Gender pay gap in Santander, Colombia

Diferencias salariales por género en Santander, Colombia[*]

Diferenças salariais por gênero em Santander, Colombia

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Research Article

Abstract

This paper analyzes the factors that influence hourly wages and their differences according to gender, for the Department of Santander, Colombia, during the years 2012 to 2014. Specifically, it explores whether the differential is due to a discriminatory factor in the labor market of Santander or not, using data from the Great Integrated Survey of Households, "*Gran Encuesta Integrada de Hogares* GEIH". After the descriptive analysis of the labor market in Santander, we make econometric estimations using the Blinder Oaxaca methodology to prove the existence of a discriminatory component. Results indicate that, for the total sample in the Santander region, between 25 % and 30 % of the wage differentials by gender are associated with the unexplained discriminatory component.

Keywords: human capital, gender, salary determinants, salary differences, salary discrimination.

JEL: C32, J15, J16, J31, J71.

Resumen

Este trabajo analiza los factores que influyen en el salario por hora y sus diferencias por género para el departamento de Santander durante los años 2012 a 2014. Específicamente,

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se explora si dicho diferencial obedece o no a un factor discriminatorio en el mercado de trabajo santandereano, utilizando los datos proporcionados por la Gran Encuesta Integrada de Hogares GEIH. Luego de presentar un análisis descriptivo del mercado laboral santandereano, se realizan estimaciones econométricas aplicando la metodología Blinder-Oaxaca para evidenciar la existencia de un componente discriminatorio. Los resultados indican que, para el total de la muestra en la región santandereana, entre un 25 % y 30 % de las diferencias salariales por género se asocian al componente discriminatorio no explicado.

Palabras clave: capital humano, género**,** determinantes salariales, diferencias salariales, discriminación salarial.

Resumo
Este artigo analisa os fatores que influenciam o salário por hora e suas diferenças por gênero para o departamento de Santander durante os anos de 2012 a 2014. Especificamente, explora-se se o diferencial obedece ou não a um fator discriminatório no mercado de trabalho de Santander, utilizando os dados fornecidos pela Gran Encuesta Integrada de Hogares, GEIH. Após apresentar uma análise descritiva do mercado de trabalho de Santander, realizam-se estimações econométricas aplicando a metodologia de Blinder-Oaxaca para evidenciar a existência de um componente discriminatório. Os resultados indicam que, para a amostra total na região de Santander, entre 25% e 30% das diferenças salariais por gênero estão associadas ao componente discriminatório não explicado.

Palavras-chave: capital humano, gênero, determinantes salariais, diferenças salariais, discriminação salarial.

INTRODUCTION

After the Second World War, relevant transformations took place in the economic, social, cultural, and demographic fields, among others, which brought about changes in the size, structure, and functional role of households (García, 1989). As from 1945, female participation in the labor market increased considerably. According to Sivard (1985), between 1950 and 1985, the number of female workers, in developed and developing countries alike, even doubled. Higher levels of education, urbanization processes and outsourcing, prevailing in the 20th century, allowed for female labor participation to go hand in hand with the growth of the services sector, concentrating women in certain occupations which, in general, were of lower importance and remuneration than those which concentrated the male population (García, 1989; Flórez, 2004; Alcañiz, 2012; Guzmán & Torado, 2001).

These discrepancies in the labor market, in relation to the occupation and remuneration by sex, motivated the interest of social researchers and its relevance has increased simultaneously with female participation in the labor market (Brizuela & Tumini, 2008, Fernández, 2006). Empirical evidence has shown that, although human capital variables determine the salary level, it is fundamental to take other non-observable factors into consideration, which may have an influence on the determination of salaries: sector, occupation or problems of salary discrimination by group, among others.

In Colombia, female workforce participation has doubled in the last three decades, mainly because of the addition of women who are married or in a common-law relationship, and of women with a low level of education (Peña et al., 2013). However, this female inclusion in the labor market has been accompanied by significant inequality as regards work income against the remuneration received by men. At the same time, at a regional level, in the department of Santander, studies have been carried out supported by the regional government on the gender gap in several aspects: education, income, political participation, violence against women, and sexual and reproductive health. There is evidence of this in the document called Diagnosis of the gender gap in Santander (*Diagnóstico de brecha de género en Santander,* 2009), where an explanatory study was carried out about gender differences. It was the basis for the Decenial Plan of Equality of Opportunities for Women (*Plan decenal de igualdad de oportunidades sobre la mujer 2010–2019),* included in the Development Plan: Inclusive Santander 2008–2011.

Although it is acknowledged that it is necessary to promote equitable insertion into the labor market for men and women, little is known about the labor market in the region of Santander and the factors that determine workers' salaries. For this reason, the aim of this article is to analyze the factors that have an incidence on the salary levels and their differences by sex for the department of Santander during the period between 2012 and 2014, using as a source of information the data base of the Great Integrated Survey of Households (*Gran Encuesta Integrada de Hogares*, GEIH, by its acronym in Spanish and referred to in this way from now one). In the same way, it is sought to establish the possible existence of salary discrimination, which attributes the differences in work income to non-observable factors for the population of Santander. Consequently, the results obtained in this work may act as a reference for future research which broadens the reach of this study, or else, as evidence for the implementation of improvements in matters of public policy.

To this end, this document has been divided into five sections. In the first, there is a summary of the theoretical and empirical literature about salary determinants and differences, within the framework of the human capital theory. In the second, the methodology implemented for determining salaries and their differences is presented. It explains the equations of Mincer type income and the Blinder-Oaxaca decomposition (B-O), simultaneously incorporating the use of Heckman's (1979) selection bias correction for the sample. Likewise, the data used for the empirical analysis is described. In the third section, there is a descriptive analysis of the labor market in Santander during the period 2012-2014. The results of the econometric analysis are presented in section four. Finally, the conclusion and policy recommendations appear in section five.

THEORETICAL AND EMPIRICAL BACKGROUND

The neoclassical theory of human capital, salaries and gender

The study of the determinants of work income in the labor market is traditional in economic analysis. The Human Capital Theory (HCT), postulated by Mincer (1958), Shultz (1961) and Becker (1962), among others, has been the reference *par excellence* for the understanding of the determinants of work income, which records the importance of the investment in human capital, its profitability and relevance for the analysis of the work income of those individuals who opt to invest in education. In this theory, education is constituted as a fundamental variable which affects work income through its effect on productivity. At the same time, factors such as age, cognitive skills, experience or family composition contribute to explaining the accumulation of human capital, its impact on work performance and, therefore, the income of the individual.

Following this idea, the concept of discrimination by gender arises in this context as an appendix of studies on salary differences[1]. Notwithstanding, not every salary differential is a synonym for discrimination, nor is all discrimination translated into differences in salary (Tenjo, Ribero & Bernat, 2005). Discrimination occurs when two individuals with the same economic characteristics and abilities perform the same tasks, but with a different payment and this treatment is systematically related to certain non-economic characteristics of said individuals (race, sex, religion, etc.).

