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Gender wage gap in Mexico: evidence from ENIGH 2016

Karla Simoni González Hernández[1], Marco Antonio Méndez Salazar[2]

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Abstract

The National Household Income and Expenditure Survey (ENIGH) 2016 is used to analyze the conditional distribution of wages, particularly by gender, grouped by labor income deciles. Statistical evidence is found that wage rates for men are higher than for women, considering full-time workers. It is also shown that the estimated gender pay gap changes for different wage rate deciles, a change that is associated with differences in the marginal effects of work experience on the wage rate. Additionally, the inequity of opportunities suffered by women to access better working conditions is analyzed. Finally, returns to schooling are studied, which turn out to be higher for the female gender.

Key Words

Wage differentials (J31), economics of gender (J16), returns to education (I24), education and inequality (I26)

Introduction

In our country (Mexico) the disadvantage conditions that women face because of their gender are evident in different ambits of life, from the ominous affronts to their personal security, till the obstacles of their personal and professional growth, passing by the difficulties on the access of decent health services, inequitable access to an educational system that by itself its inefficient, political underrepresentation, among many others. Starting from de neoclassical analysis of the working market, in this investigation it's documented that women and men receive remunerations distinct for the realization of similar jobs. This phenomenon is known as wage gap of gender. Despite of some advances, the women keep facing with some important obstacles for participating and developing their profession

[1] Bachelor of Economics from the Universidad Veracruzana. Master's student in Corporate Finance at the Universidad Nacional Autónoma de México. Enlace Administrativo de Programas Interinstitucionales, Administración General de Servicios al Contribuyente, Sistema de Administración Tributaria, Ciudad de México.

[2] Full-time professor at the Faculty of Economics of the Universidad Veracruzana: Avenida Xalapa s/n, casi esquina Av. Manuel Ávila Camacho, Col. Obrero Campesina, 91020, Xalapa, Veracruz, México. Teléfono: 2288421700, extensión 14278. Correo electrónico: marcomendez@uv.mx

in the working market. The segregation sectoral and occupational, as well as the disproportionate weight of housework and care of vulnerable people (that are constituted as activities that are made by woman without receiving any remuneration) are some of the factors that prevent them of the equality of access of opportunities, even after the educational achievements of the last decades. This obstacles cause to limit their economical options, influence negatively in their social situation and, in las instance, stop their social growth and development.

The persistence of the wage gap of gender in Mexico isn't coherent with other achievements reached by the women, who in last decades have increased their levels of education and participation in the working market. In fact, the feminine participation in the working market in Mexico has increase since levels of 17.6% of the total of women in age to work in 1970 (INEGI, 2010) until stabilized, oscillating in a tight range of values between 40.9 and 44 and 44.8% since the year 2005, and a level of 44.4% on the first semester of 2022 (IMCO, 2022). In the educational aspect, according with Lechuga Montenegro, Ramírez Argumosa and Guerrero Tostado (2018), the education enrolment in middle school has been increasing form 44% of the total of students in 1950 to the 50% in 2014, from 42 to 50% for high school, and for university from 40 to 48% by the same period. Thus, the enrolment in different educational levels has been distributing in the desirable levels, approaching more and more to the proportion between men and women in the correspondent groups of age. In contrast, the problem with the salary differences between this genders is a problematic that keeps prolonging over the time, maybe because to the lack of an effective public politic who can manage it. On the theoretical framework neither the gender, color of skin, religious condition or birthplace are considered as factors that affect the productivity and, thus, those characteristics shouldn't cause differences in the remunerations of the workers; if they do, it's presented as a phenomenon of discrimination.

The objective of this document is precisely for analyzing the conditional distribution between men and women in the year 2016, that is, determining the wage gap of gender in Mexico using the *Encuesta Nacional de Ingresos y Gastos de los Hogares* (ENIGH). At the same time, get to know the performances of scholarship, effort and the experience of working for every level of salary. In the first section is made and overhaul of the existent literature, without limitation of them neoclassical framework. On the second its exposed the methodological aspects of the investigation made, the third section presents the obtained results, to finally abound in the conclusions and establish some lines that —in the judgment of the authors— should be considered for the design of the public politics. For a plus comfortable lecture, it's included a statistical annexin which is reported the detailed results of the realized regressions.

1.- Review of literature

The Organization for Economic Cooperation and Development, within its household database indicators, expresses the gender pay gap through two measures (OECD, 2022):

1. The difference between the median income of men and women, employed full-time, expressed

as a proportion of the median income of men, and

2. the difference between the average annual income of men and women, expressed as a percentage of the average annual income of men, for men and women with a given level of education.

Both measures address the fact that women tend to earn less than men, even though they are equally capable of doing the same work, regardless of the sector in which they perform, the professional category they occupy, the type of contract they have, the length of the working day, and the geographical location of the source of employment.

According to Moreno and Anderson (2014, p. 170), "gender inequalities, together with economic, social and political inequalities are the result of the historical persistence of structural systems and factors of discrimination and exclusion of the majority of the population from the opportunities and benefits of development". Throughout history, and even today, women experience more difficulty than men in gaining access to decent, well-paid jobs, with the certainty of long-term recruitment, social security, and fair benefits. Indeed, the International Labour Organization notes that: "Only minimal improvements have been achieved since the Fourth World Conference on Women, held in Beijing in 1995, so there are large gaps that need to be filled in the implementation of the 2030 Agenda for Sustainable Development, adopted by the United Nations in 2015. Inequality between women and men persists in global labor markets in terms of opportunity, treatment and outcomes" (ILO, 2016, p. XIII). According to estimates by the National Commission of Minimum Wages (CONASAMI) (2022), the gender wage gap in Mexico currently fluctuates slightly, with 13.1 per cent in 2018, 13.6 per cent in 2019, 14.4 per cent in 2020 and 12.2 per cent in 2021. This means that, if this trend continues, a woman will receive an average salary 13.3% lower throughout her entire working life than that of a man with a similar job, becoming more unprotected in the face of inflationary escalations, making her consumption more precarious. achieving lower retirement savings and a lower pension, increasing the risk of poverty in the elderly.

The causes that provoke this situation of injustice towards the female gender, in addition to being old and persistent, are multidimensional, and are not presented in isolation. These include:

- Direct discrimination in the workplace.
- Sectoral and job differentiation.
- Gender traditions and roles.
- Difficulties in reconciling family life and working life.

Direct discrimination, despite being prohibited by a multiplicity of national and international laws, including the Political Constitution of the United Mexican States, is a phenomenon that continues

to occur in the form of unfair and exclusive treatment not attributable to objective differences in performance or capacity. Following Diaz Andrade (2015, p. 22), it can be defined that there is “wage discrimination when women receive a different pay than men for the performance of identical or equivalent work, which requires a similar set of skills or competencies (knowledge, skills, initiative); effort (physical, mental and emotional); responsibilities (of command or supervision of persons, relevant to the security of material resources and information, and with respect to the safety and welfare of persons) and exercised under similar working conditions in the same enterprise”. Discrimination being a difficult fact to prove, it can be perpetuated in the time concealed among the consequences of the forces operating in the labor market.

