Universidad Zaragoza
1542

Trabajo Fin de Grado

The Gender Wage Gap in 2014
Analysis through Quantiles Regression Methods and Blinder-Oaxaca Decomposition

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2017

RESUMEN

A pesar de la progresiva incorporación de las mujeres al mercado laboral, existen diferencias salariales entre hombres y mujeres. El objetivo principal de este trabajo es analizar la brecha salarial a lo largo de la distribución a través del método de regresiones cuantílicas, en 4 grupos principales que se han clasificado según su naturaleza y ocupación Además, realizaremos la descomposición de la brecha salarial a través del método Blinder-Oaxaca, con el objetivo de ver la proporción de la brecha que queda explicada por las características observables incluidas en el modelo, y la proporción inexplicada, que puede deberse tanto a factores de discriminación como a la no inclusión de variables no incluidas en la especificación. Nuestro objetivo principal con la descomposición, no solo es observar aumentos/disminuciones en la parte explicada e inexplicada con la introducción de nuevas variables, sino también analizar qué variables son las que presentan un mayor poder explicativo al describir la brecha explicada.

Palabras clave: brecha salarial, discriminación, método de regresión cuantílica, descomposición de Oaxaca-Blinder.

ABSTRACT

Despite the progressive incorporation of women into the labor market, there are wage differentials between men and women. The main objective of this paper is to analyse the wage gap along the distribution through the Quantile Regression Method, in 4 main groups that have been classified according to their nature and occupation. In addition, we will perform the decomposition of the wage gap through the Blinder-Oaxaca method, with the objective of seeing the proportion of the gap that is explained by observable characteristics included in the model, and the unexplained proportion, which may be either because of discrimination or because of not including other variables in the specification. Our main objective with the decomposition, is not only observing increases / decreases in the explained and unexplained parts with the introduction of new variables, but also analysing which variables are those that present the highest explanatory power when describing the explained gap.

Key Words: Wage Gap, Discrimination, Quantile Regression Method, Oaxaca-Blinder Decomposition.

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1. Introduction

From the beginning of the century until the end of the 1960s, the role of women in the labor market has undergone great changes in most Western countries.

World War I (1914-1918) and World War II (1939-1945) led to a considerable decline in male labor force participation, and as a consequence, it led to a progressive increase in female labor force participation, which favored women's access to the labour market. While men enlisted in the armed forces to fight the war, women occupied those jobs that men were leaving free. From this moment on, women began to be considered a productive element.

After the end of the two wars, although the majority of women left their jobs, it is true that the rates of female participation in the market continued to be higher than those already existing before the war.

As a consequence of the two wars, a decrease in the birth rate, an aging population (due to the increase of life expectancy) as well as an increase in the average schooling age, contributed positively to the incorporation of women to the market labor.

Social factors also strongly promoted women´s access to the labour market, such as the right to vote, the impact of feminist campaigns, the awareness of the working conditions that women had to constantly face in that period, changes in habits of consumption that meant greater economic independence of women as well as higher equality among the different members of the family.

On the other hand, it is important to mention that the incorporation of women into the labor market in Spain has not been as massive as in the other European industrialized countries.

In Spain, after the Civil War (1936-1939), the tendency towards the introduction of woman into the labour market did not follow the same pattern as the rest of Western countries mentioned before, as the shortage of male labor force was not supplied by female labor. After the war, with the exception of trade, transport and communications sector, the female labor force in the three major sectors of production (agriculture, industry and services) was lower than before the war began. From 1900 to 1940 the participation of women in the active population declined continuously and it was not until the 1950s that an increase began to be observed.

In Spain, after the Civil War, a series of maternity policies were implemented in order to accelerate population growth, which led women to be more devoted to their children and domestic tasks. The higher birth rates in the post-war years meant a higher penalty in the labor force participation of women.

Another important aspect to be highlighted is the great backwardness in education and the late access of women to secondary and higher education. Although in the period 1940-1970 there was great access to primary education up to the age of 14, the population over the age of 14 who continued to study declined further, and this reduction was always greater for women than for men by the great number of obstacles that they had to face when acceding to average and superior levels of education.

Finally, before the Civil War, women were favored by a large number of policies established during the Republic (1931-1936); the right to vote, the power to manage their own property, testamentary rights, access to the Parliament, etc. They were also guaranteed with a job equally paid between both sexes, prohibiting the dismissal by the fact of getting married.

However, when the war ended and until the end of the sixties, General Franco's regime eliminated all these privileges that the Republic had granted to women. Women were considered as an inferior being and it was not convenient for them to acquire average and higher educational levels; their occupations should be solely and exclusively the personal dedication to her husband and children.

In the last thirty years in Spain and in most Western countries women have experienced a progressive incorporation into the labour market. The drastic reduction of the birth rate, which began to be observed in Spain in the mid-1970s, together with the massive female participation in university studies and the great expansion of the services sector have been some of the factors that have led to a massive incorporation of women into the labour market.

It is not until the decade of the 90 when the ratio of female participation increases considerably; from 19.6% in 1970 to 34.3% in the 1990s. **Figure 1.1** *(See Figure in the Annexe)* shows the evolution of the participation rate of men and women between 1990 and 2014. The graph shows an important difference between the participation rate of both sexes; the male rate always exceeds the female rate but as time passes by, there is a greater convergence between both sexes; the female participation rate increases

considerably from 34% in 1990 to 54% in 2014, while the male participation rate decreases from 70% to 66%.

Figure 1.2 *(See Figure in the Annexe)* shows the evolution of the unemployment rates suffered by both sexes between 1990 and 2014. In the early 1990s, specifically in 1994, unemployment rates for both sexes were very high (34% and 20% for women and men, respectively). It is from this year on, when there is a process of economic boom in the country, which significantly decreases unemployment rates of both sexes until 2007 (12% and 7% for women and men respectively). The explosion of the US housing bubble, as well as the fall of Lehman Brothers, led to a large-scale recession, which put a global interconnected financial system in jeopardy. Although unemployment rates for both sexes increased (26% men 23.7% women and men respectively) during this period of crisis, it is important to mention that there was also a considerable decrease in the differences in unemployment rates between both sexes. On the other hand, from 2013 onwards, this difference between both sexes grew up again.

However, there is still a certain rejection of women in the labor market participation that can be observed; the differences between men and women shown up in the educational system, as well as in employment, vocational training, etc have led to greater occupational segregation and wage inequality among them, perhaps motivated by a certain discrimination against women.

Figure 1.3 *(See Figure in the Annexe)* shows the evolution of the wage gap in different OECD countries between the years 2000-2014.The gender wage gap is the difference between the wages of men and women, expressed as a percentage of the male wage.

It can be seen that the average wage gap in the OECD countries is higher than in Spain (15.4% compared to 11.54% in the OECD and Spain respectively). In addition, it is important to mention that Spain has suffered a considerable reduction from 17.16% to 11.54% between 2002 and 2014, compared to the average reduction produced by the OECD countries, which is much less pronounced. Belgium and Norway are countries that are below the average of the OECD wage gap, and follow a similar trend to Spain. In contrast, countries such as the United Kingdom, Canada, USA, Germany show wage gaps well above the average of the countries as a whole.

Figure 1.4 *(See Figure in the Annexe)* shows the average wage gap in Spain distributed in different quantiles along the wage distribution. It can be seen that part of the

distribution (from the 40th percentile onwards) is above the OECD average, which is around 20% of wage gap. In addition, the wage gap increases considerably in the upper part of the distribution, in those professions where wages are higher. This is all related to the glass ceiling concept, where a woman's career stagnates instead of growing with qualification and experience.

The main objective of this paper is to analyse the wage gap along the distribution (through marginal changes in the wage in each quantile, produced by marginal changes in one of the explained variables), in 4 main groups that have been classified according to their nature and occupation. In addition, we will perform the decomposition of the wage gap through the Blinder-Oaxaca method, with the objective of seeing the proportion of the gap that is explained by observable characteristics included in the model, and the unexplained proportion, which may be due either because of discrimination or because of not including other variables.

The results obtained using the quantile regression method for the different groups of occupations show that the “wage changes” according to the different observable variables specified in the regression, differ by gender and occupation and change along the distribution.

The paper is structured as follows. Section 2 includes the main economic theories, both discriminatory and non-discriminatory ones, which explain wage differentials between both genders. In addition, a part related to new perspectives on gender differences is included, where a small study is made on the importance of the stereotypes (gender roles) or psychological attributes and non-cognitive skills of women as determinants of wage differences between both sexes. Section 3 includes a description of the data from the Salary Structure Survey of 2014, as well as all the variables included in the model. It also provides a description of the sample used for 2014, based on its descriptive statistics. In section 4 we turn to the empirical analysis, where the two methods mentioned above appear to explain the wage differences between both genders: Quantile Regression Method and Blinder-Oaxaca Decomposition. Finally, section 5 presents the conclusions. The Annex includes a detailed description of the occupations (CNO), economic activity (CNAE) as well as explanatory graphs that appear throughout the work, the descriptive statistics table, the results obtained in the different regressions and the 4 models obtained from the Oaxaca-Blinder Decomposition.

2. Theories explaining gender wage differences

In this section, we will analyse both non discriminatory and discriminatory theories on the labour market. The first type of theories, are composed mainly by **The Theory of Human Capital**, and **The Theory of Compensatory Wage Differences**. With regards to discriminatory theories on the labour market, first we will analyse theories of discrimination on the demand side, which are mainly **theories based on tastes** and **theories based on imperfect information**. Then, we will analyse the **overcrowding model**, which explains the discrimination in the labour market related to the concentration of women in certain positions, that implies a direct reduction on their salaries. This is what is known as theories of discrimination based on labour segregation. Finally, we will include some **new perspectives** related to gender differences, based on personal preferences.

2.1 Non discriminatory labour market theories

Non-discriminatory labour market theories can be subdivided into two main types:

-Theory of human capital: where workers are heterogeneous, there are workers with higher performance than others and therefore they receive higher wages.

-Theory of compensatory wage differences: jobs are heterogeneous, since some involve greater risk than others. The person who establishes in a riskier job, will receive higher wages.

Neither of the above two theories discriminate between two totally equal individuals. Salary differences will be marked by the higher qualification or experience of one individual versus another, as well as one type of work that is riskier than another.

2.1.1 Human capital theories

Becker (1985) states that investment in education and training is what leads the individual to have a greater accumulation of human capital and therefore greater productivity. These differences in productivity will determine differences in wages as a consequence of increased investment in training.

According to Becker (1964), human capital is the set of productive capacities that an individual acquires by the accumulation of **general knowledge** (education that the individual receives in the years of schooling) or **specific knowledge** (experience, seniority and training that the individual acquires in the labor market). Specific

knowledge is denominated like this because the knowledge that the worker acquires in a certain position cannot be valued in another.

At this moment the individual, in turn, incurs in **monetary expenses** in education and in an **opportunity cost** to remaining in the inactive economic population instead of entering the labor market. That is, the individual is an investor who invests in human capital to later join the labor market and receive higher wages.

From this theory Becker begins to mention the gender wage differences. Their theory is based on the fact that women often invest less in human capital, since they tend to have a shorter and more discontinuous work stage. Women invest less in human capital, especially in specific, since they spend less time on their working life and more on their family (Palacio and Simón 2002). Therefore, women have lower productivity than men, and consequently lower wages.

Increasing income derived from specific human capital creates a division in the workforce, due to a different allocation of time and investment in human capital between men and women. In addition to all this, coupled with the fact that domestic tasks are more labor intensive than leisure time or other household activities, women spend less energy in each of the hours employed on the job compared to men. As a result, married women have less income per hour than married men with the same human capital.

The theory of human capital has been widely used to analyze wage differentials between men and women. On the contrary, empirical evidence indicates that, although the importance of human capital is key in estimating wages, it is necessary to take into account other factors that influence wages such as occupation, the sector to which the company belongs, as well as the region where you work.

More recent studies show that the attitude of women in the market is increasingly similar to that of men, so the reasons mentioned above are questioned and we tend to think that it is the occupational differences that truly explain the wage differences. These theories are explained later throughout the paper, within the Overcrowding Model or Bergmann's agglutination theory, which explain that occupational differences arise because women find barriers to access specific job positions.

2.2 Discrimination theories on the Labour Market

2.2.1 Theories based on tastes

Becker (1957) proposes a model of discrimination, later developed by Arrow (1973), which is based on the fact that discrimination is a preference or taste for which the entrepreneur is willing to pay. The author argues that, unfortunately, society has prejudices against women, and is willing to reject a series of profits and income in order to exercise their prejudices. Discrimination therefore has a cost and a loss of productive efficiency.

This theory can be extended to three distinct types of discrimination against women; **discrimination on the part of employers, discrimination by other workers,** and **discrimination on the part of consumers themselves.**

Discrimination on the part of employers is based on the idea that they have certain prejudices when working with a number of groups whose characteristics are different from those considered minority (in this case women), as if this supposed some type of subjective cost. That is why businessmen tend not to hire women, that is, they have a preference for hiring men. In the case of hiring women, this group receives lower treatment, that is, a lower wage than men.

If we start from an entrepreneur without prejudices, that is, that considers both men and women equally productive, these will be considered perfect substitutes and therefore will be contracted simultaneously. In this first case, the cost of hiring women will simply be their salary ***(w_M).***

If, on the other hand, the employer has a taste for discrimination, hiring them involves psychic or subjective costs that are reflected in his salary. This is known as the so-called discrimination coefficient ***(d)***, the psychic cost of hiring a woman, and this can be measured in monetary terms.

The employer has no prejudices towards men, therefore, his salary will be ***(w_M).*** On the contrary, the cost of hiring a woman consists of the man's salary, plus the non-economic (subjective) cost of contracting them ***($c = w_W + d$).*** It follows that the employer will only hire women if his salary is lower than that paid by men, and this difference is what is known by the coefficient of discrimination. The wage it receives will be $w_W = w_M - d$. Therefore, this coefficient of discrimination is explained by the wage differences between both sexes ***($d = w_M - w_W$).***

In economic terms, the theory of taste discrimination would be explained as follows. We assume that, given the tastes, the markets work smoothly. The general balance requires full employment for both women and men; the wages of both parties will be adjusted to the market; and the taste for discrimination will be reflected in the wage differences.

The employer negotiates a compensation (salary) based on the benefits ***(π),*** and the number of women and men hired. In addition, the entrepreneur does not maximize profits but a utility function ***U (π, W, M).*** Where ***π*** are the benefits, ***W*** the number of women hired and ***M*** the number of men hired. In addition, it is assumed that there is only one type of work, that the capital is given so the output is ***f (M + W),*** since both types of labour are perfect substitutes. The benefits are given by the following expression:

$$= f(M+W) - w_M H - w_W M$$

$$U = U(f(M+W) - w_M M - w_W W); M, W)$$

$$UMg_{\pi} > 0$$

$$UMg_{M} >= 0$$

$$UMg_{W} < 0$$

Where w_M and w_W are wages paid to members of each group.

As explained above, the discriminated group (women) will only be hired if they are willing to receive a lower wage, since their hiring is a kind of non-monetary psychic cost that results in the discrimination coefficient ***(d_W).*** In other words, the coefficient of discrimination will be equal to the negative of the marginal utility of the benefits with respect to the marginal utility of women.

$$MP_W = w_W + d_W \text{ where } d_W = - UMg_{\pi} / UMg_{W}$$

Provided that the utility of women is negative, the discrimination coefficient dm will be positive.

$MP_M = w_M + d_M$, which will be negative or 0 if the employer has no positive liking for having male workers.

Since the work is assumed to be interchangeable in production, then:

$$MP_M = MP_M = MP_L.$$

$$w_W + d_W = w_M + d_M$$

$$w_M - w_W = d_M - d_W > 0$$

The balance will require that men's wages exceed the wages of women, as expected.

$w_M = w_W + d_W$

$d_W = w_M - w_W$

Thus, the wage differential would be reflected by the excess of wages received by men compared to women (d_W).

Next, we explain the theory of discrimination by tastes graphically, based on a model of supply and demand of women's work. The wage is explained on the ordinate axis, as the wage ratio of women / men's wages (w_W / w_M). In the abscissa axis, the number of women hired in each case is explained. The graph shows how the equilibrium of wages varies according to three possible economic conditions:

(See Graph 2.1 in the Annexe)

1) The first occurs when the relative supply of women workers is small relative to the number of entrepreneurs without prejudice (section ***AB***). This means that in the market both discriminatory and non-discriminatory businessmen co-exist, but having such a small supply of women, these will be entirely contracted by employers without prejudices that compensate equally for both sexes. In this case, the discrimination coefficient is equal to zero. In this first case we start from an entrepreneur without prejudices, that is to say, that considers both men and women equally, these are considered perfect substitutes and are therefore contracted simultaneously. In this first case, the cost of hiring women will simply be their salary (w_M). And therefore, the wages of men and women are equal $(w_W / w_M = 1)$.
2) 2) In the second condition, preferences between men and women remain constant, but there is a change in the supply of women (from ***S1*** to ***S2***), which increases the number of women willing to work. This causes employers with prejudices to be forced to hire women and the demand curve goes from being constant (section ***AB***) to include a decreasing segment (BD). The current demand curve will be the ABD, and the decreasing demand curve implies that the higher the number of women hired the lower the relative wage relative to men. As a consequence, the wage ratio of both sexes falls from ***1*** to w_W / w_M.
3) In the third condition, the relative supply of women remains constant and there is an increase in the prejudices of employers, so that the slope of the ***BD*** segment increases, and becomes the ***BD´*** segment. This causes the demand

curve to shift from ***ABD*** to ***ABD'.*** The demand curve presents a greater slope, which implies that for the same number of women contracted that in case 2, the wages received by these women will be lower. This further reduces the wage ratio of women versus men (from w_W/w_M^1 a w_W/w_M^2), with the number of women hired still lower than in the previous case.

