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Wage differences by occupation between men and women in Brazil

Diferenças salariais por ocupações entre homens e mulheres no Brasil

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Abstract
The income inequality among the professionals performing the same function is remarkable in Brazil. Individuals who are allocated to the same occupational groups have similar productivity, therefore, there should be no great difference between the salaries of men and women. In this context, the objective of this research is to analyze the gender wage differences among workers allocated to the same occupations between 2005 and 2015. For this purpose, the Oaxaca decomposition (1973) and the database of the National Survey by Household Sample were used. The main results showed the component attributed to discrimination increased in the period from 2005 to 2015.Evidence of *glass ceiling* were found for occupations categories of Manager, Supervisor, Director (private sector) and Director of Public Administration as well as evidence of *sticky floor* were found for Service occupations.
Keywords: Inequality. Occupational Discrimination. Labor Market.

Resumo
A desigualdade de rendimentos entre profissionais que exercem a mesma função é marcante no Brasil. Indivíduos que estão alocados nos mesmos grupos ocupacionais possuem produtividade similar, desta forma, não deveria haver grande diferença entre os salários de homens e mulheres. Neste contexto, o objetivo desta pesquisa é analisar as diferenças salariais por gênero entre trabalhadores alocados nas mesmas ocupações entre 2005 e 2015. Para isto, foram utilizados a decomposição de Oaxaca (1973) e o banco de dados da Pesquisa Nacional por Amostra de Domicílios. Os principais resultados mostraram o componente atribuído a discriminação aumentou no período de 2005 a 2015. Foram encontradas evidências de teto de vidro (*glass ceiling*) para as categorias de ocupações de gerência e diretoria do setor privado e de diretoria do poder público, e também evidências de piso pegajoso (*sticky floor)* para as ocupações de serviços.
Palavras-chave: Desigualdade. Discriminação Ocupacional. Mercado de Trabalho.

1 INTRODUCTION

In developed countries such as the United States, a further transformation of the wage structure has been evident over the past 25 years with the intensification of the labor market polarization, as there was an increase of higher and lower wage occupations which, consequently correspond to jobs with higher and lower qualifications (skill), respectively, on the other hand, reduced the occupations of medium qualification (DWYER, 2013; SMITH, 2013). In this polarization, an

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increase in inequality was observed at the top of the upper tail of the wage distribution. In the lower part there was expansion followed by a compression in the wage distribution. Moreover, the dispersion at the top of the wage also grew among the genders, deepening the inequality of women compared to men and potentially increasing gender discrimination (DAVID, KATZ; KEARNEY, 2006).

In the world scenery, the service sector surpassed agriculture as the one that most employed women and men. In 2015, just over half of the global population worked on services (50.1%). However, in 2015, 42.6% of men worked in services, on the other hand, since 1995 more than half of the world's women were employed in this sector. Sectoral and professional segregation contributes significantly to gender disparities, both in terms of number and quality of jobs (RUBERY; KOUKIADAKI, 2016).

The importance of the worker gender that is related to wage discrimination is widely examined in the literature (KASSOUF, 1998). The wage gap between men and women is an important misadjustment in the labor market found in low-development and developed countries. Ruijter, Doorne-Huiskes and Schippers(2003) analyzed the wage gap between occupations for the Netherlands, Chevalier (2007) among UK graduates, Barón and Cobb-Clark (2008) between the public and private sector for Australia.

The diagnosis of female labor devaluation has become frequent in the investigations on the causes of wage inequality, mainly due to the type of occupational insertion in wich the men and women are subjected. Women are receiving lower pay because they usually devote themselves to care activities and the workforce reproduction (services, domestic, health and education) and to support and execution functions. The male population is more frequently involved in production, construction, in the tertiary sector specialized in wealth generation support (credit, logistics etc.) and perform management and planning functions. Thus, the male occupations would be more prestigious and valued (MELO, 1998; KON, 2002; PED, 2014; BRUSCHINI, 2017).

The elaboration of public policies that effectively faced gender pay inequalities should distinguish what wage discrimination is from what occupational segregation is, and which of the two is damaging women in the labor market the most. Regardless of which of these vectors is most present in the pay dispersion between men and women, in a recent study for Brazil, Paschoalino, Plassa, Dos Santos (2017) show that education has still been the great responsible for mitigating discrimination, while experience has acted to increase discrimination. Fiuza-Moura *et al.* (2018) also reveal persistent discrimination in the Brazilian industrial sector, despite the reduction between 2003 and 2013. They also found a negative relationship between discrimination and the high-tech segment.

In Brazil, the participation of women in the labor market showed significant growth from the years 1970, due to the industrialization and urbanization process, and continued of increasing participation rates until the present day. The ingress of women in the labor market occurred, mainly in the services sector, in office activities (bureaucratic functions) and in other services, and domestic service can be highlighted. The characteristics of Brazilian economic development were important in determining the spaces to be occupied by women in the labor market. Thus, the expansion of public services in the Brazilian industrialization process was important for the growth of female employment in the areas of health, education and public administration, and indirectly in the activities of commerce and personal services (CACIAMALI, TATEI; ROSALINO, 2009; QUIRINO, 2012; BRUSCHINI, 2017).

Several studies show the persistent wage difference per gender being one of the most striking features of the Brazilian labor market, generated by discrimination between men and women, despite reductions in wage gap in recent decades (LEME; WAJNMAN, 2000; LAVINAS; NICOLL, 2005; BRUSCHINI, 2007; QUIRINO, 2012; FREISLEBEN; BEZERRA, 2012; MATTEI; BAÇO, 2017; FAUSTINO, ARAÚJO; MAIA, 2017). In this sense, Hoffmann and Leone (2005, p. 37) argue "The consolidation of women's participation in the labor market is not only reflected in the gender approximation of participation rates, but also in the decrease in wage gap between men and women."

Studies on discrimination are abundant, however there are few studies analyzing discrimination by occupations, such as the study of Cambota and Pontes (2006) that analyzed the discrimination by color and gender for only the year 2004; more recently, the studies by Mantovani, Souza and Gomes (2020; 2021), who analyzed three large occupational groups only for the year 2015, respectively for Brazil; and comparatively between the states of Bahia and Paraná.