On the other hand, men and women are traditionally employed in jobs of different quality and in different labor sectors, with women normally accessing those who offer the lowest wages. First, female and male labor force participation rates are different: In Mexico “45 in 100 women aged 15 and over are economically active, while 78 in 100 men are economically active. This means that in 2019 the labor participation rate of men was 1.7 times higher than that of women” (Garcia, 2021). In addition, women tend to be located in the least productive economic sectors. “FAO estimates show that women account for a substantial proportion of the agricultural labor force, as food producers or agricultural workers, and that about two thirds of the female labor force in developing countries participates in agricultural work” (Garcia, 2004). In these circumstances, women's work compensates for employers' lost earnings, while generating a downward bid in wage rates. On the other hand, women's work is historically often located in spaces that represent an extension of the family division of labor, as food sales, domestic work and care work, “it can be observed that women make up the majority of the informal economy, 55% of them are employed in informality compared to 50% of men. This, in addition to damaging their income, implies that they do not have access to social protection or health services” (Garcia, 2021). In fact, occupational and sectoral differentiation is a vicious cycle that feeds back and self-replicates, as “as women and men become progressively confined to certain occupations, stereotypes that typify aspirations are consolidated. the preferences and abilities of each other. This, in turn, influences both the perception that employers are formed of the labor competencies and attitudes of men and women and the individual aspirations of each worker. Thus, women and men are more likely to be on a differentiated career path, integrating themselves into sectors and occupations that are regarded respectively as "female" or "male", and also that they encounter difficulties if they try to avoid these stereotypes" (ILO, 206, p. 41).

From an early age, gender roles are a factor that strongly influences the decisions of men and women, contributing to shaping the role they will play in society. Indeed, “Gender roles are stereotyped behaviors by culture, so they can be modified since they are tasks or activities that a person is expected to perform because of the sex to which he or she belongs. For example, men have traditionally been assigned roles of politicians, mechanics, bosses, etc., i.e., The productive role; and women, the role of housewives, teachers, nurses, etc. (reproductive role)” (INMUJERES, 2007). According to authors such

as Federici (2013), female work “has been transformed into a natural attribute of our psyche and female personality, an internal necessity, an aspiration, supposedly from the depths of our female character. Domestic work was transformed into a natural attribute rather than being recognized as work because it was destined to be unpaid”. Hard data show that this is a reality prevalent in our country today. According to CONASAMI (2022) estimates, keeping everything else constant, being married or living in free union reduces the likelihood of a woman participating in the labor force by 15.24%. the presence of persons under 5 years of age in the household reduces the probability of female participation by 9.1%, and the presence in the home of persons between the ages of 6 and 12 causes a decrease of 4.9%; this shows that, even today, a broad sector of mexican society continues to associate women with the role of housewife and mother, rather than with productive roles as a worker, entrepreneur, or professional.

In association with gender roles, for women there are complications when trying to reconcile family life with work activity. According to Garcia (2021), “Women spend 2.6 times more time than men on unpaid care. In the absence of time and flexible formal employment options, most women seek to work under part-time contracts, for fees, or seek self-employment or entrepreneurship, which punishes their incomes significantly.” In concordance, Federici (2013) states that three main factors “have led to the lengthening of women’s working hours and the increase in household work. First, that women have acted as a buffer for economic globalization, compensating with their work for the deterioration in economic conditions brought about by the liberalization of the world economy and the increase in social disinvestment by states.” In the face of budget cuts in government programs, many tasks are transferred to households, and performed by women without receiving compensation in return. Secondly, the increase in work from home, already visible before and exacerbated by the covid-19 pandemic. “Many women choose this type of work in an attempt to reconcile wage earning with care for their families; but the result is the enslavement of a job that provides a wage "far from the average wage that would be paid for the same task in its place of usual production, And it reproduces the sexual division of labor by anchoring women even more deeply into domestic work" (Federici, 2013, p. 177). Third, “The increase in female employment outside the home and the restructuring of reproduction have not eliminated the labor hierarchies of gender. Despite rising male unemployment, women still earn only a fraction of what men earn” (Federici, 2013, p. 177).

The precarious situation of women in the labor market is most worrisome when considering the social benefits of women's work. According to Atkinson (2016), employment can be a route for individuals and families to escape poverty and return societies to lower levels of inequality. Accordingly, an ILO report (2016, p. 5) notes that “an increase in female employment would give a strong boost to growth and per capita income […] if women were to participate in the economy to the same degree as

men, by 2025, under normal circumstances, Annual global gross domestic product (GDP) would be 28 trillion higher (equivalent to 26% of annual world GDP)."

Gary Becker's work (1957) inaugurates the economic analysis of discrimination from a neoclassical perspective. In addition to establishing a definition of discrimination in purely economic terms, it initiates an analysis of the incentives that lead one person to discriminate against another. At the same time, it estimates the first empirical models to quantify the problem of discrimination against African American individuals in the United. Becker lays the groundwork for further studies, which gradually specialized in different modes of discrimination. Gender pay gap studies increased and became sophisticated and more detailed throughout the 1960 and 1970. One particularly influential for its methodological clarity, and for the use of microdata for empirical analysis of gender pay differences, is that of Oaxaca (1973). One particularly influential for its methodological clarity, and for the use of microdata for empirical analysis of gender pay differences, is that of Oaxaca (1973). For this author, discrimination exists against women when "the relative salary of men exceeds the relative salary that would have prevailed if men and women were paid according to the same criteria" (Oaxaca, 1973, p. 694). In agreement with this formulation, the author is able to estimate wage rates for men and women, controlling both characteristics of the individual and his environment, concluding that there are wide wage differentials for both sexes; however, it does not attribute such a disparity to the fact that there are different wages for the same work when it is performed by women and men, but rather to the fact that female employment is concentrated in activities that by their very nature offer lower wages (Oaxaca, 1973, p. 708). Blinder (1973) analyzes wage gaps between black and white individuals, as well as between men and women. This author concludes that 70 per cent of the wage differential between races and 100 per cent of the differential between sexes can be attributed to some form of discrimination.

A remarkable methodological consequence of the investigations mentioned in the previous paragraph is the decomposition of Oaxaca-Blinder. As Vicens Otero (2012) states, "Blinder-Oaxaca decomposition determines that the difference in wages between two groups is due to two components. The first of these shows the difference between the observable explanatory variables of the two groups and the second component shows the difference between the non-observable characteristics, measured by the discrepancies between the parameters of the two groups". It is clear, then, that not every wage differential can be classified as discrimination, but only that which cannot be explained by observable objective differences in the quality and qualifications of workers.

