Gender Wage Gap in Brazilian Formal Labour: a glass ceiling analysis in management positions.

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Abstract

This article examines the existence of a significant gender wage gap in management positions in the Brazilian formal labour market. In particular, we check whether the gap between women and men wage increases along the wage distribution, and it is greater in leadership positions such as directors and company board members. For this analyse we used the Brazilian's Annual Report of Social Information database for 2003 and 2017 and select only coordinators, supervisors, managers, directors and board member positions. Once we aggregate the first three as the lowest leadership position level and directors and company board members as the highest level, we find, based Machado and Mata (2005) decomposition methodology, an increasing devaluation of women's salary along the wage distribution in both levels, but a higher gap in the top occupations. There is also a significant wage gap not explained by the productive characteristics of workers or market's aspects.

1. Introdução

A growing female participation in the Brazilian labour market, especially after 1970, indicates a change in traditional social patterns, in which the woman ceases to have a role exclusively as a mother and a housewife and starts to act as a provider (breadwinner). This change, however, does not correspond to an equal representation of both sexes in labour market, whether from the point of view of the labour supply itself or the quality of the available work.

Examining gender inequalities, the discrimination suffered by women in the labour market can occur differently according to the type of occupation, along the hierarchical structure inside the firms or across the wage distribution. The glass ceiling phenomenon, the main interest of this study, for example, corresponds to the intensification of wage inequalities at the top of the distribution or a hierarchical segregation that hinders women from reaching the top of the occupation ladder.

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Gender wage inequality, specifically, has been a topic extensively studied over the last decades. However, most of these studies investigate only the average wage gap. Using decomposition techniques, they analyse the contributions of differences in characteristics (the explained component) and differences in the returns of these characteristics (the unexplained component or effect of the wage structure) for the total wage gap. This decomposition, nonetheless, does not capture different effects across the wage distribution, hiding a more significant variance at a specific part of the distribution.

Most of the existing studies also do not discuss the relationship between the different forms of gender inequality known as glass ceiling phenomenon. The low proportion of women in management and leadership positions, which are normally associated with higher payment, can potentially affects more intensely earnings at the top of the wage distribution, contributing to the glass ceiling hypothesis that the wage gap increases at higher wages. This relationship, then, can be quite significant in countries with a high degree of hierarchical segregation between men and women. In Brazil, for example, among employees and managers of a sample of organizations extracted from the group of the 500 largest companies in Brazil, a hierarchical segregation is observed in supervisory and management positions, with female participation varied between 27% and 39% and 18% and 31%, respectively. In the executive board, this percentage is even lower, ranging from 6% to 13% (GONÇALVES, 2016) – data from 2003, 2005, 2007, 2010 and 2015.

Based on this principle, this paper proposes to discuss the relationship between wages and hierarchical segregation in Brazilian formal labour market, under the hypothesis that even among workers in managerial positions, women continue to receive lower remuneration compared to their peers, reflecting the same pattern found labour market in general (SANTOS, RIBEIRO, 2006; SALARDI, 2012).

Thus, this paper has two major goals. First, we estimate the evolution of gender wage gaps in Brazil over the last fithteen years at different quantiles of the wage distribution. Second, while tracing the pattern of wage differentials across the wage distribution, we focus particularly on the differences between hierarchically lower managerial positions such as supervisors, coordinators, managers, etc., and hierarchically higher managerial positions such as directors, vice presidents and presidents. In order to achieve these two goals, we apply a decomposition technique developed by Machado and Mata (2005), which breaks down the wage gap into an explained component and an unexplained component along the entire wage distribution.

Thus, considering that no studies were found in the literature that analyse these two aspects together, nor considering such an extensive time range, this work contributes to the studies about glass ceiling phenomenon in the Brazilian formal market. In order to present this investigation, the work extends into four more sections. The next one presents some investigated cases of the glass ceiling phenomenon in the last decades, while the third section describes the methodology used. The fourth section describes the data used and the results found, and finally, some final considerations are presented.

2. Literature Review

After the publication of seminal studies by Oaxaca (1973) and Blinder (1973), the growth of research on wage gaps in developed and developing countries has been prolific. However, many of these studies using decomposition method rely on the estimation of wage gaps at the mean, which does not capture different effects across the wage distribution, hiding a more significant variance at a specific part of the distribution.

Recent studies have focused on comparative analyses across wage distributions and how observable and unobservable factors affect women's salaries. Albrecht, Björklund and Vroman (2003), for example, analysing data from Sweden, found evidence of an increasing wage differential across the income distribution, representing a difference of 5.5% up to the fifth percentile that increases to more than 31 % from the ninety-fifth percentile, indicating that the gap found in wages is associated a glass ceiling phenomenon. In a more recent study, Albrecht, Thoursie and Vromam (2015) once again find evidence of a glass ceiling phenomenon in Sweden after an interval of ten years.

Arulampalam, Booth and Bryan (2007), in turn, investigated the gender wage gap in 11 European countries between 1995 and 2001. According to the authors, the labour market in countries, except Spain and Ireland, showed evidence of a glass ceiling phenomenon. De La Rica, Dolado and Llorens (2008), on the other hand, analysing the wage gap for Spain, found evidence of glass ceiling for a subgroup of highly educated workers. More recently, Atkinson, Casarico and Voitchovsky (2018) found evidence of glass ceiling pattern in gross income distribution reported in individuals’ income tax returns in eight countries (Australia, Canada, Denmark, Italy, New Zealand, Norway, Spain and England).

In Brazil the number of studies investigating wage gaps using quantile decomposition techniques is still very low. Santos and Ribeiro (2006), perform this analysis, but restricts their investigation to just one year (1999). According to the results of the decomposition, the authors identify the prevalence of the glass ceiling phenomenon in top wages values, with an differential driven primarily by unobserved factors.

Salardi (2012), makes a more recent analysis, considering a significant period of time. Using three quantile decomposition methods (Machado and Mata, Melly and RIF - Recentered Influence Function), the author finds that wage differences between men and women are mainly derived by unexplained components (returns to characteristics or the effect of wage structure), in particular to the upper end of the distribution, which also brings evidence of a glass ceiling phenomenon in the Brazilian economy. The results estimated from the RIF methodology suggest the same result. On the other hand, the author also finds evidence of a sticky floor phenomenon.

The evidence in the literature on the behaviour of wages considering the hierarchical levels of workers position is also quite limited, and no work was found in Brazil focusing on this topic. Busch and Holst (2011) and Barnet-Verzat and Wolff (2005) carry out this exercise and investigate the gender wage gap in the highest positions in German and French companies, in that order.

Busch and Holst (2011) show that German women earn less than men, especially those allocated in mostly female occupations. This wage differential, however, is mainly due to observable factors. It should be noted, however, that even though it is not the main component of the wage differential, the size of the wage gap in unobservable factors, interpreted as market discrimination, was quite relevant. Using the Oaxaca-Blinder methodology, the authors find that 35.31% of the difference between wages is due to factors that cannot be explained by the characteristics of the workers, even considering in their analysis the probability that men and women have of being promoted to management positions.

Barnet-Verzat and Wolff (2005) also find evidence of the glass ceiling in France. However, the wage gap is mainly due to differences in characteristics observed between men and women at all levels of the wage distribution, corresponding to 75% of the total gap at the 90th percentile.

Therefore, not only the difference between the men and women wages is significant, but in many countries, including Brazil, this difference is not constant between income percentiles, being more harmful for women at the top of the wage distribution.

3. Empirical methodology

This section outlines the quantile decomposition techniques to be employed, and proceeds in three parts. First, we present the database and the explanatory variables used in this investigation. We then explain the conditional quantile decomposition techniques developed by Machado and Mata (2005).

3.1. Data

For this study, we used the Annual Social Information Report (RAIS), available annually by the Ministry of Economy (ME), which aggregates information on formal employment relationships declared by companies operating in Brazil in 2003 and 2017.

Since we are looking at positions with managerial attributions, the decomposition analysis only considers permanent employment relationships of workers between 25 and 65 years old with positions such as managers, coordinators, supervisor, directors, vice presidents, chief executive, etc.

To compare these managerial positions from a hierarchical point of view, we also create two subgroups: the first aggregating the hierarchically higher positions (directors, vice presidents, chief executives, etc.), which represent, on average, 6.3% of management positions, and the second, with the lowest hierarchically positions (managers, coordinators, supervisors, etc.), corresponding to 93.7% of management positions.

It is important to emphasize that the choice of management positions does not take into consideration differences between activities linked to each one of them. Directors and presidents of companies, for example, were not differentiated in terms of the internal hierarchy between them. The sociological distinctions of job titles were also not considered, so finance managers and hospital managers are equals. This simplification ends up not allowing a more sensitive analysis of the glass ceiling phenomenon within the subgroups, but it does not invalidate the analysis of the insertion of women in spaces of power and leadership within institutions.

The census nature of RAIS favored the identification of leadership positions, since the proportion of these is small compared to the total number of employments in Brazil, especially for women (only 2.4% of employment in management positions in 2003 and 3.02% in 2017, compared to 4.3% and 4.19% for men). Another advantage of RAIS is the possibility of analysing the (formal) labour market over the last two decades, allowing us to ascertain whether there has been any attenuation of this inequality over time, considering that the economic growth scenario in the country should be favorable to greater penetration female in this occupational group, as it allowed the creation of more jobs and fostered a greater insertion of women in the market in general, especially in the first decade of the 2000s, which, in turn, could lead to a reduction in wage inequality. between men and women.

The explanatory variables adopted in this work, in turn, are all those that are believed to affect workers' hourly wages. They are, to a large extent, binary variables that take on the value one if the individual belongs to a certain group, or zero if he does not belong. Information on the worker's sex, a key variable to identify the gender inequality investigated in this work, and information on the individual's human capital accumulation, in this case education and experience in the labour market, were used. To control for experience information, specifically, the model uses age and tenure information as proxies. Company size was also used in the model, considering firms with up to 49 employees, 50 to 249 employees and 250 employees or more; the sectors of activity, namely: agricultural, modern industry, productive services, civil construction, personal services, public administration, social services, traditional industry, a distributive services and others; and geographic location, defined from the five macro-regions of Brazil (north, northeast, southeast, midwest and south).

In addition, also considering the gender composition of occupations, three binary variables were created that indicate whether an occupation is mostly male (60% or more of the jobs are held by men), mostly female (60% or more of the jobs are occupied by women) or integrated (occupations without gender predominance).

3.2. Decomposição Contrafactual: Machado e Mata

To investigate the wage differential between men and women along, and particularly in the upper tail, of the distribution in 2003 and 2017, we chose to use the method developed by Machado and Mata (2005), as this methodology allows us to compare observed wages with counterfactual wages, capturing an alternative wage structure across groups for each quantile of the wage distribution. In addition, this method has been used by similar works in Brazilian and international literature, as mentioned already (ARULAMPALAM; BOOTH; BRYAN, 2015; ALBRECHT; BJÖRKLUND; VROMAN, 2003; ALBRECHT; THOURSIE; VROMAM, 2015; DE LA RICA; DOLADO; LLORENS; SANTOS; RIBEIRO, 2006; SALARDI, 2012).

