IOSR Journal Of Humanities And Social Science (IOSR-JHSS)
Volume 29, Issue 8, Series 3 (August, 2024) 36-41
e-ISSN: 2279-0837, p-ISSN: 2279-0845.
www.iosrjournals.org

The Probability Of Exiting The Labor Market And Its Effects On The Gender Earnings Gap: Evidence Of Statistical Discrimination In Brazil's Labor Market

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Abstract
This paper examines the chances of men and women leaving the labor market and its effects on the gender earnings gap in Brazil. Using the Oaxaca-Blinder decomposition, the earnings differential is broken down into a component explained by differences in observable attributes (education, occupation, etc.) and a residual component. In addition to the usual attributes, the analysis includes a forecast of the probability of a person interrupting her/his labor market participation. The PNAD—a nationally representative survey in Brazil—tracks its participants over five consecutive quarters. For each person working at the time of the first visit, the survey indicates whether she/he exits or remains in the labor market in subsequent visits. This information, along with the worker characteristics that are observable to those demanding labor, and stable over the work relationship, is used in a logit model to estimate the probability of a worker to exit the labor market. In the first quarter of 2024, men's average earnings surpassed women's by 19.4%, with the portion of the earnings gap explained by differences in attributes shifting from -3.1 to 17.5 percentage points after including the probability estimate. The results highlight the relevance of statistical discrimination practices in the labor market, i.e., discrimination based on historical data of different groups. Therefore, initiatives that facilitate women's retention in the labor market, such as access to care-related services, could promote greater gender earnings equity.

Keywords: *earnings gap; discrimination; Oaxaca-Blinder decomposition; labor market attachment; interruption in labor market participation; probability of exiting the labor market; Heckman; RIF*

Date of Submission: 01-08-2024 Date of Acceptance: 10-08-2024

I. Introduction

Part of the earnings differential between men and women can be explained by differences in the average attributes between genders, such as the average number of hours each gender dedicates to the labor market. Another part may arise from unequal treatment in the labor market, which rewards the same attribute differently depending on whether the worker is a man or a woman. A widely used tool to disaggregate these two components is the Oaxaca-Blinder decomposition.

Considering the differences in average observable attributes between genders (years of education, occupation, experience, etc.), typically, studies for Brazil find that women's earnings should be higher than men's (Urquidi, Chalup, Sardán, 2023; Passos and Machado, 2022; Cirino, 2021; Pereira and de Oliveira, 2016; Matos and Machado, 2006; Scorzafave and Pazello, 2008). Thus, unless there are differences in relevant characteristics not accounted for in these studies, the earnings differential would result from discriminatory practices in the labor market. This study aims to better understand the origins of this discrimination and finds evidence that it consists, in great part, of statistical discrimination, i.e., discrimination based on the historical averages of a group.

Women in Brazil are over three times more likely than men to interrupt their participation in the labor market. Given that exits from the labor market can represent a cost to employers, coworkers, supervisors, business partners, contractors, etc., it is plausible that these agents practice statistical discrimination against women, similarly to insurance companies, which charge higher premiums for certain profiles of insured people.

CONSAD (2009) and Stein, Sulzbach, and Bartels (2015) attempt to capture the effect of potential career interruptions by using as a proxy the percentage of people outside the labor market for different age groups, gender and number of children. However, this approach is unnecessary when using panel data, as we can directly track the labor supply of the people in the sample over time. After all, people who have never entered the labor market do not represent a cost to those who demand labor. The problem lies in the interruptions in the professional trajectory. Moreover, people age and may have children over the course of an employment relationship, and those who demand labor are likely aware of this.

The present study uses data from PNAD—a nationally representative Brazilian panel—to observe whether individuals who were working during a given survey visit exited or remained in the labor market in subsequent visits. The probability of a worker to exit the labor market is estimated from the perspective of those demanding labor; thus, considering worker and work characteristics observable by them. It is also acknowledged that the probability of a worker to exit the labor market in the future does not depend solely on their current circumstances, which may change throughout the work relationship, such as the birth of a child or the aging of parents and in-laws. Therefore, this probability is estimated based on worker characteristics that tend to remain relatively stable over the course of the work relationship, such as industry sector, location, and education level. The equations are estimated by logit regressions and are subsequently applied to each worker to infer their likelihood of exiting the labor market.

We conclude that a significant part of the earnings differential results from the practice of statistical discrimination in the labor market. The significance of this probability of exiting the labor market appears to hold among poorer workers and in models that apply to the entire population, not just those currently employed. Therefore, effective policies aimed at reducing the differential would involve actions to reduce the need for women to leave the labor market.

The results highlight the relevance of this probability in explaining the gender earnings gap in Brazil. In the first quarter of 2024, the earnings gap between men and women was 19.4%. Once I include the probability of exiting the labor market as an explanatory variable, 17.5 percentage points of this gap can be explained by differences in average observed attributes between genders. In contrast, without this variable, the explained portion of the gap was negative at 3.1 percentage points. This suggests that a significant portion of the earnings gap results from the practice of statistical discrimination in the labor market. The relevance of the probability of leaving the labor market seems to hold true among the poorest workers and in models focused on the entire population, not just those working. Therefore, effective policies directed at reducing the gap would involve actions aimed at reducing the need for women to leave the labor market.

The study begins with a discussion on the probability of a worker discontinuing her/his participation in the labor market and the methodology used to estimate it. Following this, Mincerian equations explaining the earnings of men and women are estimated. Using these estimates, the Oaxaca-Blinder decomposition is calculated. Finally, the estimates are replicated for a Heckman sample selection model, and for the poorest quintile of the labor income distribution following the methodology proposed by Firpo, Fortin, and Lemieux (2018).

II. Probability Of Exiting The Labor Market

Worker adherence to the labor market is typically perceived as a positive attribute by employers, colleagues, supervisors, business partners, contractors, and others. Not knowing if a worker will leave the labor market in the future, those demanding labor might consider the typical behavior of various worker profiles within their respective industry. This is a common approach among insurance companies, which charge different premiums for different groups of individuals based on the historical data of each group. This practice is known as statistical discrimination.

It is possible to infer historical labor market exit rates for different profiles of workers and work using PNAD data. The PNAD is designed to visit each household in its sample for five consecutive quarters. Each quarter, approximately one-fifth of the households complete their fifth visit, are then removed from the sample, and new households are selected, ensuring constant sample renewal. During the period a household remains in the sample, it is possible to track the labor supply of its members. Particularly, it can be observed if a person was working during one visit but exited the labor market in a subsequent visit, meaning she/he was neither working nor seeking work.

Specifically, a dummy variable is constructed that takes the value 1 if an individual is working during a given visit but is out of the labor market in a subsequent visit for well-defined reasons. The reasons are: the need to take care of housework, children, or other relatives, being in school, health issues, or pregnancy. The dummy variable takes the value 0 if the person is in the labor market during a given visit and does not exit in a subsequent visit for any of the listed reasons.