The incorporation of the economic analysis into gender and salary issues started close to 1930, where aspects such as work outsourcing and task allocation motivated the study of the causes of salary differences between men and women, as well as works on domestic production and time use in the 1960s and 1970s (Benería, 2004; Alcañiz 2012). Moreover, for 1918, the controversy of determining a person's salary revolved around conditions of imperfect competition. However, this approach was replaced by the analysis of perfect competition within the neoclassical models of discrimination. Thus, after the Second World War, works on taste-based discrimination carried out by Becker (1962), and Arrow and Phelps (1972) on statistical discrimination, paid special attention to the explanation of salary differences attributed to non-observable factors, stemming from work demand.

According to Brizuela and Tumini (2008), the feminist perspective advances in the explanation of the causes that produce the segmentation of the market and the differences in payment due to gender. In this line of study, gender stereotypes (positive and negative), which are established in society and spread to occupations, are analyzed; positive attributes of women regarding care, health, education, administrative tasks, etc., and other negative attributes in relation to the adjudication of managerial positions and of technical and professional qualification. As a consequence, gender roles have played an important part in the estimation of salaries, and the relation between gender and salaries has been well studied. The human capital theory will be used as the basis of this research project. This theory appeared at the end of 1960s, and it explains the differences as regards work participation and income according to the productive characteristics of men and women.

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[1]According to Benería (2004), with the rise of the feminist movement, the vast majority of the economists who worked on issues related to women continued to use the neoclassic models or other variations of the conventional models.

Determinants of the differences in salary

As it was mentioned in the previous section, from the second half of the 20th century, the human capital theory (HTC) is constituted as the main theoretical and conceptual instrument in the analysis of the determinants of salary income. At the same time, HCT takes into consideration other cumulative factors of human capital which have to do with the personal characteristics of the individual. Thus, the different types of factors or variables, or both, which have an influence on individual salary level are highlighted, incorporating the proposed variables of work environment, such as work position, business size, seniority, among others. This section summarizes the main variables that national and international empirical evidence points to as determinants of salary income.

Individual and human capital characteristics

According to the neoclassical model of human capital (Becker, 1964), investment in education positively affects salary; the individual's decisions to obtain a higher level of training generate greater productivity than expected and, therefore, it is expected that income improves according to the level of education. There is a vast amount of empirical evidence that supports this hypothesis of a positive correlation between education and salaries (Carrasco, 2001; Contreras & Gallegos, 2011; Correa, Viáfara & Zuluaga, 2010; De la Rica & Ugidos, 1995; Guataquí, García & Rodríguez, 2009; Korkeamäki & Kyyrä, 2006; Kunze, 2005; Machin & Poani, 2003; Varela et al., 2010).

However, in relation to gender gaps, the same pattern does not prevail, given that works such as those of Atal, Ñopo and Winder (2009), for several countries of Latin America, show that although women have, on average, a higher level of education than men, they receive a lower salary; that is to say that, the return on education is not valued in the same way. Specifically, said study found that men earn, on average, 10% more than women despite their academic achievements. What is even more surprising is that if women have the same characteristics as men (in particular the same level of education), the salary gap by gender increases to almost 20%, although results differ depending on the country. Similar results were found in Argentina and Colombia. This phenomenon is usually attributed to discriminatory practices which undervalue the productive role of women. On the other hand, Badel and Peña (2009) found that returns on education in Colombia have a U shape, mostly affecting the lowest salaries (sticky floors) and the highest ones (glass ceilings).

Age is also a relevant characteristic in determining individual salaries. According to empirical evidence, age has non-linear effects on salary (Hernández, 1995; Varela et al., 2010); this means that when age increases, salary increases too, but to a lower extent, even reaching a point where a higher age may generate a decrease in salary. Atal *et al.* (2009) found that the gender pay gap increases with age, which could be explained due to a cohort effect or the effect of some non-observable characteristics, such as experience. On the other hand, experience is a human capital factor with similar effects to age. As per the ideas of human capital, when experience increases, salaries increase too, but in a lower proportion.

Drolet (2001), for example, shows that experience explains the 12% salary gap for the Canadian case; similar to the evidence found in later research projects (Actis & Atucha, 2003; Contreras & Gallegos, 2011). Similarly, Kunze (2005) observed the level of income in people with different levels of experience in Germany, and found a considerable salary gap in their first job, which remains constant throughout the person's career. Likewise, the author determines that there are occupational segregation problems by gender against women. According to this, salary differences are mainly associated with an explained component; that is, education and experience, as human capital determinants play a fundamental role. On the other hand, Hernández (1995) perceives that as permanence in the last job increases, the relation with salary becomes more positive, mainly favoring women. This evidence supports the hypothesis that employment without voluntary interruptions mitigates the process of salary discrimination, in accordance with Witkowska (2013), who carried out a similar study in the United States.

Characteristics of the employment

The type of occupation is a factor of the market labor which, to great extent, has an influence on salary, given that it is usually related to the problem of occupational segregation, where men and women are assigned to certain occupations depending on specific employment characteristics, such as the level of education, cognitive abilities, physical effort, etc. (Amarante & Espino, 2004; Cain, 1986). Hernández (1995); Korkeamäki & Kyyrä (2006) and El-Hamidi & Said (2014) found that there are large salary differences in workers in managerial and administrative positions, given the disproportionate concentration of women in work positions with low salaries, mostly attributed to lower ability and the complex requirements of the work and discriminatory actions. Thus, those managerial positions where salaries are high are mainly being occupied by male workers (Esquivel, 2007; Baquero, 2001). Nevertheless, Tenjo and Herrera (2009), in the study carried out in Colombia, found that in the case of women, the occupational structure favored them, given that women are more focused than men on occupations requiring higher levels of qualification and, therefore, with higher salaries. Notwithstanding, there are cases in which men as well as women have the same characteristics for carrying out certain occupations and it is men who receive higher salaries. An example of this is the work of Urdinola and Wodon (2003), where the massification of the labor supply leads women to be rewarded with lower salaries, even in better-paid positions.

On the other hand, according to the structuralist theory of the labor market, the size of the business is related to the power of the market, education, the formation of the workers, and the use of technologies. Given the above, the physical capital of a business is closely related to the human capital of the employees and, therefore, the productivity of the business. In Colombia, the research project carried out by Ortiz, Uribe and García (2007) shows significant salary differences between the formal sector (primary) and the informal sector (secondary), for the size of the business has a positive and significant impact on income. Moreover, the authors have concluded that the omission of the business size,

positively biases the impact of education, experience, being the head of the household, and gender regarding salary payment.

In the same line, according to the structuralist approach, a formal labor market suggests better payment, given that it has better quality conditions and characteristics (Uribe & Ortiz, 2006). As per Piore (1970) and Cain (1986), market segmentation is closely related to discriminatory processes against minorities. Said authors found that women or afro-descendent individuals are destined for the secondary labor market. Deininger, Jin and Nagarajan (2013), in their study based on the informal labor market in India, showed that salary discrimination by gender is greater in informal markets than in formal ones, and so the losses produced by discrimination are higher than the benefits acquired by putting mitigation policies into effect.

Family characteristics

Family characteristics are composed of factors that, one way or the other, impact on the individual's decisions concerning their participation in the labor market and the acceptance of certain salary amounts as payment. Fernández (2006) argues that there are factors, within the families, which are signs of the commitment to being part of the labor market. Becker (1985) illustrates that women have greater responsibility in taking care of their children and that doing household chores may lead to the exclusion of women from more demanding jobs, or to them dedicating less effort to performing the same task as men. In that sense, having children is a family factor associated with the role of the gender of the individuals in the household. This variable is crucial not only for the determination of access to employment but also for salary income, given that a person who has children needs to find a job that covers their needs and those of their family.