The decomposition method proposed by Machado and Mata (2005) is separated into two steps. The first step consists of estimating quantile regressions for the two groups to be compared. Let y then be a continuous random variable, defined in this study as the log of wages per hour of contracted labour, and μ_q the qth population quantile, with $q \epsilon$ [0,1], such that y will be less than or equal to μ_q with probability q. Then:

$$q = \Pr\left(y \leq \mu_q\right) = F_y(\mu_q) \quad (1)$$

Where $F(.)$ is the cumulative distribution function of y. In this way, the qth population quantile of y conditioned on the explanatory variables x can be written by:

$$\mu_q(x) = F_{y|x}^{-1}(q) \quad (2)$$

The quantile regression model assumes linearity in x, such that the conditional quantile function of the log wage/hour is given by:

$$Q_{y|x}(q) = x'\beta_q \quad (3.3)$$

Where β_q represents the estimator for the qth quantile. Thus, one can write the conditional quantile function of the log wage/hour for men (4) and women (5) in the q quantiles of interest as

$$Q_{(y|x)_H}(q) = x_H'\beta_{qH} \quad (4)$$

$$Q_{(y|x)_M}(q) = x_M'\beta_{qM} \quad (5)$$

From equations 4 and 5, it is possible to obtain the marginal density function of log hourly wages based on the estimated conditional distribution. This marginal density function is estimated based on four steps. Considering the interest groups of this work (men (H) and women (M)), these steps can be written as:

1) Generation of a uniform random sample of size m such that: $U(0,1): u_1, \dots, u_m$.
2) Estimation of $Q_{u_i}(y|x; S)$ for the interest groups (S = H, M), finding m coefficients $\hat{\beta}_H(u_i)$ and $\hat{\beta}_M(u_i)$.
3) Generation of a random sample with replacement of size m, from the lines of the matrix x, denoted by $\{x_i^*(S)\}, i = 1, \dots, m$.
4) Estimation of the desired marginal density $\left\{y_i^*(S) \equiv x_i^*(S)' \widehat{\beta}_s(u_i)\right\}_{i=1}^m$

Once the above steps have been carried out, the variation in wages between the two groups can be broken down. Consider $f(y(S))$ the estimate of the marginal density of y for one of the interest groups obtained from the sample (empirical density) and $f^*(y(S))$ the marginal density artificially estimated using the matrix $\{y_i^*(S)\}$. The counterfactual density will be described by $f^*(y(H); x(M))$ for the wage density of group H if the explanatory variables had the distribution of M.

Thus, the comparison of $f^*(y(H); x(M))$ with $f^*(y(M))$ corresponds to the contribution of the quantile regression coefficients on the total difference, known in the literature as the "discrimination effect" and $f^*(y(H))$ with $f^*\big(y(H); x(M)\big)$ the contribution of the explanatory variables on the total difference, or "endowment effect". Let α(.) be some descriptive statistic such as percentile, scale measure, among others, then the difference decomposition is characterized by:

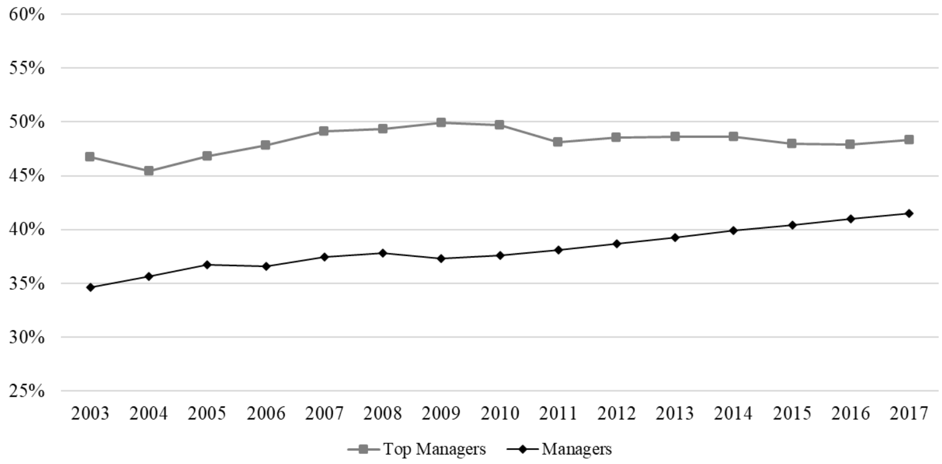
$$
\begin{aligned}
&\alpha(f\big(y(H)\big) - f\big(y(M)\big) = \\
&= \underbrace{\left\{\alpha\left(f^*\big(y(H); x(M)\big)\right) - \alpha\left(f^*\big(y(M)\big)\right)\right\}}_{coeficientes} \\
&+ \underbrace{\left\{\alpha\left(f^*\big(y(H)\big)\right) - \alpha\left(f^*\big(y(H); x(M)\big)\right)\right\}}_{dotação} + resíduo
\end{aligned}
\tag{6}
$$

4. Results

4.1. Descriptive data analysis

As mentioned before, despite the growing participation rate of women in Brazilian labour market, they continue to be under-represented in the workforce. A lower participation of women in managerial positions in the formal market in relation to men in both higher and lower hierarchically positions reflect this pattern (figure 1). This statistic indicates that women have greater difficulty in ascending professionally to positions with higher salaries. This, in turn, may correspond to greater gender wage inequality in general, considering that higher positions and higher wages are highly correlated variables.

Figure 1 - Share of women in formal labour market (Brazil)

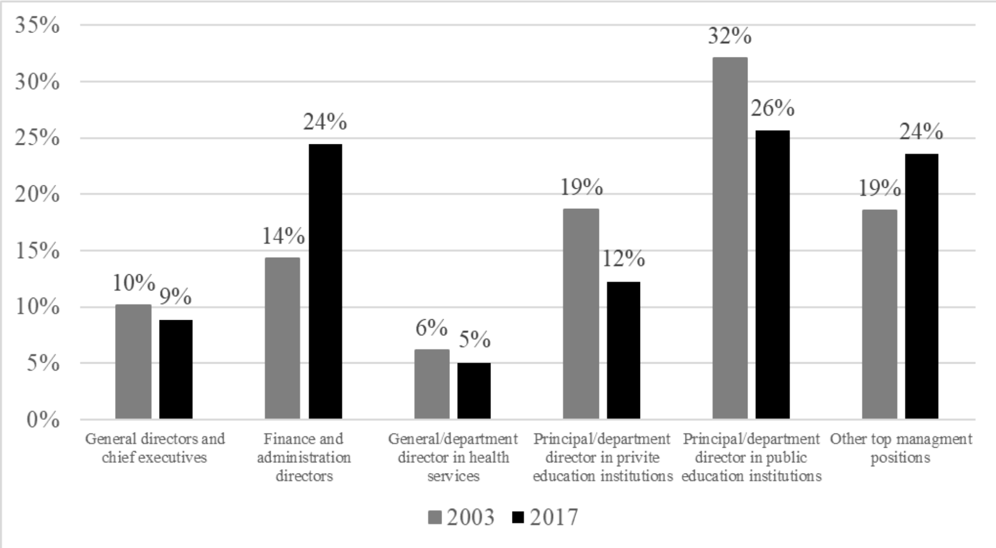


Source: RAIS (2003-2017)

Looking only at top managers positions, differently from what was expected, there is a greater balance between men and women. This balance, however, is not reflected when the types of occupations within the subgroup of top managers are analysed separately. From Figure 2, it is possible to see, for example, that the composition of top managers held by women is mainly concentrated in educational institutions. When adding the proportion of top managers in health services, they represent the majority of jobs held by women at this hierarchical level in 2003, with a slight reduction in 2017.

Authors such as Bruschini and Puppin (2004) and Luz and Vaz (2017) point out that despite the greater insertion of women in the Brazilian labour market in recent years, a large part of the jobs held by women are still associated with care, such as education, health and services social, and are considered an extension of the so-called female domestic tasks. These “female ghettos” can also be observed in managerial positions at RAIS between 2003 and 2017, indicating that the participation of women in the labour market is concentrated in typically “female” areas and it is in these areas where there seems to be greater room for professional growth.

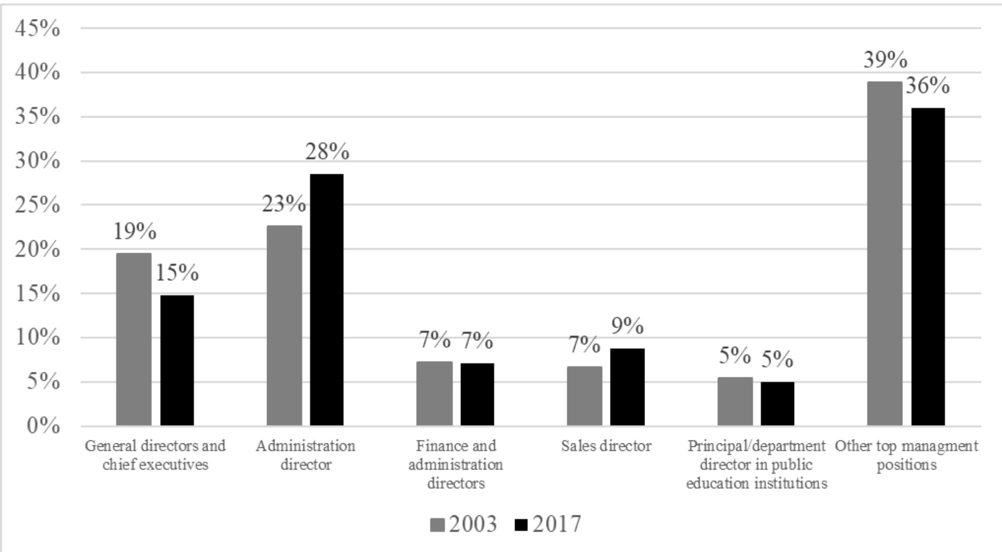
Figure 2 – Distribution of women between top managers occupations



Source: RAIS (2003 e 2017)

When compared to men, the overlap between hierarchical and occupational segregation for women is even more worrying. The jobs held by men between the education and health top managers correspond to 14% of the total number of jobs in this group, which represents a difference of 35 percentage points, on average, compared to women (Figure 3).

Figure 3 – Distribution of men between top managers occupations



Source: RAIS (2003 e 2017)

Analysing specifically the hourly wages of workers and the difference in these values between men and women, it is noticed that the gender gap is present throughout the wage distribution in both management subgroups. Among managers in the 2003, women with salaries in the 5th percentile earn about 13% less than men. This value increases with salary, mainly up to the 90th percentile, in which women earn 35% less than men. In 2017, the gap is slightly reduced, with women receiving 9% less than men in the 5th percentile and 26% in the 90th percentile (in the last percentile of income there is a slight decrease in the wage gap).

The scenario is much more critical for workers in top manager positions. In this case, although the difference between men and women is smaller in the bottom of the distribution, the wage gap at the top is quite high, especially between the 75th and 90th percentiles, in which women earn 70% less than men in 2003. In 2017, despite a narrowing movement in the gap, it is still quite significant between men and women.

Thus, the data reveal an improvement in the national scenario in terms of labour income, without, however, eliminating the wage gap between men and women.

