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Héctor Alberto Botello-Peñaloza**

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Abstract

This article aims to compare how gender wage differences among Colombian workers have changed before and during the coronavirus pandemic. The parametric breakdown of Oaxaca-Blinder is performed based on microdata from the 2020 Large Integrated Household Survey and compared with the 2019 results. Among the results, the differential in hourly labor income against women has increased to 16% in 2020 versus 4% in 2019, especially in the lower part of the distribution. For both years and all income levels, most of the contribution to the gap is due to the unexplained part associated with discrimination. However, this effect is counterbalanced by women's contributions, which are highly concentrated in the upper-income brackets.

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Cómo la pandemia del coronavirus ha afectado la desigualdad salarial de género en Colombia

Resumen

El objetivo de este artículo es comparar cómo han cambiado las diferencias salariales entre los trabajadores colombianos antes y durante la pandemia de coronavirus. El desglose paramétrico de Oaxaca-Blinder se realiza utilizando la Gran Encuesta Integrada de Hogares de 2020 y se compara con los resultados de 2019. Entre los resultados, el diferencial en los ingresos por hora de trabajo contra las mujeres ha aumentado al 16% en 2020 frente al 4% en 2019, especialmente en la parte inferior de la distribución. Para ambos años y todos los niveles de ingresos, la mayor parte de la contribución a la diferencia se debe a la parte inexplicable asociada a la discriminación. Sin embargo, este efecto es contrarrestado por las contribuciones de las mujeres, que se concentran en gran medida en los tramos de ingresos superiores.

Palabras clave

Mercado de trabajo; Discriminación; Capital humano; Género; Brechas salariales; Regresión cuántica

Introduction

The coronavirus pandemic since early 2020 is a global public health emergency. This has led to an international economic crisis that could surpass any other in the recent millennium. The virus' widespread contagiousness has required the use of complex epidemiological models to predict the course of the epidemic (Gao et al., 2020). It has also prompted the implementation of containment and mitigation measures to limit the spread of the virus and save lives (Hsiang et al., 2020). However, the economic costs have led to a big drop in economic activity. The covid-19 pandemic affected people in the labor market in some different ways (Blundell et al., 2020).

According to Cuesta & Pico (2020), the impact could be greater in developing countries because their health systems have fewer resources, shallower financial markets, limited fiscal capacity, and weaker institutional management. One such country is Colombia, where the presence of wage differences for workers with similar characteristics has shown the shortcomings of societies on the road to equal opportunity. In fact, the evidence found shows that women's incomes have been persistently below those of men. Even when they share similar labor background

and characteristics (among others see Hoyos et al., 2010; Romero, 2007; Peña & Wills, 2010; Rojas-Hayes, 2008).

According to some authors, the persistence of these differences reflects the ineffectiveness of anti-discrimination policies. Hsieh et al. (2019) expose how these barriers to development within the labor market can lead to considerable loss of productivity and wealth. The challenge, then, has been to provide robust and reliable estimates of these gaps. Consequently, the economic literature has found significant wage gaps among a wide group of workers in Colombia.

Given that the Covid-19 pandemic altered the organization of society worldwide. This study contributes to the growing body of knowledge regarding the labor market and gender inequality effects of Covid-19 closures. The purpose of this paper is to conduct this study on Colombia's labor market, one of the most unequal in the world, and to demonstrate if pay differentials have been transformed as a result of quarantine and reduced economic activity. This study is one of a growing number that has gathered extensive and representative survey data during the confinement period beginning in March 2020. One of the article's strengths is that we are gathering parallel data on conventional labor market factors both before and after the pandemic.

I estimate, using a parametric decomposition of Oaxaca-Blinder, 2020 versus 2019 wages based on the Large Integrated Household Survey. This survey provides valuable microdata with labor and socioeconomic information that allows for the separation of stakeholders. Among the findings, it could be notable that the pandemic mitigation activities resulted in a decrease in the total number of employed workers, an increase in unemployment, and a rise in the economically inactive population. The latter is particularly focused on domestic chores. The wage disparity between men and women has climbed to 16% in 2020, up from 4% in 2019. Particularly at the low end of the distribution. For both years and all income levels, most of the contribution to the gap is due to the unexplained part associated with discrimination. However, this effect is counterbalanced by women's allocations. Especially in the upper-income brackets. Education levels are the main contributor to this gap.

The remainder of the document is organized in the following manner to accomplish this purpose. The second half of this article is devoted to a review of the literature. It briefly discusses the methodology used to construct the work for this study period and the dissection of the salary differences. The methodology section discusses the data and the definition of the implemented model. The estimated

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findings are then analyzed. The fourth section contains the findings, where it is desired to determine whether the gross wage disparity between the analysis groups has changed considerably over the examined period. Following that, decomposition techniques are used to quantify the salary gaps explained and unexplained components. A parametric technique is used to approximate this calculation. Finally, the conclusion is offered, along with some policy implications arising from the obtained data.