Blau and Kahn (2000) found evidence that women are still the ones who are mainly responsible for household chores and taking care of the children in most North American families and that, therefore, they receive lower salaries. According to Tenjo, Ribero and Bernat (2005), for employers, having children is a risk and an uncertainty factor in the decisions regarding hiring women, and therefore, their punishment is to give them a lower salary. In this same line, Fernández (2006) estimates that the work that women do in the household, reduces the possibility of working extra hours, however, when making a thorough analysis dissimilar behaviors are observed depending on the point of the distribution of income from which the phenomenon is analyzed.

The marital status of an individual implies a responsibility in the roles of the household, and for that reason, the results with respect to the effect of marital status are diverse within the empirical evidence. According to Fernández (2006), it is to be expected that being married or in a common-law relationship is associated with positive and significant returns for men as well as for women, thus, employers may see married life as a sign of the commitment and constancy of the individual, or that to the extent that they have greater incentives to do a better job and to be promoted so as to improve the quality of life of their families. Abadía (2005) found results that support the hypothesis that employers

statistically discriminate by gender against married women or those who are in a common-law relationship in the Colombian labor market; this is possibly caused by the fact that women have to divide their time between their household chores and work, so the employer creates stereotypes in the access to and payment for the job.

This study explores the effect of these personal, family, and employment characteristics over the salaries of men and women in Santander. In this way, the differentiating effects which these may have on each population group and the possibility of salary discrimination by gender are delved into. To reach the objective of the study, the next section summarizes the methodology used.

METHODOLOGICAL ASPECTS

Mincer equations of income

According to the analysis of the existing relations between explanatory variables and salaries, two Mincer-type equations (1974)[2] are used: the first one for the male population and the second for the female population. In these equations the dimensions of human capital, family composition, as well as employment variables are considered. This means that the salary (with logarithmic notation) is expressed based on a series of observable characteristics, as follows:

$$\ln(Y_i) = X_i\beta + \sigma_\lambda\lambda_i + \varepsilon_i \qquad [1]$$

Y_i is the hourly wage of worker i, X_i is a vector of observable characteristics which measure the worker's human capital i, β is a vector of associated parameters which represent the returns on the different types of human capital, λ is the term of bias correction, σ_λ the covariance between non-observable factors that affect work participation and those which affect the salary, and ε_i is a term of random perturbation. The variable λ and its respective parameter σ_λ are included as Heckman's (1979) selection bias correction, which generates the randomization of the salary equation from a probit model of participation in the labor market.

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[2]Although the Mincer estimation of minimum ordinary squares has been broadly studied, said estimation is not exempt from problems (Blaconá et al., 2001). According to the signaling theories (Spence, 1973; Arrow, 1973) and studies such as those of Griliches (1977) and Willis (1997), in the measurement of the performance of education through the MOS method, there is bias. There could be problems of sample selection which tend to be corrected by the procedure proposed by Heckman (1979), and used in this document, or endogeneity problems, associated with the problem of identifying the abilities of people, understood as characteristics that could be considered as endowments, and that could lead to inconsistent and biased estimations. In order to overcome the endogeneity, the correction by instrumental variables is used (see Hausman & Taylor, 1981). In most cases, the information on the level of education of the mother or the father is used to correct this problem; however, in the GEIH there is no such information and it is not possible to implement said correction.

Blinder-Oaxaca Decomposition

Following Fernández (2006), it is possible to affirm that there are forces behind the phenomenon of salary differences which make of this process a key component for the analysis, design and putting into effect of attack policies. Therefore, there is usually a decomposition of Mincer's equation for men and women, as follows:

$$\ln(Y_m) = X_m\beta + \sigma_\lambda\lambda_m + \varepsilon_m \qquad [2a]$$
$$\ln(Y_h) = X_h\beta + \sigma_\lambda\lambda_h + \varepsilon_h \qquad [2b]$$

Where *h* and *m* express the terms corresponding to men and women (h and m refer to *hombre* - man and *mujer* - woman), respectively. The methodology suggested by Blinder and Oaxaca (1973) is fundamental for the decomposition analysis of the salary differencial, between a component which is the result of the differences in endowment of human capital between the sexes and another component which is the result of the returns of said endowments. Following Tenjo (1993), the estimated differencial can be expressed as the addition of different components, as follows:

$$\ln(Y_h) - \ln(Y_m) = (X_h - X_m)\beta_h + X_m(\beta_h - \beta_m) + (\sigma_\lambda\lambda_h - \sigma_\lambda\lambda_m) \qquad [3]$$

Where,

$\ln(Y_h) - \ln(Y_m)$ is the term that states the salary difference, in logarithmic terms, between men and women.

$(X_h - X_m)\beta_h$ is the part explained by the differences in the productive characteristics of the workers. This could be a measure of discrimination, but in the access to a certain variable, for example, education.

$X_m(\beta_h - \beta_m)$ is the part explained by discrepancies in coefficients. This means that, it expresses a different treatment for each study group or salary discrimination measurement; given that the parameters summarize the rules the market uses to value the amount of human capital of the workers. Therefore, if these rules are different, they suggest the discriminatory treatment of the market in salary terms.

$(\sigma_\lambda\lambda_h - \sigma_\lambda\lambda_m)$ is the component associated with the differences of the pattern of incorporation into the labor market between men and women.

Data of the study

The data base used corresponds to the GEIH carried out by the National Administrative Department of Statistics (DANE, by its acronym in Spanish), for the years 2012 to 2014. The information about salary income is expressed in constant prices from December 2012.

It is considered as the target population the sample of header data and the rest, corresponding to the department of Santander and, within it, the economically active population (EAP) between 18 and 60 years of age[3]. The sample implemented is composed of 14,373 observations for the year 2012, of which 54.52% correspond to men and 45.48% to women. For the year 2013 the number of observations went down to 14,344; finally, by the year 2014 the observations were 14,187, for which none of the variables being studied present losses.

DESCRIPTIVE ANALYSIS OF THE LABOR MARKET IN SANTANDER, 2012 – 2014

According to the data from the GEIH, the labor force participation rate (LFPR) in Santander, as a relation between the economically active population (EAP) and the working age population (WAP) registered a level of 68.9% in 2014 against 69.1% in 2012, which corresponds to a slight reduction of 0.2%. On the other hand, the employment rate (ER) showed contrary behavior to the LFPR, this means the ER was 64.4% in comparison to 63.7% for 2012, and the unemployment rate (UR) was gradually reduced by 1.3%.

In Santander, these labor indicators did not show relevant changes between 2012 and 2014. In any way, the results reflect that the greatest indicators of labor participation are for the male population with a LFPR superior to 78% against 60% for women, as shown in Figure 1. The same behavior is reflected in the employment and unemployment rates with gaps of about 20% and 4%, respectively. This shows, not only a favoring context for the male population, but also the lack of variability in the structure of the labor market in terms of employed and unemployed people by gender during the analyzed period.