Table 1 – Hourly wages in management positions

		Percentiles						
		p5	p10	p25	p50	p75	p90	p99
		Managers						
2003	Women	3.35	4.05	6.10	11.35	23.05	45.21	123.70
	Men	3.85	4.84	7.38	14.19	31.27	69.20	169.76
	Gap	13%	16%	17%	20%	26%	35%	27%
2017	Women	6.06	7.01	9.56	15.43	27.81	50.28	129.10
	Men	6.68	7.91	11.11	18.46	34.81	68.23	168.69
	Gap	9%	11%	14%	16%	20%	26%	23%
		Top Managers						
2003	Women	3.55	4.74	7.85	16.80	31.56	62.14	221.24
	Men	3.99	5.39	11.53	33.45	111.23	216.87	380.38
	Gap	11%	12%	32%	50%	72%	71%	42%
2017	Women	5.73	7.06	11.51	22.24	41.38	85.82	299.43
	Men	5.93	7.76	13.55	35.06	138.02	247.93	500.41
	Gap	3%	9%	15%	37%	70%	65%	40%

Source: RAIS (2003 and 2017)

4.2. Quantile regression results and wage decomposition

Given the high number of observations present in RAIS, two representative samples of the data were taken, one containing only employment relationships at the management level and the other only for top manager occupations.

In general, it can be said that men have higher returns than women for the variables associated with human capital, either by comparing them in terms of average conditional wage/hour or across the various income quantiles. These heterogeneous and more intensified returns in the upper tail of the wage distribution point to the existence of the glass ceiling phenomenon, with the results showing that higher qualification does not correspond to greater wage equity, that is, women have a greater difficulty in finding jobs with the highest pay, even when their level of human capital is equal to their peers.

The salary structure and discrimination suffered by women, however, can be significantly influenced by the gender composition within the occupations, and the wages/hour of male occupations are relatively higher than those presented by workers in integrated or female occupations.

On average, for managers, the return on integrated sexual composition of occupations is similar for both genders in 2003, who receive an hourly wage 13% lower than workers in male occupations. Across the wage distribution, however, men have relatively worse returns than women up to the 0.50 quantile, with an inversion of this relationship from the 0.75 quantile. In 2017, there is a timid reduction in wage returns in relation to employment in male occupations for men with hourly wages located in the lowest quantiles and women with hourly wages in the tails of the distribution.

Comparing now the returns shown by male managers in female occupations and the returns of female managers in this same "type of occupation", it is observed that the effect of sexual composition in 2003 on wages/hour, on average, is similar between these groups. However, along the wage distribution, it is seen that the returns oscillate around the result found in the ordinary least squares model for men and are decent for women. Consequently, men in the lower quantiles (up to 0.50) exhibit worse effects than women, but men in the higher quantiles (0.75 to 0.95) end up exhibiting better effects. In Figure 29, the behaviour of the curves in 2017 is very similar to the curves in 2003, with an improvement in returns between the quantiles 0.10 and 0.90 for men.

These results indicate that the wage devaluation found in female occupations is even greater for women at the top of the wage distribution. When comparing the gender compositions in top manager positions, there is a greater variation in returns along the quantiles compared to the estimated values in manager positions, especially for female occupations.

From the point of view of market characteristics, it appears that at both hierarchical levels the wages of workers with employment relationships in larger companies are higher than the wages of workers in companies with up to 49 employees and increasing with the level of income. When comparing the estimated returns by sex, a greater impact of company size on men's wages/hour is noticed.

Among the activity sectors at manager positions, the returns referring to civil construction and public administration stand out. In the first case, both sexes show positive and increasing returns with the wage level – effect greater for women. In the second case, both sexes have negative returns. Women also show lower coefficients at the top of the wage distribution.

In general, the results of the quantile regression shows that women exhibit lower salary returns than men at both hierarchical levels and, this difference is more prominent among top managers positions. In the case of human capital, largely from the perspective of worker qualification, the decline of this effect is higher for the upper tail of the wage distribution.

The gender gap between workers in managers positions is confirmed by Figures 4 to 7 with the Machado and Mata (2005) decomposition. It is possible to conclude that the wage gap between managers is increasing with the level of income and is strongly correlated with the returns (coefficients) referring to the variables used in the model.

In 2003, the predicted gap for women in the 0.05 quantile indicates that they received 88% of men's wages/hour, while women in the 0.95 quantile received only 66%. In 2017, the pattern is repeated for the coefficient curve, but with a downward vertical shift, indicating a mitigation of this gender gap found. In that year, women receive the equivalent of 91% of men's wages/hour in the 0.05 quantile and 72% in the 0.95 quantile.

These results may be associated with greater wage discrimination, but also with factors related to the family status of women who are penalized by motherhood or even a result of occupational segregation in the labour market, in which there is a concentration of women in occupations. with a low union representation capable of guaranteeing better salaries (ILOa, 2019).

The curve referring to the "endowment effect" provides additional relevant information for this analysis. The negative value in the various income quantiles shows that women at this hierarchical level are more qualified than their peers, indicating that even standing out in their attributes and managing to occupy the same spaces as men, managers women still find their work devaluated.

Evidence also shows a glass ceiling effect on top management occupations in both years analysed, such that, in 2003, women received 94% of men's wages at the 0.05 quantile and only 30% at the 0.95 quantile. In 2017, top managers women received 104% of the salary of men in the 0.05 quantile and 37% in the 0.95 quantile.

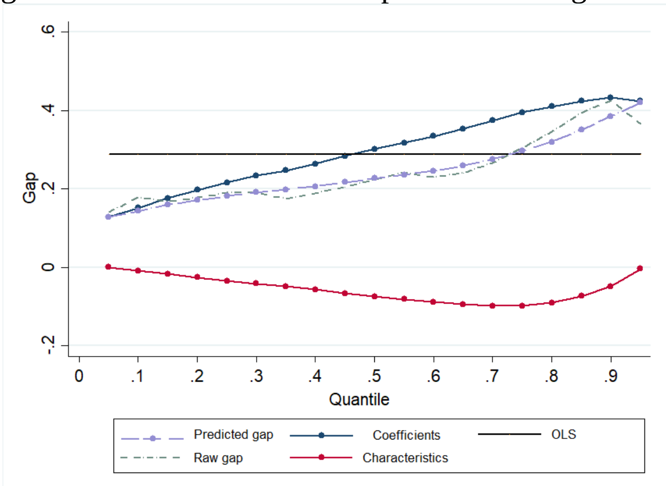
The total differential between earnings in this group, however, is more related to the "endowment effect", especially in 2003. This weight attributed to the difference found in the observable characteristics may be associated with the concentration of women at this hierarchical level in areas of education and health (Figure 2). Even controlling by sector of activity and horizontal segregation, the qualifications required in these areas can be so different from those found in the positions of general, commercial, administrative and financial directors, in which men are more concentrated (Figure 3), that men may have a more valued type of qualification in that quantile.

However, the relevance of the component associated with discrimination for this group cannot be excluded, given that, despite being smaller than the difference found in the observable characteristics, the unexplained gender gap is quite high.

In addition, it is noted that the gender gap found in higher management positions is greater than the gap in lower management positions for most quantiles, confirming the hypothesis that the glass ceiling phenomenon intensifies as it ascends hierarchically. Again, there is a reduction in the gap over time, indicating a timid drop in the difference in the remuneration of men and women directors between 2003 and 2017.

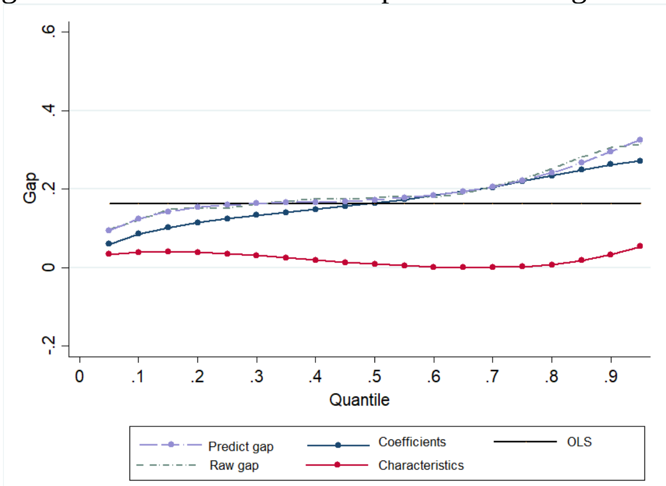
In short, it can be said that there is evidence of a gender gap present in the Brazilian formal labour market between 2003 and 2017, which is quite associated with unobservable factors, with an intensification at the upper end of the income distribution and in the levels of highest occupation.

Figure 4 – Contrafactual decomposition: managers 2003



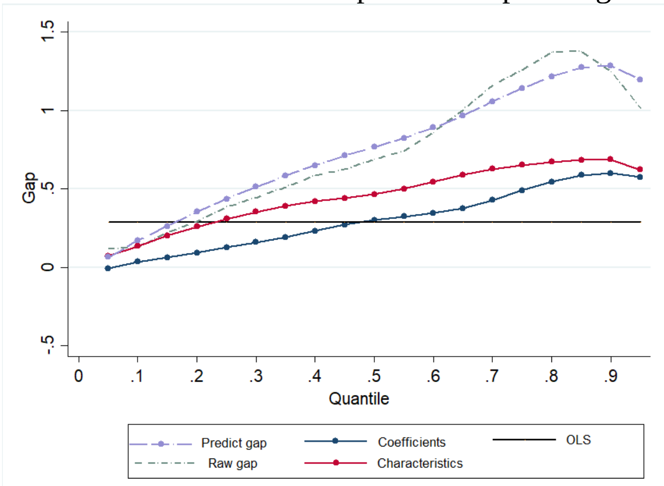
Source: Author's computations using RAIS (2017).

Figure 5 – Contrafactual decomposition: managers 2017



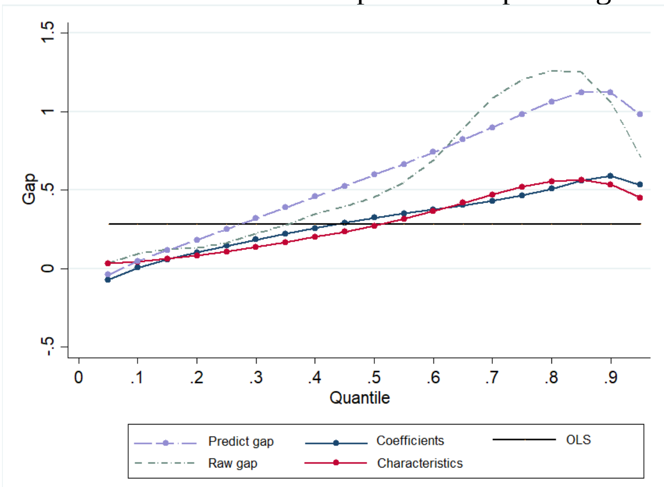
Source: Author's computations using RAIS (2017).

Figure 6 – Contrafactual decomposition: top managers 2003



Source: Author's computations using RAIS (2003).

Figure 7 – Contrafactual decomposition: top managers 2017



Source: Author's computations using RAIS (2017).