From a neoclassical perspective (Clark, 1899; Pigou, 1933), real wages are equal to marginal labor productivity. Wage differences are explained by productivity differences, and productivity differences are explained by those in the human capital stock. Human capital is innate or acquired. It is on this level that human capital theorists emphasize explaining the relative low level of women's wages. Mincer and Polacheck (1974) assume that women plan to discontinue their participation in the labor force because of maternity and subsequent demands. Because job training is costly in terms of the

income they lose during the training period, women who hope to enter the labor market maximize their income throughout their life cycle, avoiding jobs that require too much training. Similarly, they prefer jobs where the depreciation of their own human capital, resulting from their temporary alienation from the labor force due to maternity, is comparatively low. This theory simultaneously explains occupational segregation (women choose certain occupations) and low incomes (women's productivity is lower). Becker (1985) asserts that the rising returns of specialized human capital are a powerful force that induces a division of labor within families, determining the distribution of time and investments in human capital among married men and women. Moreover, "Because childcare and domestic chores require more effort than leisure and other activities, married women devote less effort to every hour of work in the labor market than married men who work the same number of hours" (Becker, 1985). In this order of thinking, given that a woman spends more energy than a man because she has to engage in unpaid work within the home, the energy she can devote to paid work is comparatively lower than that of men, resulting in lower productivity and lower wages.

Authors such as Floro (1995) have recognized the dynamic interaction between the production of goods and services in the household and the activity of its members, - especially women in the labor market -, noting methodological issues relating to the measurement of the production of non-traded goods and services and the patterns of time use between two sets of economic activities. Eastin and Prakash (2013) examine the relationship between economic development and gender equity. Based on the Kuznets curve concept, the authors hypothesize that the relationship between economic development and gender inequality is an S-curve, with three distinct stages. In the first stage, economic development improves gender equity because it allows for greater participation of women in the labor force. By obtaining an independent income stream, working women gain greater bargaining power within the household, while the opportunity to develop human capital gives them greater political and social recognition. In the second stage, labor-force stratification and gender discrimination foster divergent income trajectories between men and women, reducing the opportunity costs of female labor-force withdrawal and motivating social resistance to emerging gender norms. Consequently, there is a setback in the initial closing of gaps. In the final stage, gender equity is improving again, as greater educational participation and technological advancement provide new employment opportunities for women. they increase the opportunity costs of staying home and encourage the evolution of new institutions and social norms that overcome previous discriminatory practices. These authors find support for their argument by analyzing the empirical relationship between economic development and gender equity from a panel of 146 developing countries for the period 1980-2005. Using four indicators that reflect different dimensions of women's political, social, and economic status, they find that economic development positively influences gender equity when per capita incomes are in the range of

US$8.000 to US$10.000 at year 2000 prices. These equity gains stabilize or decrease slightly in the second stage, from 10.000 per capita to about $25.000. Beyond this level, economic development is again associated with improvements in gender equity.

The theory of compensatory wage differentials may explain part of the maternity wage gap if mothers are more likely than childless women and men to make an exchange between monetary and non-monetary rewards when seeking work. Wuestenenk and Begall (2022) find evidence against this theory by conducting an experiment in four European countries with 7.040 participants. When they are presented with fictitious jobs that vary randomly in working conditions and wages, mothers are no more likely than childless women and men to choose jobs with more family-friendly working conditions and lower wages. However, mothers are more likely to apply for jobs with lower wages, regardless of other job characteristics. Such results suggest that the maternity pay gap may not be explained by compensating for wage differences, but simply by the increased likelihood that mothers will apply for lower-wage jobs. At the same time, they seem to indicate that the wage differences suffered by mothers are more associated with characteristics that the woman acquired before opting for maternity than with difficulties in reconciling family and working life.

Women in Mexico have experienced substantial changes in recent decades, including greater incorporation into work activity, and greater participation in enrollment at the secondary, high school and bachelor levels. facts that have already been documented in the introduction to this work. Due to the processes of change in the structure of society, women's work has increasingly become a necessity of the first order, specifically for those who must safeguard the livelihood of their children. Despite the increased incorporation of women into the labor market, women continue to suffer from high inequality. According to a press release from the National Commission to Prevent and Eradicate Violence against Women, in 2017 “Men receive an average working income per hour worked 34.2% higher than that of women. Although this wage gap varies by type of work and even by state, it is clear that gender discrimination in the labor sphere is still a reality in our country” (CONAVIM, 2018). On the other hand, using data from the fourth quarter of each year between 2018 and 2021 of the National Survey of Occupation and Employment (ENOE), The National Commission of Minimum Wages reports that “the gap in hourly and gender wages in formal employment has decreased from 2018 to 2021; going from 13.1% in 2018 to 12.2% in 2021" (CONASAMI, 2022).

As can be seen, the problem of employment discrimination against women, in particular the gender pay gap, is complex and multidimensional. Already from the very fact that there is great variability in the wage gap estimates made for the same country in comparable time periods, serious methodological problems are visualized. For these reasons, the abundance of research on the subject, with a broad theoretical vision and from diverse methodological perspectives, not only seems pertinent but necessary.

2.- Methodological aspects

The objective of this investigation is analyzing the conditional distribution of salary, as well as the estimation of the wage gap for Mexico during the year 2016. The temporal selection is justified because the ENIGH 2016 featured with the biggest sample in the history of the country (INEGI, 2016), giving with it better elements for obtaining a wider vision of the purchasing power of the families, as well as a bigger coverture of the economically active population and the salaries that they perceive. In addition, it's the first poll of the new series, throwing comparable results with the ENIGHs of next years. The model that was used for analyzing the conditional distribution of salary and wage gap of gender was a simultaneous quantile regression with the goal to analyze the effect of being woman over the salaries, as well as the performances of the efforts, scholarship, and the working experience for distinct levels of salary.

The regression models of quantiles were established by Koenker and Basset (1978), and has been widely used in the working economy for the analysis of the salary in different points of distribution. As was affirmed by Vicéns Otero and Sánchez Reyes (2012, p. 7), this methodology offers the possibility of creating distinct lines of regression for distinct quantiles of the endogenous variable, through a method of estimation that seems less disadvantaged by the absence of the presence of heteroscedasticity, atypical values, and structural change. For analyzing the conditional distribution of salary, the formal econometrical expression is given by

$$\log W_i^{\theta} = X_i^{\theta}\, \beta_{\theta} + u_i^{\theta}, \qquad (1)$$

in which i represents the i-th individual of the sample, θ is the conditional quantile of the logarithm of the salary rate W_i^{θ}, X_i^{θ} is a vector of explicatable variables, and β_{θ} is the vector of the parameters to estimate. It's expected that the term error u_i^{θ} has a cero average with a constant variance per every quantile θ. The model is estimate altogether between men and women in each of every nine deciles of the conditional distribution of salary: θ = 10 (lower salaries) to 90 (highest salaries). The dependant variable is the logarithm of salary per hour, in which is defined as the weekly salary perceived by the principal job divided between the number of hours worked during the week of that job.

As it has been mentioned before, the data base used was the ENIGH 2016, which objectives (INEGI, 2016) are:

1. Offer an statistic vision of the behavior of the incomes and expenses of the homes, taking the factors as amount, precedence and distribution.
2. Offer information over the occupational and sociodemographic characteristics of the home participants.

3. Present data about the characteristics of the infrastructure of the dwelling and the equipment of the home.

According with the INEGI (2016), this poll has a national geographical coverture, by federative entity, including both rural and urban zones. Takes the economical characteristics and sociodemographic of each home, considering individuals of 12 or more years. In 2016 was reached the biggest size of the sample in the history of the country, with a coverture of 81,515 dwellings. The data base of the construction of the variables of the ENIGH it's conformed by 11 tables of normalized data, in addition of a resume table with information at a home level.