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[3]This age interval is used following article 35 of Law 1098/06, which considers this range to be able to work without any work inspection, in addition to the average age of retirement for men and for women.
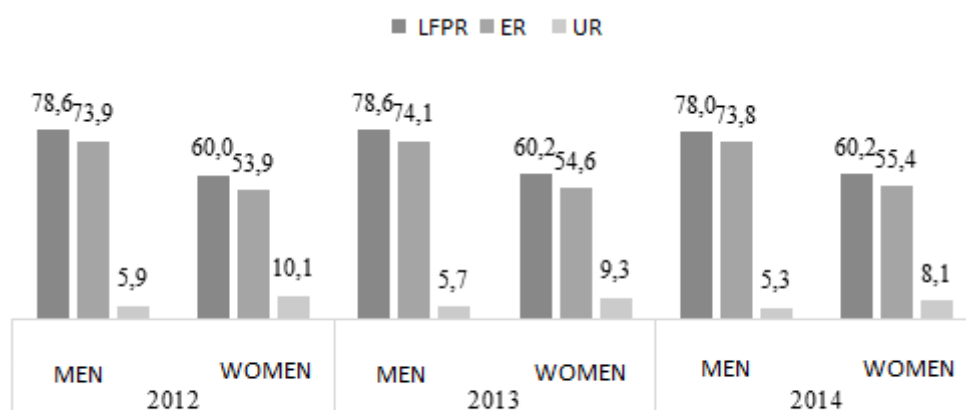
Figure 1. Labor market indicators in Santander by gender.
Source: elaborated by the author based on data from DANE, GEIH 2012-2014.

The population indicators reflected an important increase. The total population and that of working age rose by approximately 20,000 and 26,000 people respectively from 2012 and 2014. However, the increase of the WAP is slightly above 1% in variability. In the region of Santander, for the period studied, the employed population reached levels of 93% as a proportion of the EAP in 2014, as observed in Table 1.

Table 1. Population indicators in the labor market in Santander (Dane, 2013)

Concept	2012	2013	2014
Total population	2.031	2.041	2.051
Working age population	1.641	1.654	1.667
Economically active population	1.134	1.145	1.149
Employed	1.046	1.061	1.074
Unemployed	0.088	0.084	0.075

Source: elaborated by the author based on DANE, GEIH, data in millions.

In terms of the sample studied, from 2012 to 2014 the employed male population was 53.96% on average, and the remaining 46.03% corresponds to the employed female population. Said figures indicate that female participation in the labor market has increased, in comparison to what the figures of 2005 reflect, where the female population, in proportion to the employed population, reached a top level of 20%. The remaining 80% corresponded to employed men; behavior that is repeated in most age ranges (PPMIGS-PS, 2010, p. 23).

With respect to the monthly income of the population, in Appendix A the descriptive statistics for men and women for the years 2012-2014 are presented. There are clear differences in the average monthly income between men ($1,090,832.7) and women ($807,485.8). Although this difference does not necessarily express that there is salary discrimination, this is a first indicator that there is preferential treatment for men and women in the labor market in Santander; the results of the wages per hour, present similar behaviors. During the three years of the study, on average, women received 89.28% of the salary received by men. A possible explanation for this behavior is supported by the time that men dedicate to work during the week in comparison to the time women employ. More than 90% of men are full-time workers, that is, they devote 40 hours or more a week to do a certain activity, contrasted with an approximate 71% of full-time female workers.

No statistically significant divergences were found in the average age of men and women; in both groups, the average age is 37 years old. However, in terms of education (measured in years of education), it is observed that, on average, women have one more year of education than men (9 years for men and 10 years for women). Women occupy the greater proportion of their population in the higher education level, whereas men are a majority in the primary level. Therefore, it would be expected that women receive a higher salary income in terms of returns on education.

In employment terms, the structure of the labor market did not present meaningful changes during the period analyzed. Most of the population is employed in companies, or else as self-employed workers, essentially in micro-enterprises. The greater gaps are observed in the population employed in domestic work, day laborers and employers, given that the first activity is mainly assigned to the female population and the other two to the male population. This could mean employment segregation, with men mainly employed in day laborer tasks (lower salaries) and employers (higher salaries), while women occupy positions mainly defined according to stereotypes and gender roles in the services sector.

Among the most outstanding results, it is important to highlight that women have a higher participation in the role of domestic worker with 97% on average. For their part, the percentage of male participation is higher than that of women in the occupations of employer and day laborer with 71.1% and 89.4%, respectively. Indistinctively, as is observed in Figure 2, most of the occupations carried out by women receive salaries which are, on average, lower than those of men. In the occupations of domestic worker and civil servant, women receive a higher income, although this difference is not more than 50 thousand Colombian pesos. The occupations that concentrate an average higher level of income are those of civil servant and employer, where the differences in participation as well as regarding income are significant. So, men obtain a much higher proportion of the income with respect to women, this means that, on average, employed men as employers earn COP $251,391 more than women.
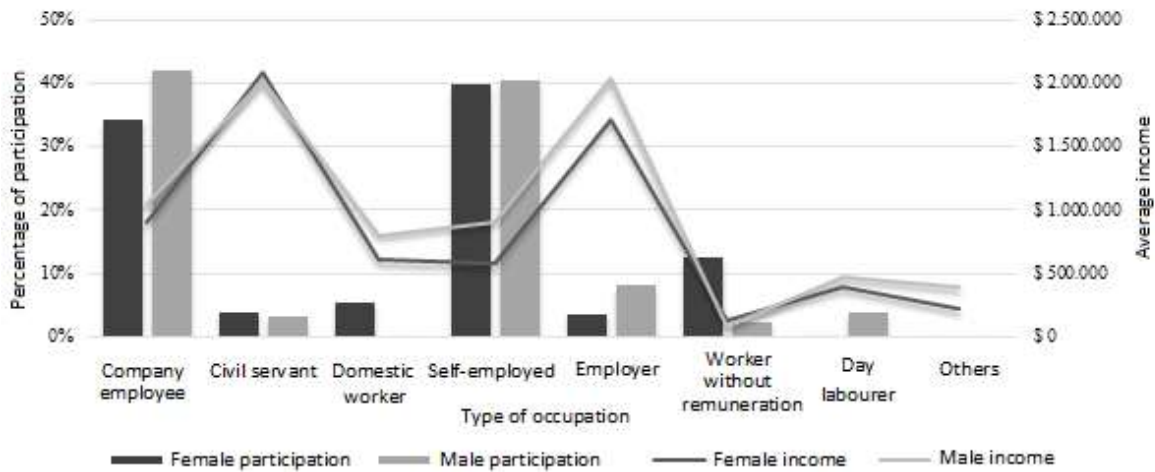
Figure 2. Occupational structure of the labor market in Santander in terms of average income and gender, year 2014.

Source: elaborated by the author based on DANE, GEIH (2014).

On the other hand, the existence of labor segmentation in the region of Santander is inferred, given that in the particular case of men, they are assigned to certain branches of the economic activity (mainly jobs as laborers, self-employed workers or employers, where the last group receive salaries that are much higher than the rest of the population), for male characteristics allow them to carry out activities that require greater effort and risk[4]. As regards women, they are mainly allocated to activities of domestic work and civil servants, that is, occupations that go hand-in-hand with a gender role. All the descriptive statistics of these variables are presented in Appendix B.