As a result, the higher the discrimination coefficient ***(d_W),*** the lower will be the number of female workers to be hired by the employer (for a case of equal relative supply of women in the labor market, such as case 2 and 3).

In the event that the employer does not discriminate, his coefficient of discrimination will be zero and will be indifferent when hiring a man or a woman. If, on the other hand, the discriminating individual has a coefficient of discrimination equal to infinity, it would always be against hiring women regardless of their salary.

Discrimination on the part of workers is then analyzed. Some men may act in a discriminatory manner towards women, that is, they act as if there were non-pecuniary costs of working with women (discrimination coefficient). For this reason, discriminating men demand higher wages simply by working with women ***(w_M + de).*** As a solution, the employer can organize different work groups in which men are not in contact with women, thus avoid paying the premium to men for making them work with women. If all entrepreneurs acted in the same way, there would be no wage differences, but if there was segregation at work, which is another type of discrimination.

The third approach is **consumer taste discrimination,** where consumers are associated with non - pecuniary costs related to the acquisition of a good produced by a woman, equal to their discrimination coefficient. This means that consumers who buy products offered by a woman will pay a higher price ***(p + de)*** to those consumers who receive products sold by a man, who will only pay p. Therefore, women will sell less products and services and will have to pay a salary according to their productivity ***(p-de).***

This model of discrimination based on tastes of the employer is consistent with the inequalities between men and women that occur in the labor market. Under this model, there could be discrimination against men and women with the same qualification, because employers will hire only women who accept a salary discount in their compensation. The size of wage differentials depends on the intensity of discrimination on the part of the employer (demand curve), as well as on the supply of women in the labor market (supply curve). If there were a large proportion of employers without

prejudice, or equivalently, there was a low supply of women in the labor market, then it would be possible that there were no gender differences in wages.

From this discrimination it can be concluded that men are protected from the competence of women; they earn by earning a higher salary for the mere fact of being men. On the contrary, women lose, since they charge a lower salary (the coefficient of discrimination).

On the other hand, the discriminating entrepreneurs will be harmed by a series of costs that have to face, unlike those entrepreneurs who do not discriminate. What follows from this model is that the monetary benefits will depend on the degree of discrimination, so that companies that discriminate will see their benefits reduced.

Those companies that do not discriminate can have a greater market share, as a result of the lower costs they are forced to bear as well as the inefficiency of the companies that discriminate. In that market where the products are very competitive, only those companies with competitive prices (those that do not discriminate), will survive in the long term. On the contrary, those who discriminate will incur costs higher than their established price, which will make it impossible for you to survive in the long run. Therefore, this theory considers that the very functioning of the competitive market will solve the problem of discrimination on its own.

This model has received several criticisms because the market by itself is not able to eliminate the discriminatory prejudices of some entrepreneurs. For this reason, other authors have developed theories that explain the wage differences due to sex.

2.2.2 Statistical discrimination models

The statistical discrimination models were developed mainly by Phelps (1972) Aigner and Cain (1977). It is based on the idea that the entrepreneurs take as a model the average general characteristics of a group and not the individual ones when it comes to selecting. The companies take as subjective selection criteria such as age, sex, or race, which can lead to discriminatory results.

Information from an average group is relatively complete, and entrepreneurs prefer to hire based on the information of the average group better than to assume additional costs for the search for more detailed information of a particular individual.

Phelps modeled his statistical discrimination as follows; entrepreneurs base their decisions on a skill indicator and measure the true skill represented by q. Phelps estimates that a single test or test is necessary to estimate the value of this indicator, and is denoted by the following expression:

$$\boldsymbol{y = q + u}$$

Where u is the normally distributed error term, with zero mean and constant variance. *q* is normally distributed and has mean α and constant variance.

Entrepreneurs can observe the variable and because it gives them information about the unobservable variable *q.* Their real interest is about the estimated or predicted value of *q*, given *y.*

$$\hat{q} = E(q|y) = (1 - \gamma)\alpha + \gamma y$$

Where y is the precision of the signal or test that can take values between 0 and 1. If it takes value 0, the precision of the signal is zero. On the contrary, if it takes value 1 the signal accuracy is maximum.

Phelps decomposes the previous division into a group effect term (first part of the equation) and an individual effect term (second part of the equation).

Subsequently, Phelps considers two distinct groups of workers (men and women), with possible different means $\boldsymbol{\alpha^H}$ and $\boldsymbol{\alpha^M}$ and possible different variances of $\boldsymbol{q}$ and $\boldsymbol{u}$. The entrepreneur assumes to pay a certain amount based on the estimated skill (q estimated), according to the concrete information of each collective.

The implications of the Phelps model (1973) are based on differences in mean abilities, differences in mean abilities between men and women, as well as differences in the variability of skill estimates based on whether they are male or female. The implications of the model are based on these three assumptions:

- The variances of both errors are equal $\boldsymbol{Var\ (u^M) = Var\ (u^W)}$
- The variance of men's skill estimates are lower than those of women $\boldsymbol{Var\ (q^M) < Var\ (q^W)}$
- The average skill of women <the average ability of men.

From this third assumption, a case of discrimination against women is being taken into account, as it is being attributed lower levels of education compared to men. It is

disconcerting that Phelps assumes a difference in average skills between men and women, since discrimination is defined as the difference in wages that is unrelated to a difference and skills.

The other two assumptions of the Phelps model state that the slope, y, of the regression of y in q is more pronounced for women than for men, this implies that the test or signal is a more reliable predictor for women than for men.

(See Graph 2.2 in the Annexe)

This model estimates that, for a high signal, female candidates excel above men, for a same high prediction level. Meanwhile, for a low signal, male candidates excel more than women for that same level.

One implication of the hypothesis that the predictor of women is more reliable than that of men ***($y_W > y_M$)*** is that the difference in wages between men and women, which in turn reflects a difference in estimated q, goes narrowing until negative, as the predictor increases.

On the other hand, the empirical evidence leads us to the opposite result. If the predictor is measured by completed years of schooling or years of experience (two of the most commonly used indicators of productivity), the empirical relationship between the predictor and the income shows that women are below men as the predictor increases. This model that reflects the evidence and assumes that the predictor is less reliable for men than for women is reflected in the following figure. The issue here is that discrimination in this second model is not much more evident than in the first, since each group is being remunerated according to its expected productivity. The only difference compared to the first model is that men with and above the average are paid at higher wages than women and vice versa.

Unlike the previous model, the entrepreneur does not have a taste for discrimination, but his selection is based on a number of variables such as age, sex and race. All these variables serve as estimators of production. For example, young men may be attributed greater physical strength and thus production. Or newly married women of childbearing age may be related to higher short-term job dropout rates than men. That is, it is assumed that women at this stage leave their jobs, so that they are discriminated against those who are not going to do it, with the consequent errors of estimation, and therefore costs.

Another difference with the previous model is that the entrepreneur is going to be benefited and not harmed, because if you minimize your hiring costs maximize your profits. The theory of statistical discrimination puts the entrepreneurs as winners, while the theory of taste taps losers. In addition, just as the long-term survival of tastes discrimination is not possible, statistical discrimination can persist over the years, as companies are cutting costs and maximizing profits.

In this model, the entrepreneurs start from the average characteristics of the group and not from the individual ones, since the latter represent a source of imperfect information that entails additional costs. The failure of this model is that it will discriminate individuals that are far from the average of the group to which they belong. This leads them to a situation of uncertainty because the person they choose may be below or above the characteristics they request.

This uncertainty is explained by the rejection received by newly married and child-bearing women, compared to men with the same qualification levels. If the employer bases his choice on statistical discrimination by hiring only men, he will make more mistakes, since he will reach a point where he only hires low-skilled men instead of hiring women with higher levels of human capital, hiring fewer productive. Those entrepreneurs who are able to make fewer mistakes will incur lower production costs and thus increase their market share.

2.2.3 Overcrowding model

(See Graph 2.3 in the Annexe)

The Bergman (1974) model of concentration, or also called the crowding model, is that groups of women tend to focus on particular occupations, resulting in agglutination that affects wages.

The model starts from the concepts of supply and demand, to explain the consequences of limiting the number of occupations for women. This supposes the increase of the supply of women for a very small number of occupations, which implies a reduction of their salary. On the contrary, the relative supply of men is much lower than that of women, compared to the number of available occupations, which gives rise to wage differentials between men and women.

Most jobs are differentiated between typically male or female, leading to occupational segregation. As a result, women occupy a very small number of occupations.

In this model it is concluded that the occupational concentration causes women to receive lower wages, the higher men and therefore there is a loss of internal production.

This occupational segregation at work by employers is based on the fact that the productivities of workers come from joint efforts in group. If relations between workers are not good, productivity will decrease. This theory is based on the idea that, according to McConnel et al. (2007), some men are prejudiced by working with women or receiving orders from them, so that employers decide to segregate both groups with the aim of maintaining productivities. Added to this is the preconceived idea of some entrepreneurs about the capacity and productivity of women, which is usually undervalued.

This model can be deported from the following assumptions:

- The working population consists of the same number of women as men.
- There are three different occupations in the labor market, X, Y, Z.
- Both men and women are equally productive in all three positions.
- Product markets are competitive.

As a consequence of occupational segregation, the job Z is a female job while XY occupations are male jobs. This supposes an exclusion of the women to the positions X and Y of work.

This model is based on the fact that mobility barriers exist for women to move to the XY positions, since they are typically male. On the contrary, men do not present any mobility barriers, but do not move because they would receive lower wages than other occupations.

Thus, half of the population (men) is equally distributed between the two X and Y jobs, and the other half (women) is concentrated in the Z posts. distribution would not be equitable, there would be a wage difference in such a way that individuals with lower wages would move to the other place with higher wages until they were evenly matched.

On the other hand, women cannot change jobs easily because of the existence of discrimination. The concentration of women in the same job makes their wages lower.

Less occupational segregation would have the immediate effect of displacing women to occupations X and Y, as they include higher wages. As a consequence, the number of

workers in X and Y increases and the wage is reduced until it is equal in all three occupations.

The model shows that regardless of the reason for segregation, the immediate consequence is a wage gap between the sexes. This will happen whenever demand in the female sector is lower than the supply of available female workers. This model states that while everything else is equal, wages tend to be lower in typically female than male occupations, due to the concentration of these in certain sectors.

The immediate consequences for society are that there is an uneven distribution in terms of jobs and salaries, and this implies a loss of immediate economic efficiency.

On the contrary, this model does not explain why many women tend to work in women's sectors. It may be because both men and women have different talents or preferences for different occupations, or because employers, workers or consumers discriminate in some occupations.

2.3 New perspectives over gender differences: psychological attributes and non cognitive skills

According to evidence from various studies, it appears that psychological factors do not account for a large part of the unexplained wage gap, only 17% of it (Nyhus and Pous - 2011). In addition they also concluded that the psychological traits of men were more rewarded than those of women. The male coefficients affected by 28% to the wage gap and the female ones only 2.5% (Monning and Swafford).

Men have a higher valuation of money, have greater self-esteem, are less risk-averse, more competitive, and more self-assured. These attributes can contribute to the productivity increase of a worker and involve the acceptance of difficult environments in exchange for higher wages.

There are cognitive factors that favor women such as kindness, extroversion, scrupulosity, openness to experience and ability to work. A study from the year 2014 highlights the competitive advantage of women in personal skills and the increasing importance of these factors in wages.

On the other hand, there are authors who give a significant importance to the variable occupation to explain the wage gap, where it can account for 34% of the gap. Hence occupation provides much more importance in the wage gap than psychological factors.

The occupation of women is determined by the different roles attributed to them and by a greater propensity of men to study scientific careers. Spain is the third country with the greatest gender gap in mathematics and the eighth in science among all OECD countries, according to data published in 2016. This can be caused by the different roles that society attributes to women and because we think that boys are more endowed with scientific careers than girls, a prejudice that moves directly to the educational system. The challenge is to change it, because both sexes are equally empowered.

With regard to competition, there are experiments that show that men are on average inclined to be more competitive than women. The gender difference in attitudes towards competition could be a disadvantage for women in the labor market by reducing their salary.

The doctor in Economics Nagore Iriberri analyses in her studies the gender differences in competitive environments and concludes that these situations affect men and women differently. According to empirical evidence when people are paid for what they have done there are no gender differences, but when competitive pressure appears men respond better. In conclusion, women react worse with pressure than men, it would be interesting to study if this is because of lack of confidence on their personal traits. Individual compensation favors people with masculine characteristics, on the contrary, there are no gender differences in jobs where compensations are given to teams. Iriberri has found that girls' educational advantage disappears when they face competitive pressure tests.

The way to respond to the competitive pressure of men and women has to do much with the culture in which they have developed. According to a study in developed countries and with patriarchal origin, men have twice the competitiveness index than women. However, in societies of matriarchal origin such as the Khasi in India, women are more competitive than men, that is, it is a question of social roles and education.

Another aspect to emphasize is that women are less likely to negotiate wages than men. However, when it is established that the wage is negotiable this gender difference disappears and even reverses. This shows that women find it less acceptable to negotiate

a salary, but when they are told that salary´s negotiation is an accepted issue, the gender gap disappears, that is, it is a sociocultural and learned issue.

Women have a greater risk aversion than men and this is another distinguishing feature among them. Women's risk aversion decreases their income and may affect some occupations or performance. On the contrary, some studies have found that in professional and managerial professions, risk aversion is matched between men and women. That is to say, can be influenced by the cultural, professional and educational environment in which they develop.

We can conclude that although there are psychological factors that contribute to the gender wage gap, there are others such as occupation that are much more important than psychological ones. In order to reduce this gap, it is very important to change a series of social and educational prejudices so that women study more scientific and technical careers that allow them to approach better paid occupations.

3. Description of the Data and Variables used

3.1 Survey of Salary Structure and Variables used

The data used for the elaboration of the following econometric models comes from the Salary Structure Survey for the year 2014. The Salary Structure Survey is an investigation into the structure and distribution of salaries of four-year periodicity, which is carried out in all Member States of the European Union.

The main innovation that contributes to other surveys on this subject is that the wages are collected in the questionnaire individually and, along with them, a large number of variables related to the worker. Thanks to this, it is possible to establish relationships between salary and some variables that can contribute to determine their amount such as the level of studies achieved, seniority, type of contract or occupation, among others.

In addition, the salary level is related to some other variables that collectively affect the workers of an establishment or a company: the market to which the company destines its production, the existence or not of a collective agreement and the scope thereof, in your case, or whether the property is public or private.

Two reference periods are distinguished in the survey. Most of the questions refer to the month of October of the reference year. This month has the advantage of being considered "normal" in all EU countries, in the sense that it is little affected by seasonal

variations or payments due more than a month, such as Christmas payments. Other data refer to the year as a whole. This way you get the monthly and annual profits.

The results obtained in the EES are published on a provisional basis 18 months behind the reference year, at the same time as they are transmitted to Eurostat. Once the validation process between INE and Eurostat is completed, the results are published in a definitive way.

The geographical area covers the entire national territory, with results disaggregated by Autonomous Communities. The population is comprised of all employed workers who provide their services in contribution centers, regardless of their size, and have been registered in Social Security throughout the month of October of the reference year. Excluded are presidents, members of boards of directors and, in general, all those personnel whose remuneration is not mainly in the form of salary, but by commissions or benefits.

In terms of sector coverage, research centers are listed whose economic activity falls within the three major sectors: Industry, Construction and Services. The sector coverage has increased with each survey, so you have to go to the specific section of each year to know exactly the economic activities included.

Currently, agricultural, livestock and fishing activities are excluded from the survey; partially, compulsory Public Administration, Defense and Social Security (public employees belonging to the General Social Security System are included); domestic staff and extraterritorial agencies.

Wage concepts

In this paper, the **annual net hourly wage** is used to analyze workers with different days on equal terms. Said salary is estimated as the annual net profit divided between the agreed annual day.

The **gross salary** gain on which the net salary has been estimated includes the total of salary payments in cash and salaries in kind, as well as extraordinary bonuses. **Gross accruals** are calculated, that is, before deductions have been made for social security contributions paid by the employee or deductions on account of Personal Income Tax (IRPF).

However, the arrears that correspond to previous years are not included, nor do other non-wage perceptions, such as subsistence allowances, allowances or travel expenses, are included.

The IRPF deductions and the Social Security contributions paid by the worker have also been requested to obtain the net profit available in the reference month, which is the one used when making the models.

On the other hand, **the working time (agreed annual day)** is collected as follows; the concept internationally accepted as optimal is that of hours actually worked, which is formed by normal working hours (those that make up the worker's usual working day) plus overtime minus hours not worked for many different reasons.