The probability of a worker exiting the labor market is calculated from the perspective of those demanding labor, i.e., those in a position to practice statistical discrimination. Thus, it will be estimated based on worker characteristics that can be observed by them. It is also assumed that this probability can vary across business sectors and locations, and that each person on the demand side has information about their specific context. Additionally, it is acknowledged that the probability of a worker leaving the labor market in the future does not depend solely on their current circumstances. For example, a worker may not have children or elderly parents requiring her/his time at the present, but this may change in the future.

For simplicity, here the probability of a worker leaving the labor market depends on worker and work characteristics that meet two criteria: (i) they are easily observable by those demanding labor, and (ii) they tend to remain stable throughout the work relationship. Specifically, I assume that this probability depends on the

worker's gender and education level, the industry sector in which the work relationship takes place, the region of the country where this relationship occurs, and whether it is in an urban or rural area.[1]

Indeed, 8.9% of women working in the first quarter of 2023 exited the labor market at some subsequent point for one of the aforementioned reasons. This figure surpasses the corresponding rate for men by more than threefold, which stands at 2.8%. Table 1, at the end of this text, presents the percentage of men and women who left the labor market for different worker and work characteristics. For informational purposes, the table includes characteristics that may change over the course of the employment relationship and that are not necessarily observable from the demand side.

The probability of a worker profile in a certain type of work exiting the labor market is estimated in a logit model. All estimations consider people between the ages of 18 and 55 to avoid issues related to retirement and compulsory schooling. In all the estimations presented in this work, the complexities of the PNAD sample design are considered. I use the econometric package Stata, with a highlight to the command svy for complex samples.

The results of the regression for the first quarter of 2023 and the preceding four quarters are presented in Table 2. The results reveal that women are more likely to exit the labor market than men, possibly reflecting the distinct realities and social roles associated with each gender. Moreover, workers are more likely to exit the labor market if they are: (i) less educated, (ii) in rural areas, (iii) in the north or northeastern regions of the country, and (iv) working in agriculture, livestock farming, forestry, fishing, aquaculture, domestic services, accommodation, food services, construction, and other services. It is worth noting that the results may reflect inequalities in conditions and opportunities.

The probability of a worker exiting the labor market is estimated as follows. First, the worker and work characteristics are inserted into the estimated equation for a given quarter. This provides the predicted probability of their exit according to the coefficients estimated for that quarter. This procedure is repeated for a total of 4 preceding quarters. Next, the average of the predicted probabilities over these four quarters is calculated. This averaging mitigates the effects of eventual seasonal and temporary fluctuations. The selection of the 4 preceding quarters happens with a lag to ensure that for each person considered in the logistic regression, it has already been determined whether they exited the labor market in some subsequent visit. The premise is that, at any given time t, those demanding labor use only the information available up to time t, not information that will emerge in the future. Since, in any given quarter t, there are individuals on their first visit, a year will pass before they complete their 5th and final visit. Therefore, the lag must be at least 1 year. For example, for each person in the 1st quarter of 2024, we take the average of her/his predicted probabilities according to the coefficients estimated in the logit regressions for the first quarter of 2023, the fourth, third, and second quarters of 2022.

In the next section, this averaged predicted probability is used as one of the explanatory variables in the equation explaining the earnings of men and women.

III. Mincerian Earnings Equation For Men And Women

Numerous studies estimate the so-called Mincer equation (1958) or Mincerian earnings equation. In this equation, labor earnings depend on observable characteristics, such as educational level, occupation, experience, etc. In studies on gender earnings gap that execute the Oaxaca-Blinder decomposition, a Mincerian equation is estimated for each gender as an introductory step for subsequent analyses.

Table 3 presents the explanatory variables considered in the present study, along with their respective regression coefficients. The first pair of columns shows the coefficients for men's regression and the second pair for women's. A novel aspect here is that the explanatory variables include the probability of a worker exiting the labor market, estimated based on worker and work characteristics observable by those who demand labor and that tend to remain constant throughout the work relationship, as detailed in the previous section.

For comparison purposes, Column (A) in the table presents the results when the estimated probability of exiting the labor market is not included among the explanatory variables. In (B), this probability is included. Generally, the other estimated coefficients exhibit similar patterns in estimations (A) and (B).

IV. Decomposition Of The Earnings Gap

The earnings differential between men and women and its decomposition into a differential explained by differences in average attributes between genders and a differential not explained by these differences, i.e., the so-called Oaxaca-Blinder decomposition (Oaxaca 1973; Blinder 1973), are presented in Table 4. The table also shows the contribution of each explanatory variable to the explained and unexplained differential.

In the first quarter of 2024, men's labor earnings surpassed those of women by 19.4%. In Column (A) of Table 4, the probability of leaving the labor market is disregarded. In this case, the explained differential stands

[1] Dummy variables for metropolitan areas and non-white people were not statistically significant in some of the regressions considered and were removed from the set of explanatory variables of the probability of labor market exit.

at -3.1 percentage points, meaning that based on average differences in observable attributes between genders, women's average earnings are expected to exceed those of men. This finding is consistent with other empirical studies for Brazil, such as those by Urquidi, Chalup, and Sardán (2023); Passos and Machado (2022); Cirino (2021); Pereira and de Oliveira (2016); Matos and Machado (2006); and Scorzafave and Pazello (2008).

However, when an estimate of the probability of a person leaving the labor market is included among the explanatory variables – Column (B) in Table 4 – differences in the means of the explanatory variables between men and women then explain 17.5 percentage points of the gender earnings differential. By itself, the estimated probability of leaving the labor market accounts for 19.2 percentage points of the explained earnings gap. Overall, the contribution of the remaining variables to the explained differential follows similar patterns in both estimations (Columns A and B).

To facilitate the analysis of the results, Columns (B) from Tables 3 and 4 are reproduced in Table 5. The first column presents the regression coefficients for men, and the second for women. The next two columns present the means of each variable for men and women, respectively.

Note that the market compensates men's and women's attributes differently, which contributes to the disparity in labor earnings between genders. Simultaneously, there are differences in the mean attributes between men and women that would lead to an earnings differential even if both were equally compensated for those attributes.

Consider, for example, the number of hours worked. Possibly, as a way to balance work outside the labor market, women dedicate fewer hours to the labor market than men, 38.29 hours compared to 42.19 hours. If women could dedicate the same number of hours as men to the labor market and received the same return per hour worked as men (0.015), the gender earnings gap would reduce by 5.9 percentage points ((42.19–38.29).0.015). This number is presented in the 5th column of Table 5, under the title Decomposition, subtitle Explained. On the other hand, each additional hour raises men's earnings by 1.5%, and women's by 1.7%. This difference in returns helps reduce the gender earnings gap by 7.7 percentage points ((0.015–0.017).38.29). This number is presented in the 6th column.

An analogous analysis applies to each explanatory variable, except for the categorical variables, which undergo a normalization process to ensure that the results do not depend on the choice of the omitted category (or reference category). The procedure is outlined in Jann (2008).