Treating of an investigation about differentials of salaries, is indispensable understanding the structure of the incomes of the homes consigned by the ENIGH 2016. This includes not only the salaries and incomes received by the employees, but the incomes of the people self employed too, adding the income derived from savings (interests of baking accounts or bonds, stock dividends or rent properties), and transferences received of government or private entities. The sum of all of this concepts results in the gross income. At the moment of subtracting the tax form the income, in addition with other direct taxes, it's obtained the disposable income of the home. According with the INEGI (2016), the ENIGH presents the current income of the homes divided in five categories: (1) work incomes, (2) rents of properties, (3) transferences, (4) estimation of the rental of the dwelling, (5) other current incomes. For the purposes of this investigation , its considered just the incomes derived from work, selecting in each home the members who work at complete time (between 40 and 56 hours per week) for which the income in the principal job corresponds to the entry of pays and salaries. This individuals, but not their correspondent homes, constitute the sample units of our study. According to the international norms and statistical practices, the incomes of work are all of those entries received by the participants of the home as a result of their actual participation or previous in any activity realized in an institutional economical unit which purpose be producing or providing goods and services for the market, the self-consume, or the generation of goods or public services. In this context, its considered that an integrant of the home perceives income form work only if has o had direct participation in economic activities, such as is established in the national accountability. The incomes of work can be from de remunerations per subordinated work, independent work or incomes form other jobs. It's said that an integrant form the home makes a subordinated job when she/he maintains a relation or agreement, formal or informal, with and employer for doing some economic activity in exchange of a remuneration. The participants of the home in order of subordinated work are considered all the entries in cash received regularly by the participants of the home in relation with the subordinated workers in their principal hob and it's the case, in a secondary job. The modalities that this remunerations can have and are selected by the ENIGH 2016 are: (a) pay, salary, wage and piecework, (b) extra hours, (c) commissions and tips, (d) bonus and profit sharing, (e) indemnities by accidents, (f) indemnities by layoffs, (g) other monetary remunerations, and (h) payments in kind.

For the present study it's used the microdata prevenient form the tables of: population, work, income, and concentrated home. The table of population it's from the table of homes, identifying the sociodemographic and occupational characteristics form home, contained in a total of 178 variables. The table of works shows the condition of activity of the participants of the home of 12 or plus years, with some occupational characteristics during the period of reference. It's integrated by a total of 55 variables. The table of incomes contains a total of 17 variables; it's the table that allow us to identify the incomes form the work, pays and salaries of the individuals relevance for the analysis. By last, the tale concentrated in home, that is constituted by constructed variables form other tables, contains a total of 127 variables. It's exploited the characteristics of the INEGH 2016 as a relative base of data, using the keys dwellings folio, home folio and line number, for integrating all the tables described in one alone, in the unit of analysis is the person: it's considered by any integrant of home, man or woman, in working age that counts with a full time job (contracts form 40 to 56 hours per week).

Next, it's described the variables extracted from the ENIGH 2016, or constructed form the information contained in it, for its use in the present investigation:

- Identification of the person. Variable constructed by the concatenation of 3 chains of characters: the dwellings and home folios, and the line number (which is the only one per each participant of home). In this way, it's possible to identify each and every one of the individuals relevant for the analysis, without losing information about the home and the dwelling which they belong. Take into account that a dwelling can be shared by more of just one home.
- Sex. Binary variable included in the table of population. It's defined as the biological distinction that classifies the people in men or women. The codification of this variable was modified: initially the capture codes was 1 for man and 2 for woman; however, for representing it as a quality, it was opted for codifying 0 for man an 1 for woman.
- Wage rate in the principal job. Constructed variable from de variable of pays and salaries form the principal job and the hours worked during one week. The variable of pays and salaries belongs to the table of incomes, which was selected after analysing the meaning of the 81 distinct keys of incomes contained in that table. It's defined as the remuneration that a professional or worker receives from an employer in exchange for their work or services, this remuneration it's represented in the ENIGH in trimestral form. Before defining the variable it's separated the pays and salaries of the principal job and the secondary one. Once selected the pays and the salaries of the principal job, they were divided between the weekly hours dedicated to the principal job. In this way, the wage rate expresses the remuneration obtained per an hour of work in the principal job.
- Scholarship. Measured in concluded years. It's generated from the information of the last scholar level taken, form the number of years concluded in each level, and the requirement

demanded for the inscription to that level. It was taken in account the information included in the table of population, specifically the maximum level of instruction and approved grade, as well as the scholar antecedent (academical requirement required for the entry to the maximum level of instruction.

- Work experience. Measured in years. Due to the ENIGH 2016, doesn't gives information about de working experience of the individuals, it was necessary to build it indirectly form the age variable (exposed ad taken in the data base) and the scholarship variable previously constructed. It's considered the next assumptions: (a) the formal education considers by the scholarship variable starts at the age of 6 years, (b) the working experience starts to accumulate when the individual takes for granted their school trajectory. Although the generality of this assumptions is questionable, the data base available doesn't show information that allow to conduct a construction that takes in account more characteristics of the individuals. Thus, the variable of working experience it's build by the next formula:

$$\text{working experience} = \text{age} - 6 - \text{years of scholarship}.$$

- Effort. This variable pretends to reflect the fact that, in addition of the gender, the scholarship and the working experience, exists other systematic factors that can influence over the wage rate. Examples of this are the economic activity sector which is fond the person, geographical location of the employer or the size of the enterprise. Due to what the individual has as a capacity or the liberty for deciding over this factors which affect their incomes, most assume the cost of the opportunity that means to keep with the job that they currently have, or change to other one with a bigger remuneration. For the construction of this variable, each of the genres are divided in 5 groups, attending to the level of instruction approved: without instruction, elementary school finished, middle school finished, high school finished, or university finished. For each group determined by gender and level of instruction, its ordered the individuals accordind with their wage rate, form lower to higher, and it's assigned a number of ordering i, with $i_{\text{mín}}$ representing the individual of less income, and $i_{\text{máx}}$ with the higher income. Then, he variable effort it's define as:

$$e = \frac{i - i_{\text{mín}}}{i_{\text{máx}} - i_{\text{mín}}},$$

guaranteeing that $0 \leq e \leq 1$ for all of the individuals in the sample.

