce. It also has a permanent program that ensures that the national census is fully updated at least once a year using data from all Chambers of Commerce. This database is complemented by data from other sources or public media, such as the Mercantile Registry. This source was also used to verify which hotels in Andalusia are still currently operating.

Table 1 shows a descriptive analysis of the most important characteristics for which we have obtained information, both personal and human capital attributes and firm and job characteristics by type of labour mobility and gender.

The first remarkable figure in this sample in relation to the characteristics of the firm and job is that external mobility (81.32%) is far higher than internal mobility (30.47%) in the whole sample. This occurs both in the group of men (84.88% has developed external mobility, while 33.95% has changed inside the current firm) as in women (74.6 % and 26.8%, respectively). This difference is reasonable if we bear in mind that this sector is characterized by a very weak internal and high external mobility (Burns, 1993; Jameson, 2000). Moreover, in line with García-Pozo et al. (2011), for the hotels and catering labour market, Riley (1997) has argued that although skills are transferable between firms, there are barriers within the establishment to changing occupations. A waiter cannot simply become a receptionist, a receptionist cannot become a cook, etc, and this occupational rigidity has an effect on all workers, regardless of their educational level. Thus, in line with Riley (1997), we suggest that the transferability of skills exists between industries, but does not exist between occupational boundaries. Workers acquire skills through deliberate mobility between firms and this implies a weak internal labour market that allows requirements and labour turnover fluctuations to match supply and demand (Riley and Szivas, 2003). On the other hand, as Marchante et al. (2007) note, this large average value of external labour mobility (81.32%) may indicate that one of the most important problems of human resource management in the hospitality industry is to ensure retaining competent workers.

Table 1. Average values of the variables used by type of labour mobility and gender

Variables	Internal mobility		External mobility		Whole sample
	Men	Women	Men	Women	
Personal and human capital characteristics					
Gender*	67.59	32.41	65.42	34.58	61.33
Marital status*	77.19	56.38	69.36	51.75	59.68
Schooling years**	9.28	10.07	9.19	9.47	9.32
Vocational training in tourism*	40.21	37.97	34.86	27.62	31.86
Tenure in the firm**	13.96	9.97	7.97	5.19	7.84
Tenure in current job**	9.40	6.74	6.93	4.66	6.71
Age**	39.06	36.31	36.94	34.03	35.77
Firm and job characteristics					
Small sized*	17.64	18.69	27.38	28.09	26.51
Medium sized*	61.00	62.28	55.10	54.77	55.98
Large sized*	21.36	19.03	17.52	17.14	17.51

Responsibility level 0*	4.95	3.91	3.41	1.47	2.67
Responsibility level 1*	30.65	14.33	19.96	6.12	13.71
Responsibility level 2*	54.95	47.23	58.34	40.51	51.75
Responsibility level 3*	7.12	30.29	11.98	41.13	23.44
Responsibility level 4*	2.32	4.24	6.31	10.77	8.43
Full-time and permanent contract*	72.42	61.41	55.40	39.81	50.48
Adequately educated*	48.30	52.94	50.78	59.02	54.47
Infra-educated*	42.13	26.47	35.02	19.38	27.61
Over-educated*	9.57	21.59	14.20	21.60	17.92
Internal mobility*	-	-	-	-	30.47
External mobility*	-	-	-	-	81.32

Note: * expressed as a percentage and ** years.

On the other hand, the percentage distribution of overeducated (17.92%), undereducated (27.61%) and adequately educated (54.47%) workers in the sample is consistent with those obtained in other studies for the Spanish Hospitality sector (Marchante et al., 2004; García-Pozo et al., 2014). Educational mismatch is more significant in the case of internal mobility that the existence of external mobility, both for men (51.7% versus 49.22%) as in the group of women (48.06% versus 40.98 %). Moreover, in view of data, higher values of internal and external labour mobility occur in mid-sized companies and for workers with medium-high levels of responsibility. But in the latter case is more significant in the case of men for both types of labour mobility. Meanwhile, the existence of a full-time permanent contract has favoured much more internal than external labour mobility in both genders.