Literature review

Although a certain group of economics literature has found that the gender gap has been slowly improving (Campbell & Pearlman, 2013; Reynolds & Wenger, 2012). In countries such as Colombia, gender inequality has been persistent across different methodologies and time frames (Gelves, 2011; Cortés & Flórez, 2016; Atal et al., 2009) even though there have been improvements in the numbers of women workers. For example, women surpassed men in percentage terms in university studies (Peña, 2006) and by sector, the fraction of women in the industry sector increased from 29% to 37%. On average, the average wage gap is 13%. But the differences are divided according to the distribution that is analyzed. Badel and Peña (2010) and Tenjo et al. (2004) find that the wage gap is greater at the extremes of distribution, a result that is comparable to that found in other countries.

Regarding the salary differences in professionals in Colombia Cepeda and Barón (2012) using administrative records where the work trajectory of young professionals can be seen, show three facts. First, women obtain 10% lower salaries compared to men from the first moment they enter the labor market. Additionally, the career path that women study explains between 34% and 41% of the salary gap. Third, the wage gap widens at the top of the distribution, reaching 15%.

Within the epidemic setting, researchers have endeavored to determine how this contributes to rising inequality and poverty. Social confinement and alienation have been shown to have gender-specific consequences on mental health. For instance, depression has a disproportionate effect on women (Etheridge & Spantig, 2020; Beland et al., 2020) Meanwhile, there is conflicting information regarding the rise in domestic violence (Brülhart & Lalive, 2020).

The evidence is stacked against women in terms of time spent on household duties. Farré et al. (2020) discovered that men increased their involvement in child-

care and household duties during confinement in Spain, but the increase was small. Women remained disproportionately burdened. The strain has also increased as a result of the additional component of educational institutions abruptly ceasing to provide childcare. The evidence in the United States and the United Kingdom supports the same conclusion (Alon et al., 2020; Sevilla & Smith, 2020; Landivar et al., 2020; Power, 2020). This scenario demonstrates that, in the short term, the pandemic's timing appears to have perpetuated gender inequities in paid and unpaid employment.

An innovation in inequality studies is the use of real-time data. Adams-Prassl et al. (2020) use geographically representative samples from the United States, the United Kingdom, and Germany. This allows them to show, through samples that workers in occupations that cannot be done from home were more likely to lose their jobs or reduce their income. These jobs tend to be filled mostly by low-skilled personnel and women. Foucault & Galasso (2020) use real-time survey data for representative samples from 12 countries. They found that low-income people with lower levels of education were less likely to be able to work remotely and more often did not work at all. In the same vein, Farré et al. (2020) realized that the probability of working from home during confinement was higher for women.

> "While some people were suspended from work, others saw considerable decreases in their hours worked as a result of limitations. This would have a detrimental effect on wage income".

Additionally, while some people were suspended from work, others saw considerable decreases in their hours worked as a result of limitations. This would have a detrimental effect on wage income Collins et al. (2020) discovered that moms of children under the age of 13 experienced a fivefold drop in work hours compared to fathers during the peak of COVID-19. According to the authors, this difference in variation is related to increased demands for child care and domestic tasks. Even among those able to work remotely

This body of research demonstrates that the epidemic has exacerbated women's gender inequalities. These could be unintended repercussions of the government's efforts to contain the pandemic's spread. As a result, the next section discusses the context of such measures in Colombia.

Methodology

Data

I used microdata from the June 2019 and 2020 Large Household Survey to compare workers' situations. The data is posted on the National Department of Statistics website. The Personal, Occupational, and Labor Force Characteristics modules are used to group the characteristics needed to identify workers and their labor income.

The composition of the population analyzed is shown in Table 1. In June 2020, 13 million workers were analyzed compared to 18 million a year earlier. There has been a decrease in the overall participation rate from 50% in 2019 to 37% in 2020. Men's participation was the one with the greatest decrease, going from 66% to 51%; while women's participation varied from 34% to 24%. In the case of employment rates, women also showed the same behavior.

Table 1. The composition of the population analyzed

Category	Subcategory	Activity	2019	2020	Variation
Working age population	Economically active population	Working	18,466,354	13,153,526	-29%
		Looking for a job	1,065,097	1,580,352	48%
	Economically Inactive Population	Studying	6,205,008	6,152,790	-1%
		Household Professions	9,285,082	13,572,201	46%
		Permanently disabled	494,707	687,186	39%
		Other activity	3,818,387	4,688,368	23%
Underage to work			9,555,027	9,571,538	0%
Total population			48,889,662	49,405,961	1%

Source: Own work based on DANE (2019, 2020).

