Employment, Pay and Discrimination in the Tourism Industry

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Abstract

Using a large administrative matched employer-employee dataset we analyse the gender wage gap in the Portuguese tourism labour market. As background, employment and pay in the tourism industry is thoroughly characterized. Using the Oaxaca-Blinder decomposition of the gender wage gap, we find that 45 percent of the gap is due to differences in attributes of male and female workers in tourism. Our estimate of the coefficient of discrimination in the tourism industry (8.4 percent) puts it well below the non-tourism average (15.8).

1. Introduction

The gender dimension of employment and pay is one of the most closely monitored by labour economists, tourism being expected to have a great impact on it. In fact, there is some evidence that employment in the tourism sector is segmented both horizontally and vertically along a gender line (Sinclair and Stabler, 1997). Although horizontal segmentation may go either way, men or women being more prevalent in some sectors within the tourism industry, vertical segmentation is synonymous to men occupying most top-level positions. Horizontal segmentation is well documented, for example, in the UK, whereas, male workers are the majority (76 percent) in the Transport sector, in Accommodation and Catering women account for 62 percent of total employment (Purcell, 1997). Vertical segmentation has also been documented in different international contexts (Hicks, 1990, Church and Frost, 2004, Kattara, 2005).

The fact that some jobs are disproportionately taken by women – usually referred to as "occupational crowding" – has been explained as the result of differences across occupations in employers' or consumers' taste for discrimination (Neumark, 1996). However, occupational crowding can arise even in the absence of discrimination. In fact, systematic differences in non-wage job characteristics across occupations mirrored by preferences across groups of workers may produce the same result. In this context, differences across jobs in terms of investments in human capital requirements or the speed of depreciation of such investments, as well as societal norms regarding the role of women in the household and the labour market, have been listed as reasons why occupational crowding occurs.

In comparison, we know very little about how crowding, if it exists, translates into wage differences between male and female workers in the tourism sector.

Crowding alone does not necessarily imply a (positive or negative) gender wage gap – if "mixed" jobs exist and mobility between gender-specific and mixed jobs is possible, the prediction is pay equalization. Yet, countless empirical studies indicate that female workers are paid less than similar male workers in similar jobs.[1]

While there is substantial variation in the gender pay gap across countries, the majority of the studies put it at the interval between 10 and 30 percent (Olivetti and Petrongolo, 2005). In

[1] This common finding survives differences in terms of industry coverage, the specification of the wage equation or the type of data being used, although these differences are non-neutral in terms of the magnitude of the gap.

Portugal this gap has been evaluated at a little more than 20 percent (González *et al.*, 2005). No comparable evidence is available specifically for tourism. We know that employment in tourism is mainly unskilled and that women account for a large share of total employment. Yet, very little is known about the magnitude of pay discrimination along a gender line in this industry.

The purpose of this article is to contribute to bridging this gap. Introducing a large matched employer-employee dataset to tourism studies, we also provide a thorough characterization of employment and pay in tourism that serves as the background against which discrimination can be discussed.

2. Data

The estimation of wage equations and, by necessity, the measure of discrimination requires worker-level data. To control for both workers and workplace characteristics, as appropriate, matched employer-employee data is also required. Although hard to come by, this kind of data has become increasingly available in the recent past. Here, we make use of a Portuguese dataset which has the two properties just mentioned.

These data come from the Personnel Records database ("Quadros de Pessoal") which is an administrative dataset run by the Portuguese Ministry of Employment. Response to the questionnaire is mandatory for all private-sector employers with at least one wage-earner. Hence, data are not restricted to the tourism industry but full coverage of the industry is guaranteed.

Information is reported by the employer and refers to the situation as of the end of October. Misreporting is minimised as all the information is subject to public scrutiny (it must be on display for public consultation at the establishment's premises).

Information covers the firm and each and every one of its establishments and each employee. Data include firm and plant characteristics such as industry, location, size (as measured by the size of the workforce and turnover). For each worker data is available on gender, age, date of admission to the firm, level of education, occupation, weekly hours of work, and pay.

In this paper we use the 2000 spell of this dataset. Observations with incomplete or inconsistent data were excluded from the dataset. Individuals in very specific situations, such as owners-managers, farmers and unpaid family workers, were also excluded as they could

contaminate the results. The final full sample contains data on 1,975,397 individuals (1,122,625 males and 852,772 females).