5. Conclusions

The results indicate a glass ceiling phenomenon in Brazilian formal labour market and show that there is an urgent need for affirmative policies that promote gender pay equality in the country. In addition to being a topic of great global relevance, this type of analysis is necessary in Brazil today, since we have a bill under discussion that determines a fine for employers who do not pay equally men and women with the same activity.

In addition, the results also review that the gender gap found in the highest hierarchical positions is greater than gaps in the lowest positions for most quantiles, confirming the hypothesis of the intensification of the glass ceiling phenomenon in top occupations. Again, there is a narrowing of the gap over time, indicating a timid drop in the wage gap between 2003 and 2017.

The results also show that the salary returns for men relative to human capital are higher than the returns for women, especially in the group of directors. Furthermore, it was found that workers in mostly male occupations are better paid than workers in integrated or mostly female occupations, with a lower return for the latter (mainly for women at the top of the wage distribution).

This reveals that despite having on average, greater experience in the company and greater education, women in management positions, especially those working in typically female occupations, still face wage devaluation in formal Brazilian labour market. The decomposition of the wage gap between men and women reinforces this interpretation, as a large part of the difference in hourly wages is due to factors not explained by the model.

Furthermore, the results found, mainly under the aspects of gender inequality between workers' wages, show that more restrictive analyzes can cooperate with clearer results about the discriminatory conditions of the market. In other words, the investigation of the phenomenon of the glass ceiling controlling, for example, each of the occupations would be able to delimit the qualifications necessary to carry out the duties of the positions and, thus, distinguish more precisely the factors not observable in the determination of salaries and, consequently, the factors understood as discriminatory.

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Appendix

A1. List of occupations in management and leadership positions.

Although the investigation and selection of management positions in this work were elaborated based on the Brazilian Classification of Occupations (CBO), it is possible to identify the aggregations of these occupations in the International Standard Classification of Occupations (ISCO-88). The table below shows the unit group titles used, separating the positions into manager and top manager positions.

Table 1 – Management/Leadership occupations in the International Standard Classification of Occupations (ISCO-88)

Subgroup of Managment	Occupations - ISCO 88
Top Manager	Directors and chief executives
	Production and operations department managers in agriculture, hunting, forestry and fishing
	Production and operations department managers in manufacturing
	Production and operations department managers in construction
	Production and operations department managers in wholesale and retail trade
	Production and operations department managers in restaurants and hotels
	Production and operations department managers in transport, storage and communications
	Production and operations department managers in business services
	Production and operations department managers in personal care, cleaning and related services
	Production and operations department managers not elsewhere classified
Managers	Finance and administration department managers
	Personnel and industrial relations department managers
	Sales and marketing department managers
	Advertising and public relations department managers
	Supply and distribution department managers
	Computing services department managers
	Research and development department managers
	Other department managers not elsewhere classified
	General managers in agriculture, hunting, forestry/ and fishing
	General managers in manufacturing
	General managers in construction
	General managers in wholesale and retail trade
	General managers of restaurants and hotels
	General managers in transport, storage and communications
	General managers of business services
	General managers in personal care, cleaning and related services

General managers not elsewhere classified
Other low level managment occupation (supervisors, inspectors, coordinators,junior managers, senior managers)

Source: ILOb (2021)

A2. Quantile regression tables

Table 3 – Quantile regression resultsfor manager: men (2003)

(continue)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Age	0.045***	0.054***	0.069***	0.079***	0.088***	0.102***	0.095***
	(0.007)	(0.006)	(0.005)	(0.005)	(0.005)	(0.007)	(0.011)
Age ^{2}	-0.000***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tenure	0.042***	0.045***	0.043***	0.039***	0.035***	0.024***	0.018***
	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)	(0.005)
Tenure^{2}	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.000*	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education (0 to 7 years)	-0.325***	-0.390***	-0.469***	-0.567***	-0.651***	-0.723***	-0.787***
	(0.019)	(0.017)	(0.015)	(0.015)	(0.016)	(0.024)	(0.032)
Education (8 to 10 years)	-0.215***	-0.250***	-0.313***	-0.397***	-0.465***	-0.507***	-0.553***
	(0.017)	(0.017)	(0.014)	(0.013)	(0.015)	(0.024)	(0.033)
Education (14 years or more)	0.608***	0.690***	0.773***	0.821***	0.840***	0.793***	0.739***
	(0.025)	(0.024)	(0.019)	(0.016)	(0.017)	(0.023)	(0.025)
Integrated occupation	-0.174***	-0.183***	-0.152***	-0.120***	-0.121***	-0.087***	-0.058***
	(0.015)	(0.016)	(0.013)	(0.012)	(0.012)	(0.016)	(0.022)
Female occupation	-0.191***	-0.218***	-0.227***	-0.157***	-0.171***	-0.225***	-0.269***
	(0.038)	(0.034)	(0.028)	(0.027)	(0.026)	(0.036)	(0.044)
Firms: 50 to 249 employees	0.261***	0.265***	0.293***	0.315***	0.320***	0.326***	0.291***
	(0.020)	(0.017)	(0.015)	(0.015)	(0.014)	(0.019)	(0.025)
Firms: 250 or more employees	0.393***	0.397***	0.437***	0.460***	0.452***	0.443***	0.391***
	(0.021)	(0.021)	(0.016)	(0.017)	(0.018)	(0.022)	(0.026)
North	0.291***	0.276***	0.299***	0.361***	0.353***	0.219***	0.117**
	(0.037)	(0.029)	(0.036)	(0.033)	(0.036)	(0.044)	(0.052)
Southeast	0.359***	0.358***	0.333***	0.363***	0.321***	0.253***	0.244***
	(0.018)	(0.019)	(0.018)	(0.016)	(0.020)	(0.029)	(0.035)

Table 3 – Quantile regression resultsfor manager: men (2003)

(continuation)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
South	0.391***	0.367***	0.331***	0.313***	0.259***	0.184***	0.142***
	(0.023)	(0.022)	(0.021)	(0.021)	(0.023)	(0.032)	(0.039)
Midwest	0.296***	0.353***	0.373***	0.425***	0.422***	0.374***	0.390***
	(0.034)	(0.030)	(0.024)	(0.026)	(0.027)	(0.040)	(0.066)
Sector: Agriculture	-0.206***	-0.189***	-0.122***	-0.168***	-0.221***	-0.254***	-0.245***
	(0.032)	(0.029)	(0.028)	(0.024)	(0.028)	(0.035)	(0.047)
Sector: Modern industry	0.313***	0.350***	0.387***	0.365***	0.329***	0.221***	0.224***
	(0.029)	(0.020)	(0.021)	(0.018)	(0.018)	(0.023)	(0.032)
Sector: Productive Services	0.167***	0.250***	0.326***	0.374***	0.436***	0.393***	0.346***
	(0.024)	(0.021)	(0.020)	(0.020)	(0.023)	(0.025)	(0.031)
Sector: Construction	0.003	0.085**	0.156***	0.177***	0.131***	-0.010	-0.021
	(0.031)	(0.038)	(0.025)	(0.021)	(0.023)	(0.031)	(0.046)
Sector: Personal Services	-0.055**	-0.074***	-0.127***	-0.161***	-0.188***	-0.256***	-0.262***
	(0.026)	(0.025)	(0.024)	(0.027)	(0.029)	(0.045)	(0.064)
Sector: Public administration	-0.500***	-0.597***	-0.585***	-0.520***	-0.416***	-0.327***	-0.194***
	(0.028)	(0.033)	(0.032)	(0.024)	(0.029)	(0.036)	(0.049)
Sector: Social services	-0.046	-0.050*	-0.050*	-0.026	-0.013	-0.004	0.056
	(0.035)	(0.030)	(0.030)	(0.024)	(0.026)	(0.028)	(0.048)
Sector: Others	0.198**	0.115*	0.249***	0.262***	0.299***	0.349***	0.453**
	(0.082)	(0.065)	(0.047)	(0.066)	(0.079)	(0.106)	(0.181)
Sector: Traditional industry	0.009	0.058**	0.071***	0.080***	0.064***	0.043	0.067*
	(0.025)	(0.026)	(0.023)	(0.019)	(0.022)	(0.034)	(0.037)
Constante	0.049	0.027	0.009	0.186*	0.503***	0.765***	1.238***
	(0.137)	(0.116)	(0.105)	(0.099)	(0.105)	(0.144)	(0.220)
Number of observation	27709	27709	27709	27709	27709	27709	27709

Source: Author’s computations using RAIS (2003)

Observation: *** p<0.01, ** p<0.05, * p<0.1; standard error in parentheses.

Table 4 – Quantile regression resultsfor manager: women (2003)
(continue)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Age	0.034***	0.029***	0.037***	0.042***	0.057***	0.066***	0.067***
	(0.007)	(0.006)	(0.006)	(0.006)	(0.007)	(0.010)	(0.012)
Age ^{2}	-0.000***	-0.000***	-0.000***	-0.000***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tenure	0.046***	0.049***	0.050***	0.045***	0.038***	0.023***	0.021***
	(0.005)	(0.004)	(0.003)	(0.003)	(0.003)	(0.005)	(0.006)
Tenure^2	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education (0 to 7 years)	-0.363***	-0.379***	-0.490***	-0.608***	-0.696***	-0.737***	-0.681***
	(0.027)	(0.030)	(0.027)	(0.028)	(0.027)	(0.042)	(0.077)
Education (8 to 10 years)	-0.247***	-0.264***	-0.334***	-0.398***	-0.504***	-0.548***	-0.537***
	(0.022)	(0.022)	(0.020)	(0.019)	(0.025)	(0.034)	(0.046)
Education (14 years or more)	0.434***	0.482***	0.501***	0.557***	0.614***	0.633***	0.651***
	(0.026)	(0.033)	(0.022)	(0.019)	(0.025)	(0.032)	(0.035)
Integrated occupation	-0.062**	-0.105***	-0.133***	-0.107***	-0.154***	-0.144***	-0.124***
	(0.025)	(0.023)	(0.021)	(0.021)	(0.021)	(0.029)	(0.038)
Female occupation	-0.022	-0.086***	-0.075***	-0.142***	-0.225***	-0.317***	-0.360***
	(0.033)	(0.030)	(0.023)	(0.026)	(0.033)	(0.038)	(0.046)
Firms: 50 to 249 employees	0.233***	0.245***	0.243***	0.292***	0.375***	0.387***	0.322***
	(0.025)	(0.028)	(0.021)	(0.021)	(0.026)	(0.036)	(0.039)
Firms: 250 or more employees	0.351***	0.316***	0.312***	0.396***	0.501***	0.504***	0.456***
	(0.031)	(0.027)	(0.026)	(0.025)	(0.026)	(0.037)	(0.043)
North	0.502***	0.498***	0.499***	0.613***	0.632***	0.569***	0.562***
	(0.066)	(0.049)	(0.040)	(0.045)	(0.047)	(0.058)	(0.079)
Southeast	0.504***	0.460***	0.407***	0.420***	0.416***	0.451***	0.446***
	(0.032)	(0.026)	(0.024)	(0.023)	(0.026)	(0.032)	(0.049)

Table 4– Quantile regression resultsfor top manager: women (2003)