For the analysis of 2020, the distribution by gender of employed workers by gender and educational level is shown in Table 2. There were 8.7 million male workers and 4.2 million female workers. In terms of labor market participation, it can be seen that the rural population participates less than the urban population for both men and women. Similarly, the participation rate for men is higher than that of women. In terms of education, the proportion of workers with primary education in the rural sector is significantly higher than in the urban sector. Similarly, in the

urban sector, 74% of employed persons have a high school or university education, compared to 32% in the rural sector.

Table 2. The composition of the population analyzed in June 2020

	Male		Female	
Level	Urban	Rural	Urban	Rural
None	2.44%	11.31%	0.54%	8.17%
Basic Primary (1o - 5o)	15.87%	45.11%	8.97%	31.23%
Basic Secondary (6th - 9th)	11.64%	15.35%	6.32%	11.93%
Average (10o - 13o)	36.58%	22.31%	31.65%	29.22%
Superior or university	33.47%	5.93%	52.51%	19.44%
Total (Number)	6,164,538	2,690,598	3,774,190	524,200

Source: Own work based on DANE (2019, 2020).

In terms of hourly wage income, Figure 1 shows the distributions for employed workers for June 2019 and 2020. It can be seen that in 2020 the distribution of income has shifted to the left. That is to say, on average the salary distribution has been reduced.

Figure 1. Distribution of labor income per hour in June 2020
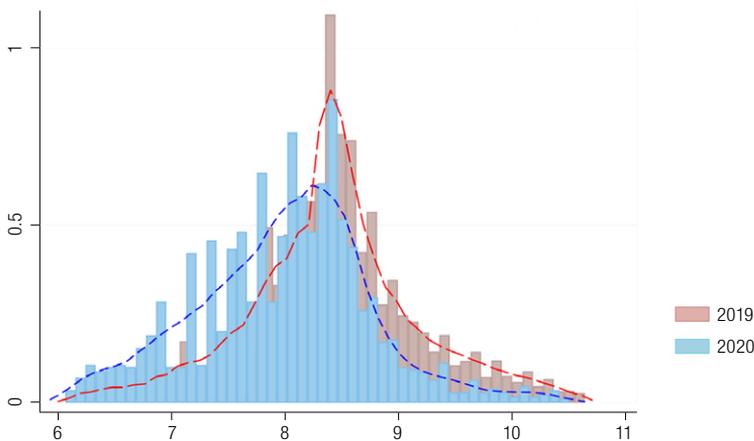
Source: Own work based on DANE (2019, 2020).

Model

Economists divide gender wage disparity into two components: one that can be explained by normal personal and employment factors revealed in survey data (such as age, experience, educational attainment, and industry), and another that goes unexplained (reflecting gender differences in unobserved traits and returns to characteristics) (Goraus & Tyrowicz, 2014). Blinder (1973) uses the decomposition estimators of the parameters of the wage equation in parametric form. This is a methodology frequently used for the study of wage income by decomposing the mean logarithmic deviations of wages in a counterfactual way among the different control populations. This method is commonly known as the Oaxaca-Blinder (B-O) decomposition, carried out by Blinder (1973) and Oaxaca (1973) which divides the effect given by the groups, in this way: the first part is the characteristics of the workers' endowment, such as education and experience, and the second part is the residue attributed to the control characteristics between the groups, such as sex or race.

In the first instance, a continuous variable should be chosen as a dependent (Y) and a series of predictors (X) that can be categorical or continuous. The base equation for this work will be the same one analyzed by Mincer (1974). Where the dependent variable is the worker's hourly wage and the independent components are characteristic of the worker and the firm, which will be discussed in detail in the upcoming section. Similarly, control groups are taken in this study. For this review, the logarithm of wages is the variable to study, the vector of independent variables is those related to human capital, and the control variable is sex and race (Romero, 2007). These considerations are introduced into a type of equation:

$$Y_i = X_i{}' \beta_i + u_i \mid E(u_i = 0) \mid i \in \lfloor A, B \rfloor \tag{2}$$

With A and B being the groups to control. The difference is expected to be within the expected value of the wages.

$$R = E(Y_A) - E(Y_B) \tag{3}$$

If you replace 1 in 2 and assume $E(u_i = 0)$:

$$R = E(X_A)' \beta_A - E(X_B)' \beta_B \tag{4}$$

To understand all the effects that can be extracted from the above equation, we can perform the algebraic decomposition exposed by Daymont and Andrisani (1984)[1]:

$$R = [E(X_A) - E(X_B)]'\beta_A + [E(X_A)'(\beta_A - \beta_B)] + [E(X_A) - E(X_B)]'(\beta_A - \beta_B) \quad (5)$$

These three terms make up the effects of possible interactions between coefficients, variables, and expected income values. Equation five can be summarized as an equation representing a "three-fold" decomposition. The first term relates to the parts of the differentials attributable to endowment effects, such as human capital, experience, and firm characteristics. The second measure referred to the coefficients according to the comparison groups. In general, these are considered to be the ones that originated from the control characteristic, for this revision it would be the salary discrimination by gender and ethnicity. The last one operates on the interactions between the two terms mentioned above.