Using information on the establishments' industry we identified each worker as employed in the tourism sector or in non-tourism. A total of 130,226 individuals, or 6.6 percent of the total, were employed in the tourism industry.

The whole sample was further divided by gender. We obtained for sub-samples: male workers in tourism (50,793 observations), female workers in tourism (79,433 observations), male workers in non-tourism (1,071,832 observations) and female workers in non-tourism (773,339 observations). For each worker we retained his or her relevant characteristics as well as the characteristics of the employer (again, industry, location and size).

3. Employment

Employment in the Portuguese tourism industry is characterized by four major features: (i) female employment dominates, (ii) low relative levels of schooling prevail, (iii) the distribution of employment is shifted towards the lower-end of the scale of skills, and (iv) average tenure is short. All these features emerge from Table 1 where key employment indicators for tourism and non-tourism industries in Portugal are presented (all data refer to the year 2000).

If we compare the numbers employed in the tourism industry and elsewhere in the economy we will find that tourism contributes 6.6 percent of all filled positions, 61.0 percent of which are taken up by female employees. This figure is remarkably similar to the one reported by Purcell (1997) for the Accommodation and Catering sector in the UK (62 percent), although it is in sharp contrast with the situation in the rest of the Portuguese economy where women account for no more than 41.9 percent of total employment.[2]

Because the tourism industry has a disparate nature there is the potential for horizontal segmentation of work by gender whereby women would be more present in some sub-sectors of the tourism industry, whereas in other sub-sectors men would be the majority of the workforce. However, the proportion of women employed in each sub-sector of the industry

[2] For a comprehensive survey of employment in the tourism industry from a gender perspective see Sinclair (1997). A large presence of women in tourism employment seems to be the rule rather than the exception even in cases where cultural factors discourage women from taking some jobs that imply direct interaction with tourists (see Scott, 1997).

shows that this is not the case. Although there is some intra-industry variation, we find that women are the majority of the workforce in all sub-sectors, their proportion varying from a maximum of 62.2 percent in Catering to a minimum of 57.6 percent in Accommodation (it is 60.4 percent in the sub-sector of Intermediaries).

Tourism employment is often described as low-skilled and that is also unequivocally the case in Portugal where the low level of schooling is also a hallmark characteristic of employment in this industry. Even by Portuguese standards (which are low, despite recent progress), the structure of employment by educational levels is largely dominated by the low average schooling – 64.6 percent of the individuals employed in tourism have completed no more than six years of education (57.2 percent in the rest of the economy). The skill composition of the workforce mirrors the low average level of educational attainment – 63.5 percent of all employees in tourism are in bottom-level sales or services occupations and some further 24.1 percent are labourers.

Despite their larger numbers, women are underrepresented in top-level occupations – they are 29.9 percent of all top-level executives in the industry and 45.4 percent of the group of professionals or scientists (first panel in Figure 1). However, as we approach the lower-end of the occupational scale the share of female employees grows larger, reaching 70.8 percent in the group of labourers. A pattern such as this signals vertical segmentation.

Although, as mentioned above, horizontal segmentation within tourism is not present, the pattern of vertical segmentation varies somewhat across sub-sectors and particularly so for mid and bottom-level positions (Figure 1). In all sub-sectors the proportion of women at top-level executive or professional positions is less than their share in total employment in the same sub-sector.

On the contrary, women are a large majority (above 70 percent) of workers in labourer positions in both the Accommodation and Catering sectors. At mid-level positions things look more balanced although women are a majority in technical and intermediate managerial positions in Accommodation and in administrative occupations in Catering and in both occupations in the Intermediaries. In this latter sub-sector the occupational structure of employment is, from a gender perspective, somewhat specific as women are a small minority in lower-level positions.

Average tenure, defined as the average duration of the on-going employment relationships is relatively short in tourism (4.2 years for an average of 7.3 years in the economy at large).

Several factors – from the incidence of seasonal work to the average age of firms in the industry – could explain this difference.[3] Yet, to a non-trivial extent, this must necessarily indicate that employer-employee relationships are less stable in this sector than elsewhere in the economy.

The tourism industry emerges as a slightly more intense user of part-time work (7.3 percent of total employment as compared to 6.7 percent in other industries). However, this is the case only for male employment – 7.0 percent of male employees in tourism are part-time workers whereas the corresponding figure for the rest of the economy is only 4.6 percent. The higher incidence of part-time work in tourism may indicate the importance of moonlighting for male employees in this industry. For women the incidence of part-time employment in tourism is significantly lower than elsewhere (7.4 and 9.7 percent, respectively).