In the last pair of columns in Table 5, some variables are grouped into categories. For example, the heavier hours load of men—measured in terms of total working hours and the percentage working part-time—explains 8.6 percentage points of the earnings differential between men and women. Meanwhile, women's higher return for their hours load helps reduce the earnings differential by 8.7 percentage points.

Notably, with the exception of categories somehow related to the time dedicated to the labor market—hours load, experience (current job experience and its square, age and age squared), and probability of leaving the labor market—the average characteristics of women contribute to reducing the earnings differential. Consider, for instance, education. Women study 1.2 years more than men, on average. Taking men's return on education as a reference, women's higher education helps reduce the gender earnings differential by 4.7 percentage points.

Similarly, the distribution of women among the considered occupations would contribute to reducing the earnings differential by 3.7 percentage points if they received the same returns as men in each occupation. However, they tend to earn less than men in different occupations, which leads to a gender earnings gap of 2 percentage points.

Likewise, the distribution of women among the considered employment categories (employees with no official registration, employers, self-employed, and public sector) contributes to reducing the differential by 1.3 percentage points. However, unfavorable remuneration for women in different categories elevates the differential by 1.5 percentage points. Specifically, women are overrepresented among employees with no official registration, and they are more heavily penalized for this than men. Additionally, women are underrepresented among employers. Conversely, women are underrepresented among the self-employed. Lastly, women are strongly overrepresented in the public sector, which tends to reward those who succeed in its selection processes.

Among those in the labor market, the predicted probability of a typical woman leaving the labor market surpass that of a man by more than three times. This higher probability explains 19.2 percentage points of the gender earnings differential. On the other hand, men seem to be more penalized than women for characteristics that increase their probability of exiting the labor market, which helps reduce the earnings gap by 16.5 percentage points. This latter finding may perhaps represent a certain resistance of the labor market to changes in traditional social roles and possibly reinforces them.

Nevertheless, the detailed results should be observed with some caution, given the difficulty of isolating the individual effect of each variable when the variables are correlated. Table 6 displays the correlations between the variables for men (above the diagonal of the matrix) and for women (below the diagonal). Notice that the very estimated probability of leaving the labor market is, by design, strongly correlated with years of education. The

inclusion of correlated variables is sometimes appropriate as a control or when the focus lies on more aggregated results.

A second caveat is that age may be a more accurate proxy for labor market experience among men, due to fewer interruptions in their labor market participation.

Lastly, the calculation of bootstrap standard errors for complex samples did not change the decomposition table, except for the unexplained differential for the North and South regions. The North moved from a 1% significance level to 5%, and the South from 5% to 10%.

V. Sample Selection Bias

The previous results refer to people with work. However, about 38.9% of women and 18.4% of men aged 18 to 55 were not working in the first quarter of 2024. This section aims to provide insights into the results for the entire population, including men and women without work. For this purpose, I use a Heckman (1979) sample selection model in which the probability of a woman (man) being working depends on her (his) age, education, if resides in an urban area, marital status, and whether she (he) has young children. The results are presented in Table 7 (first-stage regressions) and Table 8 (decomposition).[2]

Once including the probability of leaving the labor market among the explanatory variables, the share of the earnings differential explained by differences in average observable attributes rises to dominate the unexplained portion. Precisely, the ratio between the explained portion and the unexplained portion goes from approximately -0.16 to 1.19.

VI. Decomposition Among The Poorest

Lastly, the Oaxaca-Blinder decomposition is estimated among those with the lowest earnings. Specifically, I consider those in the first quintile of the labor earnings distribution. For this, I employ a statistical tool called recentered influence functions (RIFs). RIFs, originally useful in analyses involving outliers, gained popularity after their use by Firpo, Fortin, and Lemieux (2009) for estimating partial effects in the case of non-linear statistics. Firpo, Fortin, and Lemieux (2018) focus on the specific case of the Oaxaca-Blinder decomposition.

The method provides a linear approximation of non-linear functions, thus, approximation errors can occur (Rothe, 2010). On the other hand, alternative methods involving sequential decompositions do not allow identifying the effect of each variable independently of the order in which the decomposition is performed.

The commands used are detailed in Rios-Avila (2020) and Kolenikov (2010). The results for the first quintile of the earnings distribution are presented in Table 9.

In the context of this method, the equivalent of the earnings differential explained by differences in average attributes between genders is called the composition effect, while the unexplained differential is called the structure effect. When the probability of leaving the labor market is included among the explanatory variables, the composition effect increases and comes to dominate the structure effect. Specifically, the ratio between the composition effect and the structure effect changes from approximately 0.12 to 1.39 in absolute value.

VII. Final Remarks

In the first quarter of 2024, men's earnings surpassed women's by 19.4%. After including a forecast of the probability of a person leaving the labor market among the explanatory variables, the portion of the earnings differential explained by differences in average observable attributes jumped from -3.1 to 17.5 percentage points. This result suggests that the practice of statistical discrimination by those demanding labor is an important factor in explaining the gender earnings gap in Brazil. Additional analyses involving sample bias correction and poorer workers are also consistent with this conclusion.

The merit of identifying the nature of discrimination and its origins lies exclusively in its usefulness as a subsidy in formulating effective responses to the issue and, evidently, not as a justification for discrimination. In this regard, it is worth considering the practical implications of statistical discrimination within the scope of this work. A woman may receive a lower salary than a man with similar characteristics simply because she belongs to a group with a higher probability of leaving the labor market, even if she remains in the labor market throughout her economically active years.

It is estimated that approximately 9% of women left the labor market last year, compared to only 3% of men. It is important to note that, in isolation, pregnancies cannot explain this high percentage of women leaving the labor market. According to the IBGE, in 2022, about 2.4 million babies were born to mothers over 17 years

[2] Using bootstrap standard errors for complex samples, the statistical significance of the unexplained portion of the differential changes from 1% to 5%. The unexplained differential attributed to the variables years of education and age lose statistical significance at the 10% significance level, while the significance level for age squared changes from 1% to 5%.

old in Brazil. In that same year, the female population aged 18 to 55 was approximately 60.8 million. This means, women who gave birth represent less than 4% of women in this age group. Moreover, not all women who give birth leave the labor market. It is therefore conjectured that other social impositions might be driving women out of the labor market, such as the need to care for parents, in-laws, spouses, and children beyond the immediate post-partum period. In this sense, public and institutional policies that enable women to remain working may involve the provision of a wide range of caregiving services, as well as incentives for a greater participation of men in these activities.

It is important to note that the tool employed, the Oaxaca decomposition, focuses exclusively on discrimination present within the labor market, and does not encompass discrimination that occurs before entering this market or in other social spheres. However, even within the scope of the labor market, this tool has its limitations. For instance, the over-representation of women among employees with no official registration may, at least in part, reflect discriminatory practices in the labor market that hinder women's access to better jobs. Additionally, it is possible that women occupy lower-paying jobs, anticipating the barriers and difficulties posed by the labor market to their gender in higher-paying employment. Furthermore, women's productivity might be affected by a less inclusive and motivating work environment, where they encounter fewer incentives and promotion opportunities, or even permissive of more explicit discriminatory practices, like harassment. Despite its limitations, the method may help identify the main factors that contribute to the gender pay gap and provide input for more effective actions to reduce this inequality.