The net hourly wage gain, which has been used to analyze the workers, has been calculated as follows:

*(Gross annual salary-IRPF / month * 12-social security contributions / month * 12) / Annual Day Agreed.*

For an adequate interpretation of the profits must be taken into account that the second or third jobs of the same employee are not collected, but what has won in the company in which he has been selected.

In addition, in order to obtain comparable annual earnings, the salary of those workers who did not remain in the work center all year have been adjusted. For this they have been assigned an annual salary equivalent to that which they would have received from having been working throughout the year under the same conditions.

The independent variables to explain wages are divided into two main categories: those related to the worker and those related to the company itself.

Variables related to the worker

There are, in turn, three different subdivisions:

Variables referring to the **Human Capital** of the worker, such as seniority in the company or the studies acquired. These types of variables are included with the objective of analyzing the capacities of the workers (endowments of human capital), which are acquired through education and experience.

In relation to **the level of studies** (generic human capital), the 2014 National Education Classification (CNED-2014) was used in the following categories:

- Less than primary
- Primary education
- First stage of secondary education
- Second stage of secondary education
- Higher education and similar training courses
- University and similar graduates
- Graduates and similar, and university doctors

In addition, the database includes information regarding **the seniority of the worker** in the corresponding company, which can be interpreted as the specific education or human capital that the employee incorporates himself in the course he carries within the company.

Variables referring to the characteristics of the worker, such as the sex, age, nationality of the employee, as well as the territorial unit to which he belongs.

This type of variables is included in order to analyze or to distinguish the individuals themselves from each other, differentiating between men and women with the objective of capturing the possible wage gap between both sexes.

Individuals are also distinguished according to the **age range** in which they are found. The age variable is grouped in the survey in 6 different groups:

- 1st Group = <19 years
- 2nd group = 20-29 years
- 3rd Group = 30-39 years
- 4th Group = 40-49 years
- 5th Group = 50-59 years
- 6th Group = 59 years

On the other hand, the **Nationality of the worker** is also a key factor in determining the characteristics of the worker, and distinguishes between "Spanish" or "Rest of the World".

The database also includes **the territorial unit to which the individual belongs**, under the name of NUTS1, where the C.C.A.A. as follows:

- 1st Group = NORTHWEST: Galicia, Principality of Asturias and Cantabria.
- 2nd Group = NORTHWEST: Basque Country, Navarre, La Rioja and Aragon
- 3rd Group = COMMUNITY OF MADRID: Community of Madrid
- 4th Group = CENTER: Castilla y León, Castilla-La Mancha and Extremadura
- 5th Group = EAST: Catalonia, Valencian Community and Balearic Islands
- 6th Group = SUR: Andalusia, Murcia, Ceuta and Melilla
- 7º Group = CANARY ISLANDS: Canary Islands.

This variable is important to include within the study to place the individual geographically within the country.

Variables related to the job, such as occupation, economic activity, worker's responsibility within the company, type of work day, duration of contract, collective agreement (regulation). This type of variables is included in order to analyze the characteristics of the employment of individuals.

In relation to the **occupation,** the National Classification of Occupations 1994 (CNO-94) has been used in the surveys of 1995, 2002 and 2006. Since 2010 the National Classification of Occupations 2011 (CNO-11) has been used. By 2014, these are divided into 16 categories, corresponding to the main groups of the CNO-11. The different occupational groups are grouped into four categories according to their nature and the type of tasks that are carried out, distinguishing between skilled and unqualified occupations, and manual and non-manual, in order to estimate wage gaps in each one of them. these four occupation groups. In total there are 9 groups, which are broken down into a total of 16 categories listed in the Annex. *(See Annex for Table 3.1 CNO and Table 3.3 Occupational Classification into four big groups)*

It also incorporates information regarding the **Economic Activity** in which the position of the employee's job is located. There are 27 categories, which are detailed in the Annex ((*See Annex for Table 3.2 CNAE).*

Responsibility in the organization and supervision of other workers (studied since 2002) aims to know if the worker has or not supervising the work of other workers, thus complements the information of the variable Occupation. Not all employees included in the large group 1 of the CNO have supervisory duties (they can dedicate themselves to the design, planning or organization of the main lines of operation of the company

without having direct personnel). Conversely, many employees whose occupation belongs to group 2 or 3 (professionals and technicians) have such jobs.

Two types of **working day**, full time and part time are considered. Under the current labor legislation, a part-time worker is considered to be anyone whose normal working day is less than the working day of a comparable full-time worker. In turn, he is defined as a full-time employee of the same company and work center, with the same type of employment contract and performing the same or similar work. In practice, the type of work day is included in the work contract and that is what has been requested from the informants.

According to the EU Regulation, we can distinguish three general types of **employment contracts:** indefinite, temporary or fixed-term contracts and apprenticeship contracts. Although each country has its own labor regulations and the Spanish case is especially complex, these three large groups are common in all EU states.

As of 2006, workers with a learning contract were no longer included as they were part of a group of particular characteristics within the labor market, with only contracts of indefinite duration and fixed duration being considered.

Another aspect to take into account is the **form of regulation of labor relations**, that is, the collective agreement by which wages, work schedules, etc. are established. This variable is grouped into five different categories:

1) Sector State
2) Lower Sector Sectorial (autonomous, provincial, regional ..)
3) Company or group of companies
4) Work center
5) Other forms of regulation

Variables related to the company

In addition to the above characteristics, which are directly associated with each worker, information on variables related to the Social Security contribution center has also been collected, such as the **main market** (where local, regional, national, the EU or the world), the **type of property** (public or private) and the **size of the company**, since they are directly related to the wages received by workers.

1) INCLUDES ALL GROUPS
2) FROM 1 TO 49 WORKERS
3) FROM 50 TO 199 WORKERS
4) 200 AND MORE WORKERS
5) INCLUDES GROUPS 2 AND 3

3.2 Description of the sample

(See Annex for Table 3.4 Descriptive Statistics).

The sample size of the Salary Structure Survey of 2014 is 209219 observations, of which 57% correspond to men and 43% to women. Table X shows the descriptive statistics of the main variables used in the present study.

It should be noted that 62% of the men and 65% of the women in the sample have an age between 30-49 years, and 22% and 20% between 50-59 respectively. On the other hand, approximately 94% of both men and women have Spanish nationality.

In addition, men have older years accumulated in the company than women. One possible cause of the latter occurs when women interrupt their working life for the purpose of being mothers or simply for the care of their own children. In this way, women reduce their professional career and with them, the years of seniority accumulated in the company in question.

The most common type of day in the sample of data available is the full day (90% for men and 72% for women), as well as the indefinite duration of the contract (80% for men and 79% for the women).

On the other hand, it is important to locate the individuals in the different territorial units of the country, and it should be noted that 26.5% of men are in the eastern part of Spain (NUTS5), compared to 28.2% women. This implies that a large part of the respondents in the database of the present study are located in Autonomous Communities such as Catalonia, the Valencian Community or the Balearic Islands. 15% of men and 18% of women are in the Community of Madrid (NUTS3), while 16% and 15% respectively are located in the Northwest of Spain (NUTS2) (Basque Country, Navarra, La Rioja and Aragón)

On the other hand, men tend to concentrate on occupations where technicians, support professionals (18%), scientific and intellectual professionals (11%) and skilled workers in the manufacturing industry (14%) tend to be employed. Women are also concentrated in jobs where they work as technicians, support professionals (17%), scientific and intellectual professionals (11%), office workers who do not serve the public (13%), or as unskilled workers in the services sector (10%).

In relation to Economic Activity, men specialize in activities related to the manufacturing industry in general (30%), especially in the food, beverage, tobacco and textile industry, as well as the vehicle manufacturing industry. Another area of specialization for men is construction of buildings, civil engineering etc. (9.3%), administrative and auxiliary services (7.2%), wholesale and retail trade (7%), transport and storage (6.6%), professional, scientific and technical activities (6.15%). On the contrary, women specialize mainly in health and social services activities (14.5%), administrative activities and auxiliary services (11.1%), activities related to wholesale and retail trade (10.3%), professional, scientific and technical activities (9.2%), activities related to public administration and defense (5.3%), education, information and communication and hospitality.

Regarding the variable studies, 63% of men have primary and secondary education (secondary I and secondary II), while women with such studies represent 56%. It is also important to note that there are more women with university and doctoral studies, 35% compared to 25%. Thus, data show that women have higher levels of education than men.

On the other hand, 37% of men and 34% of women are covered by a lower sectoral collective agreement, while the percentage of men and women covered by the other agreements is lower.

Another quite significant difference in the table is related to the variable "responsibility within the organization". In general, a higher percentage of men perform supervision within the company compared to the number of women (19% vs. 12%). The latter may be related to the concept of "glass ceiling", it is stuck inside a work structure, trade or sector, instead of growing because of its qualification or experience.

Finally, it is observed that most of the individuals, both men and women, work in companies within the private sector (87% against 13% in men, and 80% as opposed to

20% in women). The production of the companies surveyed is mainly aimed at a local / regional and national labor market, to the detriment of European and national markets.

4. EMPIRICAL ANALYSIS

4.1 Quantile Regression Method

In this first econometric model, we will perform a study on the differences between men and women in marginal changes in wages for each of the four occupations established and throughout the distribution. For this we will use the method of quantile regressions.

Kendall (1939) was one of the firsts to point out the quantile term of a distribution, ($0 < \Theta < 1$), defined as "the value of variable X_Θ which marks a cut, so that a "Θ" of the population is less than or equal to X_Θ". For example, the quantile of order 0.25 would leave 25% of values below and the quantile of order 0.50 corresponds to the median of the distribution.

The quantile regression method goes on to say that the marginal change in the wage of the conditioned quantile, caused by a marginal change in one of the explanatory variables included in the vector Xi, is determined by the estimated coefficient β_Θ. In this case, the absolute deviations are minimized by weighing them with different weights, that is, to each deviation corresponding to the observation and given more or less weight according to the quantile whose regression line is being estimated. The advantage of this method is that it allows the effect of the different explanatory variables to vary according to the position occupied by workers on the pay scale.

The regressions were estimated at different points of the distribution ($\Theta = 10$, $\Theta = 25$, $\Theta = 50$, $\Theta = 75$, $\Theta = 90$), as well as OLS for each of the four occupation groups described above, men and women with the objective of analysing how the wage gap along the distribution corresponds to the different occupations.

Next, the most characteristic results obtained in each occupation group will be analysed *(See Annexe for Tables 4.1-4.4).*

Non-Manual and Highly Qualified Occupations

The total number of observations in this group of occupations is 80524, of which 55% are men and 45% are women. Therefore, it is an occupation where the proportion of men and women is very evenly distributed.

It should be noted that the majority of men and women are between the ages 30-59 (86% of men and 85% of women). Both men and women experience very positive and significant coefficients on wages in all age groups. It is also observed that the coefficients increase progressively as we move to higher **age ranges**. These coefficients are higher for women than for men, throughout the distribution and in any age range, although the differences between both sexes decrease as we move to more advanced age levels. This implies that the age variable affects more the wages of women than of men, that is, in this first occupation, the age variable explains a higher proportion of wages in the case of women than men, the rest being of the identical variables for each of the sexes. We can say that in the particular case of Spain, the salaries are closely linked to the age due to the inflexibility typical of the Spanish labor market that grants a series of advantages to workers of advanced ages.

As already mentioned, differences in coefficients between men and women decrease along the age ranges, but it is also important to mention that these differences in estimates remain fairly high and constant at the lower percentiles (in particular, in the 10th percentile), however, in the 25th and 75th percentiles, the differences in coefficients between the sexes decrease as we increase the age levels considerably, with a level of significance of 5%. As a conclusion we can say that, when explaining wage differentials, age is more relevant in the lower percentiles of the distribution, since not only higher coefficients are presented for both sexes, but the differences between both groups are also greater, always in favor of women.

Also important are the differences between men and women in relation to the **educational level.** It should be noted that the majority of men and women are in the levels of graduate studies, graduates and university doctors (6 and 7). In fact, a greater proportion of women have achieved these two levels of studies (70% compared to 60% of men). The coefficients related to this variable along the distribution are always positive in favor of the men, and their respective coefficients increase for both sexes as we move to higher levels of education. The differences between the two sexes remain fairly constant across the different levels of education, are almost nil at the secondary level (3), and slightly increase in the studies of graduates, undergraduate and university doctors (6 and 7), all with a level of significance of 5%.

If we do a percentile analysis, it is important to mention that the major differences between men and women occur in the educational levels of graduates, graduates and

university doctors (6 and 7) in the 10th and 25th percentiles. Men experience stronger increases in wages than women in the lower percentiles of the distribution. These differences are almost insignificant as we move along the distribution (at the 50th and 75th percentiles). At the 90th percentile level licensed educational, the opposite occurs, the estimates of men are again quite higher than those of women. This can be explained by the phenomenon known as glass ceiling, which is based on the fact that highly skilled women workers are exposed to a series of invisible barriers that prevent them from reaching the highest hierarchical levels in the business world, regardless of their achievements and merits.

In relation to **the sector or activity** in which they are located, it is important to mention that men are concentrated in manufacturing (23%), professional and technical (13%), information and communication (13%), financial activity (8%), and construction (6%). On the other hand, a good part of the women also concentrates in the manufacturing industry (12%), sanitary activity (16%), education (10%), professional and technical activity (14%), financial activity , and information and communication (9%). It is important to mention that although the coefficients related to the activity are highly significant, they are somewhat smaller than those previously described, which means that the sector variable explains a lower proportion of the wage, when compared with the variables age and education.

Both men and women experience very positive and significant impacts on wages in certain activities related to the manufacturing industry. Although both positive, the general trend is for men to have higher coefficients than women in most manufacturing activities.

In energy and water supply activities, as well as those related to construction, transport and storage, financial and health activities, men have higher coefficients with a level of significance of 1%. However, in trade, information and communication activities, women have higher coefficients with a level of significance of 1%. Activities related to the economic sector, such as hospitality (in favor of women), real estate activities, and administration activities (in favor of men) have negative coefficients for both sexes with a level of significance of 5%.

The higher coefficients for women in the different sectors mentioned above may be due to the fact that women in these types of sectors occupy management positions to a greater extent than men, receiving higher wages and being favored by this type of

sector. On the contrary, the negative coefficients in these types of sectors mentioned above imply that the membership of both men and women in these particular sectors, affect negatively to the detriment of wages.

On the other hand, the results show that women have higher coefficients when they have **full time** contract with a level of significance of 5%. The coefficients are higher for both sexes in the lower part of the distribution (percentiles 10 and 25), and decrease as we approach the 90th percentile, becoming negative coefficients for both sexes. This means that this variable has a significant influence on wages in the lower part of the distribution for both sexes, but it affects negatively in the higher percentiles. In conclusion, variable "full-time" affects women's wages more than men's, that is, in this first occupation, the variable day explains a higher proportion of wages in the case of women than men, the rest of the variables being identical for each of the sexes. Both sexes present negative coefficients in the 90th percentile, which means that in this part of the high distribution, the day works to the detriment of wages, acting with greater detriment in the case of men than women.

The contrary occurs when one speaks about the **indefinite duration of the contract**. The estimated coefficients are higher for men than for women, although they decrease for both sexes throughout the distribution, being lower in the 90th percentile with a level of significance of 5%. It is important to mention that the greatest differences between the sexes are found in the lower part of the distribution (percentile 10).

As for the **territorial unit** where the individuals are located, in most of the regions the coefficients are slightly higher in the case of men. It is important to highlight the case of the Community of Madrid, where the estimates for men are higher than those of women, this being the community where the greatest differences between the two sexes are perceived in a very significant way. These wage differences increase throughout the distribution, with the greatest differences occurring in the 90th percentile.

The case of the **years of seniority** within the company is quite significant, since there is almost no gap between men and women, that is, the estimates are almost identical and very significant. It is important to mention that the coefficients decrease as we move to higher percentiles, which implies that this variable increasingly explains a lower proportion of the wage for both men and women, the rest of the variables being

identical for each of the sexes. Finally, another aspect of special interest is the question of whether the individual occupies a **position of responsibility within the company.** The results show that the coefficients estimated for men exceed those of women and grow for both sexes as we move to higher percentiles. The gap between the two sexes also worsens throughout the distribution, peaking at the 90th percentile, all at a level of significance of 1%. This again corresponds to the so-called "glass ceiling" phenomenon.

Non-Manual and Low Skilled Occupations

The total number of observations in this group of occupations is 57285, of which 38% are men and 62% are women. Therefore, these are occupations that concentrate a greater proportion of women than men.

In relation to the **age** variable, it is important to mention that the majority of the individuals are between the 30 and 59 (82% for both men and women). As in the previous group of occupations, the coefficients referred to the age increase as this one is greater, but when comparing between men and women, it is observed that men present the highest coefficients throughout the distribution, contrary to what happened in the previous table. This implies that the age variable affects more the wages of men than of women, that is, in this second occupation, the age variable explains a higher proportion of wages for men than for women, being the rest of the identical variables for each of the sexes. As already mentioned in the previous case, the high coefficients of this variable can be attributed to the specific case of the Spanish market, where salaries are closely linked with age.