ECONOMETRIC RESULTS

Results of the Mincer estimations

In general terms, the signs of the coefficients coincide with what was expected according to the review of the literature. Appendix C presents the tables with the results of econometric estimations. The data is divided into personal, family, and employment characteristics, for the period studied, and the differential of average income went from 23.7% in 2012, 22.8% in 2013 to 20.7% in 2014. This means that the gap in the average income presented descending behavior, although the male population that benefitted from this differential.

Now, examining the determinants of income by gender, the Mincer equations of salaries present coefficients of signs that are equivalent to those proposed by the theory of human capital, where experience, age and education have positive effects on the salary.

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[4] It is from there that the possible existence of salary gaps due to compensation differences can be established.

Controlling the other variables, for one more year of education in 2012 a man and a woman, on average, receive a 7.7% increase in their salaries. However, the valuation that the market gives to one more year of education has suffered discrepancies for the years of the study, as is reflected in 2013, and even in 2014 where one more year of education for a man represents a 7% increase in his salary and for a woman only 6.1%. These results are similar to the national empirical evidence (Tenjo, Ribero & Bernat, 2005; Tenjo & Herrera, 2009; Badel & Peña, 2009), although there was an improvement in the last few years in the educational level of women in Santander. According to the evidence presented, it can be inferred that, controlling for the other variables of human capital and of employment, the labor market in Santander is losing the connotation of an equitable valuation process
for education with respect to the investment in education that the individuals make.

The incidence of age on the income is positive for both. The male population is more favored than the female population, as their income increases until 50 years of age (2012), and until 71 in 2014. Although the behavior, in the case of women, is similar, they have increases in their income until the age of 46 (2012), and until 50 in 2014.

For its part, experience, which is measured by years of seniority in the company, for 2012 and 2014, show that men and women receive an increase in their income up to levels of experience above 13 years. Nevertheless, in 2012 there were greater divergences, given that for men the increase in their income was secured until levels of experience that reach 28 years against 18 years required for women. However, this discrepancy is reverted in 2014, given that men require levels of experience up to 14 years to secure the increase in their salary, while women may expect an increase up to 17 years of experience. The above indicates, particularly between 2012 and 2014, that the relation between the level of experience and income favors women, given that they may see an increase in their salary even for longer than men when having more years of seniority in the company. These results support the hypothesis that the labor market rewards the voluntary non-interruption of work, applied by Hernández (1995) and Witkowska (2013), for it would be expected that higher levels of experience had a positive incidence over the salary of women.

With respect to the variables of the work environment, the condition of informality of an individual has a negative incidence on their salary, a finding that coincides with the national and international empirical evidence. Thus, it is observed that informality is a phenomenon that punishes greatly the income of women over that of men. In other words, women can be more affected by the non-correspondence between supply and demand of labor and the high labor costs of the companies who hire personnel formally, among other factors.

Under the structuralist approach of the market, the type of employment of the individuals has some inherent characteristics, good and bad, which have an incidence over the salaries of the employed population. In the present document, the different types of employment provided by the DANE were examined, taking as a base category that of *employee of a private company*. Thus, controlling for the other variables, it is observed that self-employed workers receive salaries that are lower than those of company employees, especially in the female population. This reflects that the *self-employed* in Santander can mostly be the

population that is dedicated to street vending or trades that do not have social provision and other benefits, for their work requires greater effort and a lesser salary. In positions such as *civil servant* and *employer*, the salary is significantly higher than that of a company employee. In said occupations, women have higher salaries in comparison to their peers in companies; this increase ranges from 35% to 55%, while the salary increase for male civil servants ranges from 10% to 18%, and as employers from 33% to 55%. Being a domestic worker only presents statistically significant salary gaps for women, as is already evident; they are the ones who carry out said activities. Conversely, being a day laborer does not present statistically significant differences in the income from company employees, neither for men nor for women.

At the same time, under structuralism, the size of the company has a positive influence on the level of income of the population. For the estimations, the category of *large enterprise* was taken as a base. It was found that the gaps in the income closes when the size of the company increases; said increase is mainly presented in women, this means, a larger company size leads to better work conditions and better training and productivity, so the income increases too, controlled by the other variables.

In summary, the determinants incorporated for this study had the expected signs, with certain peculiarities from the point of view of gender. Variables such as experience and the business size mainly favor women, given their process of training. On the other hand, education and age are factors in favor of the male population. In addition, informality has a less negative influence in the salary of men than that of women. Moreover, the coefficient of the types of employment correspond to the theory under the structuralist approach, given that according to the conditions and requisites that each occupation has determine the salary the person will earn. However, evidence in Santander reflects that a person who is self-employed earns a lower salary than that of a company employee, but closer to that of a day worker. This shows the poor conditions to which the population who perform this trade are subject to.

Selectivity correction and determinants of labor participation by gender

The male population that is out of the labor market has a greater salary reserve (33% in 2012 up to 43.4% in 2014) than the one offered by the labor market[5]. This situation is contrary to that of the female population where the results for this parameter indicate that unemployed women are willing to accept any amount of money that the market is willing to offer. The above reflects that behind the acceptance, or not, of a certain salary there are factors that influence the decision of men and women. For the case of Santander, said factors have much more weight on women, pushing them to accept any salary that the market is willing to offer them. To examine this phenomenon, this study followed the idea of Bernat (2005), taking as the determining factors of participation in the labor market, personal characteristics, such as age, years of education and school attendance, as well as family characteristics such as being head of household, being married or in a common-law relationship and having children younger than 6 years of age in the household, as a *proxy* of children. Given that at this point the methodology used is a *probit* of participation, the

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[5] The parameter that accompanies *lambda* proved to be significant only for male population.

marginal effects on the probability of working, which appeared from the changes in the magnitude of the explanatory variables, are presented in Appendix D.

In general terms, the results correspond to the outlines of the *new domestic economy,* regarding the distribution of time between the household and work. In this way, having children younger than 6 years of age in the household and being married or in a common-law relationship, as indicators of commitment, reduce the probability of participation in the labor market for women, while it enhances it for men. The opposite occurs with one more year of education, which fosters an increase in the probability of working for women and reduces the probability of working for men in Santander. On the other hand, being the head of the household and age are factors that increase the probability of participation in the labor market for men as well as for women, especially for women. Finally, attendance in school, or any educational institution, give those who are in that situation less incentive to take part in the labor market and, for that matter, to being hired. However, in 2012 and 2014, the probability of participation for men is lower than for women, if they are attending school. In 2013, their probabilities of working, although negative, are similar. The above shows how family variables have a different incidence for men and women, even when both groups show the same signs, the perception of the labor market assesses them in a different way.

Blinder-Oaxaca decomposition: salary discrimination by gender

According to the results estimated with selection bias correction, controlling for age, experience, years of education, type of employment and work characteristics of informality and business size, it is observed than men earn an average salary that is higher than that of women in Santander, with the same productive characteristics, which was 21.52% in 2012; a gap that reached 25.61% in 2014. This gap, on average, is explained to a great extent by the unexplained component, usually associated with a discriminatory factor that reached 24.5% in 2012, which, like the differential average continues to increase until 2014, reaching 30.37%. Said component has its roots in non-observable factors in the labor market or else in the distinctive valuation of the amounts of human capital of the workers.