The estimation procedure is carried out by using ordinary least squares - MCO, by obtaining separately the expected values of labor income. Then, the expected value is calculated if each of the groups had the characteristics of the other. At this point, it should be mentioned that within the economically active population, women's participation is not comparable to that of men. A correction must be made to the sample selection. Their approach uses the two-stage sample selection correction procedure based on Heckman (1979). It calculates a probability equation for the individual's labor participation based on the socio-economic characteristics that motivate this decision. In this work, it included childbearing, the area where the household is located, and if married. This part of the existence of a set of coefficients that are not discriminatory, but at the same time is key to finding differences in predictors. Suppose that β^* is a hypothetical coefficient that can be replaced in equation (5) as follows:

$$R = [E(X_A) - E(X_B)]'\beta^* + [E(X_A)'(\beta_A - \beta^*)] + [E(X_A) - E(X_B)]'(\beta_A - \beta^*) \quad (6)$$

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[1] For further elaboration of the mathematical explanation, see Daymont & Andrisani (1984, p 6).

From equation (6) two effects can be extracted, the first part is the part of the inequality that is explained by the differences in the predictors. The second effect is the union of the last two terms:

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$$U = [E(X_A)'(\beta_A - \beta^*)] + [E(X_A) - E(X_B)]'(\beta_A - \beta^*) \tag{7}$$

This refers to the part not explained by the predictors, which is often attributed to discrimination. However, it also captures the effect of unspecified variables within the model. The procedure for this second decomposition is more complex, since the calculation on the hypothetical beta must be done. An assumption to consider is made by Oaxaca (1973) who takes $\beta_A = \beta^*$ and $\beta_B = \beta^*$. In other words, the groups are interspersed, group A would be ethnic and group B would be non-ethnic. Another assumption, which also comes from Oaxaca (1973), is to think that there is discrimination in one way, that is, only people who belong to an ethnic group that presents itself as discriminated against. About the equation (7):

$$R = [\overline{X_A} - \overline{X_B}]'\hat{\beta}_A + X'_B(\hat{\beta}_A - \hat{\beta}_B) \tag{8}$$

But there is no reason to assume initially that there is discrimination against any particular group. In setting up β^* as a weighted sum, Cotton (1988) postulates as examples are:

$$\beta^* = \frac{n_A}{n_A + n_B}\hat{\beta}_A + \frac{n_B}{n_A + n_B}\hat{\beta}_B \tag{7}$$

$$\beta^* = 0.5\hat{\beta}_A + 0.5\hat{\beta}_B \tag{8}$$

Observing the different methodologies, the weights given by the original size of the groups, shown in equation (6), were used for this work.

Determinants of Labor Income Inequalities

The objective of this section is to explain the relevance of the variables included within the wage-decomposition equation. In Colombia, empirical studies have shown that income is significantly divided by gender (Ortiz et al., 2007). Likewise,

this variable has a positive and significant impact on worker productivity since these plants can achieve economies of scale easily. According to Hoyos et al. (2010) the omission of this variable biases the impacts of the endowment on wage income upwards. Similarly, the firm's productivity may be influenced by the geographical context where it is installed. A larger ecosystem of suppliers, demanders, and providers of its services will bring greater business possibilities; and therefore may show higher salaries. This is how the capital variable is put into the Mincerian equation.

For Fernandez (2006) there are family factors that function as signs of the worker's commitment within the labor market. For example, Becker (1985) asserts that women bear a greater duty for child care and that their presence at home compels them to work fewer hours. In this way, childcare is crucial in Latin America's empirical evidence for both, selection bias correction and the Mincerian equation of women's salaries (Botello & López, 2014). Employers can appreciate an individual's marital status as a sign of responsibility and commitment because, it indicates accountability for home roles. Alvarado (2005) discovers evidence that employers in Colombia's labor market statistically discriminate against married or unionized workers. Despite the inclusion of these variables in the model, it was not possible to include additional variables that have been suggested to be relevant in the research and would allow for the most accurate estimation of the salary gap. For instance, the workers' physical attributes (Botello & Guerrero, 2017) and abilities.