Once described the variables considered for the investigation, it's possible specifying the vector of the regressors X_i^θ in the equation (1). In this way, the equation of distribution of the wage salary that was estimated was:

$$\log W_i^\theta = \beta_0^\theta + \beta_1^\theta e_i^\theta + \beta_2^\theta ed_i^\theta + \beta_3^\theta ex_i^\theta + \beta_4^\theta \left(ex_i^\theta\right)^2 + \beta_5^\theta s_i^\theta + u_i^\theta, \tag{2}$$

where i represents the i-th individual of the sample, θ is the conditional quantile of the logarithm of the wage rate W_i^θ, e_i^θ is the effort variable, ed_i^θ represent scholarship, ex_i^θ is the working experience, and

s_i^θ is the variable of sex (1 for women, 0 for men). The presence of a quadratic term over the variable ex_i^θ reflects the fact that the marginal returns of working experience can change sign. It's expected that accumulating working experience be reflected in a mayor salary, obtaining positive marginal returns. However, this is only true until certain threshold value, form which the worker with a mayor working experience has accumulated a mayor age, reducing the perspective of useful live in which will keep providing services to the employer, possibly generating a minor wage compensation. In this moment, the negative marginal returns of working experience, appears. On this way, it's expected that the coefficient of the variable ex_i^θ has a positive sign, while the coefficient of the variable effort e_i^θ and of the scholarship ed_i^θ are positives. It's expected a negative sign for the variable s_i^θ, which would demonstrate the existence of the wage gap of gender. The method of estimation selected was simultaneous regression of quantiles, and it was executed with the software Stata 13.1. Subsequently, and with the goal of comprehending better the marginal returns of the scholarship by gender, it was estimated too, the model reduced

$$\log W_i^\theta = \beta_0^\theta + \beta_1^\theta e_i^\theta + \beta_2^\theta ed_i^\theta + \beta_3^\theta ex_i^\theta + \beta_4^\theta \left(ex_i^\theta\right)^2 + u_i^\theta, \quad (3)$$

Separately for men and for woman. The results of both models are presented in the next section.

3.- Results and discussion

As an initial exploratory analysis, the table 1 presents the basic descriptive statistics for the wage gap (per hour worked) grouped by gender. The total of observations it's calculated using the expansion factor consigned in the ENIGH 2016, so that can be considered estimations of the total of people in the country that they were employed in full time during the period of lifting the poll.

Table 1. Descriptive statistics for the wage rates

	Men	Women
Observations*	14,089,542	8,148,545
Average	33.74	30.77
Standard deviation	37.5773	32.8796
Minimum	0.05	0.07
Maximum	1090.94	636.05

Source: Own elaboration with data from the ENIGH 2016.

* It's considered the expansion factor reported in the ENIGH 2016.

The difference between averages of the wage gap per men and women it's equivalent to the 8.8% of the masculine average, providing an initial estimation for the wage gap, which is similar to the reported by CONSAMI (2022, p. 16) before applying the correction of Heckman for eliminating the bias by sample selection. At the moment of weighting an average of 48 hours worked at the weekend and 4.33 weeks per month, this numbers are equivalent to a difference of $617.28 in favor of the males in the average monthly salary. Results interesting observing that the difference between the maximum wage salaries obtained by men and women are equivalent to 41.7% of the maximum obtained per men, which record the enormous discrepancy between feminine and masculine salaries. This offers a justification of the use of the regression interquartile for estimating salaries gaps. By limiting the variability of the salary rates, confining them by the use of the quantiles, it's expected to be implicitly controlling other systemic differences that can elevate the discrepancies observed between salaries in men and women.

In a second stage of the analysis it's verified that exists statistical evidence that the average salary rates are effectively distinct for women and men. The standard deviations reported on Table 1 show that it's not viable to suppose that the variances of both groups are the same. The t-test for equality of averages in two samples with different variances (see Table 2) shows statistic evidence that the average of the wage rate for the masculine population it's mayor (alternative hypothesis of a tail) despite the wage rate of the feminine population, even a level of significance of 0.1%. The test was applicated to the logarithms of the wage rates with the goal of strengthen the normality supposition.

Table 2. t-test for two simples with different variances applicated to the logarithm of the wage rate

Group	Observations	Average	Standard error	Standard Deviation	Confidence Interval 95% Lwr. Lim.	Upr. Lim.
Men	30,464	3.072482	0.005	0.8727054	3.062682	3.082282
women	16,206	2.95969	0.007005	0.8917139	2.94596	2.97342
combined	46,670	3.033316	0.004078	0.8809812	3.025323	3.041308
difference		0.1127917	0.008606		0.095923	0.12966
difference = average men − average women					t =	13.1059
H_0: difference = 0				Degrees of freedom of Satterthwaite =		32445.2
H_A: difference ≠ 0				H_A: difference > 0		
Pr(|T| > |t|) = 0.0000				Pr(T > t) = 0.0000		

Source: Own elaboration with data from the ENIGH 2016.

For the next stage of the analysis, the equation (2) it's expected for women and men. The tables 4 and 5 (in the statistic Annex) presents the results of the estimations for every one of the nine deciles.

The dependent variable is the logarithm of salary per hour, including one of the explicative variables as the indicator of the fact of being woman (sex variable = 1 for women, = 0 for men). It can be observed that, for all the deciles of wage rate, the coefficient of the indicator variable of sex results negative and statistically significative (even at levels of significance lowers that the 0.1%). So, for all the deciles, the model shows statistic evidence that women perceive lower salaries than men. In the Table 2, it is presented the estimations of the wage gap of gender derived of this coefficients for every one of the deciles on income used in the estimation. In line with the current use (OCDE, 2022, p. 1), the wage gap of gender is calculated as the difference between the masculine salaries and feminine expressed as percentage of the masculine salary. By this reason, considering that the dependent variable in this model is the logarithm of the wage rate, the formula utilized for generating the estimations is

$$\text{brecha}^{\theta} = 1 - e^{\beta_5^{\theta}},$$

where gap^{θ} is the wage gap of gender estimated for the quantile θ, and β_5^{θ} is the coeficient for the sex variable reported don tables 4 and 5.

Table 3. Estimations of the wage gap derived from the equation (2)

Decil of wage rate	β_5^{θ}	Wage gap estimated
1	-0.0536296	5.22%
2	-0.0315251	3.10%
3	-0.0212051	2.10%
4	-0.0307382	3.03%
5	-0.0307382	3.03%
6	-0.0445505	4.36%
7	-0.051755	5.04%
8	-0.0537865	5.24%
9	-0.0216435	2.14%

Source: Own elaboration with data form the ENIGH 2016

As expected, considering the variability of the salaries rates are reduced by delimiting them decile per decile, the estimations of the wage gap derived from the model (2) decrease respect to the estimation derivate form the initial exploratory analysis. Also results interesting to observe how the salary gaps estimated var depending of the decile considered. In fact, the estimations present a decreasing tendency through the three first deciles, for later increase gradually till reach un maximum

in the eighth decile, and finally decrease drastically in the ninth decile till a value comparable to the third decile.

The analysis of the other regressors in the equation (2) also results interesting. The coefficients of the variable effort has also the positive sign and are statistical significant (also at a level of significance of 0.1%) for all of the deciles of the wage rate. This is evidence that those workers who had inverted more in human capital —expressed here in terms of a mayor formal scholarship— receive a bigger reward in the wage rate. It's remarkable the fact that, if the variable of effort was constructed on base in the variable of scholarship, doesn't exist problems of multicollinearity between both variables.