Finally, it is necessary, still, to investigate the robustness of the results using different methodologies to estimate the probability of a worker leaving the labor market. Future research could explore alternative, more sophisticated, refined, and comprehensive approaches. For instance, considering, in certain cases, the worker's experience in their current work in order to better capture her/his circumstances at the time she/he started this work. Furthermore, the analysis could also incorporate other potential sources of statistical discrimination, such as temporary leaves of absence.

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Table 1: Percentage of people who were working in the 1st quarter of 2023 but left the labor Market, for specific reasons, at some observed subsequent time

	Men	Women
Total	2,8	8,9
Urban Area	2,5	8,2
Non-Urban Area	4,7	17,1
Education		
No formal education or less than 1 year of education	6,3	18,8
Incomplete fundamental education or equivalent	4,1	16,2
Complete fundamental education or equivalent (9 years)	2,6	14,1
Complete high school education or equivalent	3,5	12,8
Incomplete high school education or equivalent	2,5	9,2
Some college or equivalent	3,9	10,4
College or equivalent	1,3	3,5
Activity Groups		
Agriculture, livestock, forestry production, fishing, and aquaculture	5,0	21,8
General industry	2,0	10,0
Construction	3,3	9,4
Trade, repair of motor vehicles and motorcycles	2,9	9,4
Transportation, warehousing, and postal services	2,5	7,1
Accommodation and food services	3,7	12,4
Information, communication, and financial, real estate, professional, and administrative activities	2,2	5,1
Public administration, defense, and social security	1,8	3,8
Education, human health, and social services	1,6	4,2
Other services	2,7	11,1
Domestic services	4,3	15,7
North Region	4,0	13,3
Northeast Region	4,4	12,1
Southeast Region	1,9	7,2
South Region	2,2	7,4
Central-West Region	3,2	9,5
Age Groups		
18-22 years	5,9	10,9

23-27 years	3,0	9,3
28-32 years	1,9	8,6
33-37 years	1,9	9,0
38-42 years	2,1	7,7
43-47 years	2,6	8,6
48-55 years	3,4	9,2
White	2,4	7,1
Non-white	3,1	10,5
Metropolitan area	2,7	7,8
Non-metropolitan area	2,9	9,8
Occupation Groups		
Directors and managers	1,0	2,8
Science professionals and intellectuals	1,3	3,5
Technicians and high school level professionals	2,2	4,9
Administrative support workers	2,9	6,0
Service workers, sales workers in commerce and markets	2,7	10,7
Skilled agricultural, forestry, hunting, and fishing workers	4,2	21,8
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	2,9	16,1
Operators of installations and machinery and assemblers	2,3	9,9
Elementary occupations	4,5	13,0
Members of the armed forces, police, and military firefighters	1,5	6,8
Employment Category		
Private sector employee with official registration	1,8	4,7
Private sector employee with no official registration	4,3	12,9
Domestic worker with official registration	1,7	8,6
Domestic worker with no official registration	5,4	18,0
Public sector employee with official registration	2,2	3,9
Public sector employee with no official registration	4,6	7,7
Military personnel and statutory civil servants	0,8	1,8
Employer	0,7	4,0
Self-employed	4,0	14,5
Family helper worker	12,7	27,0
Family Structure		

Single without children under 22 years in the residence	4,2	7,0
Single with children between 15 and 22 years in the residence	3,0	8,0
Single with children between 5 and 14 years in the residence	3,8	9,5
Single with children under 5 years in the residence	4,1	12,8
Married without children under 22 years in the residence	2,0	7,9
Married with children between 15 and 22 years in the residence	2,0	9,4
Married with children between 5 and 14 years in the residence	2,3	10,1
Married with children under 5 years in the residence	1,7	12,9
Number of Observations	64.061	49.670

Sample: people aged 18 to 55 in the PNAD (National Household Sample Survey)

Table 2: Probability of a worker leaving the labor market in subsequent quarters while still part of the sample

Dependent variable equals 1 if the worker left the labor market for one of the following reasons: need to take care of housework, children, or other relatives, being a student, health issues, or pregnancy; equals zero otherwise.

Year	2023	2022	2022	2022	2022
Quarter	1	4	3	2	1
Woman	1,465	1,388	1,421	1,545	1,569
Urban area	-0,261	-0,246	-0,215	-0,241	-0,263
Years of education	-0,062	-0,066	-0,067	-0,068	-0,071
Agriculture, livestock, forestry production, fishing, and aquaculture	**0,100**	0,163	0,168	0,215	0,151
General industry, transportation, warehousing, and postal services	-0,266	-0,291	-0,341	-0,257	-0,284
Trade, repair of vehicles	-0,234	-0,231	-0,217	-0,174	-0,172
Information, communication, and financial, real estate, professional, and administrative activities	-0,578	-0,454	-0,568	-0,53	-0,489
Public administration, defense, and social security	-0,929	-0,764	-0,832	-0,967	-0,737
Education, human health, and social services	-0,954	-0,686	-0,802	-0,855	-0,934
Southeast	-0,529	-0,509	-0,504	-0,546	-0,524
South	-0,543	-0,549	-0,571	-0,571	-0,496
Central-West	-0,181	-0,234	-0,153	-0,201	-0,286
Constant	-2,182	-2,123	-2,176	-2,245	-2,204
Number of observations	113.705	116.937	119.414	118.205	109.244

Omitted categories: domestic services, accommodation, food services, construction, and other services; North and Northeast

Estimation: Logit (considering the survey's sampling design)

Significance level of the coefficients: <10% in bold, 10% double underlined, 5% underlined, 1% all others

Sample: people aged 18 to 55 in the PNAD (National Household Sample Survey)

Table 3: Determinants of salaries for men and women in the third quarter of 2023

Dependent variable: usual monthly earnings from all jobs (March 2024 values, in LN)

	Men		Women	
	(A)	(B)	(A)	(B)
Hours usually worked per week in all jobs	0,015	0,015	0,017	0,017
If works part-time or less	-0,381	-0,377	-0,296	-0,292
Non-white	-0,087	-0,089	-0,114	-0,116
Probability of exiting the labor market		-3,261		-1,360
Years of education	0,047	0,038	0,050	0,040
Age	0,042	0,043	0,032	0,033
Age squared	0,000	0,000	0,000	0,000
Years of experience in the current job	0,024	0,024	0,027	0,027
Years of experience in the current job squared	-0,001	-0,001	-0,001	-0,001
Occupation Groups				
Directors and managers (omitted)				
Science professionals and intellectuals	**0,017**	**0,013**	-0,066	-0,079
Technicians and high school level professionals	-0,344	-0,352	-0,364	-0,382
Administrative support workers	-0,650	-0,658	-0,593	-0,606
Service workers, sales workers in commerce and markets	-0,631	-0,641	-0,674	-0,670
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	-0,575	-0,583	-0,765	-0,770
Operators of installations and machinery and assemblers	-0,581	-0,594	-0,605	-0,615
Members of the armed forces, police, and military firefighters	**0,009**	**-0,024**	0,298	0,262
Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers	-0,822	-0,804	-0,716	-0,702
Employment Category				
Employee with no official registration	-0,164	-0,156	-0,195	-0,184
Employer	0,374	0,379	0,386	0,394
Self-employed	-0,162	-0,153	-0,187	-0,173
Public sector	0,233	0,202	0,208	0,175
Location				
Metropolitan area	0,067	0,059	0,126	0,121
North (omitted)				
Northeast	-0,177	-0,177	-0,162	-0,161
Southeast	0,187	0,134	0,163	0,102
South	0,265	0,209	0,229	0,165
Central-West	0,287	0,262	0,205	0,180
Constant	6,052	6,257	5,998	6,272
Number of observations	95.063	95.063	72.894	72.894

The estimate (A) does not include the probability of leaving the labor market; (B) includes it.