Results

During the detailed period it is shown how unemployment has increased for all rural and urban areas (figure 2). National unemployment has doubled to 20% in June 2020 compared to the same period last year. Urban areas suffer from the highest unemployment with 22% while rural areas exceed 10%.

Figure 2. Unemployment rate by area in Colombia. Moving Quarter January 2017- June 2020.
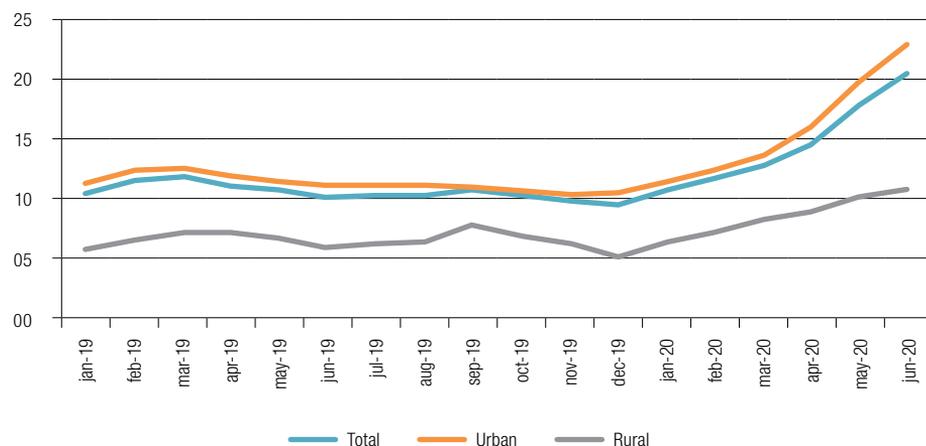
Source: Own work based on DANE (2019, 2020).

Table 3 shows the number of hours worked per week in the main job of Co-lombian workers in the formal and informal sectors. All types of occupations and genders had an average decrease of 5% in their hours worked. Women were the most affected in both the formal and informal sectors as they decreased between 2019 and 2020, 3 working hours per week.

Table 3. Hours worked per week by type of occupation, gender and year in Colombia May of each year

Occupation	Formal		Informal	
	2019	2020	2019	2020
Private Employee	45.09	42.76	46.84	43.29
Government employee	35.83	34.90	-	-
Self Employed Account	35.97	32.76	35.90	32.89
Employer	44.41	44.00	44.14	39.32
By gender				
Men	44.88	42.26	41.62	39.04
Women	38.59	35.37	27.62	25.59

Source: Own work based on DANE (2019, 2020).

However, these changes in unemployment rates and hours must be considered owning to the variations in the numbers of the economically active and inactive population. According to Table 1, between June 2019 and 2020, the active population decreased by 21% and the economically inactive population increased by 45%. The former stood at 9.9 million people and the latter rose to 9.5 million. In terms of interpretation, the total working-age population did not change significantly overall (+1% or 246,000 people), meaning that the changes seen in the graph mean that more of the economically active population became part of the inactive population due to the pandemic.

According to the microdata from the DANE Household Survey shown in Table 4, the largest proportion of the employed population was relocated to home-based activities with an increase of 4.2 million people (46%) followed by other activities with 869,000 (23%). In the case of people looking for work, these increased by 48% with 515 thousand. Within the concept of other activities, half of the individuals included that they had stayed in their homes and kept the quarantine.

However, changes in workers' activities during the pandemic differed significantly by sex. For example, the female working population declined by 2.2 million, or 34%, between June 2019 and 2020; while the male working population declined by 25%, or 3 million. Women have moved into the category of household occupations (+2.7 million). However, within this line, the male population also increased (196%) from 811 thousand in 2019 to 2.4 million in 2020. Finally, the rest of the male working population that stopped working moved to other activities, which added 328,000 people to this line. Within the concept of other activities, half of the individuals included that they had stayed home from quarantine.

> "Changes in workers' activities during the pandemic differed significantly by sex. For example, the female working population declined by 2.2 million, or 34%, between June 2019 and 2020; while the male working population declined by 25%, or 3 million".