It is important to mention that the coefficients present higher values in the lower part of the distribution, specifically in the 25th percentile, and lower values in the upper part, specifically in the 90th percentile. In addition, the greatest differences between both sexes occur in the 10th percentile at all age levels. As a conclusion we can say that, when explaining wage differentials, age is more relevant in the lower percentiles of the distribution, since not only are higher coefficients for both sexes, but the differences between both groups are also greater, always in favor of men.

Also important are the differences between men and women in relation to the **educational level.** It is important to mention that most of the individuals in the sample are included in the levels of study of secondary education and vocational training and higher education (2, 3 and 4) (87% of men and 85% of women). The coefficients related

to this variable along the distribution are always positive, and increase as we move to higher educational levels. As in the previous table, the general trend is that men have coefficients higher than those of women.

If we make an analysis by percentiles, it is important to mention that the coefficients are higher in the lower percentiles, specifically in the 10 and 25, in comparison with the higher percentiles, as well as the differences between both sexes, since the men experience stronger increases in wages than women in the lower percentiles of the distribution. These differences between the sexes are smaller as we move along the distribution (in the 50th and 75th percentiles). In the 90th percentile educational level licensed / university doctor, the opposite occurs, the estimates of men are again quite higher than those of women. This can be explained again from the phenomenon known as glass ceiling, as already explained in the previous occupation.

In relation to the **sector or activity** in which they are located, it is important to mention that men are concentrated mainly in administrative activity (18%), commerce (14%), transport and storage (10%), manufacturing industry %). On the other hand, women are concentrated in activities such as commerce (20%), health activity (17%), administrative activity (11%) and manufacturing industry (7.5%). Unlike the previous occupation, women have somewhat higher coefficients than men in activities related to the extractive and manufacturing industry (in particular in the food industry, beverage manufacturing, tobacco industry, textile and garment manufacturing , chemical industry (manufacturing of pharmaceutical products, manufacturing of rubber and plastics products), metallurgy, manufacturing of computer products, electronic equipment and equipment, and activities related to energy, water and gas supply. In activities such as trade, hospitality, information and communication, administrative, education and health activities, the male ratio is not only lower than that of women, but also affects most negative way in the detriment of wages.

On the other hand, the results show that, on average, women have higher coefficients when they have **full time contract.** However, this trend is not maintained steadily throughout the distribution; men present slightly higher coefficients than women in the lower part of the distribution (specifically in the 10th and 25th percentiles). However, women have higher coefficients both in the median and in the 75th and 90th percentiles, becoming negative for both sexes in the last percentile (always in favor of women), the results being highly significant.

This means that the "full-time" variable, in general, affects women's wages more than men's, especially in the middle and upper part of the distribution, that is, in this second group of occupations, the variable day explains a higher proportion of wages in the case of women than men, with the rest of the variables being identical for each of the sexes. Both sexes present in the percentile 90 negative coefficients, which means that in this part of the distribution so high, the day works to the detriment of the wages, acting with more detriment in the case of the men than of the women.

The opposite is true when talking about an **indefinite duration of the contract.** The estimated coefficients are higher for men than for women. The coefficients are higher in the lower part of the distribution, and their relative weight decreases as we move to higher levels. The differences between the sexes remain constant and not very high throughout the distribution, although they are somewhat higher in the 25th percentile.

As for the **territorial unit** where the individuals are located, in most regions the coefficients are slightly higher for the case of women (except in the region of Eastern Spain). It is important to highlight the case of the Community of Madrid, where the estimated coefficients of women are significantly higher than those of men. If we make a percentile analysis, it should be noted that in the lower part of the distribution (the 10th and 25th percentile), women have slightly higher coefficients than men. In the rest of the distribution, males have slightly higher coefficients than females (with the exception of the 75th percentile).

The case of the **years of seniority within the company** is quite significant since there is no gap between men and women, that is, the estimates are practically identical and very significant. Finally, another aspect of special interest is the question of whether the individual occupies a **position of responsibility within the company.** The results show that the estimated coefficients of the men surpass those of the women, but unlike the previous group of occupations, the differences are somewhat higher in the lower part of the distribution and tend to decrease as we move along the latter.

Manual and Highly Skilled occupations

The total number of observations in this group of occupations is 49313, of which 87% are men and 13% are women. Therefore, these are occupations in which a greater proportion of men are concentrated than women.

As in the previous group of occupations, the coefficients referred to the **age** increase as this one is greater, and when a comparative between men and women, it is observed that the greater wage coefficients are experienced by the men taking as reference the changes than the average. This implies that the age variable affects men's wages more than women's, that is, in this third occupation, the age variable explains a higher proportion of wages for men than for women, rest of the identical variables for each of the sexes. As already mentioned in the previous case, the high coefficients of this variable can be attributed to the specific case of the Spanish market, where salaries are closely linked with age.

Also important are the differences between men and women in relation to the **educational level.** Referring to the mean, the coefficients related to this variable are higher in favor of women across all levels of education and increase progressively as we move to higher levels of education, as well as differences between both sexes. Throughout the distribution, the coefficients are always positive, with the exception of primary and secondary education levels (2 and 3) for both men and women. It is important to mention that at the undergraduate level 6, the coefficients are higher for both sexes when compared to university graduates (7).

If we do a percentile analysis, at most of the percentiles (10, 50, 75 and 90) there is a trend very similar to that described in the mean over the first six levels of studies (generally positive coefficients and in favor of women, with differences not very relevant between both sexes).

It should be noted the penultimate level of education (6), where the differences between both sexes are significant and in favor of women. The trend is thus maintained throughout the distribution, with the exception of the 90th percentile, where the differences are significantly higher and in favor of men. This can be explained again from the phenomenon known as glass ceiling, as already explained in the previous occupation.

In general, this implies that the variable studies affects women's salaries more than men's, that is, in this third occupation, the variable studies explains a higher proportion of the salary for women than for men, the rest of the variables being identical for each of the sexes. This trend is followed throughout the distribution, with the exception of the 90th percentile diploma level, where at the same educational level, men have higher coefficients with respect to women.

In relation to **economic activity,** women have higher coefficients across different economic activities if we take the average as a reference. It should be noted that in manufacturing-related activities, men have higher coefficients than women in the lower part of the distribution (percentile 10), in the rest of the percentiles, women have higher coefficients, more markedly in the 90th percentile with a significance level of 5%. In the activities related to energy and water supply, construction, transportation and warehouse, women have coefficients higher than those of men along the distribution with a level of significance of 1%. In activities related to information and communication, financial and real estate, professional and technical activity, public administration and defense, and health, and artistic activities, as expected, women have higher coefficients and sharply, with a level of significance of 10%.

On the other hand, and as in the two occupations described above, the results show that, on average, women present higher coefficients when they have **full time contract,** with both sexes having negative coefficients in the 50, 75 and 90 percentiles.

This means that the "full-time" variable affects women's wages more than men's, that is, in this first occupation, the variable day explains a higher proportion of wages for women than for wages men, the rest of the variables being identical for each of the sexes.

Regarding the variable **indefinite duration of the contract**, and contrary to what was presented in the two tables above, women have higher coefficients than men throughout the distribution, although these differences are much more pronounced in the lower part of the distribution (percentiles 10, 25 and 50), compared to the high part.

As for the **territorial unit** where the individuals are located, in all regions the coefficients are higher for the men, except in the Community of Madrid (3), where they are practically identical. Regions 2 and 3 (Northeast and Community of Madrid) show the highest coefficients for both men and women. It is important to note that the differences between the two sexes are higher in regions 1 and 2 (Northwest and Northeast), and decrease as we approach region 6 (South). It should be noted that the differences between men and women in favor of men increase throughout the distribution for all regions, reaching the highest values in the 90th percentile.

The case of the **years of seniority in the company** is quite significant since there is almost no gap between men and women, that is, the estimates are almost identical and

very significant. It could be said that the estimates are somewhat higher for men, and that the differences between the sexes are somewhat more pronounced in the lower part of the distribution, and decrease as we approach the 90th percentile as well as the coefficients for both sexes.

Finally, another aspect of special interest is the question of whether the individual occupies a **position of responsibility within the company.** The results show that the estimated coefficients of the men surpass those of the women if we take as reference the average; in the lower part of the distribution (percentiles 10, 25 and 50), men have higher coefficients than women; however, in the upper part of the distribution (percentiles 75 and 90), women outnumber men significantly.

Manual and Low Skilled occupations

The total number of observations in this group of occupations is 22023, of which 50% are men and 50% are women. Therefore, it is an occupation where the division between the proportion of men and women is very evenly distributed.

Both men and women experience very positive and significant changes in wages across all **age ranges.** It should be noted that the coefficients increase for both men and women as we move to more advanced age levels.

In general terms, and with reference to the mean, women have higher coefficients than men in all age groups, the age range being between 50-59 where there are greater differences between these two groups in favor of followed by the 40-49 age bracket. Both men and women reach their highest coefficients in the age group "over 50".

If we do a percentile analysis, the highest coefficients for both men and women are presented in the 50th percentile. The lowest coefficients for both sexes occur in the 90th percentile, with the differences between sexes in these two percentiles always in favor of women. The greatest differences between the two sexes occur in the 25th percentile in favor of women. It is important to mention that the 75th percentile, across all age groups, presents strong differences in favor of men, specifically in the age bracket 6.

This implies that the age variable affects more the wages of women than of men, that is, in this fourth occupation, the age variable explains a higher proportion of wages in the case of women than men, the rest being of the identical variables for each of the sexes, with a level of significance of 5%. It is important to mention that age-related

coefficients are important for both sexes, which means that age has a relevant influence on this type of occupation when determining wages.

Also important are the differences between men and women in relation to the **educational level.** Throughout the distribution, the coefficients are higher for men than for women, reaching their highest figures in the levels of studies of middle and higher degree and graduates (5 and 6), where also the greatest differences between the two are reached (as the coefficients for males grow at a higher rate than those of females as we move along educational levels). We can say that the estimates of this variable in this fourth occupation are not very relevant for either sex, since very small coefficients appear, besides being little significant estimates. This implies that the variable studies in this type of occupation does not have a very significant influence when determining the wages of both men and women, but it is true that explains a somewhat higher proportion in the case of men.

Both men and women experience very positive and significant impacts on wages in certain **economic activities.** Men have more positive impacts on certain industries, such as manufacturing, in particular in the wood and cork and paper industries, in electricity, gas and water supply activities with a level of significance of 5%. On the contrary, women also have higher and positive coefficients in some activities of the manufacturing industry, such as; the extractive industry, the metallurgy industry or the manufacture of iron products with a high level of significance. In addition, women have higher coefficients than men in financial and real estate activities (with a level of significance of 10%), and to a lesser extent, although they also stand out above men, in activities related to education and (with a level of significance of 5%).

If we focus on the variable **type of working day** a phenomenon quite contrary to what happened in previous occupations. Both men and women have a negative influence of average full-time type, more negative in the case of women than men. In the first percentiles, the coefficients that accompany this variable are positive and decrease as we move towards higher percentiles, until it is negative from the 50th percentile. This implies that the type of day at this first percentile, explains a relative proportion for both (somewhat more in the case of men than women), but as we move towards higher percentiles, the yields obtained are negative for both sexes, indicating that this variable negatively affects the salary obtained.

On the contrary, it occurs when one speaks **indefinite of a duration of the contract.** The estimated coefficients are somewhat higher for men than for women with a very high level of significance, contrary to what happened in the previous occupation. The coefficients are higher in the lower part of the distribution and decrease along this distribution, as well as the differences between both sexes. This implies that the duration of the contract indefinitely explains a more relevant proportion of the wage in the case of men than of women, and that this proportion explained by the variable is stronger in the lower part of the distribution.

As for the **territorial unit** where the individuals are located, in most regions the coefficients are significantly higher for men than for women, except in region 2 (Northeast), where they are practically very similar. These differences between the sexes are accentuated in regions 1, 5 and 6 (Northwest, East and South), always in favor of men. It is important to mention that the gender differences in favor of men are accentuated in the upper part of the distribution, specifically in regions 5 and 6 (East and South).

The case of the **years of seniority in the company,** is quite significant since there is no gap between men and women, that is, the estimates are almost identical and very significant. To make something concrete, it could be said that the coefficients are slightly higher for the men than for the women, maintaining this tendency along the distribution. This implies that the variable age years, within this fourth occupation, explains a proportion somewhat more relevant to the case of men than of women.

Finally, another aspect of special interest is the question of whether the individual occupies a **position of responsibility within the company**. The results leave this empty variable without coefficients or possible estimates, which implies that there are no individuals in this group of occupations occupying supervisory positions within the company.

4.2 Blinder-Oaxaca Decomposition

(See Annex for Tables 4.5-4.8)

The standard application of the Blinder Oaxaca Decomposition Techinque is to divide the gender wage gap, between a part that is explained by differences in determinants of wages (such as education or work experience), and a part that cannot be explained by such group differences, which might be attributed either to discrimination or to relevant

factors or attributes that have not been taken into account when explaining differences in determinants of wages.

Oaxaca's Stata command first estimates two group specific regression models (one for women and another for men), and then performs the Oaxaca-Blinder decomposition. The decomposition output reports the mean predictions (mean of log wages) by groups and their difference in the first panel. In the second panel of the decomposition output, the wage gap is divided into two parts; a part that can be explained by the determinants used in the model specification, and a part that cannot be explained by the determinants.

The **first model** includes variables related to human capital, such as years of seniority, the square of the latter, age and studies. The salary differential between both sexes is -0.1831 logarithmic points, of which 0.01473 is explained by these determinants related to human capital, and -0.1978 remains unexplained. This means that most of the wage gap is not explained by the human capital variables included in the model. The unexplained part, which in this case is so large, may be due to a fact of discrimination, or to the fact that by not including other variables in the model, the explanatory capacity is falling on the included variables of human capital.

The 0.01473 of the explained part of the wage gap implies that by human capital, women should be rewarded more than men, and on the contrary, according to the unexplained part, women would gain -0.31 less than men, if we only relied on personal characteristics as determinants of wages. If we take a look to the constant value, woman should be rewarded a 0.11 more with respect to men, this causes the unexplained part of the gap to decrease, as it goes from -0.30 to -0.19.

The **second model** includes, in addition to the variables related to human capital mentioned above, variables related to the type of occupation and industry which they belong to, (CNO and CNACE), and the type of regulation or agreement to which they are subscribed. The wage differential between both sexes is again -0.1831 logarithmic points, of which -0.03746 is explained by these determinants related to human capital and the set of variables that we include in the employment label such as the type of occupation and industry, and -0.1457 remains unexplained. As we can see, the explained part becomes 20% of the total of the gap, reducing the unexplained part to 80% of the total gap.

If we focus on the explained part of the model, we can say that this is explained by personal characteristics at -0.0044 logarithmic points, which means that women have a series of personal characteristics that makes them be less favourably rewarded in comparison to men. It is important to mention that most of the gap explained is given by the variables collected in employment, in particular this variable explains a -0.033 of the total gap (88% of the total of the explained part), which means that woman receive lower salaries in comparison to men in the same sector or occupation as a consequence of their personal characteristics related to the sector.

The **third model** includes, in addition to the variables related to human capital and type of occupation and industry mentioned above, three variables directly related to the job characteristics, such as responsibility within the company, type of working day and contract. From the -0.1831 logarithmic salary differential, -0.0487 is explained by these determinants related to human capital, type of occupation and industry and job characteristics, and -0.1344 remains unexplained. As we can see, the explained part becomes 27% of the total of the gap compared to 20% of the previous model, where we had only included variables related to human capital and type of occupation and sector. The increase is not as considerable as the transition from model 1 to 2, but we can observe that as we add new variables related to the type of occupation or job characteristics, the explained part of the gap increases. On the contrary, the unexplained part of the previous model decreases from 80% to 73%, taking as reference the second model.

If we focus on the explained part of the model, we can say that this is explained by personal characteristics at -0.003 logarithmic points, which means that women have a number of personal characteristics that makes them be less compensated than men. This part of the gap is also explained in a higher percentage by variables related to the type of occupation, in particular this variable explains a -0.028 of the total differential (explains 57% of the total). It is also important to mention the variable job characteristics explains a -0.0172 of the total of the explained part of the gap (explains 35% of the total). This means that the greater part of the explained part is described by the variable type of occupation and industry, and to a lesser extent, by variables related to the job characteristics (responsibility, type of workday and type of contract).

The -0.134 of the unexplained part of the wage differential is due to reasons not explained by the observable variables. In particular, it is due to the fact that the characteristics that have been introduced produce different returns between men and women (either because of discrimination or because not including other variables, the explanatory capacity falls on the variables included).

The **fourth model**, in addition to the variables related to human capital, type of occupation and industry, and variables related to the job characteristics mentioned above, it also includes another set of variables which help to explain the wage differential, such as the region, nationality, market, company property (whether it is public or private property) and size of the company. The wage differential between both sexes is again -0.1831 logarithmic points, of which -0.04439 is explained by these observable variables, and -0.1387 remains unexplained.