In line with the result mentioned in the preceding paragraph, the coefficients of the variable of scholarship also are positives and statistically significant (using levels of significance from up to 0.1%) for all the deciles. Given the dependent variable is the logarithm of the wage rate, the coefficient of the variable of scholarship can be directly interpreted as the percentual change in the wage rate induced for an additional year of scholarship while everything stays constant. So that, the first decile workers, every additional year of scholarship implicates and increase average of 12.22% in their wage rate. The marginal return in one year additional of scholarship it's reduce to 10.98% for the third decile, increases slightly to 11.67% for the seventh decile, and decrease form the eighth decile for reaching a minimum of 7.70% in the ninth decile. In summary, the general tendency is that the marginal returns of scholarship decrease according the increase of the decile of the wage rate. (see Figure 1).

En línea con el resultado mencionado en el párrafo precedente, los coeficientes de la variable de escolaridad también son positivos y estadísticamente significativos (usando niveles de significancia de hasta 0.1%) para todos los deciles. Dado que la variable dependiente es el logaritmo de la tasa salarial, el coeficiente de la variable de escolaridad puede ser directamente interpretado como el cambio porcentual en la tasa salarial inducido por un año adicional de escolaridad mientras todo lo demás se mantiene constante. Así, para los trabajadores ubicados en el primer decil, cada año adicional de escolaridad implicaría un incremento promedio de 12.22% en su tasa salarial. El rendimiento marginal de 1 año adicional de escolaridad se reduce a 10.98% para el tercer decil, aumenta ligeramente hasta 11.67% para el séptimo decil, y decrece a partir del octavo decil para alcanzar un mínimo de 7.70% en el noveno decil. En resumen, la tendencia general es a que los rendimientos marginales de la escolaridad disminuyan conforme se incrementa el decil de tasa salarial (ver Figura 1).

Figure 1. Marginal returns to the scholarship per decile from the wage rate, estimations from the equation (2)

For the first and third deciles, the coefficients of the linear terms and quadratic dependents form the working experience variable has the expected signs (positive and negative, respectively) and are statistically significates to levels from up to 0.1%. In this three first deciles of wage rate, it's observed the expected threshold effect. When the working experience is low, their impact over the wage rate is positive; however, while the worker it's accumulating a mayor working experience, inevitably accumulates a mayor age. So, from certain critic value, the working experience it's transformed in a characteristic undesirable that has a negative effect over the wage gap. From the fourth decile, the performance of the variable of working experience changes. In first place, the coefficient of linear term has a positive sign and is statistically significant even with levels of significance not to lowers as 0.2%. For the deciles fourth and fifth, the coefficient of the quadratic term it's not statistically significative; so, for this deciles isn't statistic evidence of that coefficient being distinct to zero. For the deciles since the sixth, the coefficient of the quadratic term is again significative (including to the 0.1% of significance), but has positive sign. In resume, from the fourth decile, the marginal effect of the wage experience seems to indicate that the correspondent jobs to the three first deciles are more intense in those aptitudes that diminish with the age, as force and the physical activities for the workers. For the deciles from the fourth, the Jobs seems to be more intensives in aptitudes that more like improve a mayor working experience, regardless of the age of the worker.

Result so interesting observing that the change of behavior respect the working the experience described in the previous paragraph coincides almost fully with the changes of working experience observed in the estimations of wage gap on the Table 3. For the deciles associates with employees plus intensives in physical aptitudes, the wage gap of gender tends to decrease in base of the increasing level of general level of salaries. For the deciles fourth to eighth, with Jobs more intensives in aptitudes que diminish with the age, the wage gap of gender tends to increase according it increases the general level of salaries. Only for the decile higher of the wage rates it's observed to have a dramatic decrease in the wage gap of gender.

As last stage of the analysis, the reduced model (3) it was estimated through the simultaneous regression de quantiles separately for women and men. The results with similar in magnitude and significance to the model (2), and it's presented in tables 6 to 9 form the statistical annex. The features of behaviour described up for the explicable variables of effort, scholarship and working experience keep being valid for the model that considers only women like for the other one that consider men. In particularly, the coefficient of the scholarship valuable are positives and statistically significant even at the level of significance of 0.1%. Moreover, the coefficients can be interpreted as marginal returns of scholarship. The Figure 2 shows the returns to the scholarship per decile of salary and gender. For each gender, it's denote as a decreasing tendency similar to the Figure 1, but result important to remark that the returns to the scholarship are higher for the gender feminine in all the deciles in the wage rate, although the difference its so small for the higher decile.

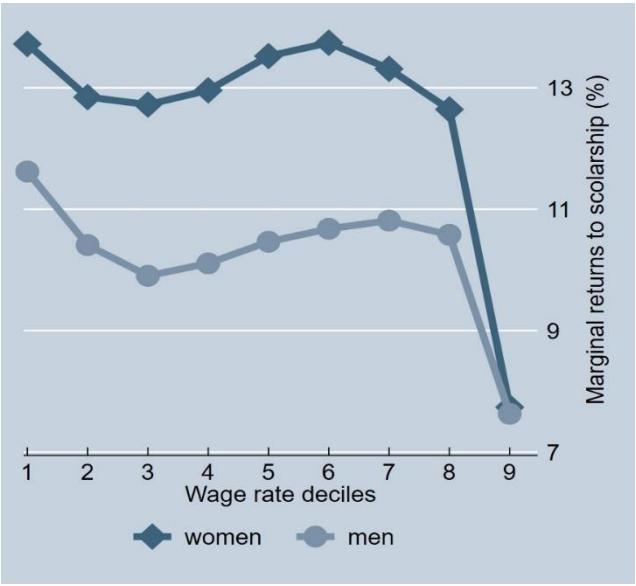

Figure 2: Returns in the scholarship per gender and decile of the wage rate, estimations form de equation (3)

4.- Conclusions

In the present investigation has generated statistical evidence of some features of the distribution of the wage rates per gender that are congruent with the findings of the empirical literature. In the first place, it's documented that the wage rate average its higher for the men occupied on full time than the women in the same working condition. One initial estimation on the wage gap of gender, based only in the analysis descripted in the ENIGH 2016, throwing a value of 8.8% que es in result of the results (before correcting sample selection) from other an analysis realized with the methodology form Oaxaca-Blinder for closer years (CONSASAMI, 2022). The first aspect really novel of this investigation is the estimation of the gender salary gaps fort the distinct deciles to the distribution of wage rates.

In fact, the first model of simultaneous regression of quantiles shows statistic evidence of wage gap of gender in all of deciles of the wage rate. The estimations derivates for the wage gap of gender aren´t easily comparable with the existents in empiric literature for our country because, precisely, to the methodology applicated and to the characteristics of the sample shows that consists in full time workers. It's precisely to recognize that our estimations possibly present bias by the sample selection, but also the correction of each problem in the context of the regression simultaneous of quantiles represents a methodological challenge that isn't' minor.