Under this assumption, women receive about 25% and 30% less salary in comparison to men, even when women have the same amount of human capital as men. However, as it was indicated previously, in Santander women have higher levels of education, which is a discrepancy with the discriminatory phenomenon presented, for the greater investment in education should imply reductions in the average gap as well as in the salary discrimination by gender.

Given the above, salary gaps due to productive characteristics favor women in Santander. This means, given the human capital characteristics of women, if they were rewarded using the same criteria with which men are assessed, women should receive higher salaries (on average). In numerical terms, if the investment in human capital of women in the region of Santander were rewarded with the same returns as their male peers, women should earn a higher salary to that earned by men by 4.38%, 3.53% and 2.11% in the years 2012 to 2014,

respectively. These discriminatory practices could be the consequence of the segmentation of the labor market (explained by the massification of the work supply), where women are placed in jobs with lower payment or else, as Piore (1970) and Cain (1986) affirm, they are placed in the secondary labor market. On the other hand, in Deininger, Jin and Nagarajan (2013) another reason can be found associated to income discrimination, from the component of informality, which is already evident for the case of Santander, the income of the female population suffers more under those conditions.
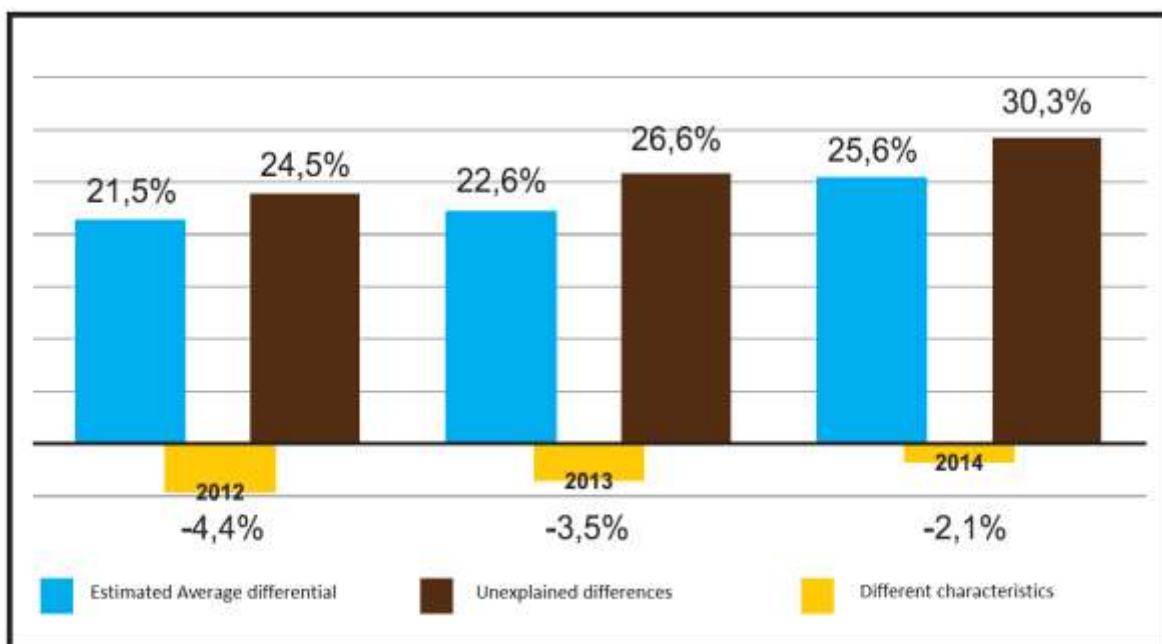
Figure 3. Blinder-Oaxaca Decomposition, according to income estimation
Source: elaborated by the author based on DANE, GEIH 2012-2014.

From the results of the estimations of the Mincer equations, and controlling for human capital and employment variables, it can be concluded that, in general terms, there is evidence that the women in the department of Santander are victims of salary discrimination. On the contrary, if the observable characteristics only determine the salary remuneration of the individuals, the women in Santander should earn, on average, a higher income than men. These results are conclusive as they present a similar behavior as in the Latin American situation studied by Atal, Ñopo and Winder (2009), which reflects the lack of correspondence between the labor policy and the valuation of the labor market over the productive characteristics of the individuals, which presents market flaws that are harmful to minorities (in this case, women) and, especially, for the sub-group formed by those who are better educated.

CONCLUSIONS

The analysis of the labor market in Santander, shown in this document, presented the main labor indicators, the statistical description of the variables studied and a small

approximation of the occupational segregation (allocation of men and women to certain occupations in relation to their gender role) and compensation differences (given that men occupy roles that demand greater levels of physical effort and risk). The results were similar to Urdinola and Wodon (2003), for in occupations such as domestic worker (women) or day laborer (men), the massification of the labor supply and the low educational level made it that the population was rewarded with inferior salaries.

In that sense, in this article the determinants of salary incomes by gender in the department of Santander were analyzed, under the human capital theory. Through a linear model, proposed by Mincer (1974), it was sought to evaluate the effect that personal characteristics, human capital and work characteristics have on salary income. The estimations exhibited coefficients with signs close to those proposed by the human capital theory; thus, education had a positive sign in relation to income while age and experience have non-linear effects regarding income. Informality, in both groups, had a negative incidence on the income. For these regressions, the salary gap between men and women was between 21% and 24%, where the returns on education are unfavorable for women, and the returns on age and experience favor men to a greater extent.

It is vital to point out that for the total of Santander and for the male sub-sample, a selection bias was observed and duly corrected, while in the female sub-sample, the factors that condition the participation of women in the labor market possibly did not generate differences between the salary expected by the unemployed and salary received by the employed. From the analysis of these variables, similar results to those of Abadía (2005) and Fernández (2006) were found, for commitment indicators such as having children in the household and being married or cohabitating represent a penalty for female participation in the labor market, different to the case of men. On the other hand, the probability of accessing the labor market is higher for those women who are heads of household.

The Blinder-Oaxaca decomposition showed that discrimination is the component that explains the existing salary gap. For the case of Santander, it was found that, on average, women receive salaries between 25% and 30% lower than men, due to non-observable factors associated with gender discrimination. Also, the differences by human capital factors show that if women received the same returns on human capital than men receive, they would earn, on average, higher salaries than males. However, this component only reached a maximum of 4.38% in 2012.

A peculiar piece of information is that Mincer estimators determined that the valuation of years of education have had a negative effect on women between 2012 and 2014, and given that the analysis presented in this investigation was done using statistical techniques that take into account average values of the characteristics of the population, it is advisable to carry out further research which uses an alternative methodology that measures the effects of the explanatory variables of the different intervals of salary distribution. In this way, it is possible to analyze the differences that some variables may present, not on the average of the expected salary, but on different points of the conditional distribution of salaries, quantile or percentile, so that in the case of education, it can be established if the

phenomena known as sticky floor and glass ceiling are present in Santander. Likewise, it is recommended to carry out research projects that resort to sources of information that allow for the control of the possible endogeneity of education, given that the estimation presented in this study may be under or overvaluing the salary differences by gender, associated with discrimination.

So, given the actions as regards public policy that have been intended to be put into force, and in relation to the problems hereby presented, it is recommended that the actions taken in order to mitigate the processes of inequitable remuneration allow for the determination of their impact on men and women separately. In this way, the changes and processes required to promote gender equality will be enacted. On the other hand, it is recommended that the political actions contribute so that women can balance the weight of their family factors, with the aim that said factors do not exert pressure on their participation in the labor market, accepting any income that the market is willing to offer them.