4. Pay

4.1. Sample averages

Wages in tourism are relatively low. The average hourly earnings for all workers in tourism is 2.70 Euros, 0.97 Euros below the non-tourism average (3.67 Euros).[4] Because these figures are simple sample averages, they were expected to indicate low pay in the tourism industry where employment is dominated by female and low-skilled workers. Still, after controlling for gender, the average wage in tourism is considerably lower than elsewhere – male wages in tourism are 27.5 percent below the national average (and 21.0 percent below in the case of women's wages) – see the first two columns in Table 2.

As is also true in other industries and labour markets, women's pay in tourism is lower than men's, but the difference between the average hourly earnings of men and women in tourism are cut by half (0.40 Euros versus 0.86 in non-tourism). At this stage we cannot tell whether this smaller difference between pay levels is due to greater group homogeneity or to the fact that discrimination in the tourism labour market is less intense. To do so, it is essential to estimate wage equations for the two groups controlling for as many relevant characteristics of both jobs and workers as possible.

[3] Although seasonality may be a factor, its importance should not be overstated as the data we use refer to an off-peak period (the end of October) at a time when most temporary workers are no longer present.

[4] Hourly earnings were computed dividing total monthly earnings (wages + seniority bonuses + overtime premium + other *premia*) by the total number of hours worked per month.

4.2. Estimation of wage equations for tourism

The observed distributions of wages received by workers employed in the tourism sector and elsewhere in the economy are determined by the individual choices on where in the economy they will search for a job. These choices are, in turn, determined by the individual's expected earnings in each sector (tourism and non-tourism), meaning that self-selection is present and must be accounted for. Following Heckman (1979), the selectivity bias is corrected by simultaneously estimating one wage equation and an industry choice equation.

In the following, we assume that for each sector, labour is rewarded according to the following wage equations:

$$\ln W_{Ti} = V_{Ti}^{'} \gamma_T + \varepsilon_{Ti} \qquad \varepsilon_{Ti} \sim N(0, \sigma_{Ti}^2) \qquad (1A)$$

$$\ln W_{NTi} = V_{NTi}^{'} \gamma_{NT} + \varepsilon_{NTi} \qquad \varepsilon_{NTi} \sim N(0, \sigma_{NTi}^2) \qquad (1B)$$

where, for each T (denoting tourism) and NT (denoting non-tourism), $\ln W_i$ is the hourly wage (in natural log form) received by worker i, V_i are vectors of explanatory variables, γ are vectors of unknown parameters, and ε are disturbance terms.

Individuals choose to work in the tourism sector if the expected wage in that sector exceeds the wage he or she expects to receive in the other sectors. Therefore, the observation mechanism is:

$$\ln W_i = \max(\ln W_{Ti}, \ln W_{NTi}) \qquad (2)$$

Let y^* be the (unobserved) difference between $\ln W_{Ti}$ and $\ln W_{NTi}$ and y its observed counterpart defined as:

$$y_i = \begin{cases} 1 & \text{if } y_i^* > 0 \quad \text{(worker chooses to work in tourism)} \\ 0 & \text{if } y_i^* \leq 0 \quad \text{(worker chooses to work in non - tourism)} \end{cases} \tag{3}$$

where y^* is modelled as

$$y_i^* = z_i' \alpha_i + u_i \qquad u_i \sim N(0, \sigma_u^2) \tag{4}$$

where z_i' is a vector of relevant variables to explain the industry choice, α_i a vector of unknown parameters and u_i a disturbance term. We further assume that $(u_i, \varepsilon_{Ti}, \varepsilon_{NTi})$ follow a trivariate normal distribution and that Corr$[\varepsilon_{Ti}, \varepsilon_{NTi}]$=0.

In this form, the model is a switching regression model, with endogenous switching, which can be estimated by two-step least-squares (see, *e.g.*, Maddala, 1983).