Table 4. Number of people by PET activities in Colombia June of each year

Activity	Men			Women		
	2,019	2,020	Variation	2,019	2,020	Variation
Working	11,900,000	8,855,136	-3,044,864	6,517,760	4,298,390	-2,219,370
Looking for a job	723,871	1,073,959	350,088	341,226	506,393	165,167
Studying	3,270,266	3,290,062	19,796	2,934,742	2,862,728	-72,014
Household Professions	811,853	2,407,876	1,596,023	8,473,229	11,200,000	2,726,771
Permanently unable to work	267,291	353,634	86,343	227,416	333,552	106,136
Other activity	2,215,329	3,502,994	1,287,665	1,603,058	1,185,374	-417,684

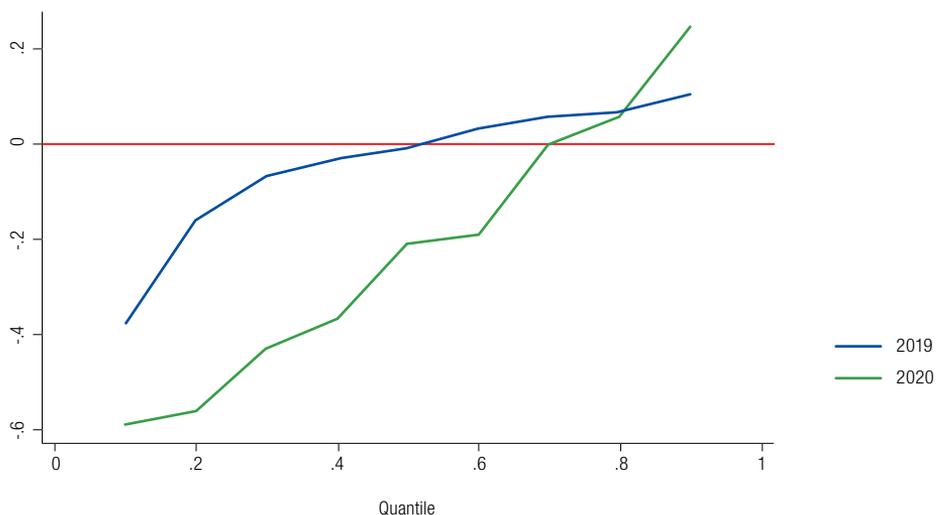Source: Own work based on DANE (2019, 2020).

The results at this level coincide with those achieved by Coibion et al. (2020) and Lemieux et al. (2020) in North America and Canada. In summary, there has been a significant increase in unemployment that has been tempered by the shift from the active to the inactive population, especially in the aspect of home care by women. In the remaining part of the employed population, there has been a reduction in the number of hours worked.

Income Inequality

Figure 3 shows gross gender wage differentials by gender quantum for June 2019 and 2020. It shows that there is an average gap of 4% by 2019 against women. With a higher differential for the lower part of the distribution. Towards the lower part, the differences are greater than 35%; in the upper part, women have a positive differential. However, at the upper extremes the differential is positive or not significant for women. In 2020, the average differential increased to 16%, with a rise in the lower parts of the distribution (60%).

These gross differences are decomposed by using the Oaxaca-Blinder parametric decomposition model. Based on the above, considering as a dependent variable the hourly labor income of the workers, Table 5 shows the results of the decomposition.

Figure 3. Gender wage differentials by income quintiles. June of each year.

Source: Own work based on DANE (2019, 2020).

Table 5. Salary decomposition of Oaxaca Blinder by year. Standard errors in parentheses

| Differential	2019	2020
Log (Salary_hora)_Men	8.4285*	8.0379*
	(0.0062)	(0.019)
Log (Salary_hora)_Women	8.3810*	7.8734*
	(0.0079)	(0.0412)
Differential	0.0475*	0.1645*
	(0.01)	(0.0453)
Explained	-0.0882*	-0.0003
	(0.007)	(0.038)
Unexplained	0.1357*	0.1649*
	(0.0089)	(0.0425)

* Significant at 1%

Note: Data is only taken from June of each year.

Source: Own work based on DANE (2019, 2020).

There is a difference in the hourly labor income against women of 16% in 2020 versus 4% in 2019. A significant increase of 12%[2] by reaching a level of rejection of the null hypothesis of 1%. For both years, most of the contribution to the gap is from the unexplained part associated with discrimination. In 2019, the contribution was 13% and in 2020 it was 16 %. From the point of view of the unexplained component, Figure 3 shows the contributions of the variations of each of the observable and non-observable components. Most of the differential is caused by the non-included variables (-52%). The variables introduced in the model contribute a positive variation of 34% of the unexplained part. Aspects such as age, size of the firm and branches of activity had the greatest positive contribution.