Regarding to personal and human capital characteristics, workers who have changed jobs within the current firm or workers who have moved to other firm are mostly married and they are between 34 and 39 years old. It is worth noting that the average years of schooling for both men and women are higher for those workers who have changed jobs within the same firm, although women who have performed any of the two types of mobility have more formal education than men, reaching more than 10 schooling years. Another important finding is the poor specific vocational training in tourism issues both those who have changed jobs in the current firm or firm in this sector, barely exceeding 40% in the best case. Finally, the mean values of the tenure in the firm and in the job are much higher in men than in women for both types of mobility, reaching in the first case a differential of almost 4 years when we consider internal mobility.

5. Results

5.1. Labour mobility estimations

Table 2 presents the results of estimating econometric specifications presented above for internal and external labour mobility by gender. We use a binary choice model, specifically the binomial logit model (BLM), based on the method of maximum likelihood. Following McFadden (1974), we present the estimated coefficients (β_i) and, for those coefficients that are statistically significant, odds-ratios (e^{β_i}) and marginal effects.

The goodness-of-fit is evaluated by means of the McFadden's (1974) pseudo-R^2 that in all cases shows acceptable values. Observing the values of the Likelihood Ratio (LR) Chi-Square test and its associated probability, we can state that the estimated coefficients of the explanatory variables have significant impacts on the probability of the dependent variable. Moreover, the observed values of the dependent variable were correctly classified by the models to match with its predicted value in a percentage higher than 77% in all the estimated equations. Furthermore, the area under the ROC (Receiver Operating Characteristic) curve in all the logit estimations presented exceeds 0.797. These data confirm the good predictive capability of the models.

Internal labour mobility for men and women is analyzed in equations 1 and 2 of Table 2. Equations 3 and 4 in this table show the estimates of external mobility of male and female workers. For the four estimations presented, the vector of observable characteristics is grouped by variables relating to personal and human capital characteristics and firm and job characteristics. Reference variables for each set of dummy variables created from a categorical variable are: small sized firm, responsibility level 0 (maximum level) and workers adequately educated.

Regarding the internal labour mobility, the probability that workers had changed job within the current firm is influenced by almost the same explanatory variables in both genders. Although in some cases there are quantitative differences, always are in the same direction. The fact of having specific studies in tourism increases the probability of internal labour mobility almost double for women than for men (11.63% versus 6.55%), ceteris paribus. For its part, the effect of an additional year of tenure in the firm increases the probability of internal mobility, although this effect is higher for women (14.86%) than for men (10.09%). In the opposite direction, when a worker remains in the current job for additional years, his or her probability to change job within the current is reduced, being

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[7] See Fawcett (2006).

again higher in absolute terms, for female (-14.07%) than for male counterparts (-8.61%). The signs of the estimates for both variables related with tenure seem to fit what was expected when considering the internal mobility. Moreover, the age of male workers have a marginal effect on the probability of internal mobility (0.92%) two and half times greater than in the case of female workers (0.36%). It is important to note that the last three variables analyzed are continuous, so for the purposes of prediction these variables can achieve great significance.

Compared to the fact of working in a small sized company, the marginal effect on the probability of internal mobility of men working in large sized establishments reaches 8.99%. For women, working in a medium sized company has a marginal effect similar to male co-workers (8.08%). The probability of a worker, male or female, to change jobs in the current firm is significantly reduced if you belong to jobs with lower middle levels of responsibility regarding workers in management posts who hold the highest level of responsibility. The values of the marginal effect of these variables are such that make these variables are exerting more influence, in this case negative, on the probability of internal labour mobility, reaching a negative incidence of -33.52% for men and -36.93% for women. This could be due to the less formal education of these workers and the type of work they do which reduce the opportunities for occupational promotion in the firm. Finally, as seems reasonable, job stability increases the probability of internal mobility, although the quantitative difference between men (8.38%) and women (1.76%) is very high.