Considering the differences between the wage gaps of gender estimated for the distinct deciles was discovered a patron in which is well measured by the differences in the marginal returns to the working experience. For the deciles first to third it's observed that the marginal returns to the working experience are initially positives, but they turn negatives since each critical value. This phenom can be explained in terms of the characteristics in the jobs that are ubicated in this decile and that are more intensives in physical aptitudes that dwindle over the age increases. It's discovered evidence, for these initial deciles, that the salary differences are more drastic in more precarious es the condition on employment. However, for the deciles fourth to the eighth it's observed that the marginal returns to the working experience are always positives. This indicates jobs with other characteristics, more intense in aptitudes that don't diminish with the age, and it's document that the wage gap of gender increases in relation of the increasing general level of salaries. In other words, according men and women can access to higher salary rates it's observed that the differences between masculine or feminine are more pronounced. The implications for the design of a public politics of gender are ambivalent. In the first place, it's evident the necessity of helps and incentives that allow the women abandon their less

productive jobs associated traditionally with a feminine role, as the elaboration of aliments, housework or personal care, which border in the lower deciles of the salary distributions. But that isn't enough, is also necessary to create incentives for the women that have accessed to the higher salary levels must receive an equality treat that reflect in comparable salaries respect to the men.

A mention apart deserve the ninth decile, in which the wage gap of gender presents a drastic diminution, keeping positive marginal returns to the working experience, but also the lowest marginal returns to the education of all the distribution. Although this evidence isn't enough for questioning the existence of a crystal rooftop, it does highlight that the few women who manage to access the higher salary levels of the distribution and also, they receive a more equitable treatment in respect to the men at least in respect of the remuneration. Possibly this is due to the fact that these women are the ones who have the most resources to escape the complications of reconciling work with family life.

Evidence was also found that a greater effort in the formation of human capital through a higher scholarship reward in a positive way the salary rate. As a result of this the hypothesis can be confirmed that the women who manage to escape traditional roles and gender prejudices have the opportunity to expand significantly their employment income. In this way, a priority in public politics should include all types of orientated supports to lower the amount of feminine work in home.

The returns to the education in all the estimated models are positives, but with a decreasing general tendency according to the decile of wage rate. When the distribution of wage rates is estimated separately for each gender, it's found evidence that the returns to scholarship are higher for women in each wage decile. Which results evident that a priority in the public politics should be the promotion to the access for women to higher levels of education.

Statistical annex

Results of the different simultaneous regressions of quantiles carried out with the purpose of estimating the parameters of equations (2) and (3) are reported.

Table 4. Estimation results for the first through fifth deciles

Simultaneous quantile regression Dependent variable: logarithm of the wage rate in the main job				
Regressor	Coefficient	Standard error	*t*	Pr(|T| > |t|)
1st decile			Pseudo R^2 =	0.3382
Effort	0.1107647	0.0014099	78.56	0.000
Scholarship	0.1222113	0.0022278	54.86	0.000
Experience	0.0578554	0.0021487	26.93	0.000
experience^2	-0.0008104	0.0000374	-21.68	0.000
Sex	-0.0536296	0.0106436	-5.04	0.000
Intercept	-0.4434518	0.0445040	-9.96	0.000
2nd decile			Pseudo R^2 =	0.3604
Effort	0.1135476	0.0010712	106	0.000
Scholarship	0.1125185	0.0013529	83.17	0.000
Experience	0.0253718	0.0012195	20.81	0.000
Experience^2	-0.0003269	0.0000184	-17.76	0.000
Sex	-0.0315251	0.0053764	-5.86	0.000
Intercept	0.3367096	0.0249810	13.48	0.000
3rd decile			Pseudo R^2 =	0.3730
Effort	0.1108166	0.0008325	133.11	0.000
Scholarship	0.1098317	0.0010942	100.38	0.000
Experience	0.013814	0.0006027	22.92	0.000
Experience^2	-0.0001582	9.64E-06	-16.41	0.000
Sex	-0.212051	0.0029979	-7.07	0.000
Intercept	0.647327	0.0173606	37.29	0.000
4th decile			Pseudo R^2 =	0.3786
Effort	0.1061681	0.0007794	136.22	0.000
Scholarship	0.1112785	0.0008796	126.51	0.000
Experience	0.0055451	0.0006249	8.87	0.000
Experience2	4.98E-06	0.0000116	0.43	0.667
Sex	-0.0307382	0.0032353	-9.5	0.000
Intercept	0.8251825	0.0141953	58.13	0.000
5th decile			Pseudo R^2 =	0.3820
Effort	0.1061681	0.0007794	136.22	0.000
Scholarship	0.1112785	0.0008796	126.51	0.000
Experience	0.0055451	0.0006249	8.87	0.000
Experience^2	4.98E-06	0.0000116	0.43	0.667
Sex	-0.0307382	0.0032353	-9.5	0.000
Intercept	0.8251825	0.0141953	58.13	0.000

Source: Own elaboration with data from ENIGH 2016.

Table 5. Estimation results of equation (2) for the sixth to ninth deciles

Simultaneous quantile regression Dependent variable: logarithm of the wage rate in the main job				
Regressor	Coefficient	Standard error	*t*	Pr(|T| > |t|)
6th decile			Pseudo R^2 =	0.3851
Effort	0.0939479	0.0007674	122.42	0.000
Scholarship	0.1164873	0.0009122	127.69	0.000
Experience	0.0027481	0.0008303	3.31	0.001
Experience^2	0.0001477	0.0000193	7.65	0.000
Sex	-0.0445505	0.0041982	-10.61	0.000
Intercept	0.9955228	0.0139040	71.6	0.000
7th decile			Pseudo R^2 =	0.3907
Effort	0.0870164	0.0008577	101.45	0.000
Scholarship	0.1166514	0.0008524	136.84	0.000
Experience	0.0056481	0.0006236	9.06	0.000
Experience^2	0.0001538	0.0000145	10.59	0.000
Sex	-0.0517550	0.0058258	-8.88	0.000
Intercept	1.0931300	0.0146447	74.64	0.000
8th decile			Pseudo R^2 =	0.4043
Effort	0.0871057	0.0013985	62.28	0.000
Scholarship	0.1123122	0.0007885	142.44	0.000
Experience	0.0061758	0.0009788	6.31	0.000
Experience^2	0.0001765	0.0000213	8.27	0.000
Sex	-0.0537865	0.0084574	-6.36	0.000
Intercept	1.2636910	0.0143257	88.21	0.000
9th decile			Pseudo R^2 =	0.4565
Effort	0.1223829	0.0019739	62	0.000
Scholarship	0.0770231	0.0009238	83.38	0.000
Experience	0.0048263	0.000384	12.57	0.000
Experience^2	0.0000497	9.59E-06	5.19	0.000
Sex	-0.0216435	0.0048332	-4.48	0.000
Intercept	1.7572540	0.0100458	174.92	0.000

Source: Own elaboration with data from: ENIGH 2016.