Moreover, it is advised that there be a thorough review of the principles that constitute the public policy on gender in the region, as it is pertinent that the public policy is framed under the adequate analysis, where the relation between the implications of gender relations and the social and economic analysis are taken into consideration. Thus, the right decisions will be made so as to correct the inequity problems existing between both sexes –such as salary gaps- so these decisions are not biased by incorrect data.

Finally, those who enact this type of policy are invited to take into account the labor supply as well as the demand, in favor of gender equality. In public policy and gender equality, the actions to be taken only contemplate the labor supply component, leaving the problem of work demand behind. This means that, the policy is not explicit in the designation of the responsibilities of the employing companies, they being responsible for offering the working population a differential treatment, which generates such differences in salary by gender. It is important that the policy designs incentives to mitigate discriminatory behaviors that go against the integral development of the population of Santander.

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APPENDIX A

DESCRIPTIVE STATISTICS OF INCOME. TOTAL POPULATION AND GENDER, 2012-2014

YEAR	Population	Variable	Observations	Average	Standard deviation	Minimum	Maximum
2012	TOTAL	Monthly income	14373	975.794	1.251.624	0	60.000.000
		Hourly income		5.490	7.831	0	425.000
	Men	Monthly income	7836	1.113.800	1.435.337	0	60.000.000
		Hourly income		5.788	8.654	0	425.000
	Women	Monthly income	6537	810.363	961.695	0	20.000.000
		Hourly income		5.133	6.695	0	166.667
2013	TOTAL	Monthly income	14344	947.873	1.058.031	0	34.300.000
		Hourly income		5.293	7.331	0	367.863
	Men	Monthly income	7732	1.075.960	1.190.115	0	34.300.000
		Hourly income		5.561	6.778	0	183.932
	Women	Monthly income	6612	798.090	854.824	0	17.200.000
		Hourly income		4.981	7.918	0	367.863
2014	TOTAL	Monthly income	14187	957681,4	1020906	0	30.300.000
		Hourly income		5.308	6.276	0	189.269
	Men	Monthly income	7585	1.082.738	1.135.586	0	30.300.000
		Hourly income		5.578	6.572	0	189.269
	Women	Monthly income	6602	814.004	848.326	0	14.200.000
		Hourly income		4.998	5.903	0	138.797

APPENDIX B

EXPLANATORY VARIABLES AVERAGE BY GENDER, 2012-2014

Variable	2012		2013		2014	
	Men	Women	Men	Women	Men	Women
Human capital						
Age	36,840	37,008	37,157	37,190	37,014	37,121
Education	9,314	10,419	9,348	10,453	9,547	10,610
School attendance	0,081	0,112	0,092	0,105	0,086	0,110
Seniority	6,170	4,951	5,997	4,865	5,900	4,763
Employment characteristics						
Informal condition	0,590	0,623	0,574	0,617	0,557	0,596
Full-time employee	0,905	0,713	0,903	0,722	0,912	0,737
Type of occupation						
Company employee	0,407	0,371	0,441	0,396	0,455	0,408
Civil servant	0,034	0,042	0,031	0,038	0,033	0,039
Domestic worker	0,001	0,065	0,002	0,064	0,002	0,062
Self-employed	0,429	0,463	0,423	0,451	0,404	0,445
Employer	0,101	0,050	0,080	0,043	0,082	0,039
No payment	0,001	0,002	0,001	0,002	0,001	0,002
Day laborer	0,023	0,003	0,021	0,003	0,020	0,002
Other occupation	0,003	0,005	0,001	0,003	0,003	0,003
Business size						
Microbusiness	0,599	0,621	0,594	0,617	0,578	0,608
Small business	0,098	0,090	0,091	0,087	0,098	0,097
Medium-sized busines	0,076	0,071	0,084	0,079	0,088	0,080
Large business	0,227	0,219	0,231	0,217	0,236	0,214
Family characteristics						
With partner	0,626	0,526	0,629	0,526	0,614	0,516
Head of household	0,619	0,273	0,611	0,289	0,597	0,280
Infants younger than 6 years old in the household	0,348	0,358	0,336	0,350	0,329	0,350
Highest level of education reached						
Primary or less	0,282	0,207	0,283	0,198	0,243	0,214
Secondary	0,134	0,124	0,134	0,127	0,123	0,121
Medium	0,291	0,274	0,286	0,274	0,301	0,277
Higher	0,272	0,383	0,281	0,391	0,311	0,370

APPENDIX C

MINCER REGRESSIONES OF INCOME, BY GENDER 2012-2014

Mincer Regressions	2012				2013				2014			
	Men		Women		Men		Women		Men		Women	
	Without correction	With correction	Without correction	With correction	Without correction	With correction	Without correction	With correction	Without correction	With correction	Without correction	With correction
Constant	6.626***	7.072***	6.865***	7.119***	6.447***	7.059***	6.799***	7.064***	6.826***	7.480***	7.106***	7.222***
	(0.108)	(0.144)	(0.164)	(0.269)	(0.138)	(0.208)	(0.175)	(0.290)	(0.125)	(0.181)	(0.154)	(0.244)
Age	0.051***	0.030***	0.028***	0.019*	0.068***	0.039***	0.041***	0.032***	0.046***	0.014	0.030***	0.026**
	(0.006)	(0.007)	(0.009)	(0.011)	(0.007)	(0.010)	(0.009)	(0.012)	(0.007)	(0.009)	(0.008)	(0.010)
Age squared	-0.001***	-0.000***	-0.000**	-0.000	-0.001***	-0.000***	-0.000***	-0.000**	-0.000***	-0.000	-0.000***	-0.000**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Experience	0.017***	0.017***	0.037***	0.037***	0.032***	0.032***	0.045***	0.045***	0.027***	0.026***	0.054***	0.054***
	(0.003)	(0.003)	(0.006)	(0.006)	(0.004)	(0.004)	(0.006)	(0.006)	(0.004)	(0.004)	(0.005)	(0.005)
Experience squared	-0.000***	-0.000***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.002***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education	0.075***	0.077***	0.077***	0.074***	0.065***	0.067***	0.068***	0.065***	0.068***	0.070***	0.061***	0.060***
	(0.002)	(0.002)	(0.004)	(0.005)	(0.003)	(0.003)	(0.004)	(0.005)	(0.003)	(0.003)	(0.004)	(0.004)
Informal	-0.154***	-0.144***	-0.237***	-0.236***	-0.157***	-0.146***	-0.156***	-0.155***	-0.155***	-0.137***	-0.152***	-0.152***
	(0.028)	(0.028)	(0.044)	(0.044)	(0.035)	(0.035)	(0.046)	(0.046)	(0.031)	(0.031)	(0.041)	(0.041)
Civil servant	0.110**	0.102*	0.354***	0.356***	0.139**	0.131*	0.365***	0.366***	0.196***	0.182***	0.443***	0.443***
	(0.054)	(0.054)	(0.078)	(0.078)	(0.071)	(0.071)	(0.083)	(0.083)	(0.062)	(0.062)	(0.076)	(0.076)
Domestic worker	-0.221	-0.192	0.283***	0.280***	0.084	0.090	0.334***	0.333***	0.277	0.273	0.380***	0.379***
	(0.239)	(0.237)	(0.064)	(0.064)	(0.290)	(0.288)	(0.067)	(0.067)	(0.232)	(0.231)	(0.062)	(0.062)
Self-employed	0.049*	0.048*	-0.069*	-0.067*	-0.098***	-0.097***	-0.199***	-0.196***	-0.027	-0.028	-0.116***	-0.115***
	(0.027)	(0.027)	(0.039)	(0.039)	(0.034)	(0.033)	(0.041)	(0.041)	(0.031)	(0.031)	(0.037)	(0.037)
Employer	0.518***	0.508***	0.509***	0.511***	0.342***	0.334***	0.388***	0.390***	0.573***	0.557***	0.552***	0.553***
	(0.037)	(0.037)	(0.069)	(0.069)	(0.050)	(0.050)	(0.077)	(0.077)	(0.046)	(0.046)	(0.073)	(0.073)
No payment	-	-1.328***	-1.477***	-1.459***	-2.007***	-1.980***	-2.021***	-2.005***	-1.531***	-1.531***	-0.877***	-0.872***