This research aims to fill the gap of analyzing the evolution over time of the discrimination in occupational groups with a higher level of disaggregation of these groups, as well as to identify the presence of phenomena of the *glass ceiling* and *sticky floor* in the Brazilian labor market. The main objective of this research is to analyze the gender wage differences among workers allocated to the same occupations between 2005 and 2015. Therefore, the research contributes to identify in which occupations this undesirable economic phenomenon is more intense over time, whose period analyzed the national economy experienced high rates of growth and low unemployment.

The research was divided into four sections, in addition to the present introduction. A review of the literature on the situation of women in the labor market is presented in section 2. Section 3, in turn, was intended for the presentation of the methodology used. Section 4 was intended for the presentation of results and discussions and finally, section 5 presents the final considerations.

2 WOMEN IN THE LABOR MARKET

The concept of gender has the function of making the rupture of the naturalization of the differences between men and women. These differences are in fact consequences of constantly constructed and shaped social interactions in different societies and different historical periods. Therefore, "(1) Gender is a constitutive element of social relationships based on perceived differences between sexes and (2) gender is a primary way of giving meaning to power relations (SCOTT, 1995, p. 86)". The gender concept is a social and cultural construction of sexual differences. Juidth Butler resignified the concept of gender, replacing the unitary notions of woman and a generic identity by concepts of plural social identity and complex constitution, and the gender would be only a relevant trait among others (RODRIGUES, 2005). Thus, it entails a break with the binarism man/woman, it is based on the premise that gender is not understood as something fixed and sustained in a universal discourse, it transcends the question of man and woman (BUTLER, 2003).

The social markers of gender difference, such as sexuality, age/generation, race or color, social class and corporalities that interact contextual and conjunctively reveal that women are heterogeneous (PISCITELLI, 2008; HANKIVSKY; CHRISTOFFERSEN, 2008). The articulations among gender discrimination, homophobia, racism and class exploitation, as well as other social markers, that is, intersectionality, show that they are multiple systems and intersection of oppression and privilege (HANKIVSKY; CHRISTOFFERSEN, 2008; TAQUETTE, 2010).

The contradictions exposed by the inequality of gender relations reveal conflicts of power in several spheres of social, economic and political life. According to Hirata and Kergoat (2007, p. 5) "[...] social division of labor has two organizing principles: the principle of separation (there are work of men and work of women) and the hierarchical principle (a work of man "worth" more than a work of woman)". In the labor markets, social and economic inequality between men and women is revealed more clearly. The wage difference between men and women is a phenomenon found in countries with various levels of development (CHEVALIER, 2007; BARÓN; COBB-CLARK, 2008).

Wages inequality in the labor market has two explanations: a) productivity differences; and b) discrimination or segmentation in the remuneration of workers with equal productivities. In the first case, it is natural that workers with higher education and experience are more productive and receive higher remunerations. In this case, the labor market acts as a developer of the pre-existing educational inequalities in society. In the second case, inequality of remuneration is the product of the process of discrimination and/or segmentation. The labor market discriminates when it pays men and women or white and black with the same productivity differently, in the other words when the workers are paid differently, however they are perfectly substitutable in the production process. In this case, the labor market acts as a generator of remunerations inequalities (SILVA; KASSOUF, 2000; LOUREIRO, 2003; BARROS *et al.,* 2007; MEERKERK, 2010). The gender and race or color are overlapped and deepened the discrimination process against women.

The increase in the rate of women's activity led to greater diversification of the labor market, unfortunately this diversification did not mean a deconcentration of female labor from activities traditionally carried out by women, usually in the services sector and occupations that would be extensions of domestic activities (MELO, 1998). Occupations dominated by women on average have lower wages than occupations dominated by men and the residual or discrimination component of gender pay differences tends to be higher in occupations dominated by men compared to occupations dominated by women (RUIJTER, DOORNE-HUISKES; SCHIPPERS, 2003). Wage differentials in the world from 1960 to 1990 fell substantially from 65% to 30%. Most of the decline was attributed to an increase in female schooling, training and employment (WEICHSELBAUMER; WINTER-EBMER, 2003).

Discrimination in the labor market occurs when workers with similar productive characteristics, such as: educational formation, experience and skill receive wages or differentiated treatment because they belong to groups that have certain personal characteristics, such as gender, race, economic condition, without having an effect on the worker productivity (BECKER, 1957). Discrimination can be classified into four types: *(I) wage discrimination* when women and black people receive lower wages than white men, doing the same work; *(ii) discrimination in employment* when women and black people are predominantly disadvantaged in relation to the low supply of jobs, and are therefore those affected by unemployment the most; *(iii) discrimination in work or occupational when* women and black people have been arbitrarily restricted or prohibited from occupying certain occupations, even if they are as capable as white men of carrying out these jobs and *IV) human capital discrimination* when women and black people have fewer opportunities to increase their productivity, such as formal education or training at work (KON, 2002; LOUREIRO, 2003; THORAT, 2008; LOVÁSZ; TELEGDY, 2010).

Occupational segregation refers to the separation of male and female occupations and involves factors such as the internalization of gender cultural stereotypes by women themselves that affect their individual choices (FRESNEDA, 2007). Vertical segregation is the tendency for men and women to be employed at different levels of the hierarchy, so much so, they tend to focus on low-quality jobs; they have lower pay; they require low education; and they offer very few prospects for career development. The barriers of professional ascension for women to progress are called *glass ceiling,* those barriers block the women's access to the managerial position. Among the barriers it is possible to mention the long working days and the male management culture (FERNANDEZ, 2009; POGGIO, 2010; HIROMI, 2016).

Low occupational mobility is not limited to the top of the firm's hierarchy, invisible barriers also exist for the lower positions, which is called *sticky floor*. There is a large number of women in low-paid jobs and low mobility who also face barriers. In addition to those barriers that are most present for *glass ceiling*, there are also barriers are associated with low income and low availability and quality of public services of women's needs, as such access to care for the most vulnerable members of the family - children, the elderly and disabled -, as well as opportunities to increase human capital, through technical courses, training or even higher education that suit the women's daily lives (FERNANDEZ, 2009; POGGIO, 2010; HIROMI, 2016).