The estimates take into consideration the survey's sampling design.

Probability of exiting the labor market: logit regression coefficients, as specified in Table 1, applied to each observation, averaged over the 4 quarters of the previous year.

Significance level of the coefficients: <10% in bold, 10% double underlined, 5% underlined, 1% all others

Sample: people aged 18 to 55 in the PNAD (National Household Sample Survey)

Table 4: Oaxaca-Blinder Decomposition

	(A)	(B)
Earnings of men (in LN)	7,720	7,720
Earnings of women (in LN)	7,527	7,527
Earnings differential	0,194	0,194
Explained differential	-0,031	0,175
Unexplained differential	0,225	**0,018**
Breakdown of the explained difference		
Hours usually worked per week in all jobs	0,059	0,059
If works part-time or less	0,028	0,027
Non-white	-0,003	-0,003
Probability of exiting the labor market		0,192
Years of education	-0,057	-0,047
Age	-0,012	-0,012
Age squared	0,008	0,008
Years of experience in the current job	0,024	0,024
Years of experience in the current job squared	-0,014	-0,014
Occupation Groups		
Directors and managers	0,002	0,002
Science professionals and intellectuals	-0,036	-0,036
Technicians and high school level professionals	-0,001	-0,001
Administrative support workers	0,017	0,017
Service workers, sales workers in commerce and markets	0,031	0,031
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	-0,026	-0,026
Operators of installations and machinery and assemblers	-0,021	-0,022
Members of the armed forces, police, and military firefighters	0,005	0,005
Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers	-0,006	-0,006
Employment Category		
Employee with no official registration	0,010	0,009
Employer	0,006	0,006
Self-employed	-0,012	-0,012
Public sector	-0,019	-0,017
Location		
Metropolitan area	-0,003	-0,002
North	-0,001	-0,001
Northeast	-0,005	-0,004
Southeast	-0,002	-0,001
South	-0,001	-0,001
Central-West	**0,000**	**0,000**
Breakdown of the unexplained difference		
Hours usually worked per week in all jobs	-0,072	-0,077
If works part-time or less	-0,010	-0,010
Non-white	0,015	0,015
Probability of exiting the labor market		-0,165
Years of education	-0,035	**-0,016**

Age	0,362	0,384
Age squared	-0,099	-0,109
Years of experience in the current job	-0,016	-0,016
Years of experience in the current job squared	**0,004**	**0,005**
Occupation Groups		
Directors and managers	**0,000**	**0,000**
Science professionals and intellectuals	0,017	0,018
Technicians and high school level professionals	0,003	0,004
Administrative support workers	-0,006	-0,005
Service workers, sales workers in commerce and markets	0,016	0,011
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	0,009	0,009
Operators of installations and machinery and assemblers	0,001	0,001
Members of the armed forces, police, and military firefighters	-0,001	-0,001
Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers	-0,018	-0,018
Employment Category		
Employee with no official registration	0,008	0,007
Employer	**0,000**	**0,000**
Self-employed	0,005	0,004
Public sector	0,004	0,004
Location		
Metropolitan area	-0,026	-0,028
North	-0,002	-0,002
Northeast	-0,009	-0,009
Southeast	**-0,001**	**0,002**
South	0,002	0,003
Central-West	0,005	0,005
Constant	**0,069**	**0,004**
Number of observations	167.957	167.957

The estimate (A) does not include the probability of leaving the labor market; (B) includes it. The estimate (C) presents the results aggregated by variable categories.

I use the usual monthly earnings from all jobs (March 2024 values, in LN).

The estimates take into consideration the survey's sampling design.

Probability of exiting the labor market: logit regression coefficients, as specified in Table 1, applied to each observation, averaged over the 4 quarters of the previous year.

Significance level of the coefficients: <10% in bold, 10% double underlined, 5% underlined, 1% all others

Sample: people aged 18 to 55 in the PNAD (National Household Sample Survey)

Table 5: First stage regression coefficients, averages, and Oaxaca-Blinder Decomposition

	Regression Coefficients		Averages		Decomposition		Decomposition	
	Men	**Women**	**Men**	**Women**	**Expl.**	**Un expl.**	**Expl.**	**Un-expl.**
Total earnings differential					0,194			
Earnings differential decomposed					0,175	**0,018**		
Hours usually worked per week in all jobs	0,015	0,017	42,186	38,292	0,059	-0,077	0,086	-0,087
If works part-time or less	-0,377	-0,292	0,051	0,123	0,027	-0,010		
Non-white	-0,089	-0,116	0,583	0,551	-0,003	0,015	-0,003	0,015
Probability of exiting the labor market	-3,261	-1,360	0,028	0,087	0,192	-0,165	0,192	-0,165
Years of education	0,038	0,040	11,189	12,405	-0,047	**-0,016**	-0,047	**-0,016**
Age	0,043	0,033	36,345	36,621	-0,012	0,384	0,007	0,263
Age squared	0,000	0,000	1423,02	1441,41	0,008	-0,109		
Years of experience in the current job	0,024	0,027	6,307	5,320	0,024	-0,016		
Years of experience in the current job squared	-0,001	-0,001	99,316	74,454	-0,014	**0,005**		
Occupation Groups								
Directors and managers	omitted		0,037	0,033	0,002	**0,000**	-0,037	0,020
Science professionals and intellectuals	**0,013**	-0,079	0,095	0,183	-0,036	0,018		
Technicians and high school level professionals	-0,352	-0,382	0,088	0,098	-0,001	0,004		
Administrative support workers	-0,658	-0,606	0,062	0,127	0,017	-0,005		
Service workers, sales workers in commerce and markets	-0,641	-0,670	0,162	0,293	0,031	0,011		
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	-0,583	-0,770	0,192	0,045	-0,026	0,009		
Operators of installations and machinery and assemblers	-0,594	-0,615	0,145	0,029	-0,022	0,001		
Members of the armed forces, police, and military firefighters	**-0,024**	0,262	0,015	0,002	0,005	-0,001		
Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers	-0,804	-0,702	0,205	0,190	-0,006	-0,018		
Employment Category								
Employee with no official registration	-0,156	-0,184	0,182	0,242	0,009	0,007	-0,013	0,015
Employer	0,379	0,394	0,045	0,029	0,006	**0,000**		
Self-employed	-0,153	-0,173	0,270	0,193	-0,012	0,004		
Public sector	0,202	0,175	0,074	0,158	-0,017	0,004		
Location								
Metropolitan area	0,059	0,121	0,408	0,446	-0,002	-0,028	-0,010	-0,030
North	omitted		0,085	0,073	-0,001	-0,002		
Northeast	-0,177	-0,161	0,231	0,215	-0,004	-0,009		
Southeast	0,134	0,102	0,439	0,459	-0,001	**0,002**		
South	0,209	0,165	0,157	0,164	-0,001	0,003		
Central-West	0,262	0,180	0,088	0,089	**0,000**	0,005		