In the selected sample, we have

$$E[\ln W_{Ti} \mid V_i, y_i = 1] = V_i' \gamma_T + \theta_T \lambda_i \tag{5A}$$

$$E[\ln W_{NTi} \mid V_i, y_i = 0] = V_i' \gamma_{NT} + \theta_{NT} \lambda_i \tag{5B}$$

where λ_i in (5A) is obtained as $\dfrac{\phi(z_i'\alpha_i)}{\Phi(z_i'\alpha_i)}$

and in (5B) as $\dfrac{-\phi(z_i'\alpha_i)}{[1 - \Phi(z_i'\alpha_i)]}$

where ϕ and Φ denote the probability density function and the cumulative distribution function of the standardized normal distribution, and $\theta_s = \rho_{u,s}\sigma_s$ with $\rho_{u,s}$ denoting the coefficient of correlation between u and ε_s (s=T, NT).

The model is estimated in two-steps: in step 1, a probit model for y_i is used to estimate the vectors of parameters α; in step 2, W_i is linearly regressed on V_i and $\hat{\lambda}_i$ to estimate vectors γ and coefficients θ.

4.3. Wage profiles

Wage equations for the tourism industry were estimated separately for the sub-sample of male and female workers as well as for the entire sample (henceforth denoted "pooled sample"). In all cases, correction for selectivity bias was implemented using the procedure described in the previous version. Our identifying assumption is that the probability of working in the tourism industry is explained by a vector of worker characteristics that include education (in years), potential labour market experience (age minus years of education minus six), occupation (a set of dummies corresponding to the same six categories as in Table 1; the omitted category is "Top-level executives") and the region the worker lives (dummy variables corresponding to the NUT-II regions in mainland Portugal; the northern-region is omitted).

A probit specification was used. Results are in Table 3. The estimates are consistent with the profile of the average worker employed in tourism described above, the low level of education and low-skill being clearly borne out.[5] In addition, workers located in the Algarve or the Lisbon area have a greater probability of working in tourism.

The estimated wage equations include both worker and workplace characteristics as regressors. The regressor set includes education (six levels), tenure (and its square), experience (and its square), occupation, plant size, region, and part-time status; cross-terms between education and experience and education and tenure are also included. We use the same set of regressors as González *et al.* (2005) who apply the same dataset to the computation of the gender pay gap for the Portuguese economy as a whole.

Estimated wage profiles in tourism, after correcting for selectivity, are standard and exhibit all the usual properties – Figure 2.[6] Average earnings rise with experience (and tenure), earnings

[5] Low average levels of education as well as lower returns to education have also been found by Bañuls and Rodríguez (2005) in the Spanish tourism labour market.

[6] The wage profiles in Figure 5 were obtained by plugging the mean values of the regressors in the pooled sample, and the male and female sub-samples (first panel) into the corresponding estimated wage equations. In the second panel, the mean values of the pooled sample were plugged into all the three estimated equations. All curves are plotted for workers

profiles being concave. Both these features reflect investments in human capital, general as well as specific, and the fact that for the most part such investments are concentrated at the beginning of the worker's career (job).

Wage profiles of men are more concave than they are in the case of women, which is usually due to men investing more in human capital. This investment differential also explains why the age-earnings profiles of men and women fan out.

While the comparison of male and female age-earnings profiles in the first panel of Figure 5 could be clouded by the fact that the two groups have different characteristics, assuming those differences away (second panel in the same Figure) does not change the conclusion - male profiles remain more concave and the two still fan out over time. The remaining wage differential must be attributed to discrimination along a gender line.

5. Discrimination

5.1 Decomposition of the wage gap in Tourism

In this section we analyse the gender wage gap in the tourism industry and decompose it in two parts: one due to differences in the attributes of the individuals and another part that is not explained by those differences and is therefore considered discrimination.

If differences in sample mean wages between groups of individuals (men and women in this case) cannot be explained by differences in the characteristics of individuals in each group, they must be attributed to discrimination (i.e., to group membership). Put differently, "discrimination against females can be said to exist whenever the relative wage of males exceeds the relative wage that would have prevailed if males and females were paid according to the same criteria" (Oaxaca, 1973: 694).

Several methods have been proposed for decomposing the raw wage gap in its two basic components: wage differences due to different observable characteristics and discrimination. All such methods start by estimating Mincerian-type wage equations (Mincer, 1974) for the two groups (male and female workers) augmented to include characteristics of the employer and the workplace.

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with zero- experience and zero-tenure at the origin and it is assumed that the worker does not switch employers throughout.