Glass ceiling is characterized by the lower speed with which women ascend in their career, resulting in their under-representation in the leadership positions of organizations and, consequently, in the high spheres of power, prestige and remuneration. It is observed even when women are endowed with productive characteristics that are identical or superior to those of their male counterparts (VAZ, 2013).

It is possible to distinguish two major approaches or interpretation models of the women under-representation in positions of power (vertical segregation) and their maintenance in less visible and recognized segments, such as the monotonous and invisible administrative functions in terms of labor. The first approach focuses on women and, particularly, on discriminatory practices, which are overt or veiled, aimed at excluding women of positions of power, while the second approach emphasizes the lowest female predisposition to take command positions (MARRY, 2008).

The first approach initiated by historians, philosophers and taken up by sociologists examines the causes of the women's careers blockages from the historical point of view and the functioning of institutions or professions, emphasizing the mechanisms of female exclusion, as the barriers historically faced by women to enteri higher education, particularly in prestigious institutions. This exclusion over time prevented them from qualifying to dispute the most prestigious positions in the labor market (KON, 2002; BRUSCHINI, 2007; MARRY, 2008).

The second approach presupposes that the lowest professional ambition of the women would be related to the primary socialization and the interiorization of the standards and values which suit their gender. The habits of modesty, self-depreciation and attention to the other, would remove them from academic disputes and power struggles. These habits would lead them to invest more than men in teaching and administrative functions that are not visible, to the detriment of research or coordination of large teams. In addition, women want to avoid obstacles and conflicts to reconcile their professional and family lives, which are usually enhanced in command positions and in the most prestigious careers (MARRY, 2008; VAZ, 2013).

According to Chevalier (2007) women follow social expectations and choose careers that reduce the likelihood of discrimination or allow them to fulfill other commitments, such as child care. The characteristics that affect these choices are usually not observable by the researcher. The study found out that 28% of UK women agree to take a career break for family reasons, but among men only 2%. Moreover, maternity generates a wage penalty for mothers compared to women without children. For example, Anderson *et al.* (2002) found a 10% wage penalty for the first child among USA university graduates.

Barros *et al.* (1997) found for Brazil, in the early 1990s, that 80% of women were in occupations with wages below the average, while only 40% of men were in this situation. The authors showed that if the intra-occupational wage differential did not exist, the wage gap per gender could be reduced by one third. Cambota and Pontes (2006) state that the labor market may be preventing women from entering positions of higher remuneration, which contributes to the poverty feminization. Barón and Cobb-Clark (2008) argue that in the presence of the *glass ceiling* phenomenon the wage gap between men and women is greater for workers who earn relatively high wages, while the existence of *sticky floor* may suggest otherwise. The studies by Arulampalam, Booth, Bryan (2007) and Christofides, Polycarpou, Vrachimis (2013) carried out for the countries of the European community found greater wage differences between men and women at the top of income distribution, which are consistent with the *glass ceiling* approach.

3 METHODOLOGICAL PROCEDURES

This research aim to analyze the wage differences among workers allocated to the same occupations between 2005 and 2015. For this purpose, database of National Continuous Household Survey (PNAD) carried out by The Brazilina Institute of Geography and Statistics (IBGE) for 2005 and 2015. The year of 2015 was the last year in which the annual PNAD was carried out, therefore, it was chosen to use the last available year of the research and to compare with 2005, thus, the research analyzed the evolution of the wage difference of a decade. Data were grouped by occupational categories, in which workers were considered within hierarchical structures. The occupied population of Brazil was selected, aged between 18 and 75 years.

To apply the Oaxaca (1973) decomposition procedures, two mincerian equations were estimated using the ordinary least squares method. First equation for determination of wages per gender; and the second equation for determination of wages per gender in each occupation. The functional model of the first equation is as follows:

$$\begin{aligned}\text{Ln w} &= \beta_0 + \beta_1 \text{Educ} + \beta_2 \text{Exp} + \beta_3 \text{Exp}^2 + \beta_4 \text{White} + \beta_5 \text{Urb} + \beta_6 \text{Formal} \\ &+ \beta_7 \text{DirectPub} + \beta_8 \text{Direct} + \beta_9 \text{Manag} + \beta_{10} \text{Scienc} + \beta_{11} \text{Serv} + \beta_{12} \text{Agric} \\ &+ \beta_{13} \text{Milit} \end{aligned} \quad (1)$$

Educ (years of study), Exp and Exp² (experience and experience squared) are the variables of human capital, the experience was calculated by the age of the individual less the age who he or she began to work. White is a binary variable for race or color and the white is the advantage group. Urb is a binary variable for urban or rural areas, being urban the advantage group. The following categories of occupations were used: DirectPub (director of public administration), Direct (director), Manag (manager and supervisor), Scienc (science and art professionals), Serv (administrative services), Agric (agricultural workers), Milit (military). The

"technician" occupation was excluded from the model to avoid collinearity. Also, yellow, indigenous and non-declaration were excluded from the sample due to the low representativeness in the sample. Thus, the equation (1) was estimated for men and women.

The second equation for determination of wages per gender in each occupation is presented below:

$$\text{Ln w} = \beta_0 + \beta_1 \text{Educ} + \beta_2 \text{Exp} + \beta_3 \text{Exp}^2 + \beta_4 \text{Wthite} + \beta_5 \text{Urb} + \beta_6 \text{Formal} \qquad (2)$$

In equation (2), the categories of occupations were deleted from equation (1). Thus, the equation (2) was applied for each occupation with the aim of verifying the differences between coefficients of each occupation by gender.

In the regressions of salary equations there is the possibility of sampling selection bias due to the non-observation of labor supply of individuals whose reserve salary is above the salary offered by the market. The procedure to correct this bias was developed by James Heckman[4], and this procedure takes his last name, which consists of calculating an equation of participation in the labor market, this equation generates the ratio between the function of sample density and the function of sample distribution subtracted from a unit. Such reason is known as the inverse ratio of Mills and should be added as a regressor of the wage determination equation (KASSOUF, 1994; FIUZA-MORA *et al.,* 2018). This research applied the Heckman procedure in the equations for the wages determination.