Figure 4. Decomposition of the unexplained part of the gender wage gap. June 2020.
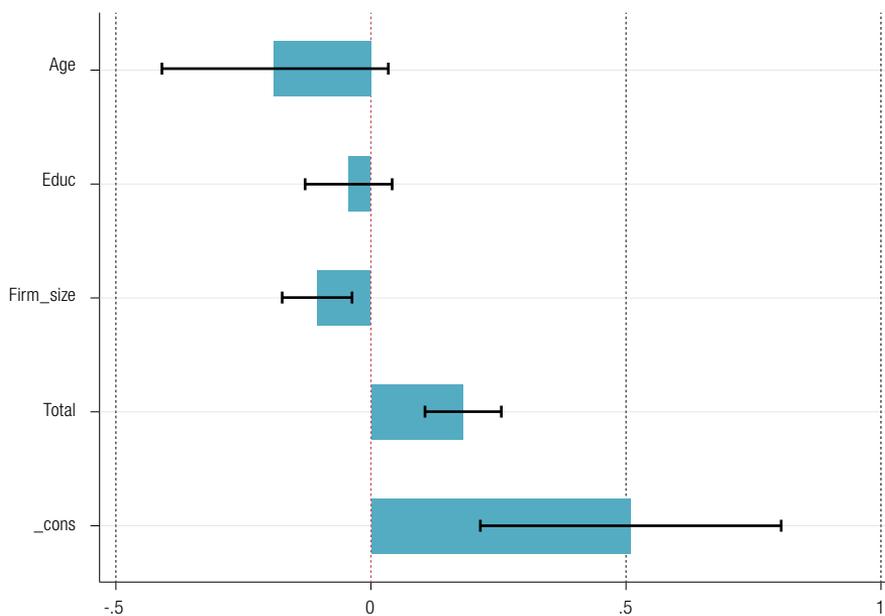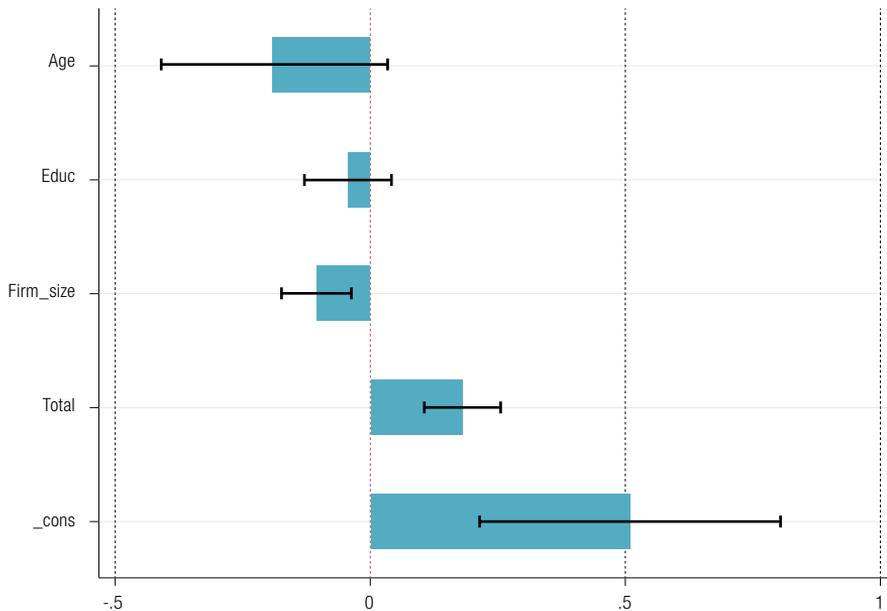

Source: Own work based on DANE (2019, 2020).

These behaviors are replicated when the results of the 2019 decomposition are evaluated.

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2   It's determined to be significant since the figures are outside the confidence ranges.

Figure 5. Decomposition of the unexplained part of the gender pay gap. June 2019.

Source: Own work based on DANE (2019, 2020).

Decomposition by quantum

As it can be seen in Figure 1, differences in terms of income were identified. The pandemic may have affected the distribution of occupations and thus the explanations for the differential due to worker endowments and their unexplained component. In this regard, Figure 6 shows the breakdown of these gaps by the explained and unexplained components. From this, it could be inferred that most of the differential is concentrated in the lower part of the first account. In June 2019, the negative differential of the first cliff was 13%. By 2020, this figure had increased to 19%. For both years, the explanatory factor was the part associated with discrimination.

In general terms, in all the levels of income, there is a negative contribution of the unexplained component. This would indicate that at all income levels there is a certain degree of employment discrimination. However, this effect is counteracted

by women's contributions. Especially in the upper income brackets. Education levels are the main contributor to this difference. This indicates that women possess better observable characteristics than men in these income brackets.

The changes observed between the years analyzed show that in June 2020, there was a positive differential of 9% for women in the upper part of the distribution. This can be explained by a positive contribution of 15% counterbalanced by an unexplained component of 6%. In 2019, the positive gap in this same income bracket was 4%.