If we focus on the explained part of the model, we can say that this is explained by personal characteristics at -0.0038 logarithmic points, which means that women have a number of personal characteristics that makes them be less rewarded than men. This part of the gap is also explained in a higher percentage by the variable type of occupation, in particular this variable explains a -0.039 of the total part of the explained gap (87% of the total), and confirms that women have a number of characteristics in employment that makes them be worse compensated than men. It is also important to mention the variable related to job characteristics, which explains a -0.013 of the total part of the explained gap (explains 29% of the total). The new variables added in this model explain 0.012 of the explained part of the gap; according to the characteristics "other" women should be more compensated than men. We can affirm that most of the explained gap is given by variables related to the type of occupation and industry, and to a lesser extent, by some other variables related to the job characteristics, such as responsibility, type of working day and type of contract or variables related to the region, nationality, market, company property or size.

The -0.1387 of the unexplained part of the wage differential is due to reasons not collected by observable variables. In particular, it is due to the fact that the characteristics that have been introduced produce different returns between men and women (either because of discrimination or because when not adding other variables, the explanatory capacity falls on the variables included).

5. Conclusion

The analysis is developed from the application of two methodologies. First, quantile regressions are estimated, whose main advantage is that they allow the effect of different explanatory variables to vary according to the position of the workers on the pay scale. Among the articles in which the quantile regression technique is applied, it is important to mention the work of De la Rica et al. (2008), which analyses the gender gap in the entire wage distribution, distinguishing between higher and lower education. Taking this analysis as reference, this paper analyses the wage gap by distinguishing between different occupation groups, in order to study whether there are different behaviors of the wage gap according to the job position of men and women.

The results obtained in the quantile regressions for the different occupation groups show that the yields according to the different observable characteristics introduced in our analysis differ by gender and change throughout the distribution. One example of a wage gap between the sexes is the evidence that men in positions of responsibility experience higher salary increases than women. These differences in wage increases in both sexes decrease as we move along the 4 established occupations (the differences between both sexes are much greater in Non-Manual and Highly Qualified Occupations). This can be explained by the phenomenon known as the glass ceiling, which is based on the fact that highly skilled women workers are exposed to a series of invisible barriers that prevent them from reaching the highest hierarchical levels in the business world, regardless of their achievements and merits.

In addition, we have performed the decomposition of the wage gap through the Blinder-Oaxaca method, with the objective of seeing the proportion of the gap that is explained by observable characteristics included in the model, and the unexplained proportion, which may be due either because of discrimination or because of not including other variables (in that case, the explanatory capacity is falling on the variables included). What we wanted to verify is that as we add new variables beyond human capital, the explained part of the gap increases. Specifically, by including new variables related to the type of occupation and industry, the explained percentage of the gap grows considerably, which makes us understand that part of the wage differential is due to the fact that women have a series of characteristics within the occupations and sectors that makes them be remunerated to a lesser extent than men. It is also important to mention, that human capital related variables account for a very low percentage of the explained

gap. This is based on the fact that woman in the last decade have increased their level studies, in some cases, overpassing men´s levels of educational attainment. The fact is that there is still a wage gap between both sexes that cannot be attributed to human capital variables. From our Blinder Oaxaca Decompostion study, we can conclude that variables such as occupation and industry are the ones which explain the highest percentage of the explained gap. The section related to "New perspectives on gender differences" based on some studies, also supports the fact that gender wage differences are currently more related to the concentration of woman in some kinds of occupations or industry that provides them with lower remuneration, rather than the fact of psychological attributes or non cognitive skills that can be shaped by environment, education, and culture.

Currently the European Union has a wage gap of 18.80% according to Eurosat and Spain is in the sixth place. In 2007, the average salary of women in Spain was € 16,943, compared to € 22,780 for men, or 25.60% of the wage gap, according to the National Statistical Institute (INE). A decade later, INE figures show that women's wages amount to € 19,744 and men's wages to € 25,727, or 23.20% of the wage gap. Salaries increase but the distances between both sexes are hardly reduced. Also according to data provided by the union UGT, the retirement pension gap amounts to 37.95%.

Aragon is slightly below the national average, women have a salary of € 18,764 and men of € 25,118, so the gender wage gap in our community is 25.30%.

The number of women executives in Spain has grown in the last decade from 17% to 26% according to Ana Bujaldon, president of FEDEPE, with a proportion of one woman compared to four men. On the other hand, the number of women in the top management barely reaches 12% in large companies, increasing by only 1.1% in 2016 in IBEX companies, the lowest percentage in the last 10 years.

Deep changes are still needed to guarantee the rights of women, as well as cultural changes that go through breaking stereotypes, increasing educational levels and thus guaranteeing full autonomy and economic independence.

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ANNEXES

Table 3.1 More detailed information about the 16 occupations related to the variable CNO

A) Directors and Managers

Scientific and Intellectual Technicians and Professionals

B) Technicians and scientific and intellectual health and teaching professionals

C) Other scientific and intellectual technicians and professionals

D) Technicians; support professionals

Accounting, clerical and other clerical employees

E) Office employees who do not serve the public

F) Office employees serving the public

Workers in catering, personal services, protection and vendors

G) Catering and trade workers

H) Workers of the health services and the care of persons

I) Protection and security services workers

Skilled workers in the agricultural, livestock, forestry and fishing sectors

J) Qualified workers in the agricultural, livestock, forestry and fishing sectors

Artisans and skilled workers in manufacturing and construction (except plant and machinery operators)

K) Qualified construction workers, except machine operators

Skilled workers in manufacturing, except plant and machine operators

Plant and machinery operators, and assemblers

M) Operators of fixed installations and machinery, and assemblers

N) Drivers and operators of mobile machinery

Elementary occupations

O) Unskilled workers in services (except transport)

P) Pawns of agriculture, fishing, construction, manufacturing and transport

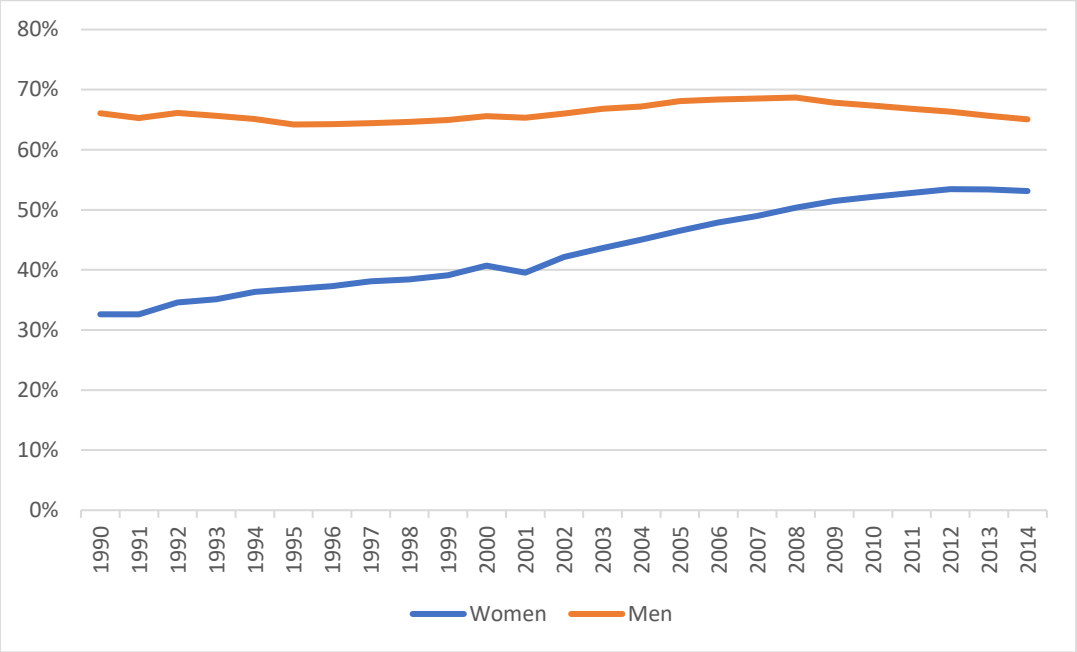
Q) Military occupations

Table 3.2 CNAE (economic activities)

CNAE	
CNAE1	Industria de Extracción y actividades de apoyo a éstas.
CNAE2	Industria de la alimentación, bebidas, industria del tabaco y textil.
CNAE3	Industria de la madera y del corcho, excepto muebles; cestería y espartería. Industria del papel.
CNAE4	Artes gráficas y reproducción de soportes grabados.
CNAE5	Coquerías y refino de petróleo. Industria química. Fabricación de productos farmacéuticos. Fabricación de productos de caucho y plásticos.
CNAE6	Fabricación de otros productos minerales no metálicos.
CNAE7	Metalurgia; fabricación de productos de hierro, acero y ferroaleaciones Fabricación de productos metálicos, excepto maquinaria y equipo.
CNAE8	Fabricación de productos informáticos, electrónicos y ópticos. Fabricación de material y equipo eléctrico. Fabricación de maquinaria y equipo n.c.o.p.
CNAE9	Fabricación de vehículos de motor, remolques y semirremolques. Fabricación de otro material de transporte. Fabricación de muebles. Otras industrias manufactureras. Reparación e instalación de maquinaria y equipo.
CNAE10	Suministro de energía eléctrica, gas, vapor y aire acondicionado.
CNAE11	Captación, depuración y distribución de agua. Recogida y tratamiento de aguas residuales. Recogida, tratamiento y eliminación de residuos; valorización. Actividades de descontaminación y otros servicios de gestión de residuos.
CNAE12	Construcción de edificios. Ingeniería civil. Actividades de construcción especializada.
CNAE13	Venta y reparación de vehículos de motor y motocicletas. Comercio al por mayor e intermediarios del comercio, excepto de vehículos de motor y motocicletas.
CNAE14	Comercio al por menor, excepto de vehículos de motor y motocicletas.
CNAE15	Transporte terrestre y por tubería. Transporte aéreo. Transporte marítimo y por vías navegables interiores.

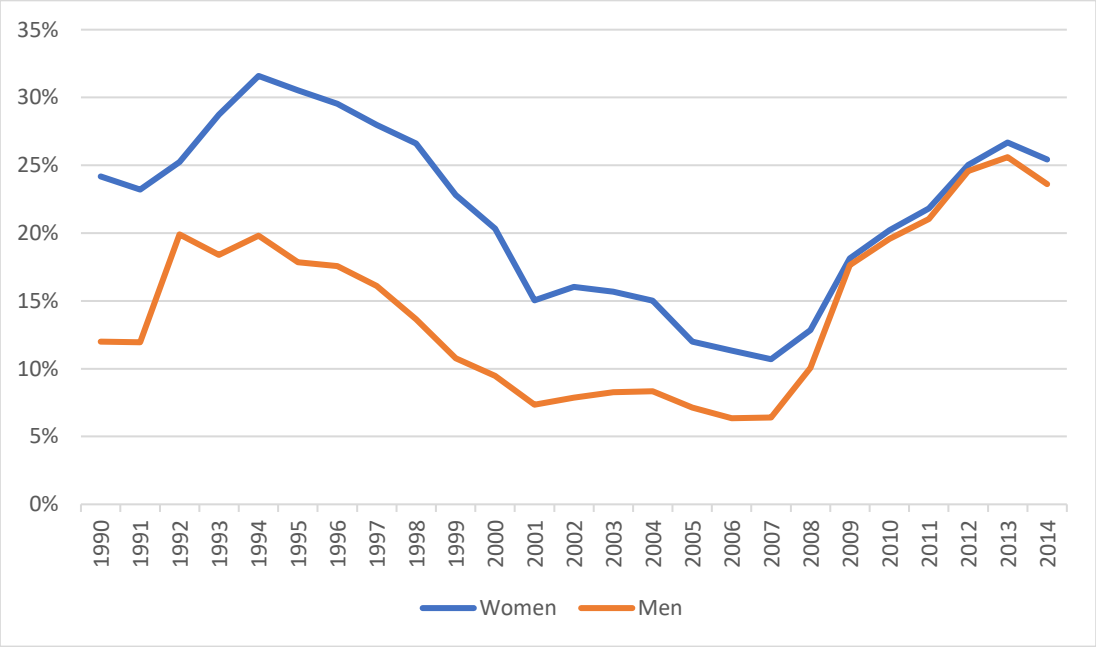
CNAE16	Almacenamiento y actividades anexas al transporte. Actividades postales y de correos.
CNAE17	Servicios de alojamiento. Servicios de comidas y bebidas.
CNAE18	Edición. Actividades cinematográficas, de vídeo y de programas de televisión, grabación de sonido y edición musical. Actividades de programación y emisión de radio y televisión. Telecomunicaciones. Programación, consultoría y otras actividades relacionadas con la informática. Servicios de información.
CNAE19	Servicios financieros, excepto seguros y fondos de pensiones. Seguros y fondos de pensiones, excepto Seguridad Social Obligatoria. Actividades auxiliares a los servicios financieros y a los seguros.
CNAE20	Actividades inmobiliarias.
CNAE21	Actividades jurídicas y de contabilidad. Actividades de las sedes centrales. Servicios técnicos de arquitectura e ingeniería. Investigación y desarrollo. Publicidad y estudios de mercado. Otras actividades profesionales, científicas y técnicas. Actividades veterinarias.
CNAE22	Actividades de alquiler. Actividades relacionadas con el empleo. Actividades de agencias de viajes. Actividades de seguridad e investigación. Servicios a edificios y actividades de jardinería. Actividades administrativas de oficina.
CNAE23	Administración Pública y defensa; Seguridad Social obligatoria.
CNAE24	Educación.
CNAE25	Actividades sanitarias. Asistencia en establecimientos residenciales. Actividades de servicios sociales sin alojamiento.
CNAE26	Actividades de creación, artísticas y espectáculos. Actividades de bibliotecas, archivos, museos y otras actividades culturales. Actividades de juegos de azar y apuestas. Actividades deportivas, recreativas y de entretenimiento.
CNAE27	Actividades asociativas. Reparación de ordenadores, efectos personales y artículos de uso doméstico. Otros servicios personales.

Figure 1.1: Men and women labour force participation rates (1990-2014)



Data Source: World Bank Data (own elaboration)

Figure 1.2: Men and woman unemployment rates (1990-2014)

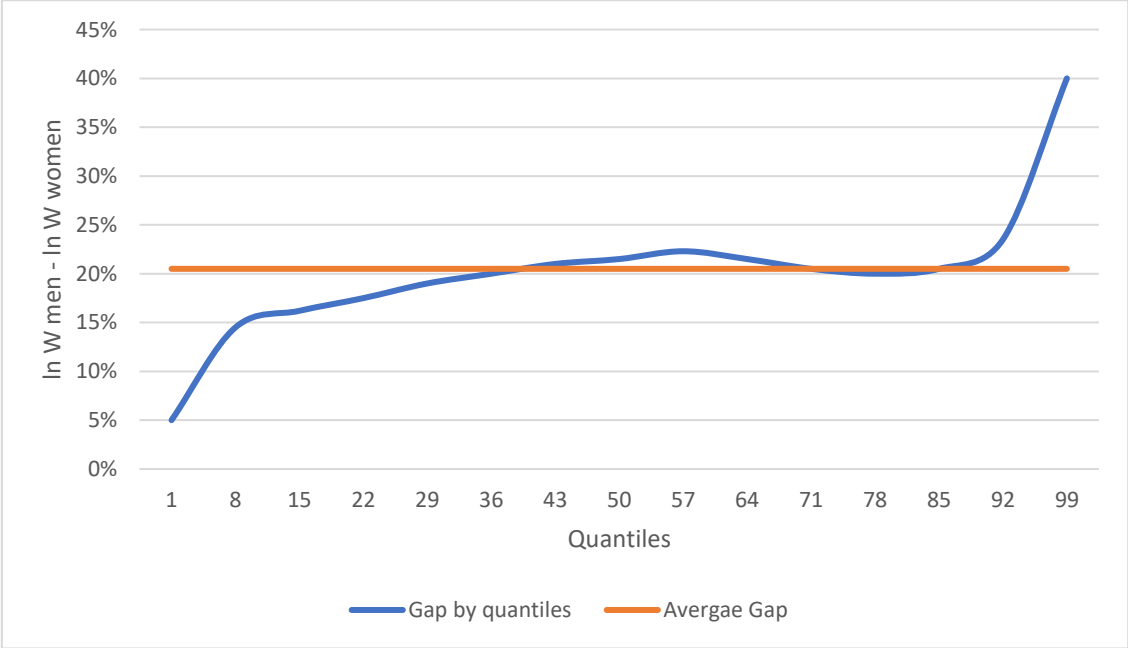


Data Source: World Bank Data (own elaboration)

Figure 1.3: Wage Gap in OECD Countries (2000-2014)