Oaxaca decomposition (1973) is used to assess how much of the difference in remunerations can be explained by differences in productivity between genders and how much is due to the fact that women receive less, just because they are women. According to the Leme and Wajnman (2000) this decomposition consists of:

a) Estimating minercian type wage equations for men and women:

$$w_m = \propto_m + \sum_i \beta_{im}\, x_{im} + \mu_{im} \qquad (3)$$

$$w_f = \propto_f + \sum_i \beta_{if}\, x_{if} + \mu_{if} \qquad (4)$$

Where **w** is the wage logarithm; **α** is the intercept of the regression; **x** is the vector of human capital variables; **β** it is the vector of the coefficients; and **μ** is the stochastic error or term. The subscripts **m** and **f** represent the male and female variables. And the subscript **I** represents the number of individuals participating in the sample.

b) Taking the difference between equations (3) and (4), evaluated at the mean points of the variables, and add and subtract $\sum \boldsymbol{\beta_{im}}\, \bar{\mathbf{x}}_{\mathbf{if}}$, obtaining the expression:

$$\bar{w}_m - \bar{w}_f = (\propto_m - \propto_f) + \sum_i \bar{x}_{if}\, (\beta_{im} - \beta_{if}) + \sum_i \beta_{im}\, (\bar{x}_{im} - \bar{x}_{if}) \qquad (5)$$

[4] Heckman (1974, 1980)
Heckman, J. 1974. "Shadow prices, market wages, and labor supply." Econometrica, 1: 679-694.
Heckman, J. 1980. "Sample selection bias as a specification error." In Smith, J.P., Female Labor Supply: Theory and Estimation. Princeton: Princeton University Press.

Where $\bar{w}_m - \bar{w}_f$ is the difference in the logarithm of the average wages. The last term $\sum \beta_{im} (\bar{x}_{im} - \bar{x}_{if})$ corresponds to the part of the wage gap that is due to the differences in characteristics weighted by the value given to these characteristics for man, that is, it measures the differences of incomes due to the differences in productive attributes among the workers. This part of the differential would occur if the labor market were blind regarding the gender of the individuals.

The second term $\sum \bar{x}_{if} (\beta_{im} - \beta_{if})$ refers to the part of the wage gap that is due to the unequal valuation of the same attribute. For example, if the difference in coefficients is positive, the attribute is more valued in men than in women. This difference is weighted by the woman's average attribute.

The first term $\alpha_m - \alpha_f$, the difference in intercepts, indicates the residual difference in incomes. A positive difference shows when men are better paid than women for any level of explanatory variables. Therefore, this and the second terms are part of the income difference that is not explained by the difference in attributes.

4 RESULTS AND DISCUSSIONS

The labor market in the Western is predominantly male, since they were considered the family providers and, on the other hand, women were given the role of taking care of the house, children and other family members who are vulnerable. However, in recent years, the female activity rate has been growing, reflecting a change in women's social role and gender relationships. In Brazil, according to Table 1, the female activity rate increased from 42.63% to 43.01%, from 2005 to 2015, respectively. The inequality of activity rates by gender still persisted in 2015, with a difference of approximately 14 p.p.. Although the vast majority of women still face a double working day, in addition to paid work, women devote more hours than men to domestic activities, in which they include caring for the other vulnerable of the family core as children and the elderly (CHEVALIER, 2007 FERNANDEZ, 2009; POGGIO, 2010; HIROMI, 2016). However, slowly, other family arrangements arise which release more time for women to reduce the time spent on domestic activities and take more time to professional life. In general, double shift still predominates in Brazilian society.

Table 1 - Distribution of the population occupied by gender in 2005 and 2015

Population Occupied (PO) 2015		**%**
Women	38,665,583	43.01
Men	51,231,990	56.99
Total	89,897,573	100
Population Occupied (PO) 2005		**%**
Women	34,245,715	42.61
Men	46,119,101	57.39
Total	80,364,816	100

Source: Own elaboration from the microdata of PNAD/IBGE- 2005 and 2015.

Table 2 shows the distribution of the population occupied by selected occupations. It is observed that the vast majority of the Brazilian population was working in the Services with 61.21% in 2005 and increased to 63.80% in 2015; the second occupation with the highest percentage is the Agriculture and had a significant reduction of 18.92% and 13.13% for the period 2005 and 2015, respectively,

reflecting the reduction of jobs in this sector that was led by the intense use of labor-saving technology.

Table 2 - Distribution of the population occupied according to occupations selected in 2005 and 2015

2015								
Manager	**Director of Public Administration**	**Director**	**Technician**	**Military**	**Science**	**Services**	**Agriculture**	**Total**
3.47%	0.28%	1.23%	7.28%	0.92%	9.90%	63.80%	13.13%	100%
2005								
Manager	**Director of Public Administration**	**Director**	**Technician**	**Military**	**Science**	**Services**	**Agriculture**	**Total**
3.83%	0.32%	1.15%	7.44%	0.77%	6.36%	61.21%	18.92%	100%

Source: Own elaboration from the microdata of PNAD/IBGE- 2005 and 2015.

Table 3 shows that men were mostly in almost all occupations, except in Sciences and Languages, where women accounted for 62.39% in 2015, revealing strong occupational segregation. These results are in agreement with recent studies (MANTOVANI, *et al.,* 2020, 2021) and reflect largely the occupational segregation involving factors such as the internalization of gender cultural stereotypes by women themselves that affect their individual choices. (FRESNEDA, 2007) In addition, they also reflect the women's labor market demand for a set of services-related occupations (KON, 2002).

Military occupation is typically male and has a very high percentage of 91.01% of men in 2015. Whereas in the Services and Technicians occupations, the rates of male and female activity are close to the rates of activity for each gender. Thus, men presented rates of activities above average in occupations of greater prestige and remuneration than women, such as, in the Director, Director of Public Administration, Manager occupations. The Director of Public Administrationoccupation which presented a reduction of approximately 10% of the total number of women employed in the period under examination, stands out. The period analyzed was of great expansion of the national economy, however, women were weakly passed over both in the public and private sectors in occupations at the highest hierarchical levels of companies. These data reveal strong evidences of vertical segregation, that is there are barriers professional ascension for women to progress which are called *glass ceiling,* they block the women's access to the managerial position. .