(continuation)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
South	0.483***	0.430***	0.385***	0.304***	0.235***	0.280***	0.298***
	(0.036)	(0.031)	(0.027)	(0.027)	(0.032)	(0.043)	(0.064)
Midwest	0.445***	0.377***	0.504***	0.562***	0.686***	0.872***	0.886***
	(0.046)	(0.045)	(0.044)	(0.034)	(0.044)	(0.053)	(0.075)
Sector: Agriculture	0.018	-0.094*	-0.106	-0.170**	-0.201**	-0.337***	-0.381***
	(0.043)	(0.055)	(0.073)	(0.067)	(0.096)	(0.094)	(0.118)
Sector: Modern industry	0.222***	0.265***	0.279***	0.382***	0.330***	0.300***	0.277***
	(0.042)	(0.046)	(0.036)	(0.038)	(0.043)	(0.057)	(0.080)
Sector: Productive Services	0.195***	0.257***	0.397***	0.499***	0.465***	0.407***	0.454***
	(0.035)	(0.027)	(0.032)	(0.025)	(0.026)	(0.038)	(0.047)
Sector: Construction	0.071	0.129	0.203**	0.118*	0.071	-0.194*	-0.191
	(0.125)	(0.125)	(0.080)	(0.062)	(0.081)	(0.100)	(0.118)
Sector: Personal Services	0.096***	0.025	0.030	0.003	-0.065**	-0.198***	-0.273***
	(0.033)	(0.035)	(0.030)	(0.031)	(0.032)	(0.045)	(0.070)
Sector: Public administration	-0.365***	-0.368***	-0.481***	-0.500***	-0.592***	-0.597***	-0.564***
	(0.040)	(0.037)	(0.030)	(0.031)	(0.036)	(0.044)	(0.054)
Sector: Social services	-0.112***	-0.066**	0.011	0.075***	0.006	0.004	-0.001
	(0.032)	(0.033)	(0.025)	(0.023)	(0.033)	(0.040)	(0.046)
Sector: Others	-0.202	-0.167	0.280	0.364**	0.193	0.261	0.280
	(0.244)	(0.368)	(0.344)	(0.184)	(0.233)	(0.348)	(0.315)
Sector: Traditional industry	-0.030	-0.035	-0.058**	-0.028	-0.034	-0.069	-0.065
	(0.031)	(0.038)	(0.023)	(0.027)	(0.035)	(0.045)	(0.069)
Constante	-0.007	0.359***	0.523***	0.741***	0.923***	1.209***	1.417***
	(0.151)	(0.128)	(0.119)	(0.114)	(0.147)	(0.187)	(0.245)
Number of observation	14536	14536	14536	14536	14536	14536	14536

Source: Author's computations using RAIS (2003)

Observation: *** p<0.01, ** p<0.05, * p<0.1; standard error in parentheses.

Table 5 – Quantile regression resultsfor manager: men (2017)

(continue)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Age	0.039***	0.045***	0.048***	0.055***	0.061***	0.062***	0.069***
	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.005)	(0.006)
Age ^{2}	0.000***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tenure	0.0211***	0.022***	0.025***	0.025***	0.022***	0.018***	0.015***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.003)
Tenure^2	-0.000*	-0.000	-0.000***	-0.000***	-0.000**	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education (0 to 7 years)	-0.131***	-0.167***	-0.187***	-0.235***	-0.310***	-0.344***	-0.421***
	(0.019)	(0.014)	(0.013)	(0.013)	(0.014)	(0.020)	(0.023)
Education (8 to 10 years)	-0.116***	-0.122***	-0.141***	-0.173***	-0.226***	-0.268***	-0.287***
	(0.013)'	(0.010)	(0.010)	(0.010)	(0.010)	(0.016)	(0.023)
Education (14 years or more)	0.358***	0.472***	0.640***	0.764***	0.852***	0.866***	0.840***
	(0.011)	(0.010)	(0.009)	(0.010)	(0.012)	(0.015)	(0.018)
Integrated occupation	-0.105***	-0.117***	-0.122***	-0.123***	-0.104***	-0.085***	-0.062***
	(0.008)	(0.007)	(0.007)	(0.008)	(0.010)	(0.012)	(0.017)
Female occupation	-0.189***	-0.225***	-0.240***	-0.256***	-0.321***	-0.300***	-0.239***
	(0.022)	(0.020)	(0.016)	(0.018)	(0.023)	(0.026)	(0.040)
Firms: 50 to 249 employees	0.241***	0.255***	0.273***	0.302***	0.331***	0.304***	0.277***
	(0.011)	(0.009)	(0.009)	(0.009)	(0.009)	(0.013)	(0.019)
Firms: 250 or more employees	0.404***	0.405***	0.433***	0.457***	0.453***	0.428***	0.426***
	(0.014)	(0.011)	(0.009)	(0.01)	(0.01)	(0.012)	(0.017)
North	0.143***	0.147***	0.158***	0.167***	0.151***	0.0917***	0.0516
	(0.025)	(0.019)	(0.019)	(0.017)	(0.021)	(0.026)	(0.035)
Southeast	0.267***	0.295***	0.301***	0.297***	0.295***	0.242***	0.219***
	(0.011)	(0.009)	(0.009)	(0.01)	(0.013)	(0.017)	(0.024)

Table 5 – Quantile regression resultsfor manager: men (2017)

(continuation)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
South	0.314***	0.325***	0.304***	0.268***	0.229***	0.163***	0.111***
	(0.014)	(0.012)	(0.011)	(0.012)	(0.015)	(0.019)	(0.026)
Midwest	0.190***	0.243***	0.265***	0.259***	0.260***	0.208***	0.169***
	(0.018)	(0.017)	(0.013)	(0.015)	(0.019)	(0.024)	(0.029)
Sector: Agriculture	-0.047	-0.039*	-0.010	0.009	-0.015	-0.096***	-0.126***
	(0.03)	(0.021)	(0.015)	(0.019)	(0.021)	(0.025)	(0.037)
Sector: Modern industry	0.193***	0.203***	0.226***	0.243***	0.192***	0.132***	0.070***
	(0.015)	(0.012)	(0.013)	(0.011)	(0.013)	(0.016)	(0.021)
Sector: Productive Services	0.051***	0.075***	0.141***	0.191***	0.230***	0.204***	0.164***
	(0.015)	(0.012)	(0.011)	(0.011)	(0.015)	(0.018)	(0.026)
Sector: Construction	0.149***	0.171***	0.168***	0.155***	0.093***	0.010	-0.046*
	(0.018)	(0.016)	(0.012)	(0.012)	(0.014)	(0.019)	(0.025)
Sector: Personal Services	-0.084***	-0.078***	-0.092***	-0.120***	-0.174***	-0.239***	-0.317***
	(0.019)	(0.016)	(0.014)	(0.016)	(0.018)	(0.021)	(0.032)
Sector: Public administration	-0.449***	-0.463***	-0.490***	-0.488***	-0.442***	-0.410***	-0.407***
	(0.02)	(0.02)	(0.016)	(0.019)	(0.025)	(0.033)	(0.042)
Sector: Social services	-0.062***	-0.056***	-0.019	0.001	-0.002	-0.017	-0.022
	(0.019)	(0.021)	(0.018)	(0.019)	(0.019)	(0.027)	(0.034)
Sector: Others	0.313***	0.311***	0.493***	0.540***	0.606***	0.566***	0.497***
	(0.052)	(0.064)	(0.06)	(0.034)	(0.044)	(0.054)	(0.084)
Sector: Traditional industry	-0.010	-0.007	-0.038***	-0.041***	-0.057***	-0.094***	-0.131***
	(0.017)	(0.014)	(0.013)	(0.015)	(0.015)	(0.019)	(0.03)
Constante	0.760***	0.725***	0.814***	0.938***	1.156***	1.570***	1.719***
	(0.074)	(0.061)	(0.053)	(0.065)	(0.073)	(0.094)	(0.125)
Number of observation	46537	46537	46537	46537	46537	46537	46537

Source: Author’s computations using RAIS (2017)

Observation: *** p<0.01, ** p<0.05, * p<0.1; standard error in parentheses.

Table 6 – Quantile regression resultsfor top manager: women (2017)

(continue)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Age	0.021***	0.023***	0.030***	0.042***	0.050***	0.064***	0.069***
	(0.004)	(0.003)	(0.003)	(0.003)	(0.004)	(0.006)	(0.008)
Age ^{2}	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tenure	0.029***	0.032***	0.035***	0.037***	0.028***	0.015***	0.018***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Tenure^2	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education (0 to 7 years)	-0.231***	-0.248***	-0.284***	-0.359***	-0.425***	-0.429***	-0.374***
	(0.023)	(0.022)	(0.02)	(0.02)	(0.036)	(0.051)	(0.066)
Education (8 to 10 years)	-0.118***	-0.144***	-0.168***	-0.223***	-0.248***	-0.246***	-0.269***
	(0.014)	(0.015)	(0.012)	(0.014)	(0.025)	(0.029)	(0.043)
Education (14 years or more)	0.283***	0.378***	0.540***	0.657***	0.723***	0.735***	0.729***
	(0.012)	(0.010)	(0.009)	(0.010)	(0.011)	(0.016)	(0.022)
Integrated occupation	-0.031***	-0.064***	-0.097***	-0.119***	-0.143***	-0.120***	-0.091***
	(0.011)	(0.009)	(0.009)	(0.010)	(0.013)	(0.015)	(0.020)
Female occupation	-0.040***	-0.078***	-0.086***	-0.164***	-0.278***	-0.346***	-0.327***
	(0.015)	(0.014)	(0.011)	(0.013)	(0.016)	(0.02)	(0.028)
Firms: 50 to 249 employees	0.196***	0.202***	0.215***	0.246***	0.288***	0.353***	0.360***
	(0.011)	(0.011)	(0.01)	(0.011)	(0.014)	(0.018)	(0.025)
Firms: 250 or more employees	0.278***	0.299***	0.317***	0.380***	0.452***	0.491***	0.464***
	(0.013)	(0.013)	(0.012)	(0.013)	(0.014)	(0.018)	(0.023)
North	0.147***	0.166***	0.191***	0.219***	0.150***	0.107***	0.111**
	(0.021)	(0.019)	(0.018)	(0.021)	(0.024)	(0.029)	(0.047)
Southeast	0.266***	0.281***	0.319***	0.332***	0.353***	0.342***	0.339***
	(0.014)	(0.012)	(0.01)	(0.012)	(0.014)	(0.02)	(0.027)

Table 6 – Quantile regression resultsfor top manager: women (2017)