Regarding the external labour mobility, the incidence of statistically significant variables on the probability of moving to other firms is quantitatively smaller than in the case of internal mobility. On the other hand, in the case of men, personal and human capital characteristics are those that determine almost exclusively the probability of external mobility, except for the fact of having a permanent contract that according to equation 3 reduces this probability by 2.64%, ceteris paribus. Moreover, married workers are more likely to carry out external mobility versus those who are not married by 6.32%, being this effect the highest one on the probability of external mobility in our model. Another important finding is that an increase in one year of schooling reduces the probability of moving to another firm by 0.67%. This could be explained by the higher proportion of workers in the sample and in the hospitality sector with low formal education. In relation to this result, the

fact of having vocational training in tourism increases the probability of external mobility (3.07%) because companies demand this type of formal education and as we have seen in the descriptive analysis this type of education is scarce in the set of workers analyzed. The last three mentioned variables have no influence on the probability of external mobility for women.

Unlike what happened in the internal mobility analysis, as expected, an additional year of tenure in the firm reduces the probability of moving to other firm, both for men (1.43%) and for women (2.35%), although this marginal effect is much lower than in the case of internal mobility. Furthermore, an additional year of age is associated with a positive marginal effect on the external mobility that in the case of women can reach 1.72%.

Table 2. Logits of internal and external labour mobility by gender

Variables	Internal mobility						External mobility					
	Men (Equation 1)			Women (Equation 2)			Men (Equation 3)			Women (Equation 4)		
	β_i	Odds-Ratio	Marginal effect (%)	β_i	Odds-Ratio	Marginal effect (%)	β_i	Odds-Ratio	Marginal effect (%)	β_i	Odds-Ratio	Marginal effect (%)
Personal and human capital characteristics												
Marital status	0.0379			0.1745			0.7736***	2.1676	6.32	0.1189		
Schooling years	0.0082			0.0415			-0.0925***	0.9117	-0.67	-0.0313		
Vocational training in tourism	0.2863**	1.3315	6.55	0.5816***	1.7889	11.63	0.4500**	1.5684	3.07	-0.0367		
Tenure in the firm	0.4466***	1.5629	10.09	0.7837***	2.1897	14.86	-0.1981***	0.8203	-1.43	-0.1403***	0.8691	-2.35
Tenure in current job	-0.3808***	0.6833	-8.61	-0.7417***	0.4763	-14.07	-0.0073			-0.0252		
Age	0.0405***	1.0413	0.92	0.0188***	1.0190	0.36	0.1640***	1.1783	1.18	0.1025***	1.1080	1.72
Firm and job characteristics												
Medium sized	0.2678			0.4327**	1.5415	8.08	-0.2747			-0.3440		
Large sized	0.3850*	1.4696	8.99	0.1823			-0.1395			0.1366		
Responsibility level 1	-0.1369			-0.6234			0.0765			0.0705		
Responsibility level 2	-0.8494**	0.4277	-19.32	-1.4621***	0.2317	-25.66	-0.1692			0.5052		
Responsibility level 3	-1.3894***	0.2492	-25.07	-2.1887***	0.1121	-36.93	-0.2024			0.3036		
Responsibility level 4	-2.4871***	0.0832	-33.52	-2.7740***	0.0624	-28.36	-0.6000			-0.2043		
Full-time and permanent contract	0.3757**	1.4561	8.38	0.0927**	1.0972	1.76	-0.3756*	0.6869	-2.64	0.0948		
Infra-educated	0.1720			0.5420**	1.7194	11.05	-0.2109			-0.3008		
Over-educated	-0.3598			0.1674			0.0842			-0.1595		
Constant	-0.0892			-1.9541			-0.9727			-0.9612		
McFadden's R^2	0.3073			0.3467			0.2005			0.1147		
LR Chi² (15)	617.43***			350.74***			253.27***			108.08***		
Correctly classified (%)	83.80			86.27			86.29			77.22		
Area under ROC curve	0.8441			0.8692			0.8174			0.7954		
Observations	1562			881			1517			843		

Note: ***Level of significance 1%. ** Level of significance 5%. *Level of significance 10%.