Table 3 - Distribution of the population occupied according to gender in the occupations selected in 2005 and 2015

	2015							
Gender	**Manager**	**Director of Public Administration**	**Director**	**Technician**	**Military**	**Science**	**Services**	**Agriculture**
Men	62.24	63.14	64.17	56.04	91.01	37.61	56.48	70.04
Women	37.76	36.86	35.83	43.96	8.99	62.39	43.52	29.96
Total	100 %	100%	100%	100%	100%	100%	100%	100%

2005								
Gender	**Manager**	**Director of Public Administration**	**Director**	**Technician**	**Military**	**Science**	**Services**	**Agriculture**
Men	65.86	53.42	63.35	53.17	95.00	39.78	56.05	65.76
Women	34.14	46.58	36.65	46.83	5.00	60.22	43.95	34.24
Total	100 %	100%	100%	100%	100%	100%	100%	100%

Source: Own elaboration from the microdata of PNAD/IBGE- 2005 and 2015.

One of the most widely used approaches to assessing the magnitude of wage differences is to compare average incomes per hour worked. Table 4 shows that the average wage per hour worked of women in 2015 was lower in all the occupations, especially in the Agriculture, Sciences and Languages and Director of Public Administrationoccupation, in these occupations women received 65.39%, 40.78% and 31.73%, respectively, less than men. The Sciences and Languages and Director of Public Administration occupations were highest wages per hour. Over the period 2005 to 2015, the Manager, Director of Public Administrations, Military and Science and Languages occupations showed an increase in the wage gap. For the Director, Technician, Services and Agriculture occupations the wage gap has decreased. In the case of Services is the category that employs the most, on the other hand,it has the lowest average wage, except for Agriculture Occupation.

According to Freeman (1996) and Levin-Waldman (2002) , the minimum wage has a positive distributive effect on the wage structure in the United States economy. In Brazil the minimum wage also has a positive impact, but it is more intense in lower wages and reduces at the top of the wage distribution, this behavior is called the lighthouse effect (SOUZA; BALTAR, 1980), which is consistent for countries that have great wage inequality. The Brazilian minimum wage legislation effects many less qualified jobs. For example, housemaid, which in 2015 represented 5.5% of workers, and women accounted for 92% in this occupation, so any change in the value of the minimum wage has important social impacts, because it affects the population income. The most compressed wage structure in the wage base is less unequal and carry out to the *sticky floor* phenomenon.

Table 4 - Average wage in real per hour worked of persons employed according to gender in 2005 and 2015

2015								
Gender	**Manager**	**Director of Public Administration**	**Director**	**Technician**	**Military**	**Science**	**Services**	**Agriculture**
Men	33.18	47.93	45.03	25.18	32.30	53.66	12.16	6.53
Women	25.55	32.77	36.82	22.09	27.78	31.78	9.81	2.26
Difference	-23.00	-31.63	-18.23	-12.27	-13.99	-40.78	-19.33	-65.39
2005								
Gender	**Manager**	**Director of Public Administration**	**Director**	**Technician**	**Military**	**Science**	**Services**	**Agriculture**
Men	12.44	18.15	25.18	8.91	8.76	18.11	3.82	12.44

Women	10.31	14.31	15.46	6.20	10.64	11.40	3.00	10.31
Difference	-17.12	-21.16	-38.60	-30.42	21.46	-37.05	-21.47	-77.53

Source: Own elaboration from the microdata of PNAD/IBGE- 2005 and 2015.

Table 5 presents estimates of salary functions for female and male workers in 2005 and 2015. The results showed a positive sign for **Education** and **Experience**, therefore, when these variables increase, both for men and women, wages increase. These results are consistent with the postulates of the theory of human capital.

All variables selected were significant for the significance levels of 1% and 5%, which indicates that the variables chosen explain the variation of the logarithm of the hourly wage. The value of the coefficient of determination R^2 indicates how the explanatory variables chosen for the analysis explain the changes of the dependent variable, all models presented a R^2 greater than 30%. The variable **Lambda** was statistically significant and corresponds to the correction of bias by the Heckman procedure (1979), i.e., the need to correct the adverse selection caused by workers who do not participate in the labor market, considering that many workers may have, for example, a higher reserve wage than the market wage.

Table 5 - Estimates of salary functions in the Brazilian labor market by gender in 2005 and 2015

	2005		**2015**	
Variables	**Men**	**Woman**	**Men**	**Woman**
Education	0.074***	0.074***	0.058***	0.060***
	(0.001)	(0.001)	(0.001)	(0.001)
Experience	0.017***	0.018***	0.026***	0.022***
	(0.000)	(0.001)	(0.001)	(0.001)
Experience²	0.000***	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
White	0.187***	0.184***	0.179***	0.183***
	(0.005)	(0.006)	(0.005)	(0.006)
Urban	-0.021**	0.225***	0.103***	0.327***
	(0.009)	(0.021)	(0.013)	(0.023)
Formal	0.275***	0.252***	0.180***	0.178***
	(0.005)	(0.006)	(0.005)	(0.006)
Director of Public Administration	0.604***	0.582***	0.502***	0.592***
	(0.038)	(0.040)	(0.043)	(0.054)
Director	0.604***	0.536***	0.376***	0.352***
	(0.022)	(0.029)	(0.023)	(0.030)
Manager	0.139***	0.265***	0.162***	0.189***
	(0.014)	(0.018)	(0.016)	(0.019)
Science	0.412***	0.332***	0.418***	0.298***
	(0.014)	(0.013)	(0.013)	(0.013)
Services	-0.430***	-0.386***	-0.336***	-0.339***
	(0.009)	(0.010)	(0.010)	(0.011)

Military	0.063***	0.638***	0.357***	0.724***
	(0.020)	(0.080)	(0.021)	(0.060)
Agriculture	-0.640***	-0.508***	-0.543***	-0.602***
	(0.012)	(0.020)	(0.013)	(0.023)
Lambda	-0.760***	0.055***	-0.435***	0.189***
	(0.030)	(0.029)	(0.053)	(0.041)
Constant	0.440***	-0.092***	1.210***	0.822***
	(0.017)	(0.031)	(0.024)	(0.035)
R2	0.458	0.415	0.357	0.327
F Test	5752.6***	3248.47***	34040.94***	2141.76***
N° of observations	95,435	64,055	86,007	61,873

Source: Own elaboration from the microdata of PNAD/IBGE- 2005 and 2015.
Note: robust standard error in parentheses. *** It denotes significance at the level of 1%; ** It denotes significance at the level of 5%

Table 6 presents the Oaxaca decomposition for each occupation selected for the years 2005 and 2015. The "explained" part of wage gap reflects the average increase in women's wages if they had the same characteristics as men, so it refers to the wage difference that is explained by productive differences of workers, such as education and experience. Whereas the "unexplained" part quantifies the change in women's wages by applying the coefficients of men to the characteristics of women, therefore, refers to the part not explained by productive attributes, which researchers generally associate the discrimination.