Constant	6,257	6,272				**0,004**	**0,004**
Number of observations	95.063	72.894	95.063	72.894	167.957		

I use the usual monthly earnings from all jobs (March 2024 values, in LN).

The estimates take into consideration the survey's sampling design.

Probability of exiting the labor market: logit regression coefficients, as specified in Table 1, applied to each observation, averaged over the 4 quarters of the previous year.

Significance level of the coefficients: <10% in bold, 10% double underlined, 5% underlined, 1% all others

Sample: people aged 18 to 55 in the PNAD (National Household Sample Survey)

Table 6: Correlation matrix between the explanatory variables
Correlations for men above the diagonal; correlations for women below the diagonal

	Hours	Part-time	Non-white	Prob.	Educ.	Age	Exp.	Ocup 1	Ocup 2	Ocup 3	Ocup 4	Ocup 5	Ocup 6	Ocup 7	Ocup 8	Ocup 9	No registr.	Employer	Self-empl.	Public sector	Metro	SE	South	CW	North	NE
Hours	1.00	-0.58	-0.06	-0.14	0.07	0.04	0.04	0.06	-0.03	-0.03	-0.03	0.05	0.00	0.08	0.02	-0.09	-0.12	0.10	-0.07	-0.05	0.02	0.08	0.05	0.02	-0.05	-0.12
Part-time	-0.73	1.00	0.05	0.16	-0.08	-0.02	-0.03	-0.04	0.02	-0.01	-0.02	-0.01	-0.03	-0.04	-0.02	0.09	0.11	-0.03	0.13	-0.01	-0.03	-0.07	-0.04	-0.03	0.04	0.11
Non-white	-0.07	0.06	1.00	0.23	-0.19	-0.04	-0.08	-0.09	-0.13	-0.06	-0.01	0.00	0.05	0.02	0.00	0.11	0.08	-0.07	0.01	-0.02	0.01	-0.09	-0.24	0.05	0.14	0.19
Probability	-0.16	0.20	0.25	1.00	-0.73	0.10	0.07	-0.10	-0.26	-0.17	-0.12	-0.05	0.07	-0.03	-0.11	0.48	0.20	-0.03	0.19	-0.22	-0.23	-0.38	-0.17	0.02	0.22	0.44
Education	0.12	-0.13	-0.18	-0.73	1.00	-0.18	-0.06	0.14	0.37	0.18	0.11	0.03	-0.16	-0.08	0.08	-0.36	-0.13	0.07	-0.14	0.19	0.19	0.13	0.02	0.03	-0.05	-0.15
Age	-0.02	0.01	-0.03	0.08	-0.15	1.00	0.47	0.06	0.02	-0.01	-0.11	0.00	0.04	0.04	-0.02	-0.04	-0.14	0.09	0.14	0.09	0.02	0.03	-0.01	-0.01	-0.02	0.00
Experience	0.05	-0.05	-0.07	-0.04	0.05	0.44	1.00	0.05	0.04	0.01	-0.05	-0.02	0.03	-0.07	0.09	-0.01	-0.17	0.12	0.17	0.10	-0.02	0.01	0.02	-0.02	-0.03	0.01
Occupation 1	0.08	-0.06	-0.08	-0.08	0.12	0.04	0.06	1.00	-0.06	-0.06	-0.05	-0.09	-0.10	-0.08	-0.02	-0.10	-0.03	0.23	-0.12	0.02	0.05	0.03	0.03	0.01	-0.02	-0.05
Occupation 2	-0.01	-0.01	-0.13	-0.39	0.45	0.06	0.12	-0.09	1.00	-0.10	-0.08	-0.14	-0.16	-0.13	-0.04	-0.16	-0.03	0.02	0.00	0.18	0.11	0.06	-0.01	0.00	-0.02	-0.05
Occupation 3	0.02	-0.05	-0.04	-0.20	0.13	-0.03	0.03	-0.06	-0.16	1.00	-0.08	-0.14	-0.15	-0.13	-0.04	-0.16	-0.02	-0.04	-0.06	0.11	0.07	0.04	0.01	-0.01	-0.02	-0.04
Occupation 4	0.06	-0.09	-0.03	-0.15	0.10	-0.15	-0.05	-0.07	-0.18	-0.13	1.00	-0.11	-0.12	-0.11	-0.03	-0.13	-0.02	-0.06	-0.15	0.10	0.04	0.02	0.00	0.01	-0.01	-0.02
Occupation 5	0.05	0.01	0.07	0.22	-0.14	-0.10	-0.10	-0.12	-0.30	-0.21	-0.25	1.00	-0.21	-0.18	-0.05	-0.22	-0.05	0.10	0.01	-0.02	0.05	-0.01	-0.04	0.01	0.00	0.03
Occupation 6	-0.04	0.05	0.02	0.06	-0.08	0.03	0.00	-0.04	-0.10	-0.07	-0.08	-0.14	1.00	-0.20	-0.06	-0.25	-0.04	0.00	0.13	-0.12	-0.05	0.00	0.03	0.01	-0.01	-0.03
Occupation 7	0.04	-0.03	0.01	0.01	-0.07	0.00	-0.02	-0.03	-0.08	-0.06	-0.07	-0.11	-0.04	1.00	-0.05	-0.21	-0.04	-0.08	0.03	-0.05	-0.02	0.01	0.02	0.01	-0.01	-0.02
Occupation 8	0.02	-0.02	0.00	-0.04	0.04	0.00	0.03	-0.01	-0.02	-0.01	-0.02	-0.03	-0.01	-0.01	1.00	-0.06	-0.06	-0.03	-0.07	-0.03	0.05	0.01	-0.01	0.01	0.01	-0.02
Occupation 9	-0.15	0.14	0.12	0.42	-0.45	0.17	-0.01	-0.09	-0.23	-0.16	-0.19	-0.31	-0.11	-0.08	-0.02	1.00	0.19	-0.07	0.05	-0.10	-0.17	-0.10	-0.02	-0.03	0.06	0.12
No registration	-0.23	0.20	0.10	0.23	-0.18	-0.04	-0.18	-0.05	-0.06	-0.02	-0.07	-0.03	-0.08	-0.04	-0.03	0.26	1.00	-0.10	-0.29	0.06	-0.08	-0.10	-0.07	-0.01	0.05	0.15
Employer	0.10	-0.04	-0.06	-0.01	0.07	0.06	0.09	0.23	0.00	-0.04	-0.07	0.06	-0.01	-0.01	-0.01	-0.07	-0.10	1.00	-0.13	-0.06	-0.01	-0.01	0.02	0.02	0.00	-0.02
Self-employed	-0.15	0.19	-0.01	0.17	-0.06	0.05	0.09	-0.09	-0.02	-0.05	-0.18	0.23	0.20	0.03	-0.02	-0.13	-0.28	-0.08	1.00	-0.17	0.00	-0.02	-0.01	-0.02	0.04	0.03
Public sector	-0.02	-0.04	-0.01	-0.34	0.26	0.14	0.20	-0.01	0.30	0.15	0.01	-0.18	-0.09	-0.07	-0.02	-0.13	0.05	-0.07	-0.21	1.00	-0.01	-0.05	-0.04	0.01	0.04	0.05
Metropolitan	0.04	-0.05	0.03	-0.11	0.11	0.03	-0.02	0.03	0.07	0.04	0.02	-0.01	-0.03	-0.04	0.02	-0.09	-0.05	-0.01	0.01	-0.07	1.00	0.10	-0.10	0.03	0.00	-0.05
Southeast	0.06	-0.08	-0.08	-0.33	0.05	0.02	0.00	0.03	0.04	0.03	0.01	-0.03	0.00	-0.01	0.01	-0.04	-0.07	-0.01	-0.03	-0.08	0.09	1.00	-0.38	-0.27	-0.27	-0.48
South	0.04	-0.03	-0.24	-0.15	0.00	-0.02	0.01	0.00	-0.01	0.01	0.00	-0.04	0.03	0.05	-0.01	0.01	-0.08	0.02	-0.01	-0.03	-0.12	-0.41	1.00	-0.13	-0.13	-0.24
Central-West	0.01	-0.02	0.05	0.06	0.02	-0.02	-0.02	0.00	0.00	-0.01	0.02	0.01	-0.01	-0.01	0.00	0.00	-0.01	0.01	-0.02	0.01	0.03	-0.29	-0.14	1.00	-0.09	-0.17
North	-0.04	0.04	0.13	0.19	-0.02	0.00	-0.02	-0.01	-0.01	-0.02	-0.02	0.03	0.00	-0.02	0.01	0.01	0.05	0.01	0.03	0.05	0.01	-0.26	-0.12	-0.09	1.00	-0.17
Northeast	-0.10	0.11	0.20	0.38	-0.06	0.00	0.02	-0.03	-0.03	-0.02	-0.02	0.05	-0.02	-0.01	-0.01	0.03	0.13	-0.02	0.03	0.08	-0.03	-0.48	-0.23	-0.16	-0.15	1.00