5.2. Wage estimations

The results of the estimation of the wage equation proposed in the methodology are shown in Table 4. All the coefficients obtained are robust regarding heteroskedasticity with iterative standard errors from White (1980). The significant difference of human capital returns between men and women justifies the need for estimating the wage equations under the assumption of unequal returns. Nevertheless, in the third column, the estimation is carried for the whole sample under the assumption of equal returns. In this case, we observe that the wage difference between men and women with the same observable characteristics and the same job is 7.73%. The wage advantage for men is in accordance with the results obtained in Campos-Soria and Ropero-García (2009) for the hospitality sector in Andalusia (range from 7.9% to 11.1%). These results are also compatible with available international literature in tourism. For example, Marchante et al. (2005) estimated the wage advantage to be 10.5% and Delfim and Varejao (2007) estimated this to be 8.4%. However, as pointed out by Delfim and Varejao (2007) gender discrimination in tourism sector is lower than for the whole economy. Although the estimations are sensitive to the dataset and the control characteristics used, Amuedo-Dorantes and De la Rica (2006) find that gender discrimination is by 11.8% for the Spanish economy, while Bayard et al. (2003) range from 16.2 to 19.3% for the United Stated.

Table 4. Wage regressions by gender

Variables	Male	Female	Whole sample
Constant	1.5517***	1.5833***	1.5090***
Personal and human capital characteristics			
Gender	-	-	0.0773***
Marital status	0.1031***	-0.0068	0.0597***
Schooling years	0.0156***	0.0161***	0.0168***
Vocational training in tourism	0.0284**	-0.0060	0.0200**
Tenure in the firm	0.0086***	0.0082***	0.0088***
Firm and job characteristics			
Medium sized	-0.0030	0.0115	0.0018*
Large sized	0.0952***	0.0818***	0.0920***
Full-time and permanent contract	0.0610***	0.0561***	0.0625***
Horizontal segregation	0.0016***	0.0010***	0.0013***
Vertical segregation	-0.0020***	-0.0016***	-0.0019***
Infra-educated	0.0343***	0.0023	0.0283***
Over-educated	-0.0490***	-0.0651***	-0.0575***
Internal mobility	0.0093	0.0429**	0.0189*
External mobility	0.0721***	0.0251	0.0534***
R-squared	0.4012	0.3193	0.3818
Nº observations	1,433	849	2,282

Note: All regressions are estimated by OLS. Standard errors are adjusted by heteroskedasticity. ***Level of significance 1%. ** Level of significance 5%. *Level of significance 10%.

The value of the constant term in all regressions indicates the part of the wage not affected by the independent variables. This component depends on other variables, such as lifestyle, preferences, or other differentiating characteristics of the regions where the worker work that have an effect on the conditions of employment and wages, but which our specification was not able to include. Regarding personal and human capital variables, it can be pointed out that to be married has a positive effect on wage for the whole sample, and for male employees but not for female. The same happen in the case of vocational training in tourism. This kind of training has a positive effect on male wages but has not a statistically effect on remuneration in the case of women. Returns in formal education are quite similar for male and female (1.56 and 1.61, respectively). In the hospitality sector these returns are very low, ranging from 2% to 4.5% using the OLS approach (Marchante et al., 2005; Lillo & Ramón, 2005). Our results can be accounted for by the low educational attainment in the salaried workers in the hospitality sector relative to the entire economy[8], and because, as in previous studies, we also use job characteristics variables in the specification. Education returns estimated in these kinds of studies represent the direct effect of education, once the effects derived from the job characteristics are discounted. Introducing these additional variables reduce educational returns, because these variables capture the indirect effect of education on wage. The returns estimated for tenure in the firm range from 0.86% and 0.82% for male and female, respectively. These are much lower than those for other private service sectors, which is also in accordance with the results in the empirical literature (García-Pozo et al., 2014).