In the first part of Table 6 it can be observed that almost all selected occupational groups presented the total wage difference as part of the "unexplained" component. In the second part of Table 6, the percentage variations of the "explained" and "unexplained" components were calculated. In the component associated with discrimination, the Director of Public Administration occupation in 2005 was in second position (120.93%) and first in 2015 (167.94%). The Manager, Director and Services occupations also increased discrimination component from 2005 to 2015: 118.31%, 63.80% and 83.87% for 123.10%, 115.76%, 108.58%, respectively. These occupations are considered of greater prestige and *status*, therefore, considering the greater discrimination from the top of the hierarchy of firms, this wage behavior is converging toward the analyzes of other countries that have found the *glass ceiling* phenomenon.

For the Director of Public Administrationdiscrimination was not expected to be found, since the wages are determined in the contests public notices. However, the results point to the existence of discrimination in the hierarchical structures of the public staff that are occupied by women, that is, men in this occupation[5] on average are in positions that pay better, and as the sign of the difference "explained" was negative this means that they have less productive attributes than women. Thus, if work were paid for productive attributes, women should receive higher pay than men.

The wage discrimination component over time, 2005 to 2015, showed an average increase of approximately 14%. Except for the Sciences and Military occupations that presented reductions in this component. In Brazil, according to Cacciamali, Tatei and

[5] The Director of Public Administrationoccupation is made up of the following positions: Legislators, general public administration leaders, Court Ministers, Production managers and public administration operations, Public administration support leaders, Small population Chiefs, Director and administrators of public interest organizations.

Rosalino (2009), the discrimination component increased from 2002 to 2006. Weichselbaumer and Winter-Ebmer (2003) carried out a review of the international empirical literature on gender pay differences in different countries [6] and found that the discrimination or inexplicable component did not show decline over the time.

The behavior of the military occupation is noteworthy, in 2005 it had the highest percentage (123.15%) of the component associated with discrimination (unexplained) and presented a large reduction in 2015 (76.31%). In this case, the wage gap is favorable to women. In 2005, on average women in the military occupation received approximately 2% more than men in the same occupation. Whereas in 2015 they received on average 4% less than men in the military occupation. However, when the other control variables were added, women had a wage advantage in this occupation for 2015. The military of the women's armed forces in Brazil expanded strongly from 2004, despite the small percentage, about 7%, however, these military are mostly graduated and junior officers, whose salaries are higher than those of the soldiers. Military service for men is mandatory, which contributes to a large enlisted male . According to Resende (2017) it is very little expressive number of officer female and has remained constant since 2004, but it can potentially increase over time.

Overall, the increase in income between 2005 and 2015 in Brazil reflected higher wages for men and women, which also contributed to reducing the wage gap between both. However, worker with higher income, as well as in European countries and the United States, does not eliminate, but, above all, increases the salary differences for occupational categories at the top of the income distribution, which also have high educational levels on average. Despite the female achievements in recent decades in the labor market as well as in the household space, women's productive attributes are not valued yet at the same proportion as men's.

Table 6 - Oaxaca decomposition for wage income difference between men and women between occupational groups in 2005 and 2015

2005				2015			
Occupations	**Explained**	**Unexplained**	**Total**	**Occupations**	**Explained**	**Unexplained**	**Total**
Manager	-0.031	0.200	0.169	Manager	-0.048	0.257	0.209
Director of Public Administration	-0.057	0.330	0.273	Director of Public Administration	-0.073	0.180	0.107
Director	0.141	0.248	0.388	Director	-0.041	0.304	0.263
Technician	0.000	0.268	0.267	Technician	-0.014	0.234	0.220
Science	0.012	0.354	0.366	Science	0.027	0.333	0.361
Services	0.039	0.204	0.243	Services	-0.018	0.222	0.204
Agriculture	0.048	0.156	0.204	Agriculture	-0.007	0.285	0.278
Military	0.085	-0.453	-0.368	Military	-0.046	-0.147	-0.193

Percentage variation 2005			Percentage variation 2015		
Occupations	**Explained**	**Unexplained**	**Occupations**	**Explained**	**Unexplained**
Manager	-18.31	118.31	Manager	-23.10	123.10
Director of Public Administration	-20.93	120.93	Director of Public Administration	-67.94	167.94
Directors	36.20	63.80	Director	-15.76	115.76

[6] The study considered 1,541 references, of which much was theoretical.

Technician	-0.08	100.08	Technician	-6.44	106.44
Science	3.27	96.73	Science	7.60	92.40
Services	16.13	83.87	Services	-8.58	108.58
Agriculture	23.45	76.55	Agriculture	-2.67	102.67
Military	-23.15	123.15	Military	23.69	76.31

Source: Own elaboration from the microdata of PNAD/IBGE- 2005 and 2015.

FINAL CONSIDERATIONS

The objective of this research was to analyze the gender wage differences among workers allocated to the same occupations between 2005 and 2015 in Brazil. Income inequality is a striking feature of the Brazilian labor market, becoming a problem, as workers with similar productive characteristics receive differentiated wages based on personal attributes, such as color or gender, that is, social markers can deepen the wage discrimination. Therefore, this research contributes to literature by bringing the occupational cut-off for the analysis of wage differences, since most studies use occupational categories as control variables, but do not actually analyze the wage difference per gender that exists in occupations.

The main results were: a) component attributed to discrimination explains the totality of the gender wage differential in most occupations, besides, this component increased in the period from 2005 to 2015; b) the Director of Public Administration, Manager, Supervisor and Director occupations were the ones with the highest degree of discrimination; c) these three occupations are dominated by men and have greater prestige and remuneration; d) the women even in the occupation that they predominate (Science) the degree of discrimination found was extremely high revealing the existence of *glass ceiling*; and e) the Services occupation has the lowest wage difference, as well as wages evidencing the *sticky floor*.