(continuation)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
South	0.319***	0.319***	0.314***	0.299***	0.276***	0.218***	0.171***
	(0.017)	(0.013)	(0.011)	(0.013)	(0.015)	(0.021)	(0.028)
Midwest	0.173***	0.201***	0.255***	0.272***	0.266***	0.253***	0.175***
	(0.017)	(0.019)	(0.016)	(0.02)	(0.022)	(0.028)	(0.031)
Sector: Agriculture	-0.219***	-0.176***	-0.110**	-0.0835*	-0.0346	-0.0727	-0.000417
	(0.071)	(0.066)	(0.05)	(0.05)	(0.049)	(0.092)	(0.095)
Sector: Modern industry	0.083***	0.087***	0.138***	0.156***	0.165***	0.114***	0.105**
	(0.023)	(0.024)	(0.021)	(0.022)	(0.026)	(0.027)	(0.044)
Sector: Productive Services	0.050***	0.076***	0.128***	0.177***	0.195***	0.205***	0.176***
	(0.014)	(0.014)	(0.012)	(0.013)	(0.014)	(0.021)	(0.026)
Sector: Construction	0.021	0.027	0.02	0.085*	0.048	0.039	0.029
	(0.052)	(0.033)	(0.039)	(0.045)	(0.073)	(0.066)	(0.074)
Sector: Personal Services	0.015	0.009	-0.006	-0.089***	-0.163***	-0.247***	-0.303***
	(0.016)	(0.013)	(0.013)	(0.013)	(0.018)	(0.026)	(0.037)
Sector: Public administration	-0.324***	-0.343***	-0.304***	-0.359***	-0.395***	-0.365***	-0.350***
	(0.019)	(0.02)	(0.018)	(0.018)	(0.019)	(0.029)	(0.037)
Sector: Social services	-0.065***	-0.054***	-0.021*	-0.042***	-0.043***	-0.042**	-0.052*
	(0.016)	(0.015)	(0.012)	(0.012)	(0.015)	(0.02)	(0.027)
Sector: Others	0.103	0.207	0.389***	0.505***	0.652***	0.799***	0.632***
	(0.138)	(0.167)	(0.097)	(0.114)	(0.181)	(0.122)	(0.220)
Sector: Traditional industry	-0.047***	-0.062***	-0.052***	-0.081***	-0.124***	-0.112***	-0.098**
	(0.018)	(0.013)	(0.012)	(0.016)	(0.021)	(0.028)	(0.046)
Constante	1.044***	1.096***	1.098***	1.096***	1.268***	1.372***	1.499***
	(0.084)	(0.069)	(0.062)	(0.067)	(0.082)	(0.118)	(0.153)
Number of observation	33209	33209	33209	33209	33209	33209	33209

Source: Author’s computations using RAIS (2017)

Observation: *** p<0.01, ** p<0.05, * p<0.1; standard error in parentheses.

Table 7 – Quantile regression resultsfor top manager: men (2003)

(continue)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Age	0.069***	0.065***	0.087***	0.112***	0.135***	0.140***	0.144***
	(0.009)	(0.009)	(0.005)	(0.007)	(0.006)	(0.008)	(0.009)
Age ^{2}	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tenure	0.030***	0.029***	0.032***	0.021***	0.014***	0.005	0.004
	(0.006)	(0.004)	(0.002)	(0.003)	(0.003)	(0.003)	(0.004)
Tenure^2	-0.000	-0.000*	-0.001***	-0.000***	-0.000*	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education (0 to 7 years)	-0.419***	-0.487***	-0.591***	-0.620***	-0.644***	-0.576***	-0.387***
	(0.040)	(0.041)	(0.029)	(0.027)	(0.040)	(0.065)	(0.072)
Education (8 to 10 years)	-0.254***	-0.298***	-0.304***	-0.379***	-0.532***	-0.576***	-0.505***
	(0.034)	(0.027)	(0.026)	(0.023)	(0.026)	(0.047)	(0.058)
Education (14 years or more)	0.638***	0.757***	0.901***	1.033***	1.015***	0.797***	0.648***
	(0.034)	(0.023)	(0.020)	(0.018)	(0.020)	(0.026)	(0.026)
Integrated occupation	-0.140***	-0.100***	-0.036*	0.038**	0.037**	0.018	0.041
	(0.029)	(0.025)	(0.020)	(0.016)	(0.015)	(0.018)	(0.028)
Female occupation	-0.359***	-0.401***	-0.579***	-0.661***	-0.626***	-0.572***	-0.542***
	(0.054)	(0.039)	(0.036)	(0.035)	(0.033)	(0.043)	(0.051)
Firms: 50 to 249 employees	0.791***	0.775***	0.652***	0.526***	0.362***	0.239***	0.182***
	(0.040)	(0.030)	(0.025)	(0.023)	(0.021)	(0.020)	(0.024)
Firms: 250 or more employees	1.096***	0.997***	0.804***	0.583***	0.419***	0.332***	0.275***
	(0.041)	(0.025)	(0.026)	(0.024)	(0.021)	(0.019)	(0.022)
North	0.312***	0.233***	0.181***	0.115***	0.079***	0.099*	-0.038
	(0.032)	(0.033)	(0.030)	(0.031)	(0.031)	(0.052)	(0.061)
Southeast	0.494***	0.518***	0.523***	0.486***	0.513***	0.527***	0.443***
	(0.034)	(0.025)	(0.024)	(0.021)	(0.025)	(0.029)	(0.041)

Table 7 – Quantile regression resultsfor top manager: men (2003)

(continuation)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
South	0.327***	0.339***	0.309***	0.284***	0.312***	0.290***	0.195***
	(0.049)	(0.034)	(0.031)	(0.028)	(0.029)	(0.034)	(0.047)
Midwest	0.425***	0.416***	0.359***	0.341***	0.377***	0.406***	0.297***
	(0.040)	(0.035)	(0.032)	(0.039)	(0.037)	(0.044)	(0.052)
Sector: Agriculture	0.035	-0.089	0.006	-0.043	-0.213***	-0.239**	-0.183*
	(0.145)	(0.103)	(0.072)	(0.072)	(0.070)	(0.104)	(0.102)
Sector: Modern industry	0.392***	0.470***	0.586***	0.520***	0.299***	0.174***	0.140***
	(0.049)	(0.042)	(0.034)	(0.032)	(0.030)	(0.027)	(0.029)
Sector: Productive Services	0.337***	0.456***	0.592***	0.527***	0.331***	0.208***	0.191***
	(0.052)	(0.036)	(0.028)	(0.026)	(0.028)	(0.026)	(0.025)
Sector: Construction	-0.095	-0.044	-0.048	-0.160***	-0.129***	-0.132***	-0.191***
	(0.155)	(0.093)	(0.068)	(0.051)	(0.048)	(0.045)	(0.058)
Sector: Personal Services	-0.192	-0.220***	-0.277***	-0.371***	-0.506***	-0.548***	-0.431***
	(0.126)	(0.080)	(0.059)	(0.046)	(0.084)	(0.073)	(0.119)
Sector: Public administration	-0.628***	-0.650***	-0.747***	-0.857***	-0.962***	-1.098***	-1.069***
	(0.037)	(0.036)	(0.028)	(0.028)	(0.029)	(0.034)	(0.035)
Sector: Social services	-0.252***	-0.218***	-0.153***	-0.303***	-0.369***	-0.322***	-0.215***
	(0.043)	(0.046)	(0.037)	(0.032)	(0.033)	(0.037)	(0.044)
Sector: Others	0.292	0.155	0.365**	0.502***	0.328***	0.225*	0.230*
	(0.394)	(0.222)	(0.182)	(0.135)	(0.105)	(0.127)	(0.119)
Sector: Traditional industry	0.125*	0.212***	0.204***	0.165***	0.095**	0.057	0.026
	(0.068)	(0.043)	(0.038)	(0.040)	(0.038)	(0.038)	(0.038)
Constante	-0.909***	-0.644***	-0.647***	-0.426***	-0.150	0.509***	0.912***
	(0.207)	(0.178)	(0.117)	(0.137)	(0.125)	(0.164)	(0.206)
Number of observation	25965	25965	25965	25965	25965	25965	25965

Source: Author’s computations using RAIS (2003)

Observation: *** p<0.01, ** p<0.05, * p<0.1; standard error in parentheses.

Table 8 – Quantile regression resultsfor top manager: women (2003)

(continue)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Age	0.007	0.012**	0.030***	0.049***	0.040***	0.021**	0.013
	(0.006)	(0.006)	(0.005)	(0.004)	(0.006)	(0.009)	(0.014)
Age ^{2}	-0.000	-0.000	-0.000***	-0.000***	-0.000***	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tenure	0.040***	0.036***	0.037***	0.032***	0.042***	0.036***	0.028***
	(0.004)	(0.004)	(0.003)	(0.002)	(0.002)	(0.003)	(0.007)
Tenure^{2}	-0.001***	-0.001***	-0.001***	-0.000***	-0.000***	-0.000***	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education (0 to 7 years)	-0.239***	-0.336***	-0.476***	-0.500***	-0.497***	-0.487***	-0.432***
	(0.031)	(0.023)	(0.030)	(0.034)	(0.044)	(0.060)	(0.064)
Education (8 to 10 years)	-0.173***	-0.246***	-0.244***	-0.290***	-0.329***	-0.347***	-0.342***
	(0.022)	(0.023)	(0.023)	(0.020)	(0.033)	(0.041)	(0.056)
Education (14 years or more)	0.436***	0.533***	0.706***	0.730***	0.716***	0.636***	0.576***
	(0.020)	(0.015)	(0.014)	(0.013)	(0.016)	(0.022)	(0.028)
Integrated occupation	-0.176***	-0.098***	0.012	0.078***	0.161***	0.169***	0.140***
	(0.032)	(0.025)	(0.020)	(0.021)	(0.027)	(0.030)	(0.041)
Female occupation	-0.120**	-0.170***	-0.205***	-0.289***	-0.472***	-0.590***	-0.626***
	(0.047)	(0.035)	(0.031)	(0.028)	(0.033)	(0.044)	(0.061)
Firms: 50 to 249 employees	0.600***	0.560***	0.472***	0.462***	0.478***	0.513***	0.429***
	(0.029)	(0.025)	(0.023)	(0.021)	(0.029)	(0.040)	(0.045)
Firms: 250 or more employees	0.754***	0.691***	0.601***	0.520***	0.392***	0.271***	0.217***
	(0.028)	(0.023)	(0.019)	(0.017)	(0.020)	(0.030)	(0.033)
North	0.333***	0.405***	0.440***	0.466***	0.411***	0.333***	0.278***
	(0.038)	(0.039)	(0.029)	(0.027)	(0.036)	(0.050)	(0.058)
Southeast	0.611***	0.628***	0.668***	0.638***	0.568***	0.552***	0.570***
	(0.020)	(0.016)	(0.017)	(0.015)	(0.018)	(0.027)	(0.031)

Table 8 – Quantile regression resultsfor top manager: women (2003)