Tabla 6. Estimation results of equation (3) restricted to women, first to fifth deciles

Simultaneous quantile regression Dependent variable: logarithm of the wage rate in the main job				
Regressor	Coefficient	Standard error	*t*	Pr(|T| > |t|)
1st decile			Pseudo R^2 =	0.3593
Effort	0.1454971	0.0033757	43.1	0.000
Scholarship	0.1372309	0.0031034	44.22	0.000
Experience	0.056669	0.0043523	13.02	0.000
Experience^2	-0.000846	0.0000847	-9.99	0.000
Intercept	-0.7974521	0.061195	-13.03	0.000
2nd decile			Pseudo R^2 =	0.3802
Effort	0.1471627	0.0025384	57.97	0.000
Scholarship	0.1284761	0.001712	75.05	0.000
Experience	0.0225433	0.0017487	12.89	0.000
Experience^2	-0.0002871	0.000031	-9.25	0.000
Intercept	-0.0127766	0.0356764	-0.36	0.720
3rd decile			Pseudo R^2 =	0.3939
Effort	0.1429148	0.001949	73.33	0.000
Scholarship	0.1272448	0.0015682	81.14	0.000
Experience	0.0127489	0.001078	11.83	0.000
Experience^2	-0.0001579	0.0000189	-8.36	0.000
Intercept	0.2742407	0.0289155	9.48	0.000
4th decile			Pseudo R^2 =	0.4018
Effort	0.1385655	0.0018996	72.95	0.000
Scholarship	0.1295974	0.001503	86.23	0.000
Experience	0.0035111	0.0010893	3.22	0.001
Experience^2	0.0000269	0.0000304	0.89	0.376
Intercept	0.4332208	0.0247305	17.52	0.000
5th decile			Pseudo R^2 =	0.4090
Effort	0.1328104	0.0022238	59.72	0.000
Scholarship	0.1352314	0.0023332	57.96	0.000
Experience	-0.0002211	0.0011294	-0.2	0.845
Experience^2	0.0001634	0.0000225	7.25	0.000
Intercept	0.4862847	0.0371584	13.09	0.000

Source: Own elaboration with data from ENIGH 2016.

Table 7. Estimation results of equation (3) restricted to women, sixth to ninth deciles

Simultaneous quantile regression Dependent variable: logarithm of the wage rate in the main job				
Regressor	Coefficient	Standard error	*t*	Pr(|T| > |t|)
6th decile			Pseudo R^2 =	0.4173
Effort	0.1266882	0.0020174	62.8	0.000
Scholarship	0.137429	0.0017685	77.71	0.000
Experience	0.0034677	0.0018856	1.84	0.066
Experience^2	0.0001333	0.0000475	2.81	0.005
Intercept	0.5279005	0.027814	18.98	0.000
7th decile			Pseudo R^2 =	0.4288
Effort	0.1261632	0.0018745	67.31	0.000
Scholarship	0.133127	0.0012959	102.73	0.000
Experience	0.0012494	0.0019075	0.65	0.512
Experience^2	0.0001888	0.0000571	3.31	0.001
Intercept	0.7098205	0.0277214	25.61	0.000
8th decile			Pseudo R^2 =	0.4480
Effort	0.127249	0.0019659	64.73	0.000
Scholarship	0.1264433	0.0011131	113.6	0.000
Experience	-0.003687	0.0011787	-3.13	0.002
Experience^2	0.000341	0.0000271	12.6	0.000
Intercept	0.919857	0.0179644	51.2	0.000
9th decile			Pseudo R^2 =	0.4970
Effort	0.1643232	0.0021328	77.05	0.000
Scholarship	0.0773755	0.0016498	46.9	0.000
Experience	-0.0006849	0.0008936	-0.77	0.443
Experience^2	0.0001191	0.0000256	4.66	0.000
Intercept	1.57018	0.0190772	82.31	0.000

Source: Own elaboration with data from ENIGH 2016.

Table 8. Estimation results of equation (3) restricted to men, first to fifth deciles

Simultaneous quantile regression Dependent variable: logarithm of the wage rate in the main job				
Regressor	Coeficient	Standard error	*t*	Pr(|T| > |t|)
1st decile			Pseudo R^2 =	0.3384
Effort	0.1021804	0.0020678	49.41	0.000
Scholarship	0.1162124	0.0032376	35.89	0.000
Experience	0.0572372	0.0025124	22.78	0.000
Experience^2	-0.0007944	0.000041	-19.39	0.000
Intercept	-0.3181715	0.049067	-6.48	0.000
2nd decile			Pseudo R^2 =	0.3613
Effort	0.1048466	0.0012926	81.11	0.000
Scholarship	0.1040932	0.0022484	46.3	0.000
Experience	0.0259072	0.0012741	20.33	0.000
Experience^2	-0.0003344	0.0000242	-13.8	0.000
Intercept	0.4787683	0.0353416	13.55	0.000
3rd decile			Pseudo R^2 =	0.3718
Effort	0.1020251	0.0010791	94.55	0.000
Scholarship	0.0990304	0.0018252	54.26	0.000
Experience	0.0134656	0.0007411	18.17	0.000
Experience^2	-0.000153	0.0000127	-12.01	0.000
Intercept	0.8281242	0.0295938	27.98	0.000
4th decile			Pseudo R^2 =	0.3752
Effort	0.0968473	0.0010498	92.25	0.000
Scholarship	0.1010759	0.0018354	55.07	0.000
Experience	0.0064433	0.0005456	11.81	0.000
Experience^2	-0.0000148	0.0000104	-1.43	0.154
Intercept	0.9902058	0.0244893	40.43	0.000
5th decile			Pseudo R^2 =	0.3754
Effort	0.0908069	0.0012057	75.32	0.000
Scholarship	0.104642	0.0015278	68.49	0.000
Experience	0.0044505	0.0006607	6.74	0.000
Experience^2	0.0000562	0.0000118	4.76	0.000
Intercept	1.071926	0.0230215	46.56	0.000

Source: Own elaboration with data from ENIGH 2016.

Table 9. Estimation results of equation (3) restricted to men, sixth to ninth deciles

Simultaneous quantile regression Dependent variable: logarithm of the wage rate in the main job				
Regressor	Coefficient	Standard error	*t*	Pr(|T| > |t|)
6th decile			Pseudo R^2 =	0.3765
Effort	0.0842477	0.0010962	76.86	0.000
Scholarship	0.1067688	0.0015349	69.56	0.000
Experience	0.0040267	0.0006834	5.89	0.000
$Experience^2$	0.000118	0.0000171	6.9	0.000
Intercept	1.159426	0.0212035	54.68	0.000
7th decile			Pseudo R^2 =	0.3819
Effort	0.0776861	0.0009997	77.71	0.000
Scholarship	0.1081289	0.0014385	75.17	0.000
Experience	0.0072292	0.0007428	9.73	0.000
$Experience^2$	0.0001208	0.0000165	7.33	0.000
Intercept	1.238478	0.0219111	56.52	0.000
8th decile			Pseudo R^2 =	0.3958
Effort	0.0752287	0.0010045	74.89	0.000
Scholarship	0.1057821	0.0010988	96.27	0.000
Experiencia	0.0110115	0.0008955	12.3	0.000
$Experiencia^2$	0.0000882	0.0000178	4.95	0.000
Intercept	1.369151	0.0125794	108.84	0.000
9th decile			Pseudo R^2 =	0.4480
Effort	0.1054605	0.0021243	49.65	0.000
Scholarship	0.0762925	0.0013425	56.83	0.000
Experience	0.0089073	0.0006877	12.95	0.000
$Experience^2$	-0.0000117	8.77E-06	-1.33	0.184
Intercept	1.819797	0.0187917	96.84	0.000

Source: Own elaboration with data from ENIGH 2016.

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