Regarding job and firm characteristics, a full-time permanent contract involves increased wages. This increase ranges from 5.61% in male workers to 6.1% for female. The estimated coefficient for business size is statistically significant and positive in all cases for establishments with more than 100 employees, although being higher for male than female (9.52% and 8.18%, respectively). Horizontal and vertical segregation have an opposite effect on wages in all regressions. These results are in accordance with literature (Campos-Soria & Ropero-García, 2009). Female segregation in functional areas commanding higher salaries helps to increase wages, being higher for male than for female. Moreover, the

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[8] Following the estimates obtained by the Active Population Survey in Spain, the average percentages of women employed in the hospitality sector in the period 2005-2007, with a schooling level superior to compulsory education is 35.92%, while this figure is 57.73% in the whole economy. These figures are 34.03% and 43.18, respectively for male workers.

segregation of women in the worst paid jobs with lower responsibility levels contributes to reduce wages. This effect is also higher for men than for women (in absolute terms). The estimated coefficients for educational mismatch have the expected signs in all cases and it is only statistically non significant in the case of undereducated female workers. Overeducation involves a strong wage penalty which is greater for women than for male. Male undereducated workers earn 3.43% more than those adequately educated, whereas, this effect is not statistically significant for women. Finally, in the hospitality sector the wage premium for workers changing firms or jobs into the same firm are significant for the whole sample. However, there are mark differences for men and women. Literature suggest that internal mobility seems to be low in the hotel sector (Riley, 1997), because there are barriers within the establishment to changing occupations, mainly when these occupations belong to different functional areas. Nonetheless, our findings show that female workers are more likely to use internal mobility to increase their salary than male. Women prefer to remain in the same company, probably due to family reasons. In fact, external mobility for women has not a positive effect on rewards. These results are in line with those obtained in Marchante et al. (2007) in the Spanish hospitality, who show that the most important reason for workers changing firms is to improve their working conditions (61% of total quits), rather than upward their remuneration (23% of the total quits). However, male co-workers show a different pattern. They are more likely to acquire skills through deliberate mobility between firms, implying higher wages, but on the contrary, internal mobility has not a positive effect on their remuneration.

5.3. Gender wage gap decomposition

The decomposition of gender wage gap is carried out following the equation [3]. This decomposition is based on the proposal of Neumark (1988), who assumes that the non-discriminatory wage structure is derived from the regression for the whole sample, i.e. the coefficients shown in the third column in Table 4. Tables 5 include the contributions obtained from models A, B and C, assuming that the returns of each variable are different for men and women. Contributions appear in comprehensive model C is based on the estimates for men and women in Table 4. Previous decompositions shown in model A and B have been calculated adding different groups of variables at successive stages, to verify the robustness of the results. Model A, shows the relative impact of each group of variables to gender wage gap when controlling only for personal and human capital characteristics.

Model B, shows the estimated wage differentials by sex when establishment and job characteristics are added, except mobility variables.