(continuation)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
South	0.573***	0.568***	0.570***	0.504***	0.466***	0.396***	0.322***
	(0.035)	(0.030)	(0.023)	(0.021)	(0.029)	(0.039)	(0.045)
Midwest	0.311***	0.339***	0.414***	0.550***	0.850***	0.800***	0.726***
	(0.027)	(0.025)	(0.029)	(0.033)	(0.043)	(0.037)	(0.055)
Sector: Agriculture	-0.126	-0.264	0.185	0.094	0.244	-0.322	-0.372
	(0.184)	(0.298)	(0.170)	(0.141)	(0.236)	(0.269)	(0.562)
Sector: Modern industry	0.136	0.227**	0.333***	0.575***	0.878***	0.714***	0.540***
	(0.150)	(0.115)	(0.070)	(0.090)	(0.107)	(0.107)	(0.123)
Sector: Productive Services	0.089*	0.206***	0.430***	0.725***	0.889***	0.594***	0.402***
	(0.051)	(0.067)	(0.048)	(0.054)	(0.059)	(0.075)	(0.059)
Sector: Construction	-0.677**	-0.219	-0.156	0.048	0.100	-0.239	-0.175
	(0.287)	(0.277)	(0.219)	(0.181)	(0.128)	(0.202)	(0.253)
Sector: Personal Services	0.027	-0.075	-0.177***	-0.276***	-0.297***	-0.272*	-0.325
	(0.071)	(0.055)	(0.056)	(0.066)	(0.070)	(0.157)	(0.219)
Sector: Public administration	-0.272***	-0.337***	-0.333***	-0.397***	-0.439***	-0.857***	-0.989***
	(0.033)	(0.041)	(0.029)	(0.037)	(0.044)	(0.072)	(0.058)
Sector: Social services	-0.054	-0.034	-0.037	-0.026	-0.048	-0.338***	-0.391***
	(0.049)	(0.045)	(0.035)	(0.041)	(0.051)	(0.081)	(0.076)
Sector: Others	1.206***	0.989***	0.812***	0.862***	0.555	0.969**	0.632**
	(0.129)	(0.149)	(0.192)	(0.157)	(0.362)	(0.395)	(0.306)
Sector: Traditional industry	-0.062	0.074	0.065	0.128*	0.223**	-0.032	-0.009
	(0.114)	(0.070)	(0.054)	(0.074)	(0.091)	(0.124)	(0.109)
Constante	0.184	0.312***	0.250**	0.370***	1.194***	2.554***	3.145***
	(0.126)	(0.120)	(0.107)	(0.095)	(0.124)	(0.182)	(0.304)
Number of observation	23010	23010	23010	23010	23010	23010	23010

Source: Author's computations using RAIS (2003)

Observation: *** p<0.01, ** p<0.05, * p<0.1; standard error in parentheses.

Table 9 – Quantile regression resultsfor top manager: men (2017)

(continue)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Age	0.066***	0.072***	0.087***	0.097***	0.110***	0.112***	0.117***
	(0.006)	(0.006)	(0.005)	(0.005)	(0.005)	(0.006)	(0.008)
Age ^{2}	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tenure	0.021***	0.023***	0.022***	0.018***	0.017***	0.014***	0.012***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Tenure^2	-0.000**	-0.000***	-0.000***	-0.000***	-0.000***	-0.000*	-0.000*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education (0 to 7 years)	-0.177***	-0.205***	-0.295***	-0.365***	-0.419***	-0.444***	-0.490***
	(0.044)	(0.033)	(0.026)	(0.028)	(0.041)	(0.052)	(0.054)
Education (8 to 10 years)	-0.098***	-0.128***	-0.127***	-0.098***	-0.016	-0.048	-0.217***
	(0.031)	(0.025)	(0.020)	(0.028)	(0.034)	(0.029)	(0.039)
Education (14 years or more)	0.513***	0.621***	0.772***	0.923***	1.017***	0.956***	0.822***
	(0.017)	(0.014)	(0.013)	(0.013)	(0.017)	(0.024)	(0.027)
Integrated occupation	-0.184***	-0.169***	-0.170***	-0.149***	-0.152***	-0.148***	-0.132***
	(0.018)	(0.016)	(0.013)	(0.013)	(0.013)	(0.014)	(0.016)
Female occupation	-0.383***	-0.412***	-0.535***	-0.618***	-0.659***	-0.623***	-0.489***
	(0.030)	(0.028)	(0.026)	(0.025)	(0.027)	(0.033)	(0.040)
Firms: 50 to 249 employees	0.785***	0.791***	0.838***	0.741***	0.519***	0.364***	0.308***
	(0.027)	(0.023)	(0.019)	(0.016)	(0.016)	(0.018)	(0.019)
Firms: 250 or more employees	1.044***	1.057***	1.052***	0.831***	0.602***	0.444***	0.390***
	(0.027)	(0.024)	(0.019)	(0.016)	(0.016)	(0.018)	(0.019)
North	0.093***	0.094***	0.113***	0.058**	-0.042	-0.104***	-0.122***
	(0.031)	(0.025)	(0.023)	(0.024)	(0.030)	(0.038)	(0.046)
Southeast	0.406***	0.443***	0.491***	0.470***	0.392***	0.330***	0.289***
	(0.021)	(0.016)	(0.015)	(0.016)	(0.019)	(0.021)	(0.028)

Table 9 – Quantile regression resultsfor top manager: men (2017)

(continuation)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
South	0.264***	0.244***	0.257***	0.254***	0.142***	0.046*	-0.003
	(0.030)	(0.024)	(0.021)	(0.020)	(0.022)	(0.025)	(0.032)
Midwest	0.268***	0.216***	0.212***	0.186***	0.119***	0.056	0.056
	(0.034)	(0.028)	(0.025)	(0.025)	(0.025)	(0.035)	(0.047)
Sector: Agriculture	-0.538***	-0.291***	-0.194***	-0.187**	-0.240***	-0.065	-0.097
	(0.138)	(0.102)	(0.057)	(0.073)	(0.065)	(0.073)	(0.079)
Sector: Modern industry	0.235***	0.274***	0.363***	0.245***	0.077***	0.036*	0.036
	(0.040)	(0.035)	(0.025)	(0.021)	(0.021)	(0.020)	(0.032)
Sector: Productive Services	0.145***	0.318***	0.485***	0.362***	0.206***	0.178***	0.162***
	(0.035)	(0.031)	(0.026)	(0.021)	(0.018)	(0.019)	(0.024)
Sector: Construction	-0.127**	-0.112**	-0.210***	-0.247***	-0.275***	-0.204***	-0.198***
	(0.053)	(0.049)	(0.037)	(0.040)	(0.041)	(0.051)	(0.044)
Sector: Personal Services	-0.085	-0.151***	-0.301***	-0.504***	-0.673***	-0.651***	-0.559***
	(0.075)	(0.055)	(0.041)	(0.041)	(0.041)	(0.063)	(0.089)
Sector: Public administration	-0.706***	-0.801***	-0.947***	-1.037***	-1.064***	-0.994***	-1.008***
	(0.031)	(0.029)	(0.024)	(0.022)	(0.021)	(0.026)	(0.027)
Sector: Social services	-0.327***	-0.383***	-0.430***	-0.500***	-0.496***	-0.362***	-0.317***
	(0.032)	(0.030)	(0.025)	(0.022)	(0.026)	(0.027)	(0.028)
Sector: Others	0.626***	0.669***	0.743***	0.743***	0.572***	0.477***	0.491***
	(0.144)	(0.127)	(0.141)	(0.077)	(0.062)	(0.071)	(0.092)
Sector: Traditional industry	-0.041	-0.054	-0.048	-0.040	-0.107***	-0.039	-0.014
	(0.047)	(0.036)	(0.034)	(0.031)	(0.032)	(0.033)	(0.032)
Constante	-0.227*	-0.239*	-0.219**	0.168*	0.588***	1.105***	1.385***
	(0.135)	(0.122)	(0.101)	(0.096)	(0.104)	(0.127)	(0.176)
Number of observation	40518	40518	40518	40518	40518	40518	40518

Source: Author’s computations using RAIS (2017)

Observation: *** p<0.01, ** p<0.05, * p<0.1; standard error in parentheses.

Table 10 – Quantile regression resultsfor top manager: women (2017)

(continue)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Age	0.019***	0.024***	0.027***	0.049***	0.073***	0.087***	0.085***
	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.006)	(0.008)
Age ^{2}	-0.000***	-0.000***	-0.000***	-0.000***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tenure	0.032***	0.037***	0.048***	0.044***	0.032***	0.016***	0.006**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Tenure^2	-0.000***	-0.000***	-0.001***	-0.001***	-0.000***	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education (0 to 7 years)	-0.254***	-0.288***	-0.324***	-0.406***	-0.411***	-0.344***	-0.257***
	(0.042)	(0.046)	(0.036)	(0.033)	(0.070)	(0.087)	(0.090)
Education (8 to 10 years)	-0.089***	-0.139***	-0.139***	-0.063***	0.006	0.002	-0.030
	(0.027)	(0.019)	(0.022)	(0.023)	(0.024)	(0.032)	(0.037)
Education (14 years or more)	0.333***	0.405***	0.511***	0.587***	0.598***	0.606***	0.643***
	(0.012)	(0.011)	(0.011)	(0.010)	(0.012)	(0.017)	(0.025)
Integrated occupation	-0.108***	-0.115***	-0.114***	-0.155***	-0.191***	-0.160***	-0.097***
	(0.015)	(0.013)	(0.013)	(0.014)	(0.017)	(0.018)	(0.024)
Female occupation	-0.103***	-0.144***	-0.179***	-0.316***	-0.551***	-0.743***	-0.769***
	(0.017)	(0.017)	(0.019)	(0.020)	(0.026)	(0.026)	(0.035)
Firms: 50 to 249 employees	0.403***	0.455***	0.500***	0.560***	0.611***	0.546***	0.493***
	(0.019)	(0.019)	(0.019)	(0.017)	(0.021)	(0.024)	(0.030)
Firms: 250 or more employees	0.487***	0.516***	0.527***	0.528***	0.491***	0.403***	0.353***
	(0.015)	(0.016)	(0.015)	(0.014)	(0.016)	(0.018)	(0.023)
North	0.132***	0.101***	0.073***	0.122***	0.070***	0.052*	-0.031
	(0.023)	(0.019)	(0.017)	(0.015)	(0.021)	(0.028)	(0.049)
Southeast	0.325***	0.341***	0.360***	0.378***	0.315***	0.266***	0.174***
	(0.012)	(0.011)	(0.009)	(0.010)	(0.013)	(0.018)	(0.029)

Table 10 – Quantile regression resultsfor top manager: women (2017)
(continuation)

	Quantil						
	0.05	0.10	0.25	0.50	0.75	0.90	0.95
South	0.299***	0.268***	0.258***	0.249***	0.199***	0.135***	-0.016
	(0.020)	(0.017)	(0.016)	(0.015)	(0.022)	(0.027)	(0.033)
Midwest	0.210***	0.182***	0.163***	0.216***	0.182***	0.142***	0.080
	(0.027)	(0.020)	(0.024)	(0.022)	(0.025)	(0.037)	(0.057)
Sector: Agriculture	-0.025	-0.066	-0.149**	-0.242***	-0.587***	-0.543***	-0.468***
	(0.089)	(0.085)	(0.076)	(0.086)	(0.115)	(0.180)	(0.161)
Sector: Modern industry	0.194***	0.283***	0.351***	0.682***	0.562***	0.345***	0.368***
	(0.070)	(0.063)	(0.049)	(0.093)	(0.053)	(0.056)	(0.058)
Sector: Productive Services	0.039	0.203***	0.481***	0.835***	0.608***	0.325***	0.294***
	(0.041)	(0.034)	(0.036)	(0.031)	(0.044)	(0.035)	(0.038)
Sector: Construction	-0.052	-0.038	-0.118	-0.053	-0.292***	-0.519***	-0.569***
	(0.120)	(0.070)	(0.078)	(0.086)	(0.100)	(0.096)	(0.127)
Sector: Personal Services	-0.051	-0.088*	-0.102***	-0.188***	-0.549***	-0.654***	-0.545***
	(0.057)	(0.053)	(0.037)	(0.038)	(0.066)	(0.107)	(0.072)
Sector: Public administration	-0.326***	-0.351***	-0.400***	-0.506***	-0.875***	-1.147***	-1.142***
	(0.026)	(0.024)	(0.023)	(0.028)	(0.044)	(0.036)	(0.036)
Sector: Social services	-0.082***	-0.108***	-0.144***	-0.199***	-0.430***	-0.517***	-0.396***
	(0.026)	(0.024)	(0.024)	(0.028)	(0.048)	(0.038)	(0.042)
Sector: Others	0.776	0.584***	0.571***	1.192***	1.023***	0.758***	0.638***
	(0.535)	(0.176)	(0.219)	(0.341)	(0.165)	(0.114)	(0.165)
Sector: Traditional industry	-0.018	0.008	0.077	0.075	0.101	-0.029	0.008
	(0.054)	(0.054)	(0.047)	(0.055)	(0.077)	(0.082)	(0.045)
Constante	0.855***	0.860***	0.995***	0.949***	1.315***	1.756***	2.077***
	(0.101)	(0.088)	(0.077)	(0.078)	(0.102)	(0.138)	(0.167)
Number of observation	38253	38253	38253	38253	38253	38253	38253

Source: Author’s computations using RAIS (2017)
Observation: *** p<0.01, ** p<0.05, * p<0.1; standard error in parentheses.