Figure 6. Oaxaca Blinder's decomposition of the gender wage differential. By Income levels in Colombia. June of each year.
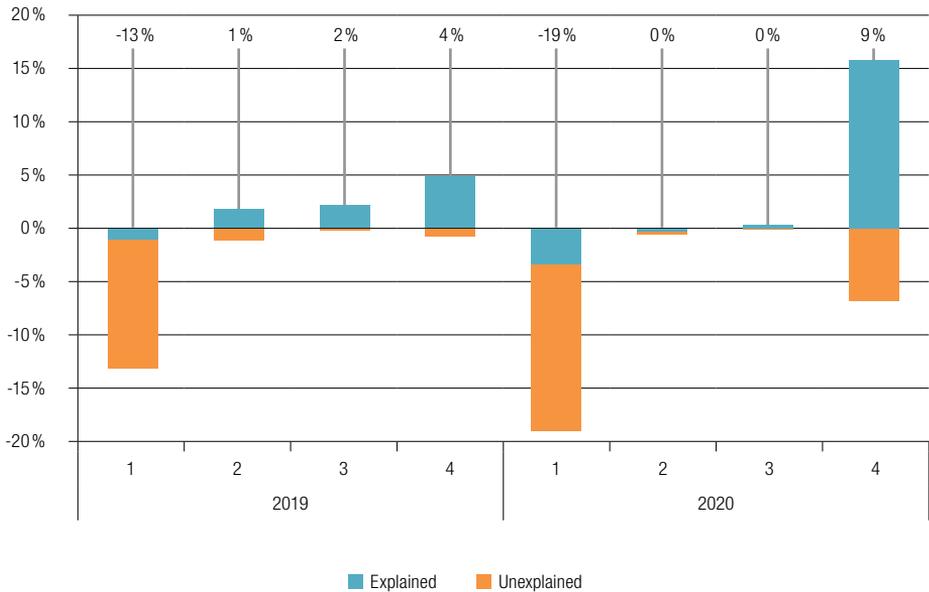
Source: Own work based on DANE (2019, 2020).

Conclusions

In this study, I examined how the pandemic affected income disparities by gender in Colombia. The Covid-19 pandemic has had a significant economic impact on Latin America. In Colombia, approximately half a million people have been

sick, and 18,000 have died. As a result, the government has imposed one of the world's longest quarantines until August 31st. This quarantine entails a number of restrictions on movement and economic activities. These actions have harmed the economy by forcing it to contract by 15% in the second quarter, raising the unemployment rate and wreaking havoc on the labor market. This market is characterized by significant levels of labor inequality, a reflection of labor precariousness. There was a decrease in the total number of employed workers, a rise in unemployment, and an increase in the inactive population as a result of the results. The latter is particularly focused in domestic chores. All of this occurred within a stable working-age population. In this perspective, it can be deduced that a large proportion of persons who have lost jobs are not actively pursuing new ones. If this were the true, unemployment would have surpassed 23%. Men and women have experienced markedly varied transitions from employment to inactivity. The former gravitated toward leisure pursuits, while women gravitated toward domestic professions. On the other hand, data suggests that the pandemic widened salary disparities between men and women. The wage disparity between men and women has climbed to 16 % in 2020, up from 4% in 2019. Particularly at the tails of the distribution. In both years and based on the income levels, the majority of the discrepancy is explained by the unexplained component related with prejudice. This effect, however, is mitigated by women's allocations, particularly in the top income groups. Education levels are the primary cause of this disparity. This shows that women in these income levels have more observable features than males. These results elucidate a number of concepts. According to some scholars, if the male population becomes inactive during confinement, gender patterns may shift, allowing women to enter the work field (Hupkau & Petrongolo, 2020). Teleworking may possibly be a factor in this phenomena (Alon et al., 2020). These patterns are expected to endure in the medium term, as some research indicate that some jobs survive economic crises (Davis & von Watcher, 2011).

Among the policy recommendations for supporting the economy Actors will need to carefully weigh the effectiveness and socio-economic consequences of containment and mitigation policies, while addressing health care pressures. Epidemiological actions to limit the spread of the virus through mass screening and monitoring should also be undertaken. Colombia has responded in the short term with mobility restrictions. But in the field of public policy, it must respond with direct and significant transfers to the most vulnerable population in order to soften its consumption shock. However, according to Cuesta & Pico (2020), the size of the

stimulus may be less effective because of fiscal pressures already existing before the pandemic. This reduces the magnitude of fiscal multipliers and the possibility of boosting the economy (Ilzetzki et al., 2013; Boussard et al., 2013). Similarly, the ability to stimulate the economy is determined by the effectiveness of the transmission of monetary policy to the real economy (Ndekwu, 2013). I believe that the objectives that governments must maintain are the continuity of public services, the expansion of health systems and the support of the most vulnerable population.

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