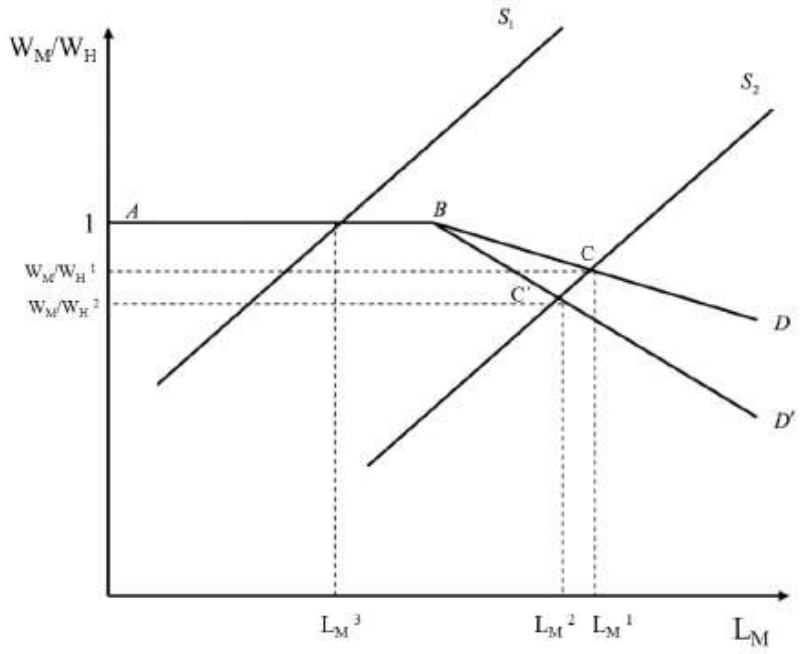
Data Source: OECD Data

Figure 1.4: Wage Gap in Spain distributed by quantiles



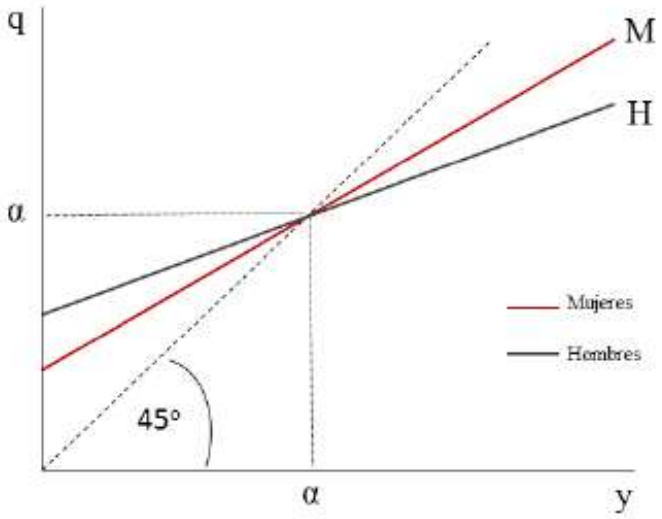
Data Source: INE Encuesta de Estructura Salarial 2014 (own elaboration)

Graph 2.1 Discrimination based on tastes



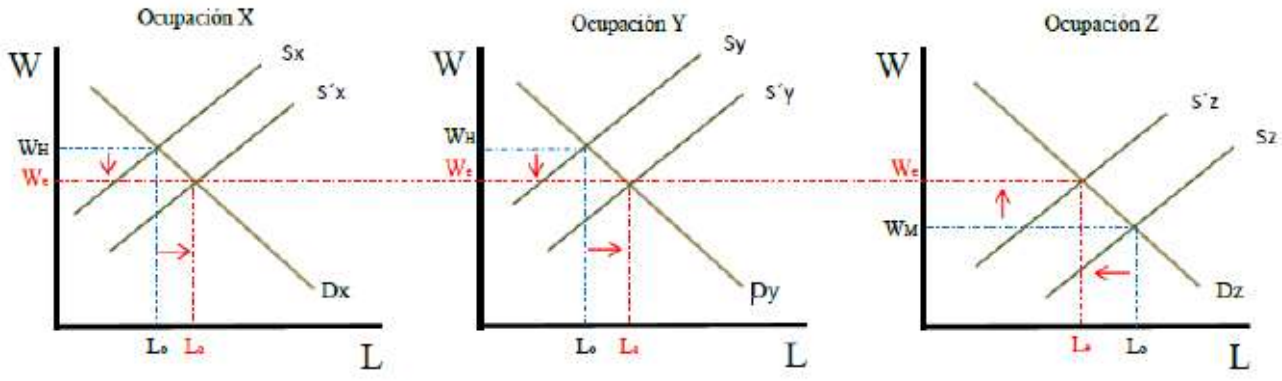
Data Source: Theory of discrimination based on tastes, Becker (1975)

Graph 2.2: Statistical Theory of Discrimination, productivity of predictions (q) in relation to the signal (y)



Data Source: Statistical Theory of Discrimination, Aigner and Cain (1977)

Graph 2.3 Overcrowding Model



Source: Overcrowding model, Bergman (1974)

Table 3.3: Occupational classification in four big groups

Clasification	Occupational Groups Subdivision	Major Groups of Occupations CNO-11
Non-manual and highly qualified occupations	-Directors and Managers -Technicians and scientific professionals -Technicians and support professionals	Groups 1, 2 and 3
Non-manual and low-skilled occupations	-Administrative employees -Workers of restoration services, personal, protection and vendors.	Groups 4 and 5
Manual and skilled occupations	-Farm skilled workers -Workers skilled in manufacturing and construction -Operators of plant and machinery, and assemblers	Groups 6, 7 and 8
Manual and low-skilled occupations	-Workers not qualified in services -Pays of agriculture, fishing, construction, manufacturing and transport	Group 9

Own elaboration Source

	Men		Woman	
	Average	Std. Dev.	Average	Std. Dev.
l_salnetohora	2.366	0.6504	2.183	0.6099
ANOANTI	10.55	10.19	9.229	8.941
sq_ANOANTI	215.2	355	165.1	296.7
ANOS2				
DANOS2_1	0.001486	0.03852	0.001264	0.03553
DANOS2_2	0.1033	0.3044	0.1178	0.3224
DANOS2_3	0.3075	0.4615	0.3386	0.4732
DANOS2_4	0.3126	0.4635	0.309	0.4621
DANOS2_5	0.2193	0.4137	0.1927	0.3944
DANOS2_6	0.05585	0.2296	0.04064	0.1974
TIPOPAIS	1.053	0.2241	1.045	0.207
DTIPOPAIS_1	0.947	0.2241	0.9551	0.207
DTIPOPAIS_2	0.05302	0.2241	0.04485	0.207
TIPOJOR	1.098	0.2979	1.281	0.4493
DTIPOJOR_1	0.9015	0.2979	0.7193	0.4493
DTIPOJOR_2	0.09845	0.2979	0.2807	0.4493
TIPOCON	1.199	0.3993	1.213	0.4092
DTIPOCON_1	0.8009	0.3993	0.7873	0.4092
DTIPOCON_2	0.1991	0.3993	0.2127	0.4092
NUTS1				
DNUTS1_1	0.1182	0.3229	0.1136	0.3173
DNUTS1_2	0.1612	0.3677	0.1525	0.3595
DNUTS1_3	0.1497	0.3568	0.1764	0.3812
DNUTS1_4	0.1237	0.3293	0.1105	0.3135
DNUTS1_5	0.2645	0.4411	0.2815	0.4497
DNUTS1_6	0.1392	0.3461	0.1231	0.3286
DNUTS1_7	0.04343	0.2038	0.04232	0.2013
CNO1				
DCNO1_1	0.03915	0.194	0.02558	0.1579
DCNO1_2	0.03314	0.179	0.09731	0.2964
DCNO1_3	0.1106	0.3136	0.1141	0.3179
DCNO1_4	0.186	0.3891	0.1694	0.3751
DCNO1_5	0.0614	0.2401	0.1269	0.3329
DCNO1_6	0.02508	0.1564	0.07165	0.2579
DCNO1_7	0.03762	0.1903	0.09931	0.2991
DCNO1_8	0.02081	0.1427	0.09237	0.2895
DCNO1_9	0.03584	0.1859	0.008288	0.09066
DCNO1_10	0.005166	0.07169	0.00104	0.03224
DCNO1_11	0.05171	0.2214	0.001387	0.03722
DCNO1_12	0.1416	0.3486	0.02376	0.1523
DCNO1_13	0.0887	0.2843	0.04106	0.1984
DCNO1_14	0.07099	0.2568	0.004351	0.06582
DCNO1_15	0.03681	0.1883	0.1002	0.3002
DCNO1_16	0.05483	0.2277	0.02337	0.1511
DCNO1_17	0.0005926	0.02434	3.356E-05	0.005793
CNACE				
DCNACE_1	0.01345	0.1152	0.002628	0.0512
DCNACE_2	0.05126	0.2205	0.04984	0.2176
DCNACE_3	0.02375	0.1523	0.007751	0.0877
DCNACE_4	0.01159	0.107	0.005917	0.07669
DCNACE_5	0.04858	0.215	0.03019	0.1711
DCNACE_6	0.01887	0.1361	0.004697	0.06773
DCNACE_7	0.03825	0.1918	0.007382	0.0856
DCNACE_8	0.0391	0.1938	0.01463	0.1201
DCNACE_9	0.07029	0.2556	0.02656	0.1608
DCNACE_10	0.01247	0.111	0.004038	0.06342

DCNACE_11	0.04171	0.1999	0.01342	0.1151
DCNACE_12	0.09294	0.2903	0.0196	0.1386
DCNACE_13	0.04024	0.1965	0.02335	0.151
DCNACE_14	0.02984	0.1701	0.08057	0.2722
DCNACE_15	0.036	0.1863	0.0125	0.1111
DCNACE_16	0.02883	0.1673	0.02241	0.148
DCNACE_17	0.02439	0.1543	0.04635	0.2102
DCNACE_18	0.05829	0.2343	0.04924	0.2164
DCNACE_19	0.03602	0.1863	0.05322	0.2245
DCNACE_20	0.006485	0.08027	0.009988	0.09944
DCNACE_21	0.06154	0.2403	0.09228	0.2894
DCNACE_22	0.07212	0.2587	0.1111	0.3143
DCNACE_23	0.03974	0.1954	0.05326	0.2246
DCNACE_24	0.02099	0.1434	0.04943	0.2168
DCNACE_25	0.03515	0.1842	0.145	0.3522
DCNACE_26	0.02778	0.1643	0.03133	0.1742
DCNACE_27	0.02032	0.1411	0.03335	0.1796
REGULACION	2.249	1.125	2.296	1.29
DREGULACION	0.2838	0.4508	0.3215	0.467
DREGULACION	0.3705	0.483	0.3413	0.4741
DREGULACION	0.2276	0.4193	0.1834	0.387
DREGULACION	0.04933	0.2165	0.02745	0.1634
DREGULACION	0.06868	0.2529	0.1264	0.3323
RESPONSA	0.1903	0.3925	0.1239	0.3295
RESPONSA_SI	0.1903	0.3925	0.1239	0.3295
RESPONSA_NO	0.8097	0.3925	0.8761	0.3295
ESTU				
DESTU_1	0.01577	0.1246	0.009787	0.09844
DESTU_2	0.1568	0.3636	0.1124	0.3158
DESTU_3	0.2531	0.4348	0.2124	0.409
DESTU_4	0.2164	0.4118	0.2373	0.4254
DESTU_5	0.1029	0.3038	0.07639	0.2656
DESTU_6	0.08476	0.2785	0.1356	0.3424
DESTU_7	0.1704	0.376	0.2161	0.4116
MERCADO				
DMERCADO_1	0.3564	0.4789	0.4307	0.4952
DMERCADO_2	0.4111	0.492	0.4065	0.4912
DMERCADO_3	0.07361	0.2611	0.05074	0.2195
DMERCADO_4	0.1589	0.3656	0.1121	0.3155
CONTROL				
DCONTROL_1	0.1284	0.3346	0.1952	0.3963
DCONTROL_2	0.8716	0.3346	0.8048	0.3963
ESTRATO2				
DESTRATO2_1	0.006126	0.07803	0.004228	0.06489
DESTRATO2_2	0.3348	0.4719	0.2815	0.4497
DESTRATO2_3	0.2521	0.4342	0.2222	0.4157
DESTRATO2_4	0.3752	0.4842	0.4713	0.4992
DESTRATO2_5	0.03181	0.1755	0.02078	0.1427

Own Elaboration Source

Table 4.1 Non-Manual and Highly Qualified Occupations

	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
	Average=OLS	Average=OLS	Θ =10	Θ =10	Θ =25	Θ =25	Θ =50	Θ =50	Θ =75	Θ =75	Θ =90	Θ =90
const	1.21183***	1.0086***	0.251265	-0.02111	0.442813	0.426197	1.37026	0.973797	1.7061	1.56876	2.49018	1.82659
ANOANTI	0.0418875***	0.0426987***	0.0574984	0.0569648	0.0400731	0.0405755	0.0316401	0.0305929	0.0266446	0.0246071	0.0222333	0.0210161
sq_ANOANTI	−0.000825339***	−0.000850874***	-0.0011340	-0.0011376	-0.0007544	-0.0007818	-0.0005839	-0.0005537	-0.0005140	-0.0004392	-0.0004376	-0.0003683
DANOS2_2	0.124453	0.424496***	0.163043	0.61609	0.533065	0.718568	0.115193	0.563839	0.0715222	0.236299	-0.25708	0.255458
DANOS2_3	0.371841***	0.575031***	0.461093	0.842242	0.78944	0.872124	0.338482	0.712247	0.298034	0.377817	-0.034125	0.419659
DANOS2_4	0.473364***	0.672346***	0.457318	0.907074	0.852023	0.948703	0.451086	0.800551	0.446697	0.492702	0.157715	0.535333
DANOS2_5	0.549256***	0.718754***	0.496709	0.944738	0.904292	0.988974	0.520809	0.83691	0.534259	0.538523	0.254936	0.595994
DANOS2_6	0.660359***	0.7942***	0.543918	0.984288	0.974088	1.02583	0.595843	0.886728	0.652966	0.583737	0.380209	0.643126
DESTU_3	0.0522721***	0.0518348**	0.0361564	0.0767433	0.0401751	0.0452136	0.0379343	0.0477542	0.0515883	0.080391	0.0773344	0.112366
DESTU_4	0.171253***	0.0758827***	0.13794	0.0750025	0.155523	0.0864347	0.159497	0.0999272	0.184517	0.108008	0.208566	0.12008
DESTU_5	0.175879***	0.0971075***	0.163894	0.131491	0.176099	0.121268	0.169036	0.120252	0.162919	0.0976938	0.155029	0.0826455
DESTU_6	0.324362***	0.214129***	0.29781	0.217076	0.313973	0.235516	0.31262	0.256948	0.318292	0.247377	0.329898	0.232172
DESTU_7	0.451631***	0.358324***	0.394644	0.336589	0.420315	0.363483	0.426626	0.401225	0.460443	0.414763	0.494613	0.426977
DCNACE_1	0.2508***	0.297139***	0.230809	0.182077	0.225275	0.243491	0.258113	0.287156	0.288576	0.288181	0.290045	0.411223
DCNACE_2	0.0651168***	0.0371335*	0.0561865	-0.015707	0.0542037	0.0004398	0.0802631	0.0631989	0.123537	0.0955641	0.102639	0.154195
DCNACE_3	0.0492616*	0.0212281	0.0346222	-0.081425	0.0544933	0.0249626	0.0911078	0.0573191	0.146491	0.110949	0.148043	0.135607
DCNACE_4	−0.0125612	0.000226337	0.0199411	0.0607136	0.0557466	0.019118	0.0271619	0.0504837	0.069224	0.040915	0.0052621	0.0512129
DCNACE_5	0.160763***	0.182175***	0.116564	0.167547	0.149733	0.145302	0.183027	0.177363	0.249597	0.232356	0.254433	0.345762
DCNACE_6	0.0944074***	0.0943696**	0.113741	0.0692922	0.119892	0.105644	0.133241	0.102963	0.132994	0.0971368	0.119376	0.136786
DCNACE_7	0.0776428***	0.124588***	0.117757	0.157997	0.110986	0.100745	0.108395	0.146573	0.0960316	0.129958	0.0566537	0.144217
DCNACE_8	0.0628701***	0.0296536	0.108902	0.08315	0.0985755	0.0375032	0.0835275	0.0382526	0.0914398	0.0458944	0.060673	-0.00051
DCNACE_9	0.0330002	0.0398682*	0.0130054	0.0497889	0.0399727	0.0301691	0.0673031	0.0467459	0.0792346	0.0627814	0.040753	0.0705958
DCNACE_10	0.400298***	0.36861***	0.43325	0.345696	0.441773	0.352069	0.424488	0.39711	0.446667	0.3867	0.40596	0.438484
DCNACE_11	0.112236***	0.0723849**	0.142895	0.0534129	0.138902	0.063342	0.150987	0.108711	0.154625	0.140909	0.10436	0.146817
DCNACE_12	0.114946***	0.068386***	0.126978	0.0670657	0.128542	0.052372	0.1506	0.0867626	0.175005	0.104282	0.137474	0.111362
DCNACE_13	0.149583***	0.169269***	0.1015	0.113729	0.139223	0.100739	0.16111	0.154028	0.22308	0.234191	0.227814	0.301425
DCNACE_14	−0.0769865***	−0.0758990***	-0.120258	-0.072693	-0.117638	-0.111266	-0.078954	-0.076417	-0.005272	-0.033797	-0.03398	-0.044417
DCNACE_15	0.0828208***	−0.00537055	-0.031541	0.0090142	0.0208416	-0.017903	0.0933093	0.0141272	0.166429	0.0142695	0.248782	0.0531679
DCNACE_16	0.101592***	0.0711716**	-0.027745	-0.017156	-0.016117	-0.06506	0.0395242	0.0220392	0.145214	0.0702771	0.501429	0.366492
DCNACE_17	−0.192302***	−0.140199***	-0.224047	-0.181826	-0.172997	-0.129292	-0.149055	-0.099717	-0.127478	-0.14122	-0.1857	-0.102129
DCNACE_18	0.02629	0.0350578**	0.0479407	0.0553488	0.0528806	0.0181531	0.0687103	0.046365	0.0805977	0.0962892	0.0454508	0.140071
DCNACE_19	0.22114***	0.176982***	0.213021	0.21232	0.222068	0.177571	0.239445	0.209714	0.284892	0.222996	0.266083	0.22914
DCNACE_20	−0.0446337	−0.0681722**	-0.286654	-0.270871	-0.06597	-0.088768	0.0087059	-0.039287	0.0924705	0.0387609	0.155552	0.096275
DCNACE_21	0.0169971	−0.0109637	-0.002873	-0.00181	0.0173063	-0.047895	0.0481106	-0.012513	0.0688196	0.0097531	0.0408066	0.0266656
DCNACE_22	−0.0562103**	−0.0774507***	-0.094527	-0.106653	-0.090723	-0.094714	-0.037221	-0.040495	0.0462237	-0.036521	0.0744859	-0.016437
DCNACE_23	−0.00897518	0.016289	-0.027366	-0.010181	-0.01726	-0.025723	0.0334225	0.030478	0.0744215	0.061687	0.0042021	0.0879974
DCNACE_24	0.000152063	0.0244826	-0.041434	-0.033332	0.0015864	-0.033788	0.0422354	0.0410271	0.095561	0.112979	0.0715053	0.169505
DCNACE_25	0.174601***	0.129326***	0.0945523	0.106302	0.119687	0.0787926	0.191493	0.127316	0.277989	0.175537	0.254381	0.208437
DCNACE_26	−0.00690020	−0.0364146*	-0.037437	-0.107275	-0.055784	-0.071655	0.0159423	-0.011291	0.0760209	0.0394553	0.0722358	0.0994694
RESPONSA_SI	0.208301***	0.159871***	0.150894	0.124212	0.157336	0.119428	0.177458	0.135696	0.219084	0.173068	0.280626	0.219316
DTIPOJOR_1	−0.0189823*	0.0533223***	0.120117	0.152257	0.104555	0.123609	0.0137298	0.0790711	-0.073467	0.0284223	-0.201412	-0.0265
DTIPOCON_1	0.266722***	0.206792***	0.603642	0.478961	0.3295	0.251404	0.183697	0.131423	0.144102	0.0777697	0.138196	0.0487559
DNUTS1_1	−0.0156832	−0.0604787***	-0.042794	-0.095446	-0.017735	-0.054961	-0.004662	-0.058888	-0.024802	-0.061729	-0.043551	-0.110716
DNUTS1_2	0.0892507***	0.0686346***	0.0624723	0.0139788	0.0895309	0.0777754	0.104509	0.0900992	0.0812248	0.0710358	0.0682235	0.0291467
DNUTS1_3	0.135771***	0.0676603***	0.0670255	0.0147827	0.100796	0.0577328	0.133888	0.0785117	0.145386	0.0752106	0.191715	0.0469167
DNUTS1_4	−0.0389343**	−0.0588665***	-0.040273	-0.061109	-0.026815	-0.044083	-0.01504	-0.017881	-0.034295	-0.046691	-0.043123	-0.095295
DNUTS1_5	0.0439068***	0.00232525	0.0108217	-0.035164	0.0470144	0.000351	0.0583345	0.0113066	0.0423324	-0.007655	0.041617	-0.04752
DNUTS1_6	−0.0146557	−0.0561827***	-0.007522	-0.075007	-0.002402	-0.039096	0.0023725	-0.030137	-0.010683	-0.059508	-0.017435	-0.096016