Consider the equation of the tourism sector (corresponding to (5A), where we have suppressed the T index for simplification), estimated separately for men and women:

$$\ln W_{mi} = V_i' \hat{\gamma}_m + \theta_m \hat{\lambda}_i + \eta_{mi} = X_m \hat{\beta}_m + \eta_{mi} \quad (6)$$

$$\ln W_{fi} = V_i' \hat{\gamma}_f + \theta_f \hat{\lambda}_i + \eta_{fi} = X_f \hat{\beta}_f + \eta_{fi} \quad (7)$$

where η_{mi} and η_{fi} are residual terms, and subscripts *m* and *f* indicate group membership (m if males, f if females).

The average wage gap (in logarithms) between males and females is then given by

$$\overline{\ln W}_m - \overline{\ln W}_f = \overline{X}_m \hat{\beta}_m - \overline{X}_f \hat{\beta}_f \quad (8)$$

which can be re-written as

$$\overline{\ln W}_m - \overline{\ln W}_f = (\overline{X}_m - \overline{X}_f)\beta^* + \overline{X}_m(\hat{\beta}_m - \beta^*) + \overline{X}_f(\beta^* - \hat{\beta}_f) \quad (9)$$

where β^* denotes the estimated non-discriminating wage structure.

Following Neumark (1988), we obtain β^* from the estimation of equations (6) and (7) with a pooled sample of male and female workers. Of all the most used alternative methodologies (Oaxaca, 1973, Blinder, 1973, Cotton, 1988) this is usually considered the one that best captures the wage structure that would prevail if employers were gender-blind (Oaxaca and Ransom, 1994).

The three terms on the right-hand side of equation (9) have a very precise meaning. The first term represents the wage gap that would be observed if groups differed only in their observable attributes. The second term measures the so-called male-advantage due to labour market discrimination computed as the wage males receive above what would be due if their sample characteristics were to be rewarded at the non-discriminating wage structure β^*. The last term measures the female disadvantage due to labour market discrimination which is the equivalent to the ratio between the wage women should receive if the non-discriminating wage structure were enforced and the wage they actually receive.

Oaxaca and Ransom (1994) showed that equation (9) can be re-written as:

$$\overline{\ln W}_m - \overline{\ln W}_f = \ln(Q_{mf}+1) + [\ln(\partial_{m*}+1) + \ln(\partial_{*f}+1)] \quad (10)$$

where

$Q_{mf} = \frac{W_m^*}{W_f^*}$ -1 reflects the wage gap that would exist if there were only differences in attributes between males and females,

$\partial_{m*} = \frac{W_m}{W_m^*} - 1$ expresses the males' wage advantage due to labour market discrimination,

and

$\partial_{*f} = \frac{W_f^*}{W_f} - 1$ expresses the females' wage disadvantage due to discrimination.

W_m and W_f represent the current wages of males and females, respectively, and W_m^* and W_f^* denote the males and female's wages in the absence of discrimination in the labour market.

The sum of the last two terms of (10), $[\ln(\partial_{m*}+1) + \ln(\partial_{*f}+1)]$ are equal to $\ln(D_{mf}+1)$, where D_{mf} is the market discrimination coefficient, the summary measure of the intensity of gender discrimination in the labour market most frequently used in the literature:

$$D_{mf} = \frac{\frac{W_m}{W_f} - \frac{W_m^*}{W_f^*}}{\frac{W_m^*}{W_f^*}}$$

5.2 Results

To measure the extent of gender discrimination in tourism we use the wage equations estimated in section 4 for the sub-samples of male and female workers in tourism. As a benchmark, the corresponding equations for non-tourism industries were also estimated.

As explained, the decomposition of the raw wage gap into its components implies the identification of a non-discriminating wage structure. Following Neumark (1988) we achieve that via the estimation of the same wage equation using a pooled sample of male and female workers in tourism (elsewhere for the benchmark case).

Next, with the different sets of estimates of the β_i vectors and β^* and the sample means of the relevant variables, we implemented the decomposition in equation (9). Results are in Table 4.[7]

Figures in the first row of Table 4 are the log-equivalent to the last column of Table 2 and correspond to the raw wage gap observed in the two sectors considered and in the whole economy. Differences in characteristics between the two groups (male and female workers), the so-called endowment effect, explain 45 percent of the total gap in tourism, a larger share than they are able to explain in the rest of the economy (37 percent). 55 percent of the same gap is not explained by these characteristics and is therefore attributed to discrimination. Further decomposition of the discrimination component of the gap into male advantage and female disadvantage shows that the former is dominant, meaning that the total gap is due more to the fact that men are paid above the non-discriminating wage structure than it is to women being paid less than the same wage structure.