1.340***											
(0.299)	(0.298)	(0.328)	(0.328)	(0.447)	(0.446)	(0.317)	(0.317)	(0.365)	(0.360)	(0.330)	(0.330)
Day laborer 0.051	0.058	-0.153	-0.153	0.092	0.100	0.069	0.074	-0.012	0.001	0.175	0.176
(0.063)	(0.063)	(0.244)	(0.243)	(0.084)	(0.083)	(0.240)	(0.239)	(0.078)	(0.077)	(0.270)	(0.270)
Other occupation -0.487***	-0.490***	-0.439**	-0.438**	-0.945***	-0.896***	-0.356	-0.347	-0.665***	-0.647***	-0.400*	-0.399*
(0.178)	(0.176)	(0.201)	(0.200)	(0.303)	(0.298)	(0.270)	(0.270)	(0.196)	(0.192)	(0.219)	(0.219)
Microbusiness -0.256***	-0.259***	-0.286***	-0.288***	-0.224***	-0.229***	-0.422***	-0.426***	-0.277***	-0.283***	-0.506***	-0.507***
(0.036)	(0.036)	(0.055)	(0.055)	(0.045)	(0.045)	(0.058)	(0.058)	(0.041)	(0.040)	(0.052)	(0.052)
Small business -0.112***	-0.115***	-0.109*	-0.111*	-0.035	-0.037	-0.176***	-0.177***	-0.100**	-0.100**	-0.214***	-0.215***
(0.037)	(0.037)	(0.057)	(0.057)	(0.047)	(0.047)	(0.061)	(0.061)	(0.042)	(0.041)	(0.053)	(0.053)
Medium-size business -0.094**	-0.094**	-0.063	-0.064	-0.028	-0.028	-0.137**	-0.137**	-0.054	-0.055	-0.174***	-0.175***
(0.038)	(0.038)	(0.059)	(0.059)	(0.047)	(0.046)	(0.059)	(0.059)	(0.041)	(0.041)	(0.054)	(0.054)
Bias correction (λ)	-0.330***		-0.107		-0.390***		-0.108		-0.434***		-0.055
	(0.069)		(0.089)		(0.098)		(0.095)		(0.084)		(0.090)
Note: Significance * p< 0.1, ** p< 0.05, ***p<0.01. Standard error in parenthesis.											

INFLUENTIAL FACTORS IN WORK PARTICIPATION OF MEN AND WOMEN

YEAR 2012

Probability of being employed	MEN 0.9001		WOMEN 0.6890	
Variable	**Coefficient**	**Marginal effect**	**Coefficient**	**Marginal effect**
Age	0.1263 ***	0.0221	0.1590 ***	0,0562
	0.0105	0.0018	0.0079	0,0028
Age squared	-0.0017 ***	-0.0003	-0.0020 ***	-0,0007
	0.0001	0.0000	0.0001	0,0000
Years of education	-0.0002	0.0000	0.0347 ***	0,0123
	0.0044	0.0008	0.0033	0,0012
Married or common law relationship	0.2239 ***	0.0402	-0.2475 ***	-0,0865
	0.0504	0.0093	0.0307	0,0106
Head of household	0.4519 ***	0.0828	0.2508 ***	0,0852
	0.0488	0.0092	0.0363	0,0118
School attendance	-0.7825 ***	-0.1915	-0.3736 ***	-0,1392
	0.0517	0.0162	0.0434	0,0168
Children in household	0.1437 ***	0.0244	-0.1167 ***	-0,0415
	0.0450	0.0074	0.0286	0,0102

Note: significance * p< 0.1, ** p< 0.05, ***p<0.01. Standard error in parenthesis

YEAR 2013

Probability of being employed	MEN 0.8943		WOMEN 0.7049	
Variable	**Coefficient**	**Marginal effect**	**Coefficient**	**Marginal effect**
Age	0,1491 ***	0,0272	0,1639 ***	0,0566
	0,0103	0,0019	0,0081	0,0028
Age squared	-0,0020 ***	-0,0004	-0,0021 ***	-0,0007
	0,0001	0,0000	0,0001	0,0000
Years of education	-0,0010	-0,0002	0,0413 ***	0,0142
	0,0045	0,0008	0,0033	0,0012
Married or in common law relationship	0,3178 ***	0,0599	-0,2083 ***	-0,0713
	0,0486	0,0094	0,0311	0,0105
Head of household	0,3440 ***	0,0646	0,2901 ***	0,0955

Variable	MEN Coefficient		MEN Marginal effect	WOMEN Coefficient		WOMEN Marginal effect
	0,0468		0,0090	0,0363		0,0113
School attendance	-0,5934	***	-0,1392	-0,3786	***	-0,1388
	0,0511		0,0147	0,0439		0,0168
Children in household	0,1079	**	0,0192	-0,1003	***	-0,0348
	0,0444		0,0077	0,0293		0,0102

Note: significance * p< 0.1, ** p< 0.05, ***p<0.01. Standard error in parenthesis

YEAR 2014

Probability of being employed	MEN 0.9054			WOMEN 0.7196		
Variable	Coefficient		Marginal effect	Coefficient		Marginal effect
Age	0.1570	***	0.0265	0.1422	***	0.0479
	0.0108		0.0018	0.0081		0.0027
Age squared	-0.0021	***	-0.0004	-0.0019	***	-0.0006
	0.0001		0.0000	0.0001		0.0000
Years of education	0.0054		0.0009	0.0385	***	0.0130
	0.0046		0.0008	0.0034		0.0011
Married or in common law relationship	0.2669	***	0.0461	-0.2440	***	-0.0814
	0.0489		0.0086	0.0314		0.0104
Head of household	0.4428	***	0.0771	0.2072	***	0.0674
	0.0483		0.0085	0.0365		0.0114
School attendance	-0.6956	***	-0.1599	-0.4833	***	-0.1761
	0.0525		0.0153	0.0437		0.0168
Children in household	0.599		0.0099	-0.0996	***	-0.0338
	0.0452		0.0074	0.0297		0.0102

Note: significance * p< 0.1, ** p< 0.05, ***p<0.01. Standard error in parenthesis.