Table 4.2 Non-Manual and Low Skilled Occupations

	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
	Average=OLS	Average=OLS	Θ =10	Θ =10	Θ =25	Θ =25	Θ =50	Θ =50	Θ =75	Θ =75	Θ =90	Θ =90
const	0.786354***	1.14419***	-0.330613	0.382738	0.141381	0.670455	0.823854	1.08217	1.24911	1.58334	1.78242	1.94039
ANOANTI	0.0341666***	0.0356703***	0.039617	0.0416533	0.0290248	0.0300467	0.022768	0.0236363	0.0195811	0.0213353	0.0194589	0.0201803
sq_ANOANTI	−0.000514752***	−0.000610917***	-0.0006429	-0.0007651	-0.0004214	-0.0004988	-0.0002777	-0.0003255	-0.0002083	-0.0002632	-0.0002226	-0.0002419
DANOS2_2	0.480508***	0.264225***	0.623799	0.218978	0.683914	0.429094	0.548359	0.410083	0.461819	0.187045	0.207533	0.0602437
DANOS2_3	0.61078***	0.319655***	0.757705	0.307716	0.808407	0.48824	0.656109	0.461994	0.552614	0.233685	0.307123	0.0980503
DANOS2_4	0.602158***	0.355753***	0.708352	0.350896	0.79592	0.523016	0.663495	0.493604	0.569016	0.266032	0.33839	0.136026
DANOS2_5	0.596137***	0.346495***	0.702588	0.344209	0.789026	0.510889	0.664484	0.477037	0.559275	0.252322	0.328578	0.123886
DANOS2_6	0.653061***	0.37395***	0.661466	0.341024	0.769145	0.505377	0.668927	0.461421	0.629839	0.247313	0.46849	0.148366
DESTU_2	0.131476***	−0.0100990	0.232092	0.0188474	0.202703	0.0204879	0.0986003	0.0153281	0.0723721	-0.037112	0.0815494	-0.042121
DESTU_3	0.142824***	−0.00248092	0.236063	0.0311775	0.230878	0.0339859	0.122031	0.0145973	0.0884187	-0.033791	0.0788318	-0.027565
DESTU_4	0.191777***	0.0495222*	0.292601	0.0788357	0.281044	0.0737788	0.17038	0.0598678	0.134405	0.0158401	0.148714	0.0215459
DESTU_5	0.23141***	0.0729209**	0.334577	0.103784	0.325638	0.108923	0.220813	0.087366	0.162267	0.0388627	0.166144	0.0366792
DESTU_6	0.260319***	0.115467***	0.357503	0.148435	0.339061	0.141187	0.226603	0.123644	0.186582	0.0789325	0.194581	0.0900003
DESTU_7	0.284212***	0.142773***	0.38387	0.167139	0.363316	0.168698	0.249921	0.150843	0.241955	0.107996	0.298166	0.128612
DCNACE_1	0.218242***	0.295892***	0.165849	0.101828	0.248767	0.347813	0.195397	0.322477	0.209715	0.299868	0.256616	0.283929
DCNACE_2	0.0778334***	0.0998877***	0.0663093	0.098252	0.0898198	0.108948	0.0956956	0.103126	0.0974667	0.126012	0.117619	0.188262
DCNACE_3	0.0385628	0.195865***	0.0760943	0.174316	0.0947076	0.222825	0.0832721	0.192075	0.0945983	0.194529	-0.052072	0.16034
DCNACE_4	0.00628034	0.0671364*	0.0076918	0.0652966	0.0560719	0.133122	0.0926856	0.161071	0.0360106	0.142701	0.0015548	0.101429
DCNACE_5	0.196066***	0.295769***	0.222665	0.246189	0.222979	0.265573	0.225952	0.32572	0.161149	0.339994	0.120997	0.408182
DCNACE_6	0.160296***	0.14579***	0.206153	0.0794255	0.174693	0.204439	0.204783	0.221866	0.174223	0.214916	0.0696478	0.152411
DCNACE_7	0.162158***	0.258321***	0.22633	0.319811	0.181142	0.271015	0.171724	0.238163	0.114287	0.232546	0.0889354	0.204707
DCNACE_8	0.0992231***	0.187362***	0.182532	0.221865	0.172442	0.230433	0.124138	0.220721	0.0395686	0.179582	-0.00246	0.153303
DCNACE_9	0.115746***	0.166033***	0.133907	0.14007	0.173225	0.190847	0.133602	0.164655	0.0820423	0.176027	0.0290855	0.194179
DCNACE_10	0.53092***	0.5398***	0.584639	0.442311	0.652922	0.48908	0.598714	0.572404	0.507135	0.662337	0.40887	0.611656
DCNACE_11	0.146907***	0.233156***	0.143871	0.227629	0.190654	0.260904	0.169193	0.242544	0.173746	0.236341	0.105338	0.238077
DCNACE_12	0.171736***	0.173982***	0.18387	0.192047	0.171189	0.212321	0.173592	0.194769	0.157452	0.201639	0.136079	0.1695
DCNACE_13	0.0701337***	0.136779***	0.136213	0.100065	0.108527	0.148795	0.0759038	0.151881	0.0316612	0.151602	-0.023003	0.170128
DCNACE_14	−0.0835070***	−0.00263027	-0.071628	0.0079376	-0.039197	0.024025	-0.06617	0.0208171	-0.103273	0.0281231	-0.172216	-0.012615
DCNACE_15	0.115532***	0.0987357***	0.0979282	0.0216197	0.15452	0.0848666	0.172265	0.137975	0.137371	0.186511	0.0829189	0.155084
DCNACE_16	−0.0171688	0.0200923	-0.020616	-0.058233	-0.001651	-0.00112	-0.000618	0.0373331	-0.017344	0.0815984	-0.034075	0.109556
DCNACE_17	−0.0677241***	0.0224029	-0.017383	0.0319441	-0.009166	0.0365347	-0.032725	0.0579796	-0.085012	0.0691486	-0.191274	0.0353976
DCNACE_18	−0.0427803*	0.0559777***	-0.017478	0.0047331	0.003571	0.0729234	-0.01233	0.0943266	-0.068217	0.106244	-0.090225	0.116778
DCNACE_19	0.258078***	0.244756***	0.21113	0.170191	0.27449	0.209683	0.323637	0.279739	0.3123	0.350736	0.283718	0.368762
DCNACE_20	−0.0594082	0.0380801	-0.032528	-0.07841	-0.040699	0.0467396	0.0169892	0.0703739	0.0254884	0.0867639	-0.094348	0.118632
DCNACE_21	−0.0956774***	−0.00124462	-0.093589	-0.045125	-0.07514	0.0077225	-0.06928	0.0280604	-0.087916	0.0531478	-0.075951	0.0640605
DCNACE_22	−0.0550227***	0.0362779***	-0.064257	0.0171944	-0.025734	0.0414746	-0.032816	0.0554174	-0.089449	0.0597967	-0.139482	0.0540453
DCNACE_23	0.179372***	0.100807***	0.0728141	0.0684306	0.190861	0.102528	0.260622	0.127213	0.261917	0.160737	0.243004	0.182882
DCNACE_24	−0.0920436***	−0.0419174**	-0.025935	-0.053344	-0.006963	-0.004514	-0.005524	0.0094713	-0.059021	0.0442593	-0.139404	0.0837826
DCNACE_25	0.0129933	0.0477058***	0.026856	0.0572817	0.043107	0.0670008	0.024951	0.058724	-0.016597	0.0580678	-0.049337	0.0370271
DCNACE_26	−0.0230289	0.0402371**	0.0128263	-0.02817	0.0163873	0.0489724	0.0026545	0.0869058	-0.008233	0.0986767	-0.038959	0.1081
RESPONSA_SI	0.178913***	0.106279***	0.138033	0.0600831	0.154662	0.0730833	0.170023	0.0892329	0.194158	0.123044	0.244915	0.180859
DTIPOJOR_1	0.00582923	0.0381454***	0.130151	0.112832	0.089296	0.0687514	0.0328717	0.0396717	-0.016884	0.0100281	-0.097518	-0.037457
DTIPOCON_1	0.314317***	0.2628***	0.761492	0.707169	0.471506	0.389797	0.239122	0.173194	0.173859	0.106468	0.150585	0.100053
DNUTS1_1	−0.0247902	−0.0229008*	-0.030603	0.0057917	-0.02623	0.009121	0.0019257	-0.018841	-0.014515	-0.019316	-0.026069	-0.048686
DNUTS1_2	0.129682***	0.117116***	0.11042	0.113098	0.130162	0.126014	0.156633	0.128438	0.141826	0.153179	0.133205	0.14077
DNUTS1_3	0.0615773***	0.0780205***	0.0458929	0.12692	0.0696898	0.111501	0.100938	0.0893	0.0837907	0.0800585	0.0879636	0.0613118
DNUTS1_4	0.00100312	0.0039665	-0.008	0.0240927	0.0159611	0.0400388	0.0266853	0.0159865	0.0002952	0.0093812	-0.006327	-0.0231
DNUTS1_5	0.0608637***	0.0544747***	0.0280758	0.068622	0.0556437	0.071911	0.0792048	0.0474302	0.0755267	0.0582904	0.0754001	0.0440576
DNUTS1_6	0.0255226*	0.0284127**	0.0010915	0.0545397	0.0244837	0.0618744	0.0522793	0.0423226	0.050532	0.0353618	0.0441714	0.00801