A.3 –Machado e Mata Decomposition (2005):

Table 11 – Wage decomposition: manager (2003)

Quantile	Raw Gap	Predicted Gap	Characteristics	Coefficients	Women's wourly wage compared to men's[1]
0.05	0.140	0.126	-0.001	0.127	0.882
		(0.025)	(0.028)	(0.026)	
0.10	0.178	0.143	-0.008	0.151	0.867
		(0.022)	(0.027)	(0.023)	
0.15	0.168	0.160	-0.017	0.177	0.852
		(0.022)	(0.025)	(0.023)	
0.20	0.178	0.172	-0.025	0.198	0.842
		(0.022)	(0.025)	(0.022)	
0.25	0.190	0.182	-0.034	0.216	0.834
		(0.023)	(0.025)	(0.023)	
0.30	0.192	0.191	-0.042	0.233	0.826
		(0.023)	(0.025)	(0.025)	
0.35	0.174	0.198	-0.049	0.247	0.820
		(0.024)	(0.026)	(0.025)	
0.40	0.189	0.207	-0.057	0.264	0.813
		(0.024)	(0.027)	(0.026)	
0.45	0.205	0.217	-0.066	0.284	0.805
		(0.024)	(0.028)	(0.026)	
0.50	0.223	0.228	-0.074	0.302	0.796
		(0.024)	(0.028)	(0.027)	
0.55	0.242	0.237	-0.081	0.318	0.789
		(0.025)	(0.027)	(0.027)	
0.60	0.230	0.246	-0.089	0.335	0.782
		(0.026)	(0.027)	(0.028)	
0.65	0.241	0.259	-0.095	0.354	0.772
		(0.027)	(0.029)	(0.028)	
0.70	0.266	0.276	-0.098	0.374	0.759
		(0.027)	(0.029)	(0.029)	
0.75	0.305	0.297	-0.098	0.395	0.743
		(0.027)	(0.032)	(0.03)	
0.80	0.346	0.320	-0.090	0.410	0.726
		(0.032)	(0.035)	(0.03)	
0.85	0.394	0.351	-0.074	0.425	0.704
		(0.033)	(0.035)	(0.031)	
0.90	0.426	0.385	-0.048	0.432	0.681
		(0.037)	(0.035)	(0.032)	
0.95	0.366	0.421	-0.003	0.424	0.656
		(0.045)	(0.042)	(0.041)	

Source: Author's computations using RAIS (2003)
1 Inversion of the logarithmic function to find the relationship between men's and women's wages based on the predicted wage gap.
Note: Standard error in parentheses.

Table 12 – Wage decomposition: manager (2017)

Quantile	Raw Gap	Predicted Gap	Characteristics	Coefficients	Women's wourly wage compared to men's[1]
0.05	0.098	0.094	0.034	0.060	0.910
		(0.018)	(0.02)	(0.019)	
0.10	0.121	0.124	0.039	0.085	0.883
		(0.017)	(0.019)	(0.019)	
0.15	0.148	0.142	0.041	0.102	0.867
		(0.017)	(0.018)	(0.018)	
0.20	0.152	0.154	0.039	0.115	0.858
		(0.016)	(0.02)	(0.019)	
0.25	0.150	0.159	0.035	0.124	0.853
		(0.017)	(0.02)	(0.019)	
0.30	0.162	0.163	0.030	0.133	0.849
		(0.017)	(0.021)	(0.019)	
0.35	0.169	0.166	0.025	0.141	0.847
		(0.017)	(0.02)	(0.02)	
0.40	0.174	0.167	0.018	0.148	0.846
		(0.018)	(0.021)	(0.02)	
0.45	0.174	0.169	0.013	0.156	0.845
		(0.019)	(0.021)	(0.021)	
0.50	0.179	0.173	0.009	0.164	0.841
		(0.019)	(0.022)	(0.021)	
0.55	0.181	0.178	0.005	0.173	0.837
		(0.021)	(0.022)	(0.022)	
0.60	0.179	0.185	0.001	0.184	0.831
		(0.02)	(0.022)	(0.021)	
0.65	0.188	0.194	0.000	0.194	0.824
		(0.021)	(0.023)	(0.023)	
0.70	0.208	0.205	0.001	0.204	0.814
		(0.021)	(0.023)	(0.023)	
0.75	0.224	0.221	0.002	0.220	0.801
		(0.022)	(0.024)	(0.024)	
0.80	0.252	0.241	0.007	0.234	0.785
		(0.025)	(0.026)	(0.026)	
0.85	0.281	0.266	0.018	0.249	0.766
		(0.028)	(0.03)	(0.029)	
0.90	0.305	0.296	0.033	0.263	0.744
		(0.031)	(0.033)	(0.031)	
0.95	0.315	0.325	0.054	0.272	0.722
		(0.037)	(0.041)	(0.037)	

Source: Author's computations using RAIS (2003)
1 Inversion of the logarithmic function to find the relationship between men's and women's wages based on the predicted wage gap.
Note: Standard error in parentheses.

Table 13 – Wage decomposition: top manager (2003)

Quantile	Raw Gap	Predicted Gap	Characteristics	Coefficients	Women's wourly wage compared to men's[1]
0.05	0.116	0.064	0.071	-0.008	0.938
		(0.036)	(0.034)	(0.031)	
0.10	0.128	0.170	0.135	0.035	0.844
		(0.033)	(0.034)	(0.031)	
0.15	0.221	0.263	0.202	0.061	0.769
		(0.035)	(0.033)	(0.031)	
0.20	0.291	0.353	0.260	0.093	0.703
		(0.036)	(0.035)	(0.032)	
0.25	0.384	0.437	0.309	0.128	0.646
		(0.036)	(0.039)	(0.033)	
0.30	0.443	0.513	0.353	0.160	0.599
		(0.037)	(0.04)	(0.034)	
0.35	0.513	0.584	0.391	0.193	0.558
		(0.036)	(0.041)	(0.034)	
0.40	0.586	0.651	0.421	0.230	0.521
		(0.037)	(0.042)	(0.033)	
0.45	0.624	0.712	0.442	0.270	0.491
		(0.035)	(0.039)	(0.033)	
0.50	0.689	0.767	0.466	0.302	0.464
		(0.036)	(0.038)	(0.032)	
0.55	0.740	0.824	0.500	0.324	0.439
		(0.034)	(0.037)	(0.03)	
0.60	0.861	0.890	0.544	0.347	0.410
		(0.032)	(0.036)	(0.028)	
0.65	1.005	0.967	0.590	0.377	0.380
		(0.031)	(0.034)	(0.026)	
0.70	1.160	1.056	0.628	0.429	0.348
		(0.03)	(0.035)	(0.027)	
0.75	1.260	1.143	0.653	0.490	0.319
		(0.031)	(0.033)	(0.028)	
0.80	1.370	1.217	0.672	0.545	0.296
		(0.031)	(0.035)	(0.029)	
0.85	1.379	1.274	0.686	0.588	0.280
		(0.031)	(0.033)	(0.031)	
0.90	1.250	1.287	0.687	0.600	0.276
		(0.035)	(0.032)	(0.035)	
0.95	1.016	1.198	0.622	0.577	0.302
		(0.041)	(0.036)	(0.046)	

Source: Author's computations using RAIS (2003)
1 Inversion of the logarithmic function to find the relationship between men's and women's wages based on the predicted wage gap.
Note: Standard error in parentheses.

Table 14 – Wage decomposition: top manager (2017)

Quantile	Raw Gap	Predicted Gap	Characteristics	Coefficients	Women's wourly wage compared to men's[1]
0.05	0.034	-0.040	0.031	-0.071	1.041
		(0.031)	(0.035)	(0.031)	
0.10	0.094	0.048	0.042	0.005	0.954
		(0.031)	(0.033)	(0.031)	
0.15	0.123	0.117	0.061	0.057	0.889
		(0.031)	(0.033)	(0.031)	
0.20	0.130	0.183	0.081	0.102	0.833
		(0.03)	(0.033)	(0.031)	
0.25	0.163	0.250	0.106	0.143	0.779
		(0.03)	(0.032)	(0.03)	
0.30	0.223	0.319	0.135	0.183	0.727
		(0.03)	(0.033)	(0.031)	
0.35	0.277	0.389	0.168	0.221	0.678
		(0.031)	(0.033)	(0.03)	
0.40	0.346	0.458	0.201	0.257	0.633
		(0.03)	(0.032)	(0.029)	
0.45	0.394	0.526	0.235	0.292	0.591
		(0.03)	(0.032)	(0.027)	
0.50	0.455	0.597	0.273	0.324	0.551
		(0.03)	(0.033)	(0.026)	
0.55	0.549	0.666	0.315	0.351	0.514
		(0.033)	(0.035)	(0.027)	
0.60	0.690	0.741	0.365	0.377	0.476
		(0.034)	(0.034)	(0.027)	
0.65	0.893	0.821	0.417	0.403	0.440
		(0.033)	(0.034)	(0.028)	
0.70	1.086	0.900	0.471	0.429	0.407
		(0.034)	(0.036)	(0.028)	
0.75	1.205	0.983	0.519	0.464	0.374
		(0.034)	(0.036)	(0.029)	
0.80	1.262	1.063	0.555	0.508	0.345
		(0.033)	(0.035)	(0.03)	
0.85	1.251	1.123	0.564	0.559	0.325
		(0.032)	(0.034)	(0.032)	
0.90	1.061	1.123	0.534	0.589	0.325
		(0.038)	(0.036)	(0.039)	
0.95	0.712	0.982	0.450	0.532	0.375
		(0.044)	(0.039)	(0.051)	

Source: Author's computations using RAIS (2003)
1 Inversion of the logarithmic function to find the relationship between men's and women's wages based on the predicted wage gap.
Note: Standard error in parentheses.