The research shows the existence of occupational discrimination in the Brazilian labor market. However, the occupational groups analyzed are composed of some similar occupations that have not been disaggregated into a greater number of occupational categories, that is a limitation of the study and at the same time a suggestion for future research, considering that they are available at PNAD database. In addition, new studies might also analyze based on the intersectionality of the wage difference per occupations.

Finally, although the literature shows that Brazil has advanced toward greater gender equality in the wage aspect, public policies are still needed to provide better conditions for access to education and equality in the labor market between women and men, as well as policies aimed at reducing poverty, as it indirectly contributes to reducing the women's poverty. Furthermore, the population as a whole must realize that the devaluation of the female labor force undermines the balance in the labor market and labor productivity, and is socially unfair.

REFERENCES

ANDERSON, D.; BINDER, M.; KRAUSE, K. Women, children and the labor market. **American Economic Review**, v. 92, p. 354–358, 2002.

ARULAMPALAM, W.; BOOTH, A. L.; BRYAN, M. L. Is there a glass ceiling over Europe? Exploring the gender pay gap across the wage distribution. **ILR Review**, v. 2, n. 60, p. 163-186, Jan. 2007.

BARÓN, J. D.; COBB-CLARK, D. A. Occupational Segregation and the Gender Wage Gap in Private- and Public-Sector Employment: A Distributional Analysis. **IZA Discussion Paper**, jun. 2008.

BARROS, R. P.; FRANCO, S.; MENDONÇA, R. Discriminação e segmentação no mercado de trabalho e desigualdade de renda no Brasil. **IPEA**, Rio de Janeiro, p. 30, jul. 2007.

BARROS, R. P.; MACHADO, A. F.; MEDONÇA, R. A Desigualdade da Pobreza: Estratégias Ocupacionais e Diferenciais por Gênero. **IPEA**, Rio de Janeiro, p. 36, 1997.

BECKER, G. **The Economics of Discrimination.** The University of Chicago Press. Chicago. 1957.

BRUSCHINI, M. C. A. Trabalho e gênero no Brasil nos últimos dez anos. **Cadernos de Pesquisa**, v. 37, n. 132, p. 537-572, set./dez. 2017.

BUTLER, J. **Problemas de Gênero: Feminismo e Subversão da Identidade**. Rio de Janeiro: Editora Civilização Brasileira, 2003.

CACCIAMALI, M. C.; TATEI, F.; ROSALINO, J. W. Estreitamento dos diferenciais de salários e aumento do grau de discriminação: limitações da mensuração padrão? **Planejamento e Políticas Públicas**, v. 33, p. 195-222, Jul./Dez. 2009.

CAMBOTA, J. N.; PONTES, P. A. Discriminação por Gênero Intra-Ocupações no Brasil, em 2004. **XV Encontro Nacional de Estudos Populacionais, ABEP.**, Caxambu, p. 15, set. 2006.

CHEVALIER, A. **Education, Occupation and Career Expectations: Determinants of the Gender Pay Gap for UK Graduates**. Oxford Bulletin of Economics and Statistics. University of Oxford. 2007.

CHRISTOFIDES, L. N.; POLYCARPOU, A.; VRACHIMIS, K. Gender wage gaps,'sticky floors' and 'glass ceilings' in Europe. **Labour Economics**, v. 21, p. 86-102, abril 2013.

DAVID, H.; KATZ, L. F.; KEARNEY, M. S. The polarization of the US labor market. **American economic review**, v. 96, n. 2, p. 189-194, 2006.

DWYER, R. E. The care economy? Gender, economic restructuring, and job polarization in the US labor market. **American Sociological Review**, v. 78, n. 3, p. 390-416, 2013.

FAUSTINO, I.; ARAÚJO, E.; MAIA, K. Mercado de trabalho e discriminação: uma análise das diferenças salariais e discriminação por gênero no Brasil e macrorregiões (2004-2014). **Encontro Nacional de Economia da ANPEC**, Natal, 2017.

FERNANDEZ, J. Intra-occupational gender earnings gaps in Malaysia. **Jurnal Kemanusiaan**, v. 14, p. dez., 2009.

FIUZA MOURA, F. et al. The luck of being of the right gender and color: a detailed discussion about the wage gaps in the Brazilian manufacturing industry. **Quality & Quantity**, v. 52, set. 2018.

FREEMAN, R. B. The minimum wage as a redistributive tool. **Economic Journal**, v. 106, p. 639-649, 1996.

FREISLEBEN, V. S.; BEZERRA, F. M. Ainda existe discriminação salarial contra as mulheres no mercado de trabalho da região Sul do Brasil? Evidências para os anos de 1998 e 2008. **Revista Cadernos de Economia**, Chapecó, v. 16, n. 30-31, p. 51-65, dez. 2012.

FRESNEDA, B. Segregação ocupacional versus discriminação salarial por gênero no mercado de trabalho brasileiro- 2004. In: CONGRESSO BRASILEIRO DE SOCIOLOGIA , 13., 2007, Recife. **Anais** […]. Recife, p. 16, jun. 2007.

HANKIVSKY, O.; CHRISTOFFERSEN, A. “Intersectionality and the determinants of health: a Canadian perspective”. **Critical Public Health**., v. 18, n. 3, p. 271-283, 2008.

HECKMAN, J. J. Sample selection bias as a specification error (with an application to the estimation of labour supply functions). **Econometrica**, v. 47, n. 1, p. 153-161, Jan. 1979.

HIROMI, H. Glass Ceilings or Sticky Floors? An analysis of the gender wage gap across the wage distribution in Japan. **The Research Institute of Economy, Trade and Industry**, n. Discussion Paper Series 16-E-099, p. 50, Nov. 2016.

HOFFMANN, R.; LEONE, E. Participação da mulher no mercado de trabalho e desigualdade da renda domiciliar per capita no Brasil: 1981-2002. **Nova Economia**, Belo Horizonte, v. 12, n. 2, maio/agos. 2005.

KASSOUF, A. L. The wage rate estimation using the heckmanprocedure. **Revista de Econometria**, v. 14, n. 1, p. 89-107, 1994.