An analysis of the contribution of each characteristic to the proportion of the gap in tourism that is explained by the observables (non-reported) shows that more than 80 percent of the total is due to plant or job characteristics, especially plant size and position on the job ladder. On the worker's side, education at intermediate levels and tenure are the most relevant sources of wage differences.

Labourer positions or working in small and mid-size plants, longer tenures and intermediate levels of education are the characteristics that contribute the most to the explained part of the female wage disadvantage.

The results show that women working in small and mid-size plants, in labourer positions, with longer tenure and with intermediate levels of education are the ones that are contributing the most to the total wage gap in tourism that is explained by observable characteristics.

Comparing tourism and non-tourism yields a very different picture. The coefficient of discrimination in tourism (8.4 percent) is substantially smaller than in non-tourism (15.8 percent). Furthermore, this goes hand-in-hand with less female disadvantage in tourism than in the rest of the economy.

[7] The results of estimations are available from the authors upon request.

6. Conclusion

Even in the context of a low wage labour market, as is the Portuguese labour market, tourism employment stands out as low-skilled. Low wages and weaker employer-employee attachment (as reflected by low average tenure) are also characteristics of employment in this industry. The very high rate of feminization is another such characteristic.

For a tourism industry that encompasses Accommodation, Catering and Intermediaries, we found weak signs of horizontal segmentation of tourism employment along a gender line (although women are somewhat more concentrated in catering activities). On the contrary, vertical segmentation exists and quite markedly. Women are very much underrepresented in top-level occupations, especially in executive positions. This is true in all the three sub-sectors of the industry considered. However, in the Intermediaries sub-sector, women are also underrepresented in bottom-level positions (as labourers or in sales occupations).

For a raw gender pay gap of 0.40 euros per hour and using the Oaxaca-Blinder decomposition of the gender pay gap we were able to explain 45 percent of that gap with differences in characteristics of male and female employees in the industry. The remaining 55 percent of the wage gap remain unexplained and are therefore attributed to discrimination. Because no matching evidence is available for other tourism labour markets, we compare the extent of gender pay discrimination in tourism with what is observed in the rest of the economy. We found that the coefficient of discrimination in tourism stands at nearly half the figures it takes on for the whole of other industries in Portugal.

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Table 1. Workforce characteristics, by sector

	Tourism	Non-tourism	All
Female percentage	61.0	41.9	43.2
Age (average)	35.5	36.4	36.4
Tenure (average, in years)	4.2	7.3	7.1
Part-time employment (% of total)	7.3	6.7	6.8
Occupational structure (%)			
Top-level executives	2.2	2.4	2.4
Professionals or scientists	0.4	4.2	4.0
Technicians or interm. managers	3.4	10.7	10.2
Administrative occupations	6.4	16.5	15.9
Services or sales occupations	63.5	10.9	14.4
Labourers	24.1	55.3	53.2
Educational attainment (%)			
Less than 4 years	2.1	1.9	1.9
4 years	39.4	32.6	33.1
6 years	23.1	22.7	22.8
9 years	19.0	16.9	17.1
12 years	13.8	17.7	17.4
14 years	1.2	2.0	1.9
College degree	1.3	6.2	5.8
Nr. of Observations (workers)	130,226	1,845,171	1,975,397
Nr. of Observations (%)	6.6	93.4	100.0

Table 2 – Wages and gender wage gap

	Males	Females	All	Raw Wage Gap
Tourism	2.95	2.55	2.70	0.40
Non-tourism	4.05	3.21	3.67	0.86
All	4.00	3.14	3.60	0.85

(hourly earnings, in euros)