Table 4.3 Manual and Skilled Occupations

	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
	Average=OLS	Average=OLS	Θ =10	Θ =10	Θ =25	Θ =25	Θ =50	Θ =50	Θ =75	Θ =75	Θ =90	Θ =90
const	0.675165***	0.558358***	-0.361715	-0.135913	0.37569	-0.209761	0.820286	0.607259	1.40398	1.2925	1.95613	1.27051
ANOANTI	0.036953***	0.0227993***	0.0455185	0.0258355	0.030509	0.015054	0.0236645	0.0127265	0.0207403	0.0136722	0.0177682	0.0127526
sq_ANOANTI	−0.000668856***	−0.000306353***	-0.0008922	-0.0004107	-0.0005363	-0.0001778	-0.0003757	-0.0001080	-0.0003090	-0.0001164	-0.0002398	-9.96304e-0
DANOS2_2	0.721502***	0.58612***	0.662374	0.511239	0.713332	1.05505	0.765132	0.793887	0.497989	0.413087	0.280345	0.516397
DANOS2_3	0.80404***	0.605791***	0.731403	0.523403	0.768609	1.06804	0.839899	0.821286	0.573771	0.437329	0.357177	0.579678
DANOS2_4	0.804816***	0.653306***	0.713839	0.618657	0.767499	1.10072	0.850197	0.849963	0.590988	0.457765	0.381534	0.593951
DANOS2_5	0.798712***	0.658091***	0.708702	0.648068	0.759644	1.10878	0.844466	0.846934	0.593307	0.445636	0.39218	0.587648
DANOS2_6	0.90301***	0.755131***	0.726233	0.675317	0.802505	1.13724	0.90987	0.8606	0.663494	0.51095	0.465419	0.714903
DESTU_2	−0.0365113***	0.0740107*	-0.008345	0.0336103	-0.029257	-0.050561	-0.039023	0.0217101	-0.026897	0.0034467	-0.024345	-0.008561
DESTU_3	−0.00718840	0.107802***	0.0117271	0.0758563	-0.011505	-0.024739	-0.02417	0.0442616	-0.007755	0.0268816	0.0024309	0.0122687
DESTU_4	0.0722605***	0.158607***	0.0930639	0.108258	0.0591976	0.019334	0.0539192	0.103093	0.0760962	0.0740117	0.0857992	0.0527774
DESTU_5	0.112209***	0.206762***	0.128612	0.0524431	0.104169	0.0014803	0.0965087	0.124835	0.121771	0.148613	0.126538	0.196936
DESTU_6	0.135609***	0.314978***	0.0913157	0.165399	0.121769	0.180435	0.114302	0.227412	0.155278	0.198558	0.208144	0.175083
DESTU_7	0.128831***	0.188383***	0.086898	0.0342702	0.0920259	0.0189552	0.121363	0.108552	0.168286	0.119077	0.170064	0.172168
DCNACE_1	0.291335***	0.385515***	0.310357	0.400606	0.272737	0.361018	0.259481	0.503377	0.257783	0.455278	0.23525	0.439948
DCNACE_2	0.0649752***	0.134597***	0.139902	0.135273	0.0673551	0.15363	0.0545139	0.123813	0.0282771	0.106458	-0.00737	0.109875
DCNACE_3	0.127974***	0.146622***	0.207072	0.122412	0.123253	0.19834	0.109472	0.190353	0.083176	0.156055	0.0470142	0.20838
DCNACE_4	0.147029***	0.185655***	0.235281	0.174508	0.142219	0.248322	0.129973	0.193026	0.108135	0.213503	0.0642719	0.239327
DCNACE_5	0.204769***	0.261489***	0.259837	0.253338	0.204185	0.301858	0.185199	0.265697	0.17456	0.237369	0.15465	0.253089
DCNACE_6	0.148913***	0.268051***	0.19028	0.113606	0.165238	0.258909	0.163597	0.252001	0.150831	0.262964	0.0779869	0.246778
DCNACE_7	0.200868***	0.230442***	0.279143	0.218722	0.207566	0.260817	0.185009	0.253395	0.152358	0.222245	0.0978705	0.225583
DCNACE_8	0.12855***	0.215171***	0.198803	0.294964	0.136738	0.296343	0.119726	0.236159	0.0751596	0.192064	0.0340646	0.140592
DCNACE_9	0.143253***	0.232944***	0.207368	0.25261	0.145968	0.278125	0.128605	0.224389	0.0961377	0.179579	0.0481089	0.18708
DCNACE_10	0.510953***	0.491412***	0.521671	0.349109	0.527651	0.671955	0.535873	0.457965	0.492181	0.475065	0.400619	0.605727
DCNACE_11	0.1987***	0.303548***	0.261235	0.332919	0.199747	0.317961	0.181597	0.317716	0.142144	0.344768	0.0996224	0.315838
DCNACE_12	0.175432***	0.38805***	0.235224	0.251393	0.183851	0.401334	0.162165	0.361701	0.129235	0.462702	0.092807	0.407747
DCNACE_13	0.0898278***	0.0725946	0.161642	0.112963	0.0943872	0.128939	0.0879305	0.0964411	0.064643	0.139868	0.0047132	0.235537
DCNACE_14	−0.0361842	0.049363	0.0335159	0.162801	-0.037212	0.143598	-0.046571	0.101746	-0.089177	0.0559643	-0.122066	0.0912012
DCNACE_15	0.170073***	0.413957***	0.244184	0.434398	0.179932	0.423476	0.178628	0.353027	0.155993	0.371455	0.111226	0.401638
DCNACE_16	0.0838199***	0.240402***	0.126945	0.278731	0.0614385	0.29652	0.0645352	0.257224	0.0600787	0.246509	0.0298974	0.260547
DCNACE_17	−0.0250048	−0.0822611	-0.031733	-0.380396	-0.037302	-0.09456	-0.030699	-0.054649	-0.067073	0.03756	-0.091384	0.0439821
DCNACE_18	0.0891036***	0.268838***	0.0389374	0.327248	0.0859093	0.219778	0.0946874	0.25785	0.0811354	0.322789	0.069227	0.309045
DCNACE_19	0.219817*	0.384819	0.244498	0.806458	0.071625	0.649083	0.320137	0.448657	0.181667	0.241268	0.0505474	0.0789499
DCNACE_20	0.208076***	0.329**	0.328409	0.456779	0.207594	0.406	0.122179	0.217619	0.0028502	0.125829	-0.041844	0.115919
DCNACE_21	0.0936115***	0.126807**	0.0772127	-0.148202	0.0875057	0.165545	0.0764875	0.17324	0.0746733	0.232655	0.0226464	0.28258
DCNACE_22	0.017157	−0.0199333	0.089761	0.0654991	0.0275897	-0.098995	0.0347495	0.0374148	0.0089811	0.0438719	-0.0292	0.13228
DCNACE_23	−0.0400887*	0.20051**	0.0014857	0.229469	-0.058907	0.270287	-0.065015	0.186716	-0.078025	0.10361	-0.075739	0.143965
DCNACE_24	−0.0229074	−0.0412296	0.126749	0.46582	-0.02908	0.0343591	0.0455335	-0.263654	0.0040723	0.239749	0.006302	0.234445
DCNACE_25	0.01835	0.175913***	0.0598804	0.0669191	0.0393588	0.0919101	0.0285847	0.169349	0.0107416	0.150481	-0.068954	0.0984947
DCNACE_26	0.0595913***	0.119502**	0.112606	0.133124	0.056949	0.108416	0.0657743	0.144863	0.0255719	0.197626	-0.032197	0.172701
RESPONSA_SI	0.13072***	0.107071**	0.0870451	0.056071	0.108349	0.0741296	0.12029	0.068469	0.139655	0.156689	0.168915	0.224928
DTIPOJOR_1	−0.0559290***	0.00688779	0.0469166	0.0748012	0.0283396	0.0634249	-0.012311	0.0144581	-0.038955	-0.010695	-0.125732	-0.031918
DTIPOCON_1	0.280965***	0.353136***	0.8001	0.902995	0.486565	0.641527	0.182356	0.279643	0.100248	0.148747	0.0858601	0.137636
DNUTS1_1	0.100288***	0.0340468	0.0957365	0.073954	0.0851606	-0.000711	0.0916816	0.0403294	0.107327	0.0677582	0.0921937	-0.066021
DNUTS1_2	0.186137***	0.147785***	0.191102	0.140669	0.183667	0.103359	0.207052	0.150323	0.210957	0.182821	0.200257	0.0591172
DNUTS1_3	0.151343***	0.152616***	0.173357	0.189199	0.144267	0.0960584	0.159274	0.134761	0.176445	0.144879	0.164998	0.0263938
DNUTS1_4	0.0656104***	0.0394507	0.09167	0.074963	0.0680194	0.011869	0.0794883	0.0379356	0.0694698	0.0710313	0.0479563	-0.048868
DNUTS1_5	0.154773***	0.123931***	0.179923	0.167173	0.149499	0.0829073	0.161553	0.114735	0.171926	0.135832	0.152929	0.0247277
DNUTS1_6	0.1035***	0.0840769**	0.115007	0.146655	0.0955181	0.0538259	0.112205	0.0743032	0.126408	0.11728	0.125436	0.0042164

Table 4.4 Manual and Low Skilled Occupations

	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
	Average=OLS	Average=OLS	Θ =10	Θ =10	Θ =25	Θ =25	Θ =50	Θ =50	Θ =75	Θ =75	Θ =90	Θ =90
const	0.751791***	0.854138***	-0.41637	-0.18443	0.220603	0.410659	0.752629	0.770625	1.156	1.23239	1.66847	1.54943
ANOANTI	0.0511435***	0.0329969***	0.067575	0.0458987	0.0454669	0.0329283	0.0333086	0.0201843	0.0257223	0.0122094	0.0237113	0.0071867
sq_ANOANTI	−0.000972349***	−0.000649912***	-0.0015372	-0.0011350	-0.0009176	-0.0007025	-0.0005763	-0.0003513	-0.0003406	-0.0001070	-0.0002857	9.20137e-00
DANOS2_2	0.460746***	0.472366***	0.638564	0.521824	0.50189	0.597711	0.634838	0.626087	0.517104	0.342389	0.317818	0.357382
DANOS2_3	0.505851***	0.54981***	0.635502	0.641205	0.525199	0.681132	0.670843	0.695473	0.570224	0.414138	0.367912	0.41588
DANOS2_4	0.490399***	0.598843***	0.615664	0.724952	0.517579	0.740274	0.663061	0.72393	0.568569	0.432895	0.366455	0.446093
DANOS2_5	0.482519***	0.601633***	0.62903	0.73143	0.507465	0.736876	0.649765	0.719582	0.546826	0.428051	0.346659	0.444886
DANOS2_6	0.577301***	0.603316***	0.64189	0.689205	0.542095	0.733973	0.696485	0.725186	0.601936	0.44279	0.400669	0.453059
DESTU_2	0.0427964*	0.00213892	0.0727751	0.0293114	0.0544263	-0.011813	0.0362745	-0.005157	0.0357041	0.0251752	0.0157753	0.0275032
DESTU_3	0.0641938***	0.0197248	0.0958394	0.0449773	0.078987	0.0112495	0.0587255	0.0081497	0.0352627	0.0244124	0.0251559	0.044359
DESTU_4	0.100584***	−0.00248118	0.117181	0.04393	0.105955	0.0008675	0.0980794	-0.014136	0.0678621	0.015125	0.0546144	0.0281812
DESTU_5	0.155544***	0.00536574	0.160234	0.146044	0.131621	-0.009643	0.12736	-0.029657	0.14686	0.0269299	0.104412	0.0032878
DESTU_6	0.164684***	0.0251611	0.237064	0.0324626	0.119941	-0.032117	0.109804	0.0128128	0.161564	0.110314	0.102542	0.0634398
DESTU_7	0.0577057	0.0468533	0.0451664	0.0775971	0.0571137	0.0523383	0.0241847	-0.013172	0.0366292	-0.001181	0.0382761	-0.02983
DCNACE_1	0.295561***	0.488395***	0.38015	0.165063	0.382165	0.282451	0.213411	0.25262	0.270631	0.333124	0.255493	1.82975
DCNACE_2	0.0552964	−0.0148479	0.14325	-0.01522	0.169364	-0.010621	0.0626064	0.06864	0.0784467	0.0594818	-0.039066	-0.00804
DCNACE_3	0.130464***	0.0270001	0.205612	0.0037955	0.243701	0.0505792	0.11278	0.118791	0.111646	0.11565	-0.012932	0.0577316
DCNACE_4	0.129752*	0.11044	0.205806	0.0849311	0.13361	0.133975	0.0929685	0.121206	0.178153	0.111317	0.0816383	0.173906
DCNACE_5	0.165419***	0.163947***	0.27035	0.0819292	0.281202	0.114472	0.19149	0.256627	0.183794	0.21966	0.0932904	0.228982
DCNACE_6	0.0453328	−0.0397076	0.153301	-0.053999	0.162227	-0.009023	0.0867132	0.0758752	0.123408	0.0836359	-0.022526	0.151605
DCNACE_7	0.0684448	0.194897***	0.136146	0.194924	0.185008	0.177892	0.113422	0.227723	0.127831	0.232366	-0.04245	0.217618
DCNACE_8	−0.0152036	0.0757137	-0.193454	0.0227977	0.147619	0.144508	0.0815571	0.133449	0.118516	0.129541	-0.022898	0.164339
DCNACE_9	0.0596659	0.0525271	0.1323	0.0062757	0.150999	0.0250107	0.0527664	0.125028	0.103821	0.141787	-0.056197	0.0987553
DCNACE_10	0.394608***	0.155442	0.382979	-0.079237	0.46036	0.0604223	0.331146	0.291268	0.451351	0.399991	0.613163	0.281244
DCNACE_11	0.212568***	0.149778***	0.281139	0.118944	0.288675	0.119157	0.212889	0.204853	0.243406	0.234773	0.0955786	0.163001
DCNACE_12	0.133524***	0.0416712	0.170938	0.0056439	0.188043	0.0575807	0.143705	0.14878	0.202588	0.226958	0.0338929	0.151229
DCNACE_13	0.0353847	−0.194778***	0.207491	-0.426475	0.133935	-0.280616	0.016492	-0.042112	0.0600821	-0.014037	-0.094885	-0.040201
DCNACE_14	−0.0785029*	−0.0218851	0.0393886	0.0087017	0.0090885	0.0212	-0.093164	0.100884	-0.063215	0.0630134	-0.246793	-0.016577
DCNACE_15	0.0846224*	0.126246	0.0774183	0.124262	0.106979	0.201343	0.103427	0.283606	0.144675	0.24125	-0.023499	0.294553
DCNACE_16	0.1357***	0.120669***	0.236077	0.137471	0.212279	0.131548	0.116084	0.234667	0.162234	0.229969	-0.016024	0.125699
DCNACE_17	−0.00842057	−0.0363876	0.0740786	-0.059382	0.0539815	-0.013422	-0.03779	0.0767775	0.0157773	0.0686961	-0.129976	-0.005997
DCNACE_18	0.0468255	0.00653319	-0.141079	-0.064884	0.0932021	0.0350293	0.0941838	0.101708	0.10951	0.142109	-0.116162	0.195594
DCNACE_19	0.187227	0.155524*	0.34281	0.0680059	0.245884	0.0525789	0.148467	0.101774	0.16299	0.209481	0.245609	0.144396
DCNACE_20	0.0366524	0.115184*	0.136275	0.0936457	0.122875	0.155115	0.0139007	0.196529	0.0060758	0.20263	-0.089395	0.111757
DCNACE_21	0.0170611	−0.0415374	0.120814	-0.074197	0.0423964	-0.008826	-0.020436	0.0456307	-0.032662	0.005392	-0.106617	0.0035898
DCNACE_22	0.00051547	−0.0247126	0.0659216	-0.048411	0.0678267	0.0016631	0.000122	0.0891135	0.048241	0.0700321	-0.089685	-0.028843
DCNACE_23	−0.0549670	−0.0570938	0.0166776	-0.021119	0.118452	-0.034561	0.0351783	0.0530463	0.0492531	0.0674602	-0.117484	0.0038142
DCNACE_24	−0.173593**	0.0234257	-0.211848	-0.028259	-0.153059	-0.015814	-0.10538	0.0837175	-0.071726	0.0582156	-0.215096	-0.011786
DCNACE_25	−0.120584**	−0.00745483	-0.04567	-0.015816	-0.136634	-0.003389	-0.170097	0.0616937	-0.146044	0.0420797	-0.310836	-0.051009
DCNACE_26	0.107382**	0.0470653	0.157411	0.0056412	0.175143	0.0297049	0.0998052	0.12014	0.133679	0.0953838	-0.012324	0.0415616
RESPONSA_SI												
DTIPOJOR_1	−0.0153738	−0.0410370***	0.0634389	0.0513721	0.0227862	0.0238438	-0.007735	-0.00707	-0.043046	-0.04087	-0.098966	-0.088362
DTIPOCON_1	0.306182***	0.255479***	0.771045	0.729997	0.531486	0.410976	0.255355	0.171268	0.143752	0.101942	0.0925073	0.0822012
DNUTS1_1	0.0575488**	0.0182725	0.0511414	0.0350931	0.0561063	0.0193376	0.0250293	0.0127809	0.0458475	-0.000898	0.0605651	-0.041607
DNUTS1_2	0.154991***	0.15687***	0.108378	0.118588	0.146311	0.115696	0.119145	0.158755	0.171596	0.204314	0.209272	0.176595
DNUTS1_3	0.10672***	0.0802838***	0.100784	0.156773	0.10861	0.0907523	0.0767655	0.08518	0.073505	0.068919	0.089426	0.0305997
DNUTS1_4	0.0147629	−0.0236447	0.0219732	-0.064127	0.0306354	-0.024704	0.0125702	0.017602	0.0178329	0.0208762	0.0277806	-0.031133
DNUTS1_5	0.0907678***	0.00102986	0.0737027	0.0219842	0.0717502	-0.012603	0.0579421	0.0116634	0.0877597	-0.001597	0.116333	-0.030594
DNUTS1_6	0.0881344***	−0.0244982	0.0969415	0.0207495	0.0816539	0.0008009	0.0775258	0.0015325	0.0802227	0.0120811	0.107563	0.0106474

Table 4.5 Model 1: model with human capital variables (age of seniority, age of seniority squared, age, level of studies)

l_salnetoh~a	Robust Coef.	Std. Err.
group_1	2.1826040	0.0020399
group_2	2.3657670	0.0018789
difference	-0.1831638	0.0027734
explained	0.0147347	0.0017621
unexplained	-0.1978985	0.0022107
explained		
personal	0.0147347	0.0017621
unexplained		
personal	-0.3095402	0.0956304
_cons	0.1116417	0.0957326

Table 4.6 Model 2: model with human capital variables (age of seniority, age of seniority squared, age, level of studies) and employment (CNO, CNACE, and regulation)

l_salnetoh~a	Robust Coef.	Std. Err.
group_1	2.1826040	0.0020399
group_2	2.3657670	0.0018789
difference	-0.1831638	0.0027734
explained	-0.0374621	0.0021979
unexplained	-0.1457017	0.0024391
explained		
personal	-0.0044129	0.0013890
occupation	-0.0330492	0.0014866
unexplained		
personal	-0.2533699	0.0955939
occupation	0.2523618	0.1372114
_cons	-0.1446936	0.1613202

Table 4.7 Model 3: model with the variables of human capital (age of seniority, age of seniority squared, age, level of studies), type of occupation and sector (CNO, CNACE, and regulation) and job characteristics (responsibility within the company, type of working day and type of contract).

l_salnetoh~a	Robust Coef.	Std. Err.
group_1	2.1826040	0.0020399
group_2	2.3657670	0.0018789
difference	-0.1831638	0.0027734
explained	-0.0487452	0.0022822
unexplained	-0.1344186	0.0024259
explained		
personal	-0.0030681	0.0011720
occupation	-0.0283993	0.0014343
job charact.	-0.0172778	0.0008368
unexplained		
personal	-0.2237128	0.0946179
occupation	0.2412181	0.1436730
job charact.	-0.0147436	0.0080206
_cons	-0.1371802	0.1664631

Table 4.8 Model 4: model with the variables of human capital (years of age, years of age squared, age, studies), type of occupation and sector (CNO, CNACE, and regulation), position (responsibility within the company, type of working day and type of contract) and other characteristics (region, nationality, market, property and size).

l_salnetoh~a	Robust Coef.	Std. Err.
group_1	2.1826040	0.0020399
group_2	2.3657670	0.0018789
difference	-0.1831638	0.0027734
explained	-0.0443942	0.00231
unexplained	-0.1387696	0.0023846
explained		
personal	-0.0038704	0.0010930
occupation	-0.0392243	0.0014532
job charact.	-0.0137614	0.0008415
others	0.0124618	0.0006436
unexplained		
perso	-0.2264238	0.0931712
personal	0.2147851	0.1453670
occupation	-0.0056424	0.0079308
job charact.	-0.1014157	0.0342337
others	-0.0200728	0.1705298