Sample: people aged 18 to 55 in the PNAD (National Household Sample Survey). Note: Occupation 1: Directors and managers; Occupation 2: Scientists and intellectuals; Occupation 3: high school level professionals; Occupation 4: Administrative support; Occupation 5: Service workers and sales workers; Occupation 6: Skilled workers, craftsmen, and artisans in construction, mechanical arts, etc.; Occupation 7: Operators of machines and assemblers; Occupation 8: Armed forces, police, and firefighters; Occupation 9: Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers.

Table 7: Determinants of salaries for men and women in the third quarter of 2023 for a Heckman sample selection model
Dependent variable: usual monthly earnings from all jobs (March 2024 values, in LN)

	Men		Women	
	(A)	(B)	(A)	(B)
Hours usually worked per week in all jobs	0,015	0,015	0,017	0,017
If works part-time or less	-0,372	-0,369	-0,291	-0,292
Non-white	-0,088	-0,090	-0,115	-0,116
Probability of exiting the labor market		-2,799		-1,388
Years of education	0,041	0,034	0,037	0,041
Age	0,025	0,027	0,022	0,034
Age squared	0,000	0,000	0,000	0,000
Years of experience in the current job	0,024	0,024	0,027	0,027
Years of experience in the current job squared	-0,001	-0,001	-0,001	-0,001
Occupation Groups				
Directors and managers (omitted)				
Science professionals and intellectuals	**0,018**	**0,016**	-0,067	-0,079
Technicians and high school level professionals	-0,348	-0,355	-0,371	-0,382
Administrative support workers	-0,651	-0,658	-0,601	-0,606
Service workers, sales workers in commerce and markets	-0,636	-0,644	-0,683	-0,669
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	-0,584	-0,590	-0,772	-0,770
Operators of installations and machinery and assemblers	-0,590	-0,600	-0,612	-0,615
Members of the armed forces, police, and military firefighters	**0,002**	**-0,025**	0,299	0,261
Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers	-0,820	-0,805	-0,719	-0,701
Employment Category				
Employee with no official registration	-0,158	-0,152	-0,193	-0,184
Employer	0,378	0,382	0,396	0,394
Self-employed	-0,157	-0,150	-0,178	-0,173
Public sector	0,236	0,210	0,215	0,174
Location				
Metropolitan area	0,066	0,060	0,120	0,122
North (omitted)				
Northeast	-0,178	-0,177	-0,161	-0,161
Southeast	0,188	0,142	0,160	0,101
South	0,264	0,216	0,229	0,164
Central-West	0,286	0,265	0,203	0,179
Constant	6,532	6,693	6,501	6,238
Selection model				
18-22 years old	-0,444	-0,445	-0,403	-0,412
23-28 years old (omitted)				
29-35 years old	0,177	0,176	0,175	0,177
36-43 years old	0,198	0,197	0,223	0,231

44-55 years old	0,074	0,073	0,126	0,127
Urban Area	0,217	0,199	0,532	0,500
Years of education	0,057	0,057	0,092	0,094
Single with children under 5 years in the residence	**0,261**	**0,260**	-0,324	-0,319
Married without children under 5 years in the residence	0,628	0,629	**0,003**	-0,025
Married with children under 5 years in the residence	0,731	0,731	-0,344	-0,400
Constant	-0,235	-0,222	-1,279	-1,255
Number of observations	121.957	121.957	131.530	131.530

The estimates use the Heckman procedure for sample selection.

The estimate (A) does not include the probability of leaving the labor market; (B) includes it.

The estimates take into consideration the survey's sampling design.

Probability of exiting the labor market: logit regression coefficients, as specified in Table 1, applied to each observation, averaged over the 4 quarters of the previous year.