Table 5. Gender wage gap decomposition

Factors	Model A			Model B			Model C		
	Charact.	Returns	Total	Charact.	Returns	Total	Charact.	Returns	Total
Constant	0.00	10.65	10.65	0.00	4.92	4.92	0.00	-14.36	-14.36
Personal and human capital characteristics	**56.18**	**33.17**	**89.35**	**52.60**	**25.76**	**78.36**	**48.07**	**29.27**	**77.35**
Gender	39.78	-	39.78	39.97	-	39.97	35.09	-	35.09
Marital status	5.94	32.56	38.51	4.71	28.64	33.36	4.19	26.46	30.65
Schooling years	-1.45	-3.00	-4.45	-1.50	-7.02	-8.52	-1.59	-1.93	-3.52
Vocational training in tourism	0.36	2.73	3.10	0.37	3.71	4.08	0.44	3.92	4.36
Tenure in the firm	11.54	0.88	12.42	9.05	0.43	9.47	9.94	0.82	10.76
Firm and job characteristics	-	-	-	**6.37**	**10.35**	**16.71**	**9.24**	**27.78**	**37.01**
Medium sized	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
Large sized	-	-	-	0.00	1.82	1.82	0.00	1.08	1.08
Full-time and permanent contract	-	-	-	4.04	-0.26	3.78	3.91	0.82	4.73
Horizontal segregation	-	-	-	-10.50	12.71	2.21	-10.36	11.91	1.55
Vertical segregation	-	-	-	8.88	-7.26	1.62	8.83	-10.31	-1.49
Infra-educated	-	-	-	2.03	3.09	5.13	1.90	3.48	5.38
Over-educated	-	-	-	1.91	0.24	2.15	1.84	1.33	3.17
Internal mobility	-	-	-	-	-	-	0.61	-5.84	-5.23
External mobility	-	-	-	-	-	-	2.50	25.32	27.82
Total	56.18	43.82	100	58.96	41.04	100	57.31	42.69	100

Note: The gender wage gap, as measured by the sex difference in mean log wages, is 0.2495 in model A, 0.2254 in model B and 0.2201 in model C. In the three models, mean comparison tests assuming independent samples and unequal variances are applied. If the mean difference between men and women for a variable or its estimated coefficient is not significantly different from zero at a 10% level, we assign zero to its relative impact. The numbers of each cell, represent the relative contribution of each variable obtained from the various specifications. The cumulative relative effects of personal and capital characteristics and firm and job characteristics are shown in bold. The total relative effects of productivity differences and return differences appear in the last line.

For each of such models, Tables 5 include the contribution of the differences in characteristics, differences in returns and total contribution to the wage differential by groups of variables. A positive value in a cell indicates that the variable under study increases the wage differential, whereas the opposite occurs when the sign is negative. The results for all proposals shown in Table 5 are similar, which indicates the robustness of the empirical evidence regarding gender discrimination and the relative contribution of the most of the control variables. Relative contribution of differences in characteristics takes values quite similar, from 56.18% to 58.96%. However, most of them are due to gender discrimination. Specifically, gender discrimination assuming equal returns range from 35.09% in model C to 39.78% in model A. If we add differences in the returns of observable characteristics, the total gender discrimination under unequal returns estimate

between 77.78% in model C to 83.6% in model A, which demonstrate again the robustness of the results. So, we conclude that most of the wage gap is due to gender discrimination in the three models. This figure is in accordance with Campos-Soria and Ropero-García (2009), who calculate rates of gender discrimination ranging from 76.61% to 77.83% in the hospitality sector.

In order to simplify the description, from this point on we will only focus on the results from model C. Regarding differences in personal characteristics, marital status help to increase the wage gap by 4.19%, since to be married increases the hourly wage only for men and there are more married men than women. Exactly the opposite occurs regarding schooling years, because female workers present higher educational levels, which reduces the wage difference by 1.59%. Regardless of sex, tenure in the firm commands the highest contribution on the wage inequality. In fact, greater tenure in the firm causes a 9.94% increase in the wage gap. Significant differences in most job and firm characteristics are shown, except for the size of the establishment. Therefore, the unequal distribution of men and women regarding mean size does not seem to have an effect on wage difference. However, earnings are also affected by the type of contract. Workers with part-time or temporary contracts earn a significantly lower wage than employees with full-time or permanent contracts, and the proportion of women with these lower paying contracts is higher than that of men, which explains 3.91% of the wage gap. Regarding, differences in job and firm characteristics, most of the contributions are due to horizontal and vertical segregation. Horizontal and vertical segregation do not contribute in the same way to increasing the wage difference in the hospitality sector, as suggested by other descriptive research. Female segregation in functional areas commanding higher salaries helps to reduce the wage gap by 10.36%. However, the segregation of women in lower levels of responsibility, contributes to the wage differential by more than 8.8%. On the other hand, educational mismatch promote the wage inequality between both genders. Men´s deficit in human capital increases the wage differential by 1.9%, while overeducation, more common in women, raises the gap by 1.84%, since overeducation has a negative effect on wages. Finally, men are more likely changing firms to improve their salary, which is responsible for 2.5% of the wage gap.