KASSOUF, A. L. Wage gender discrimination and segmentation in the Brazilian labor mark. **Revista de Economia Aplicada**, São Paulo, v. 2, n. 2, p. 243-269, 1998.

KON, A. A economia política do gênero: determinantes da divisão do trabalho. **Revista de Economia Política**, v. 22, n. 3, p. 89-109, Jul./Set. 2002.

LAVINAS, L.; NICOLL, M. Desafios da heterogeneidade feminina no desenho das políticas sociais. **29º Encontro Anual da ANPOC**, Caxambú, 2005.

LEME, M. C. S.; WAJNMAN, S. Tendências de coorte nos diferencias de rendimento por sexo. In: HENRIQUES, R.. **Desigualdade e pobreza no Brasil**. Rio de Janeiro: IPEA, 2000. p. 251-270.

LEVIN-WALDMAN, O. M. The Minimum Wage and Regional Wage Structure: Implications for Income Distribution. **Journal of Economic Issues**, v. 36, p. 635-657, 2002.

LOUREIRO, P. R. A. Uma resenha teórica e empírica sobre a economia da discriminação. **Revista Brasileira de Economia**, v. 57, n. 1, p. 125-157, jan./mar 2003.

LOVÁSZ, A.; TELEGDY, A. Labour market discrimination – types, measurement issues, empirical solutions. In: LOVÁSZ, A.; TELEGDY, A.. **Labour Market Discrimination**. Hungary: 1, 2010. p. 46-67.

MARRY, C. As carreiras das mulheres no mundo acadêmico: O exemplo da biologia. In: COSTA, A. O. E. A. **Mercado de trabalho e gênero:** comparações internacionais. Rio de Janeiro: FGV, 2008. Cap. 22, p. 401-419.

MATTEI, T. F.; BAÇO, F. M. B. Análise das desigualdades salariais entre homens e mulheres no mercado de trabalho de Santa Catarina. **Desenvolvimento Regional em debate**, v. 2, n. 7, p. 96-117, Jul./Dez. 2017.

MEERKERK, E. N. Market wage or discrimination? The remuneration of male and female wool spinners in the seventeenth-century Dutch Republic. **The Economic History Review**, v. 63, n. 1, p. 165-186, Fev. 2010.

MELO, H. P. Globalização, políticas neoliberais e relações de gênero no Brasil. In: BORBA, A.; FARIA, N.; GODINHO, T. **Mulher e Política - Gênero e Feminismo no Partido dos Trabalhadores**. São Paulo: Fundação Perseu Abramo, 1998.

MANTOVANI, G.; SOUZA, S.; GOMES, M. Ocupação e género: uma análise dos efeitos da segmentação ocupacional e da discriminação de género para o Brasil. **Estudios Económicos**, v. 37, n. 74, p. 71-104, 21 jul. 2020.

OAXACA, R. L. Male-female differentials in urban labor market. **Internation Economic Review**, v. 14, n. 3, p. 693-709, out. 1973.

PASCHOALINO, P. A. T.; PLASSA, W.; DOS SANTOS, M. P. Discriminação de gênero no mercado de trabalho brasileiro: uma análise para o ano 2015. **Revista Econômica do Nordeste**, v. 48, n. 3, p. 43-54, 2017.

PED. Mulheres e homens em grupos ocupacionais homogêneos: Elas tendem a ganhar menos! **IBGE**, 2014.

PISCITELLI, A. Interseccionalidades, categorias de articulação e experiências de migrantes brasileiras. **Sociedade e cultura**, v. 11, n. 2, 2008.

POGGIO, B. Vertical segregation and gender practices. Perspectives of analysis and action. **Gender in Management: An International Journal,** v. 25, n. 6, p. 428-437, Agos. 2010.

QUIRINO, R. Trabalho da Mulher no Brasil nos últimos 40 anos. **Revista Tecnologia e Sociedade**, n. 2, p. 90-102, 2012.

RESENDE, S. Mulheres, forças armadas e operações de paz. **Cadernos de Relações Internacionais**, v. 11, n. 2, p. 76-95, 2017.

RODRIGUES, C. BUTLER, J. Problemas de gênero: feminismo e subversão da identidade. **Revista Estudos Feministas**, v. 13, n. 1, p. 179, 2005.

RUBERY, J.; KOUKIADAKI, A. Closing the gender pay gap: a review of the issues, policy mechanisms and international evidence. **ILO, Geneva**, 2016.

RUIJTER, J. P.; DOORNE-HUISKES, A.; SCHIPPERS, J. J. Size and Causes of the Occupational Gender Wage-gap in the Netherlands. **European Sociological Review**, v. 19, n. 4, p. 345-360, 2003.

SCOTT, J. W. Gênero: uma categoria útil de análise histórica. **Educação & Sociedade**, Porto Alegre, v. 20, n. 2, p. 71-99, jul.-dez. 1995.

SILVA, N. D. V.; KASSOUF, A. L. Formal e informal: uma análise da discriminação e da segmentação. **Nova Economia**, Belo Horizonte, v. 10, n. 1, jul. 2000.

SMITH, C. **The dynamics of labor market polarization**. Board of Governors of the Federal Reserve System. [S.l.], p. 58. 2013. (Finance and Economics Discussion Series 2013-57).

SOUZA, P. R.; BALTAR, P. E. Salário mínimo e taxa de salários no Brasil: réplica. **Pesquisa e Planejamento Econômico**, Rio de Janeiro, 1980.

TAQUETTE, S. R. "Interseccionalidade de gênero, classe e raça e vulnerabilidade de adolescentes negras às DST/AIDS". Saúde e Sociedade., v. 19, supll 2, p. 51-62, 2010.

THORAT, S. Labour Market Discrimination Concept, forms and remedies in the Indian Situations. **The Indian Journal of Labour Economics**, v. 51, n. 1, p. 31-52, 2008.

VAZ, D. V. O teto de vidro nas organizações públicas: evidências para o Brasil. **Economia e Sociedade**, Campinas, v. 22, n. 3, p. 765-790, dez. 2013.

WEICHSELBAUMER, D.; WINTER-EBMER, R. A meta-analysis of the international gender wage gap. **Journal of**

Economic Surveys, v. 19, n. 3, p. 35, 2003.

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[ii] Doutora em Economia Aplicada.