Significance level of the coefficients: <10% in bold, 10% double underlined, 5% underlined, 1% all others

Sample: people aged 18 to 55 in the PNAD (National Household Sample Survey)

Table 8: Oaxaca-Blinder Decomposition and a Heckman sample selection model

	(A)	(B)
Earnings of men (in LN)	7,797	7,795
Earnings of women (in LN)	7,655	7,516
Earnings differential	0,142	0,278
Explained differential	-0,026	0,151
Unexplained differential	0,168	0,127
Breakdown of the explained difference		
Hours usually worked per week in all jobs	0,059	0,058
If works part-time or less	0,027	0,027
Non-white	-0,003	-0,003
Probability of exiting the labor market		0,165
Years of education	-0,050	-0,041
Age	-0,007	-0,007
Age squared	0,004	0,005
Years of experience in the current job	0,023	0,024
Years of experience in the current job squared	-0,014	-0,013
Occupation Groups		
Directors and managers	0,002	0,002
Science professionals and intellectuals	-0,037	-0,037
Technicians and high school level professionals	-0,001	-0,001
Administrative support workers	0,016	0,016
Service workers, sales workers in commerce and markets	0,031	0,031
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	-0,027	-0,027
Operators of installations and machinery and assemblers	-0,022	-0,022
Members of the armed forces, police, and military firefighters	0,005	0,005
Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers	-0,006	-0,006
Employment Category		
Employee with no official registration	0,009	0,009
Employer	0,006	0,006
Self-employed	-0,012	-0,012
Public sector	-0,020	-0,018
Location		
Metropolitan area	-0,003	-0,002
North	-0,001	-0,001
Northeast	-0,005	-0,004
Southeast	-0,002	-0,001
South	-0,001	-0,001
Central-West	**0,000**	**0,000**
Breakdown of the unexplained difference		
Hours usually worked per week in all jobs	-0,077	-0,081
If works part-time or less	-0,010	-0,009
Non-white	0,015	0,014
Probability of exiting the labor market		-0,122
Years of education	**0,052**	-0,083

Age	**0,115**	-0,261
Age squared	**0,027**	0,196
Years of experience in the current job	-0,018	-0,017
Years of experience in the current job squared	**0,005**	**0,005**
Occupation Groups		
Directors and managers	**0,000**	**0,000**
Science professionals and intellectuals	0,017	0,019
Technicians and high school level professionals	0,003	0,004
Administrative support workers	-0,005	-0,005
Service workers, sales workers in commerce and markets	0,016	0,011
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	0,009	0,009
Operators of installations and machinery and assemblers	0,001	**0,001**
Members of the armed forces, police, and military firefighters	-0,001	-0,001
Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers	-0,017	-0,018
Employment Category		
Employee with no official registration	0,008	0,008
Employer	**-0,001**	**0,000**
Self-employed	**0,004**	0,005
Public sector	**0,003**	0,006
Location		
Metropolitan area	-0,024	-0,028
North	-0,002	-0,002
Northeast	-0,009	-0,010
Southeast	**0,001**	**0,004**
South	**0,001**	0,003
Central-West	0,005	0,005
Constant	**0,047**	0,477
Number of observations	253.487	253.487

The estimate (A) does not include the probability of leaving the labor market; (B) includes it.

I use the usual monthly earnings from all jobs (March 2024 values, in LN).

The estimates take into consideration the survey's sampling design.

Probability of exiting the labor market: logit regression coefficients, as specified in Table 1, applied to each observation, averaged over the 4 quarters of the previous year.

Significance level of the coefficients: <10% in bold, 10% double underlined, 5% underlined, 1% all others

Sample: people aged 18 to 55 in the PNAD (National Household Sample Survey)

Table 9: Oaxaca-Blinder Decomposition for the 1st Quintile of the Income Distribution

	(A)	(B)
Earnings of men (in LN)	7,286	7,286
Earnings of women (in LN)	7,194	7,194
Earnings differential	0,092	0,092
Composition effect	0,010	0,325
Structure effect	0,082	-0,234
Breakdown of the composition effect		
Hours usually worked per week in all jobs	0,021	0,020
If works part-time or less	0,015	0,014
Non-white	0,000	0,000
Probability of exiting the labor market		0,294
Years of education	-0,015	0,001
Age	-0,004	-0,005
Age squared	0,003	0,003
Years of experience in the current job	0,003	0,003
Years of experience in the current job squared	-0,003	-0,003
Occupation Groups		
Directors and managers (omitted)		
Science professionals and intellectuals	-0,005	-0,004
Technicians and high school level professionals	0,000	0,000
Administrative support workers	**0,000**	0,001
Service workers, sales workers in commerce and markets	**0,000**	0,002
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	0,004	0,002
Operators of installations and machinery and assemblers	0,002	**0,000**
Members of the armed forces, police, and military firefighters	0,000	0,000
Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers	-0,001	-0,001
Employment Category		
Employee with no official registration	0,014	0,013
Employer	-0,001	-0,001
Self-employed	-0,015	-0,014
Public sector	-0,004	**0,000**
Location		
Metropolitan area	0,000	**0,000**
North (omitted)		
Northeast	-0,001	-0,001
Southeast	-0,002	0,000
South	-0,001	0,000
Central-West	**0,000**	**0,000**
Breakdown of the structure effect		
Hours usually worked per week in all jobs	-0,102	-0,110
If works part-time or less	**0,004**	**0,004**
Non-white	0,009	0,009
Probability of exiting the labor market		-0,218
Years of education	-0,085	**-0,018**

Age	**-0,107**	**-0,085**
Age squared	0,065	**0,056**
Years of experience in the current job	-0,013	-0,014
Years of experience in the current job squared	0,007	0,007
Occupation Groups		
Directors and managers (omitted)		
Science professionals and intellectuals	**-0,003**	**0,000**
Technicians and high school level professionals	**-0,001**	**0,001**
Administrative support workers	**-0,002**	**0,000**
Service workers, sales workers in commerce and markets	0,008	**0,002**
Skilled workers, craftsmen, and artisans in construction, mechanical arts, and other trades	0,005	0,005
Operators of installations and machinery and assemblers	**0,000**	**0,000**
Members of the armed forces, police, and military firefighters	0,000	0,000
Elementary occupations and skilled agricultural, forestry, hunting, and fishing workers	-0,011	-0,010
Employment Category		
Employee with no official registration	0,019	0,017
Employer	**0,000**	**0,000**
Self-employed	0,017	0,015
Public sector	-0,005	-0,002
Location		
Metropolitan area	**0,000**	**-0,003**
North (omitted)		
Northeast	-0,005	-0,005
Southeast	0,018	0,031
South	0,006	0,011
Central-West	0,003	0,004
Constant	0,254	**0,070**
Number of observations	167.957	167.957

The estimate (A) does not include the probability of leaving the labor market; (B) includes it.

I use the usual monthly earnings from all jobs (March 2024 values, in LN).

I use the procedure specified in Firpo, Fortin, and Lemieux (2009 and 2018) and Rios-Avila (2020) for Recentered Influence Functions (RIF), along with bootstrap standard errors for complex samples.
Probability of exiting the labor market: logit regression coefficients, as specified in Table 1, applied to each observation, averaged over the 4 quarters of the previous year.

Significance level of the coefficients: <10% in bold, 10% double underlined, 5% underlined, 1% all others

Sample: people aged 18 to 55 in the PNAD (National Household Sample Survey)