Table 3. Probit model for the probability of working in Tourism

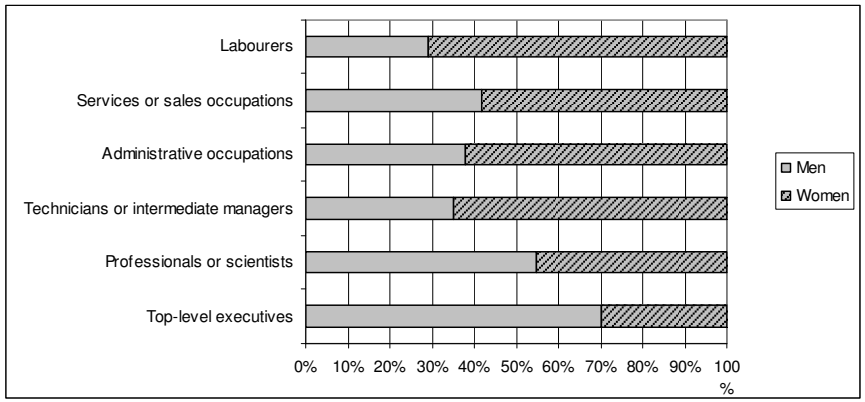
	Pooled	Men	Women
Education	-0.149	-0.147	-0.158
	(0.005)	(0.007)	(0.006)
Experience	0.010	0.003	0.015
	(0.0001)	(0.0002)	(0.0002)
Occupation			
Professionals or Scientists	-0.866	-0.883	-0.917
	(0.019)	(0.025)	(0.031)
Technicians or Intermediate Managers	-0.448	-0.713	-0.186
	(0.011)	(0.015)	(0.031)
Administrative	-0.385	-0.405	-0.457
	(0.011)	(0.014)	(0.019)
Services or Sales	0.942	1.202	0.699
	(0.010)	(0.013)	(0.018)
Labourers	-0.421	-0.704	-0.198
	(0.010)	(0.012)	(0.019)
Region			
Centre	0.023	-0.052	0.092
	(0.005)	(0.009)	(0.007)
Lisbon	0.275	0.267	0.316
	(0.004)	(0.006)	(0.005)
Alentejo	0.274	0.184	0.401
	(0.008)	(0.014)	(0.011)
Algarve	1.077	1.081	1.115
	(0.006)	(0.009)	(0.008)
Constant	-1.857	-1.767	-1.862
	(0.001)	(0.014)	(0.019)
Nr. Observations	1975397	1122625	852772
Log likelihood	-363972.9	-135016.7	-215488.0

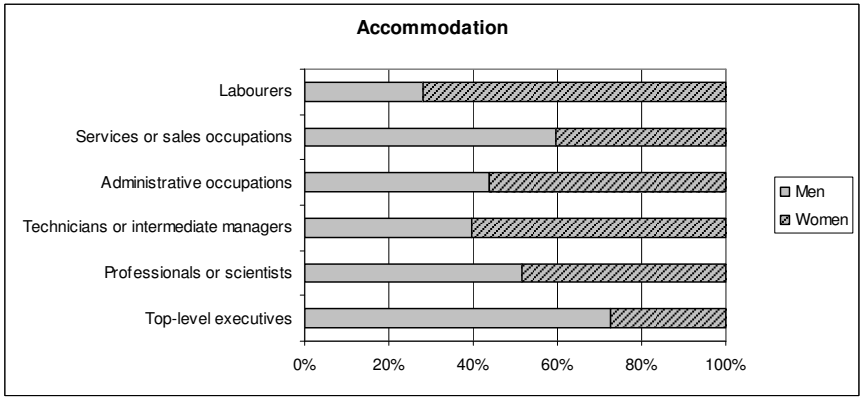
All estimates are significant at 1 percent.

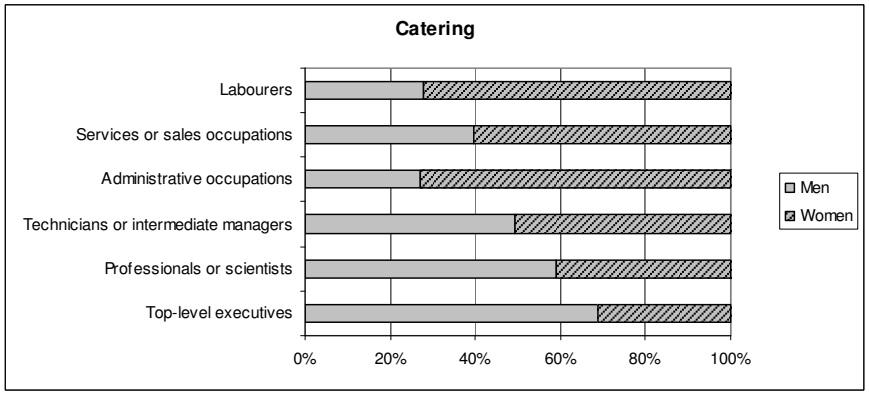
Table 4. Decomposition of the gender pay gap