Regarding the difference in returns by groups of variables some interesting results can be pointed out. Marriage increases men's wages more than those of women, which explains

most of the positive contribution of personal and human capital characteristics (26.46%). Schooling years help to reduce the wage gap due to women's greater educational return by 1.93%. This result is comparable with those of Thrane (2008) in tourism, who estimates educational returns higher for women than for men. It is also noteworthy positive contribution of all the firm and job characteristics on wage gap, except for vertical segregation and internal mobility. The difference in returns from vertical segregation makes the greatest contribution to reducing wage differences. In this regard, differences in wage reduction caused by working in worst paid levels of responsibility, contribute to reduce wage differential by 10.31%. However, horizontal segregation contributes to increase the wage gap by 11.91%, since changing to a better paid functional area has a higher effect on male than female wages. As state by Campos-Soria and Ropero-García (2009), these results corroborate that the positive contribution of occupational segregation in literature (Hakin, 1992; Delfim & Varejao, 2007) can hide the opposite impacts of horizontal and vertical segregation. Returns in educational mismatch also raise wage differential, since overeducation reduces female´s wages more than those of men, and undereducation rises wage for male worker more than for female co-workers. Finally, different returns in labour mobility variables merit discussion. Since internal labour mobility only affect female´s wages and men are more likely to use only external mobility to increase their wages, different returns on these variables affect by reducing by 5.84% and increasing by 25.32% the wage differential, respectively. Nevertheless, these results reveal not only that external mobility is far higher than internal mobility in the hospitality industry, but the former causes the highest contributions on the wage inequality of firm and job characteristics.

6. Conclusions

The main objective of this work is to analyze the labour market of the hospitality industry in Spain from a gender perspective. For this proposal, firstly, we analyze the effects of educational mismatch on workers' occupational mobility and, secondly, we evaluate the relative impact of educational mismatch, labour mobility and horizontal and vertical segregation on gender wage difference. The treatment of these two issues together is particularly novel in literature. This paper focuses in the hospitality industry exclusively, where labour conditions are quite different from the whole economy, especially from a gender perspective. It is noteworthy that differences between men and women in terms of precariousness, labour mobility, occupational segregation and wages are quite important in this sector. Internal and external mobility are analyzed by binary choice models, while the

gender wage gap are decomposed using the Oaxaca-Ransom´s (1994) approach, assuming different returns in the observable characteristics. The use of establishment-worker paired data allows us to analyze gender wages disparities and labour mobility properly, since it provides information about workers, establishments and job they perform, with a high degree of occupational disaggregation. The results help to obtain some relevant implications for policymakers.

