

ABSTRACT

Title: *The role of the space in discrimination and segregation: analysing the Ecuatorian case.*

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Abstract:

Ecuador is a comparatively small country, located in South America, it has approximately 17 million inhabitants in 221 cantons, it is a territory whose demography is characterized by its great cultural diversity with different ethnic groups. There are several ethnic groups, but within our study and considering the data base we have available; we will analyze the 4 most representative ones; so we have that approximately 90% of the population defines themselves as mestizo, 7% are native or indigenous, 2% are white and 1% are Afro-American or black.

Therefore, the interest in this research is to estimate and decompose wage differentials in Ecuador, considering the impact of geographic location and ethnicity on the wage level, that is, ethnicity and location are considered factors behind wage differentials in Ecuador. For that reason, the main objective of the research is to determine whether ethnicity and location are factors that explain wage differentials in Ecuador.

In order to begin the investigation, it was necessary to review the literature, considering that wage gaps have been one of the biggest problems in the labour market, especially because these can be explained by two factors. In the first place, because of differences in the characteristics - endowments - of individuals and, in the second place, by the factors associated with discrimination within the labour market. Wage differentials are not a new problem. Researchers such as Schultz (1968), Mincer (1974), Bowles & Gintis (1975), Veblen (1899), among others, have already studied market behavior and labour segregation, revealing problems specially to establish wages. In addition, Becker in 1957 came up with the Taste-based Discrimination Model; he explained the discrimination of certain groups of workers from the perspective of demand based on the prejudices of employers. He said that there are three possible causes of

discrimination: the prejudices of the employers themselves, the prejudices of the workers who do not want to work with people from the undesirable group, and the customers themselves who are unwilling to purchase goods or services produced and distributed by the discriminated group. This leads to the appearance of a discrimination coefficient that is translated into monetary terms, and is equivalent to increasing the wages of preferred workers to avoid the consequences of hiring people from the undesired group.

In 1972, Arrow contributed with the statistical discrimination model, in which he emphasized that the difference between people's wages is due to the fact that within the market there are groups that have their own characteristics, and the market values these characteristics. In other words, the notion of statistical discrimination implies that the market gives value not only to productivity, but also to personal characteristics. Describing his study as an expansion of Becker's prior model, but linking it more to general equilibrium theory, thought of as more of a contrast and less of an agreement, he argues that as investment made by firm's increases, so does productivity, giving place to increasing returns.

To this literature review, studies developed in Latin America are added, among which we can mention Díaz (2021) in Chile; Ortiz (2017) in Paraguay, Mora & Arcila (2014) in Colombia, Cruz & Naticchioni (2012) in Brazil and Mendoza and García (2009) in Mexico who use National Household Survey databases, and as main methodology uses the Blinder-Oaxaca decomposition; their conclusions coincide in that there is wage discrimination against women and it is mainly due to their characteristics.

In Ecuador, the results are not different, several investigations show the existence of wage discrimination; studies elaborated by Songor-Jaramillo & Moreno-Hurtado in 2021, Albuja & Enriquez (2018) and including the variable of ethnic self-definition are investigations by Botello (2015), Rivera (2013), Alvarado (2012), Condor (2010), Gallardo (2006) and Garcia and Winter (2006); who use household surveys such as: the National Survey of Employment, Unemployment and Underemployment (NSEUU) and the Living Conditions Survey (LCS) applying methodologies such as the Blinder-Oaxaca, quantile regressions, Mincerian equations; they conclude that there is labour discrimination against women and even more so if they are in an indigenous group; and that it is mainly due to the human capital endowments.

For our analysis, we use the 2018 NSEUU database from the National Institute of Statistics and Census of Ecuador (NISCE). Unlike other surveys, this database provides information on people's ethnic self-identification. For our work we use the variables:

hourly wage as dependent variable and as independents gender and ethnic self-definition; following the estimation of the Mincer equation, we add information on years of work experience (and its square), as well as the education level. We also add economic sector, gender and type of work. Then we perform the Blinder-Oaxaca (1973) decomposition to verify whether the wage differences of individuals are due to a difference in coefficients, endowments, and interactions. To avoid a possible selection bias, the results are corrected with the two-step estimator proposed by Heckman (1979). It should be noted that in order to determine whether location is one of the factors that explain wage differences in Ecuador, we incorporate a categorical variable that refers to urban disaggregation, for this we follow the methodology of Fernández-Vázquez and Rubiera-Morollón (2013) and Correa-Quezada et al. (2020); that is, we incorporate to the model the idea of the importance of the spatial unit and its size with dichotomous variables that are constructed according to the population size and its position with respect to the most important urban aggregations of the urban system of Ecuador, where its classification is introduced through the category of each individual in the Christaller model (1935); the theory of central places.

As a first approximation, regarding the distribution of wages and urban disaggregation and considering the 221 cantons that exist in Ecuador, the central and populated localities such as Quito and Guayaquil are highlighted, as well as the oil-producing localities, which have higher average salaries than the rest of the country. In relation to urban disaggregation, it is evident that most of the cantons are ultra-peripheral areas (PTM1, PTM2, PTM3).

In the results, two models are presented, whose difference lies in the fact that the economic sector is included as a control variable. It can be seen that both models show a significant effect and the expected sign in the control variables. College education and work experience have a positive and significant effect. These variables would measure the influence of individual productivity. Then, it is expected that these workers should earn a higher wage. In addition, having a permanent job has a positive and significant effect; empirical evidence tends to indicate that workers with permanent contracts tend to have better conditions and strong representation in unions. Sex differences also emerge in these models, with a negative and significant effect. In this case, this parameter points to a possible problem for women, who are not obtaining the same results as men.

As mentioned above, according to the NSEUU, mestizo is the most common category in Ecuador among workers (90%). As a result, mestizo has been considered the reference

category in this analysis. We found significant differences between ethnicities. Afro-Americans (blacks) and indigenous people are the ethnicity with possible discrimination and/or segregation compared to whites and mestizos. This difference is most evident in the monthly salary, with an average salary of \$729.5 and \$528.4 for whites and mestizos, respectively, and an average salary of \$447.2 and \$392.65 for Afro-Americans (blacks) and Indians, respectively. However, this difference becomes more significant for those living outside metropolitan areas. Small-peripheral areas were found to have a clear negative effect when compared to central economic areas.

With the Blinder-Oaxaca decomposition and taking mestizos as a reference, it can be seen that both indigenous people and Afro-Americans (blacks) suffer wage differences, but in the case of indigenous people, 74.1% of the difference is explained by the endowments or characteristics of the individuals.

The main reasons for indigenous people are: living in ultra-peripheral areas (PTM3), where wages are lower, and having less college education and worse labour contract conditions, while, for Afro-Americans, the main characteristics for wage differences are mainly the level of education and working conditions.

Keywords: Discrimination, spatial location, segregation, ethnicity.

JEL Classification: J31, J71, R12, R23.