	Tourism		Non-tourism		Pooled	
Gender pay gap	0.146		0.234		0.241	
Endowment differential	0.065		0.088		0.093	
		45%		37%		39%
Discrimination differential	0.081		0.147		0.148	
		55%		63%		61%
Male advantage	0.063		0.061		0.064	
		77%		42%		43%
Female disadvantage	0.018		0.086		0.084	
		23%		58%		57%
Discrimination coefficient	0.084		0.158		0.159	

Figure 1. Proportion of women employed in the Tourism industry, by occupation







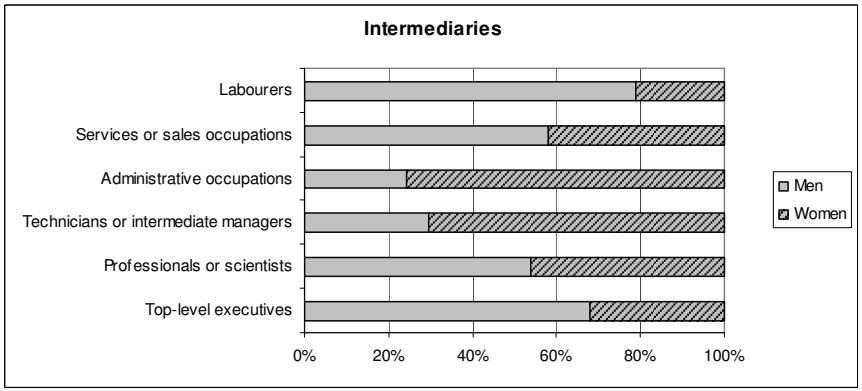
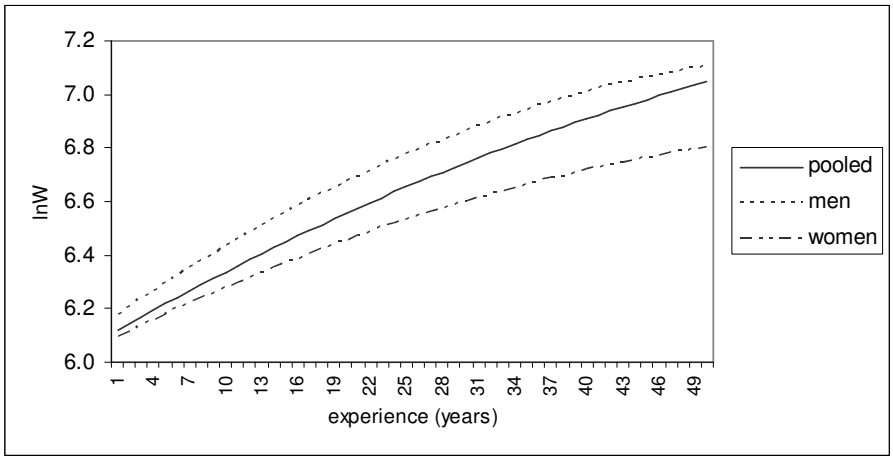
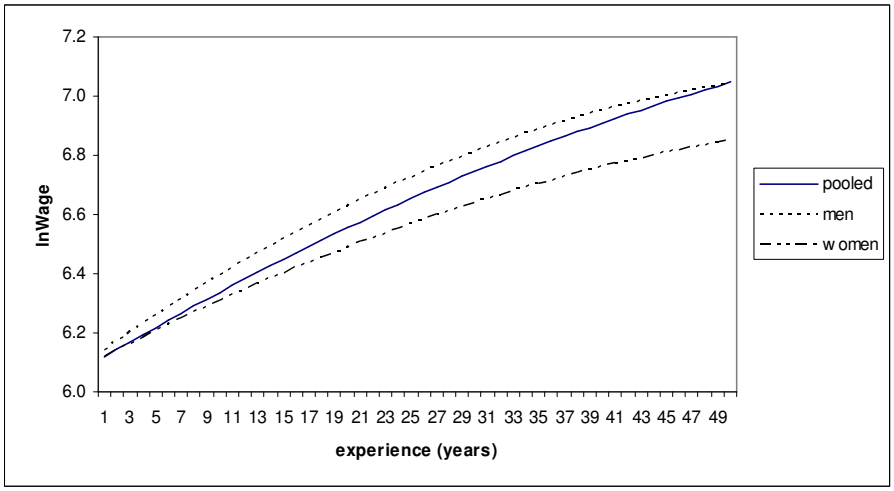


Figure 2. Estimated earnings profiles

(1st panel: group-specific characteristics; 2nd panel: pooled sample characteristics)





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