Descriptive data show that labour mobility between firms is much higher than in the current firm in the Spanish hospitality industry. This fact can be explained by the high turnover in jobs. The factors that determine the probability of internal mobility in our sample, for both men and women, are mainly related to the level of responsibility held by workers in their job, sin workers with a medium or low level of responsibility are less likely of moving from other jobs in the current firm. Meanwhile, the personal characteristics of individuals and particularly those related to tenure in the firm and in the current job and vocational training in tourism, have a lower incidence in men than in women when assessing the chance to perform internal labour mobility. This fact can be explained by labour discrimination against women who have no access to labour improvements in the same conditions than men. Another interesting fact is that actual educational mismatch has limited effect on the probability of having changed jobs within the firm. This result is in line with previous literature, where not find evidence that overeducated workers have gained better jobs in other establishments outside the current firm or that they benefit from promotion ladders within internal labour markets for both men and women (Marchante, et al., 2007). Thus, entry positions do not serve as first step in the workers' future career within this sector. In our case, only the infraeducated women have a greater probability of mobility in the firm in comparison with adequately educated women. However, due to the jobs that they usually occupy, it does not seem that when they change of occupation they go towards better positions in the firm but towards occupations of scarce responsibility level. The personal and human capital characteristics, are those that having a greater impact on the external mobility mainly for men. To be married, vocational training in tourism and their age exert a positive influence in the probability of changing of firm. In opposite sense, tenure in the firm and schooling years reduce the probability of external mobility. This result can be due because external mobility in the hospitality sector falls mainly to workers with low level of formal education.

Wage advantage for men is estimated by 7.73% in this sector. Such inequality can be explained by gender discrimination or by differences in observable characteristics, grouped by personal, human capital, firm and job variables. Under the assumption of equal returns, gender discrimination explained from 35.09% to 39.97% of the gender differential. However, literature shows that there are additional sources of discrimination motivated by differences in returns in the observable variables. To this end, the methodology used to decompose the gender wag gap in this paper, assumes different returns of the observable variables. In this case, we can conclude that most of the wage gap is due to gender discrimination comprised values ranged 77.78% to 83.6%. These results are in accordance with previous studies in the hospitality sector. Campos-Soria and Ropero-García (2009) estimate gender discrimination between 76.6% and 77.8%, assuming different returns and additional types of gender segregation as control variables.

This paper shows that differences in returns of horizontal and vertical segregation, external labour mobility and marital status are the main sources of gender discrimination, since cause the greatest impacts on wage disparities. Vertical segregation contributes to reduce the wage by 10.31% because promotion increases women's wages less than men's. However, differences in horizontal segregation returns helps to increase the wage differential by 11.91%, since changing to a better remunerated functional area increase men´s wages more than those of women. Discrimination of women regarding external labour mobility due to difficulties to access improvements outside the firm, has a direct effect on rewards. Data reveals, not only that external mobility is far higher than internal mobility in the hospitality industry, but also that is the main cause of wage inequality between men and women. Indeed, 25.32% of the wage gap is due to differences in the returns of external mobility, although to be married causes the highest impact (26.46%). In the background, it is noteworthy the contributions of internal mobility and educational mismatch. Since internal labour mobility affect negatively on wage, only for female, different returns of such variable increase wage gap. Finally, differences in educational mismatch returns lead to positive contributions, although infraeducation presents a higher impact.

Our results are subject to the usual limitations of a cross-sectional database, which does not allow for controlling by individual, time or economic cycle effects. Sample selection bias can generate inconsistent estimations of the wage equations parameters. Some articles have

corrected for such bias by using the method proposed by Heckman (1979), although its effect was not significant (Hernández, 1995). We demonstrate that a major part of the gender wage differentials among hospitality workers was attributed to discrimination, since there is a disproportionate concentration of women in lower-responsibility levels. However, this study does not conclude whether this unequal distribution among men and women is due to gender differences in preferences or family issues. Although reasons for women´s concentration in lower-paying jobs remain a puzzle, labour authorities must check the performance of Equal Pay Act in this sector, emphasizing barriers in education, hiring and promotion. Data reveals that women are not rewarded by specific training in tourism, disproportionate concentration of women in the worst-paid functional areas, high degree of overeducation or barriers in promotion to higher responsibility levels. Thus, legislation should be analyzing these issues, facilitating the access to court and reducing cost of litigation as deterrents to discrimination.

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